GLAECONOMICS

Forecast report

London's Economic Outlook: Autumn 2022
The GLA's medium-term planning projections

December 2022

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1 Executive summary

GLA Economics' 41st London forecast[1] suggests that:

- London's real Gross Value Added (GVA) growth rate is forecast to be 6.9% due to the rebound from the COVID-19 crisis. Growth is expected to fall by 0.8% in 2023 due to the cost of living crisis before improving to growth of 1.5% in 2024.
- London is forecast to see a rise in the number of workforce jobs[2] in 2022 (3.6% in annual terms) although this will fall in 2023 (-0.2%) before resuming growth in 2024 (0.7%).
- Household income is forecast to decline this year by 3.0%, and next year by 0.4% before recovering by 2.7% in 2024.
- Household expenditure rises by 4.6% this year, as households continue to make use of savings accrued during the pandemic, before falling by 0.4% in 2023, and rising by 2.2% in 2024

Table 1.1 summarises this report's forecast growth rates for GVA, jobs, household expenditure, and household income. Given the unprecedented uncertainty resulting from the aftermath of the pandemic, the war in Ukraine and the cost of living crisis the forecasts presented in this document should be interpreted as a projection of our reference scenario – i.e., the most likely scenario under GLA Economics' criterion – for London's economy in the medium-term.

Table 1.1: Summary of economic forecasts under GLA Economics reference scenario

Annual growth rates (per cent)	2021[3]	2022	2023	2024
London GVA (constant 2019, £ billion)	8.3%	6.9%	-0.8%	1.5%
Consensus (average of independent forecasts)		4.5%	-0.4%	1.8%
London workforce jobs	0.3%	3.6%	-0.2%	0.7%
Consensus (average of independent forecasts)		2.5%	-0.3%	1.2%
London household expenditure (constant 2019, £ billion)	6.6%	4.6%	-0.4%	2.2%
Consensus (average of independent forecasts)		5.3%	-0.1%	2.2%
London household income (constant 2019, £ billion)	1.5%	-3.0%	-0.4%	2.7%
Memo: Projected UK RPI[4] (Inflation rate)	4.0%	11.3%	9.8%	4.2%
Projected UK CPI[5] (Inflation rate)	2.6%	9.0%	7.4%	3.2%

Source: GLA Economics' Autumn 2022 forecast

[1] The forecast is based on judgements and a recently updated econometric model built by GLA Economics. For more details see 'The new GLA Economics forecast models for London's economy, GLAE Working Paper n°98, June 2020'.
[2] Unless stated otherwise, any reference to jobs in the main text refers to workforce jobs.
[3] Historic data for London's real GVA and workforce jobs are based on ONS actual data, while household spending and household income are based on GLA Economics forecast data.
[4] RPI = Retail Price Index. Although not part of the GLA Economics forecast for London. Instead, the consensus forecasts provided by HM Treasury are reported here. See: HM Treasury (2022). 'Forecasts for the UK economy: a comparison of independent forecasts', November 2022. Data for 2021 is from the ONS and GLAE estimates, Inflation and price indices - Office for National Statistics.
[5] CPI = Consumer Price Index. Although not part of the GLA Economics forecast for London. Instead, the consensus forecasts provided by HM Treasury are reported here. See: HM Treasury (2022). 'Forecasts for the UK economy: a comparison of independent forecasts', November 2022. Data for 2021 is from the ONS and GLAE estimates, Inflation and price indices - Office for National Statistics.. Since December 2003, the Bank of England's symmetrical inflation target is annual CPI inflation at 2%.

Since the Spring 2022 LEO[6] the global economic effects of the humanitarian disaster of the war in Ukraine have been more severe than expected, inflation has been higher, and the cost of living crisis deeper. Forecasters have been downrating their expectations for the UK and economies across the world. Unlike most developed economies the UK economy had yet to recover from the pandemic, although current estimates are that the London economy had returned to pre-pandemic levels of output. The forecast has been produced on the basis that there will be no further pandemic-related restrictions. It is a downside risk to the central scenario that a new variant may require the introduction of further control measures. There is also increasing evidence that Brexit is acting as a drag on the economy to compound the challenges of COVID-19 and the war in Ukraine. Deteriorating economic circumstances have worsened public finances, resulting in additional public spending to help the less well off and on health and education, and further tax raising measures.

Despite the pandemic crisis receding in China the zero COVID policy, rapid spread of the virus, and limited vaccination of the population, has resulted in lockdowns in major cities. This has negative impacts on the global economy impacting global supply chains and contributing to inflation. The war in Ukraine has reduced the world supply of grain, and led to reduced energy supply to Europe from Russia. The consequence has been a heightened cost of living crisis, very high energy prices, and reduced supply of food stuffs reliant on grain such as milk, butter and eggs. The US Federal Reserve and the European Central Bank have been ratcheting up interest rates in response to inflationary pressures further subduing the global economy.

The disruption from Brexit, the pandemic, the war in Ukraine and the associated cost of living crisis are all major negative economic shocks. After contracting by 11.0% in 2020 the UK economy grew by 7.5% in 2021 despite further disruption due to the pandemic according to the Office for National Statistics (ONS). By 2022 Q2 the economy was 0.2% below its pre-pandemic peak in 2019 Q4, and in the next quarter it also contracted by 0.2%[7]. A fall of 0.1% in August was followed by a fall of 0.6% in September. A fall in services of 0.8% in September drove the decline, with strong contributions from Information and communication, falling by 3.2%, Wholesale and retail, falling by 2.0%, and customer-facing services, falling by 1.7%[8]. Jobs were lost during the downturn, but given the size of the decline in GDP the rise in UK unemployment was modest, with the unemployment rate rising to 5.2% in the last quarter of 2020, before declining to 3.6% in the three months to September 2022[9]. This was due largely to the Government's Coronavirus Job Retention Scheme, commonly known as the furlough scheme, which finished at the end of September 2021. There appears to have been little negative impact on the labour market of the end of the furlough scheme, although there has been a subsequent drift into inactivity by the over 50s much of which has been for reasons of ill health. There is also evidence of applicant shortages in certain industries, particularly low paying sectors such as hospitality where it is no longer possible to recruit EU nationals not previously resident in the UK. This has been counterbalanced to some degree by higher than expected immigration by non-EU nationals into better paying jobs, taking advantage of more relaxed migration rules.

The pressures on inflation have led to a cost of living crisis in the UK. The Consumer Price Index (CPI) measure of inflation reached 11.1% in the year to October 2022[10], while pay rises have lagged behind and taxes on earnings have increased. This has choked off demand, if partially offset by higher public spending for the moment before there is further restraint in the coming years. This has combined with supply restraints from reduced labour supply and the introduction of trade barriers on leaving the EU. The

[6] GLA Economics (2022), London's Economic Outlook: Spring 2022, June
[7] ONS (2022). 'GDP first quarterly estimate, UK: July to September 2022'. 11 November 2022.
[8] ONS (2022). 'GDP monthly estimate, UK: September 2022'. 11 November 2022.
[9] ONS (2022). 'Labour market overview, UK: November 2022'. 15 November 2022.
[10] ONS (2022). 'Consumer price inflation, UK: October 2022'. 16 November 2022.

consequence is that both the Office for Budget Responsibility (OBR)[11], and Bank of England (BoE)[12] estimate that the economy is currently in recession, and that this will continue into 2023 and perhaps beyond.

In response to rising inflation the Bank has continued to raise interest rates, with further rises expected to counter the current inflationary pressures and bring it back to a stable path (Box 3.1 discusses this situation in more length). The expected downturn in the economy should be deflationary, and will temper the degree of these rises.

London's economy, and in contrast to the UK, has recovered from the pandemic being 0.9% higher in 2022 Q1 than 2019 Q4[13]. Business and consumer confidence indicators also point to London weathering the cost of living crisis better than nationally, although that is not to understate the hardship suffered by disadvantaged groups. Indeed, although the decline in unemployment in the capital has been significant it still remains above the national rate. The unemployment rate in the capital fell from a high of 7.5% in the quarter to January 2021 to 4.2% in the quarter to September 2022. As yet the full effects of the current inflationary pressures on the economy are still unknown but the picture on indicators has turned from positive to negative as economic circumstances have become more challenging. The business, and new business activity PMIs have stood at positive levels since February 2021 before turning negative in October 2022 (the employment PMI still remains positive). At September house prices were still rising, although surveyors reported declining prices in October, and their expectations for future prices have been negative since the Summer. Consumer confidence in the capital remains weak, if above the levels seen in the UK as a whole. Given this background, the GLA Economics reference scenario for London sees London's output slowing this year and into next year before growth recovers in 2024. Employment growth is expected to be slower than output (see Figures 1.1 & 1.2 and Chapter 5 for more detail). Still, real GVA in London returned to its pre-crisis levels – i.e., Q4 2019 – in Q1 2022 and workforce jobs reached the same milestone in Q2 2022 (Figure 1.3).

The expected path of the London and the UK economies is tied to the disruptive impacts from the war in Ukraine. The strength of the economy over the coming year is particularly unpredictable – with significant downside risks from rising inflation, job mismatches, the UK trade deficit, reduced consumer expenditure, and supply chain blockages being particularly apparent, as set out in Box 3.1.

Beyond this, another risk to the UK economy (and therefore to this forecast) continues to be the impact of Brexit. Disagreements around the implementation of the Trade and Cooperation Agreement (TCA) have not been resolved, and there are other areas where disputes might flare up, which without careful management might lead to a trade war. The agreement does not cover the service sector, which represents 90% of London's economy. Given the importance of London's service exports to the EU, the UK's future relationship with the block in this regard will have a significant impact on London's economic outlook. However, as of yet, no significant progress has been made in this area. The introduction of non-tariff barriers (NTBs) may well also affect London's export-oriented service sectors in the long term, with evidence at a national level of their short-term disruption. Adverse effects from the restructuring of the economy are likely to continue over a period of years. A rising trade deficit, alongside rising public debt, increases the reliance on the 'kindness of strangers' to pay the UK's way, and the exchange rate has been depreciating

[11] OBR (2022), 'Economic and fiscal outlook – November 2022'. 16 November 2022.
[12] BoE (2022), 'Monetary Policy Report – November 2022'. 3 November 2022
[13] GLA Economics has been using ONS quarterly regional GDP estimates as its preferred measure for the state of London's output. This data is available to Q1 2022. These have been aligned to the revised UK GDP series, and so is not consistent with the most recent annual regional GVA/GDP series.

over the course of the year. For businesses the introduction of trade barriers with Brexit further increases costs both in domestic and overseas markets (Box 3.2 says more on these issues).

A further UK risk is to the public finances from the borrowing needed to support public services and the economy through the aftermath of the pandemic and the cost of living crises. With the Bank of England (BoE) raising interest rates to contain inflationary pressures, debt financing costs have already risen and may rise to levels where they become unsustainable, although this is somewhere off so far. This would be exacerbated by further shocks to the economy – the debt to GDP ratio is expected to rise over the near term. The Government is already reducing spending (after inflation), and raising taxes, which will dampen growth. However, there is a risk it will need to do more, with further adverse effects for economic growth and investment. This brings with it further risks of stagnation. Although it should be noted at the moment the expectation is for interest rates to remain relatively low by historical standards limiting the impact on debt financing costs.

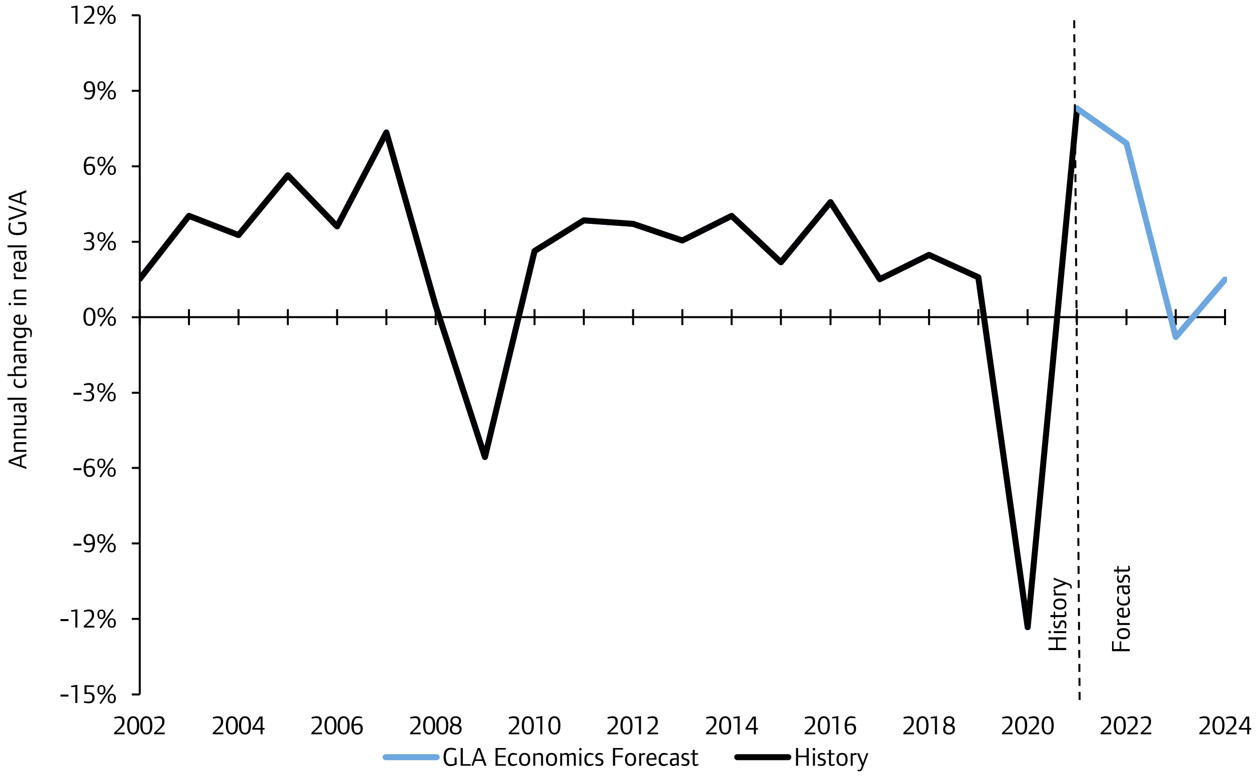
Outside of the cost of living crisis, COVID-19 and the ongoing fall out from Brexit, other global risks continue with potential effects on London's economy. Firstly, there is a serious possibility of an increase in global protectionism which could be damaging to trade flows, or there might be a contraction of supply chains to make them more resilient especially in light of energy security concerns. Secondly, the UK's labour productivity growth remains weak and it is not expected to improve in the medium term due to the current crises and may be further damaged by long-term scarring from the pandemic. Thirdly, geopolitical risks outside Ukraine have increased as tensions with China have risen, so an intensification of the current regional conflicts in the world cannot be discarded. Finally, the international economic context remains highly volatile at this moment as well. Structural problems and macroeconomic imbalances remain in the Eurozone and the impact of the war in Ukraine and the pandemic may speed up the manifestation of negative consequences.

There remains a very high degree of uncertainty about the future path of the economy at the moment. In response GLA Economics has developed and continues to use macroeconomic scenarios[14] which have been updated regularly to maintain an up-to-date view on how the economy is evolving. What is clear is that the economic climate over the coming years will be highly uncertain. To reflect this uncertainty GLA Economics has also developed alternative scenarios on which it reports; these are shown in Chapter 5.

In conclusion, the global economic environment has been deteriorating due to the war in Ukraine and the cost of living crisis (as shown in the evolution of our London Forecast (Figures 1.4 & 1.5)). After seeing an unprecedented drop in output in 2020 there has been a good recovery in London's economy with output exceeding pre-pandemic levels, but growth is expected to slow significantly this year, and then go into reverse (Figure 1.1). There has been accelerating jobs growth this year, but jobs are expected to fall back next year (Figure 1.2). Nevertheless, the recession in London is expected to be shallow, and output and jobs remain above pre-pandemic levels (Figure 1.3). As the effects of Brexit bring about a re-structuring of London's economy it is unclear what 'normality' will be after the impacts of the pandemic, and the war in Ukraine feed through the system.

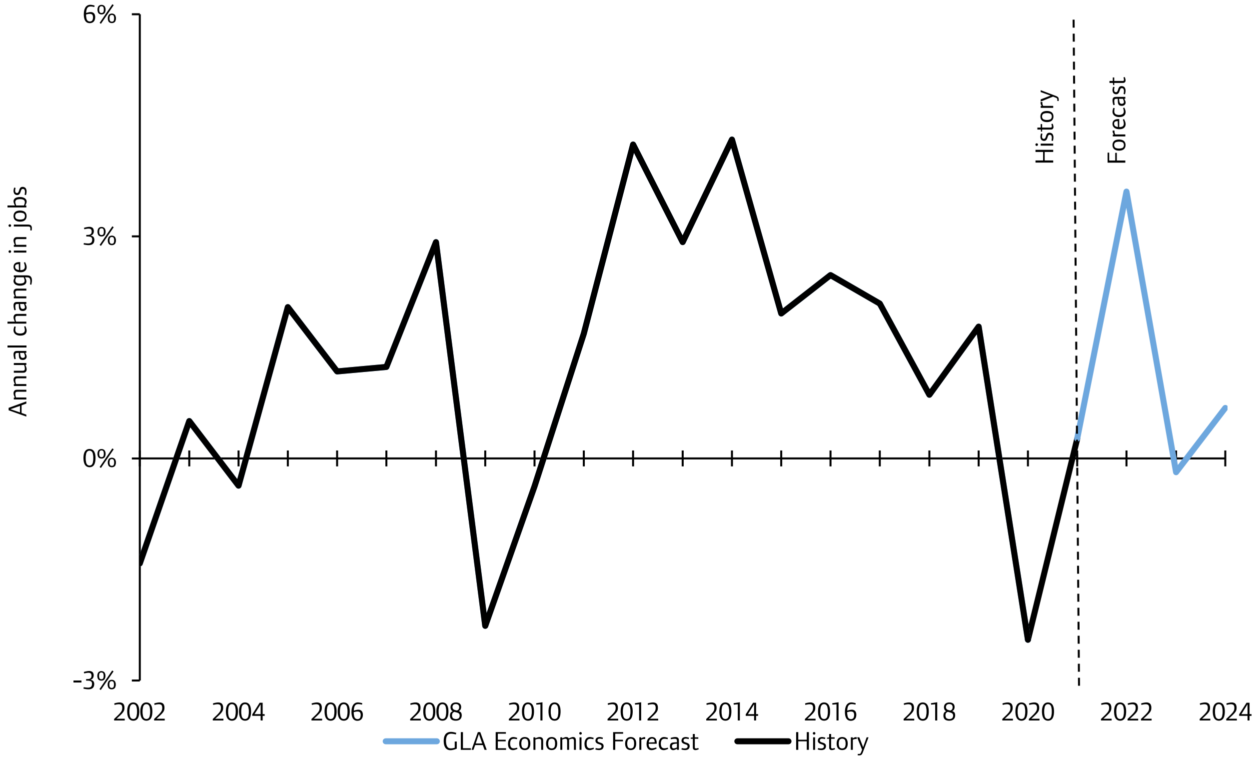
[14] London Datastore (2022). 'Macroeconomic scenarios for London's economy post COVID-19'.

Figure 1.1: Historic and forecast output growth (GLA Economics reference scenario)



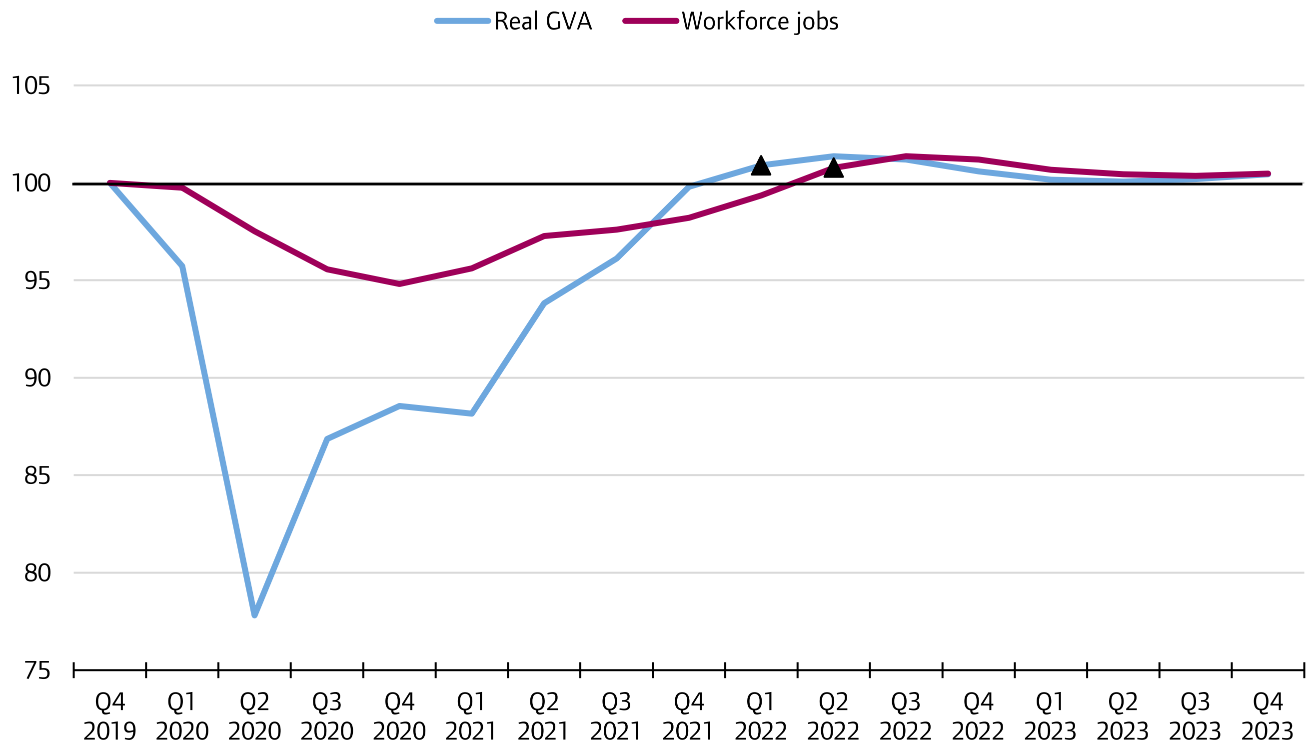
Source: GLA Economics estimates for historic data and GLA Economics' calculations for forecast

Figure 1.2: Historic and forecast employment growth (GLA Economics reference scenario)



Source: GLA Economics estimates for historic data and GLA Economics' calculations for forecast

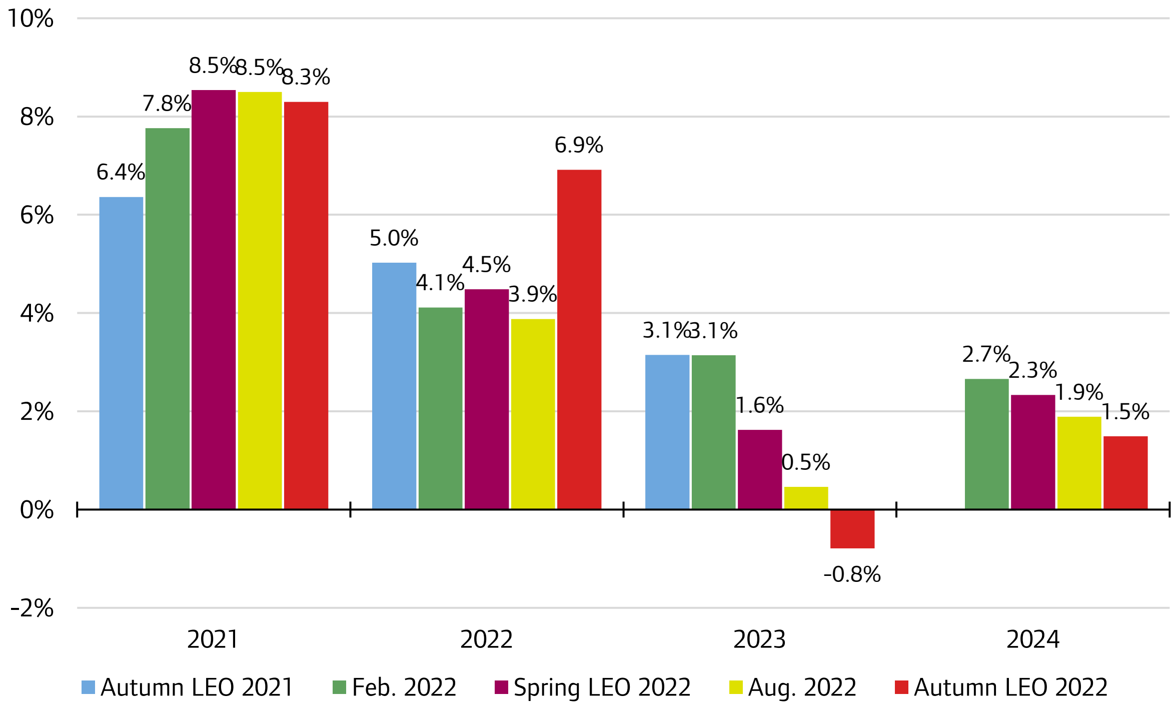
Figure 1.3: Expected shape of the economic recovery under the GLA Economics reference scenario (index)



Source: GLA Economics

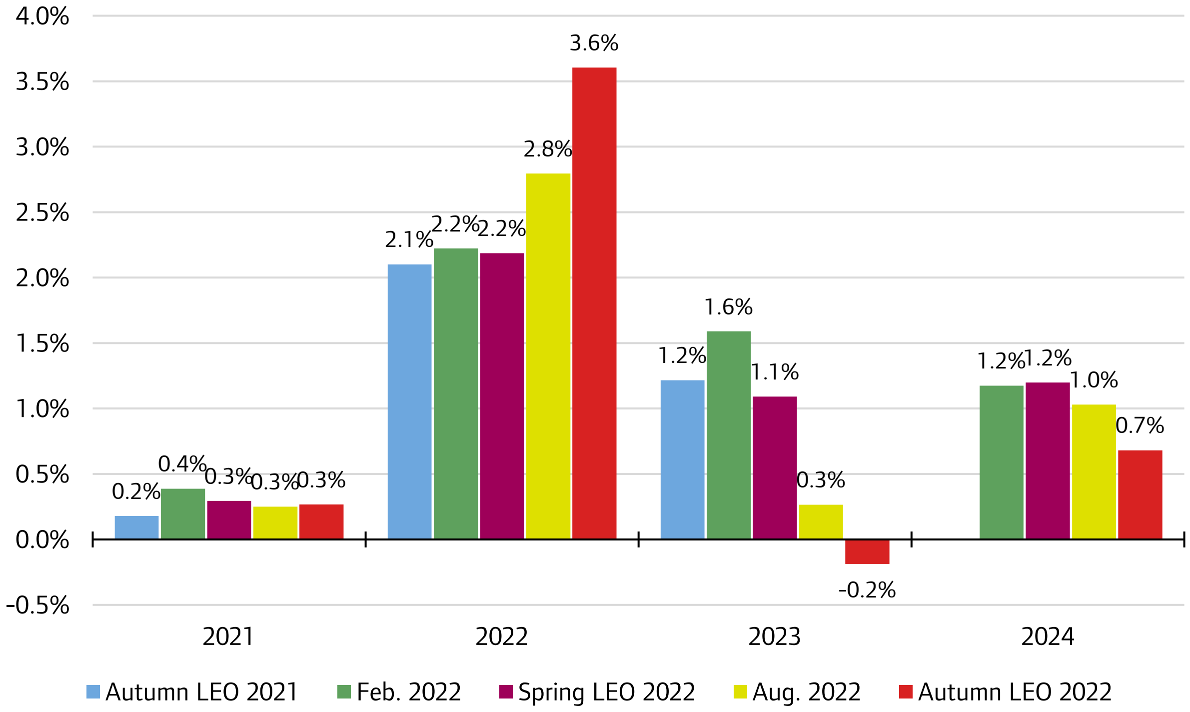
Note: Triangles mark the point at which pre-pandemic levels reached

Figure 1.4: Development of reference scenarios for London annual real GVA growth rates 2022-2024



Source: GLA Economics

Figure 1.5: Development of reference scenarios for London annual employment growth rates 2022-2024



Source: GLA Economics

2 Introduction

The autumn 2022 edition of London's Economic Outlook (LEO) is GLA Economics' 41st London forecast. The forecasts are issued roughly every six months to assist those preparing planning projections for London in the medium term. The report contains the following:

- An overview of the recent economic conditions in London, the UK and the world economies and includes analysis of important events, trends and risks to short and medium-term growth (Chapter 3).
- The 'consensus forecast' – a review of independent forecasts indicating the range of views about London's economy and the possible upside and downside risk (Chapter 4). In this document, 'consensus forecast' refers to the average of the independent forecasters listed under Section 2.1.
- The GLA Economics forecast for output, employment, household expenditure and household income in London (Chapter 5).

2.1 Note on the forecast

Any economic forecast is what the forecaster views as the economy's most likely future path and as such is inherently uncertain. Both model and data uncertainty as well as unpredictable events contribute to the potential for forecast error. Since the spring 2016 LEO, GLA Economics' forecast is based on an in-house model built by GLA Economics[15]. Before that, previous forecasts were based on an in-house model built by Volterra Consulting Limited. GLA Economics' review of independent forecasts provides an overview of the range of alternative opinions. Independent forecasts are supplied to the GLA for the main macroeconomic variables by the following organisations:

- Cambridge Econometrics (CE)
- The Centre for Economic and Business Research (CEBR)[16]
- Experian Economics (EE)
- Oxford Economics (OE)

Economic forecasting is not a precise science. Further, these projections unlike previous GLA Economics forecasts are a scenario consistent with the BoE's forecast published in November[17] and the OBR forecast also published in November[18] and provide an indication of what is, in GLA Economics' view, most *likely* to happen, not what will *definitely* happen if this scenario came to pass. There are thus significant risks, mainly on the downside, associated with this scenario.

[15] The forecast model used in this forecast has updated the model described in this publication: Douglass, G & van Lohuizen, A (2016). 'The historic performance of the GLA's medium-term economic forecast model', GLA Economics Current Issues Note 49, November 2016. A description of this new forecast model can be found in Orellana, E. (2020) 'The new GLA Economics forecast models for London's economy', GLA Economics Working Paper 98.
[16] CEBR does not provide a forecast for household expenditure in London.
[17] Bank of England (2022), 'Monetary Policy Report', 3 November 2022.
[18] OBR (2022). 'Economic and fiscal outlook – November 2022', 17 November 2022.

3. Economic background: London faces recession due to the cost of living crisis, just as it has recovered from the pandemic

This Chapter provides an overview of recent developments in the London, UK and global economies, as well as risks to the London economy.

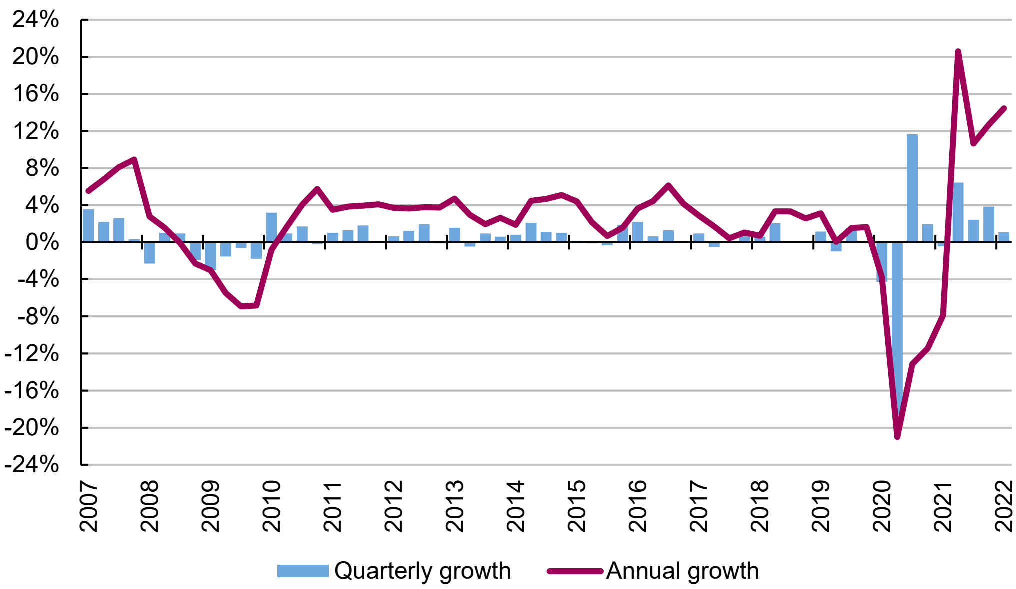
3.1 London's economy

According to the latest regional data by the ONS, London's economy – as measured by real gross value added (GVA) – rose by 1.1% between Q4 2021 and Q1 2022, while annual growth was at 14.4% in the first quarter of the year. The data, shown in **Figure 3.1**, indicate that London grew rapidly from spring 2021 through to the first quarter of 2022. The data shows that London largely shrugged off the 'Plan B' restrictions on activity in late 2021 and early 2022, putting the capital in a relatively strong position going into the cost of living crisis that now dominates the outlook (See Box 3.1).

By Q1 2022, London's economy reached 0.9% above its pre-pandemic peak in 2019 Q4. The data also shows that while London had a worse 2020 in terms of output than the UK average, it outpaced the wider UK's recovery in 2021. UK GDP has not yet recovered to pre-pandemic levels as of Q3 2022.

Since the Spring 2022 LEO, the ONS has again significantly revised its figures for both London and UK output over 2020 and 2021. However, sharp upward revisions to growth in 2021 and continued strength in early 2022 offset much of the downward revisions to 2020 for London. As a result, compared to other UK regions, London had a relatively harder impact from the pandemic in 2020, but had the fastest recovery over the four quarters to Q1 2022.

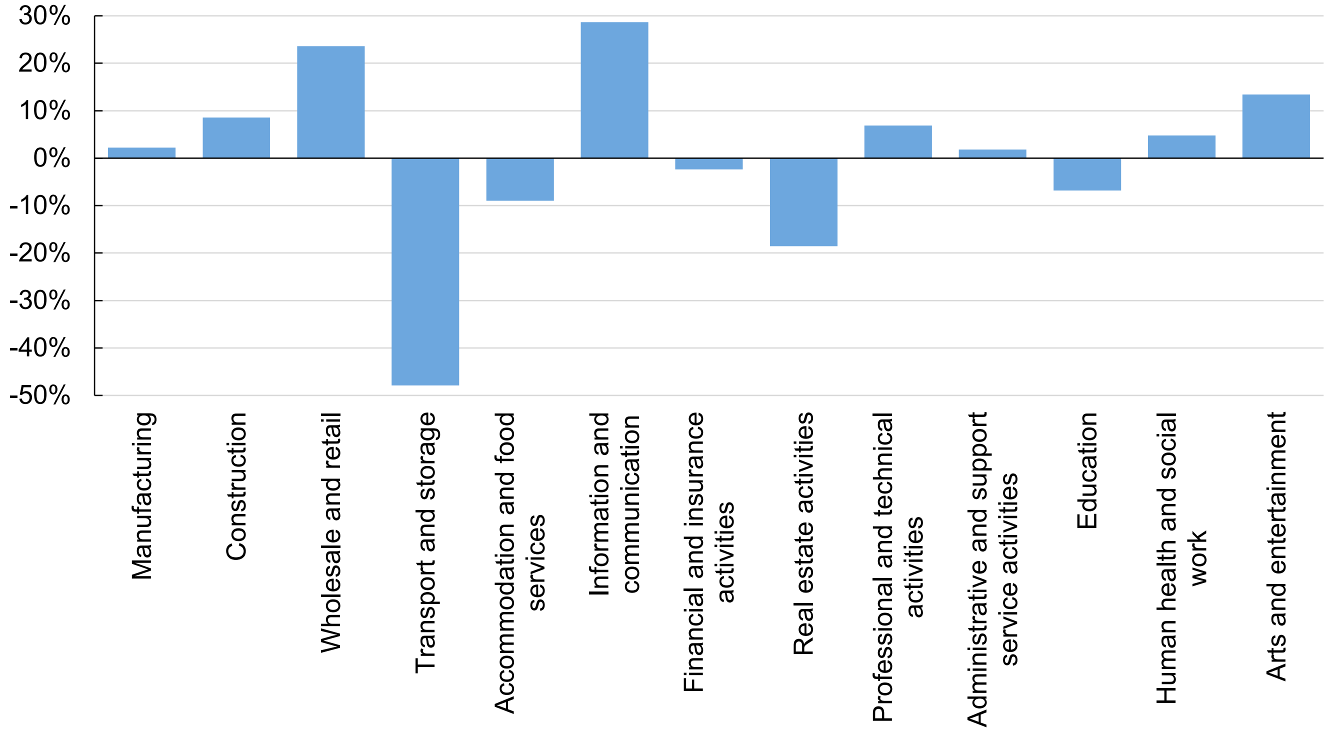
Figure 3.1: Real GVA in London (Q1 2007 – Q1 2022)



Source: GLA Economics based on ONS - UK regional GVA and GDP data.

The pandemic impact and recovery have been unevenly spread across sectors' output in London. Across the UK, in-person services suffered deep losses, demand for goods picked up and white-collar service sectors were often protected by the ability to do work from home. Reflecting this, at a London level we can see in **Figure 3.2** that several of the capital's largest industries by output were comfortably above their pre-pandemic levels of activity by Q1 2022. This includes Information and communication, Wholesale and retail, Manufacturing, and (to a lesser extent) Professional services. London has historically specialised in Information and communication and Professional services, meaning some of its core sectors have proven relatively resilient. At the same time, some other sectors in which the city has specialised, namely Finance, Administrative and support services and Real estate have done less well. The consumer-facing sectors of Accommodation and food services, and the Arts have done particularly badly, as has Transport.

Figure 3.2: Proportionate change in real GVA by industry* in London Q4 2019 – Q1 2022



*Source: GLA Economics based on ONS – UK regional GVA and GDP data. *The following smaller industries have been excluded for simplification purposes: Primary sector and utilities, Public administration and defence, Other service activities, and Activities of households.*

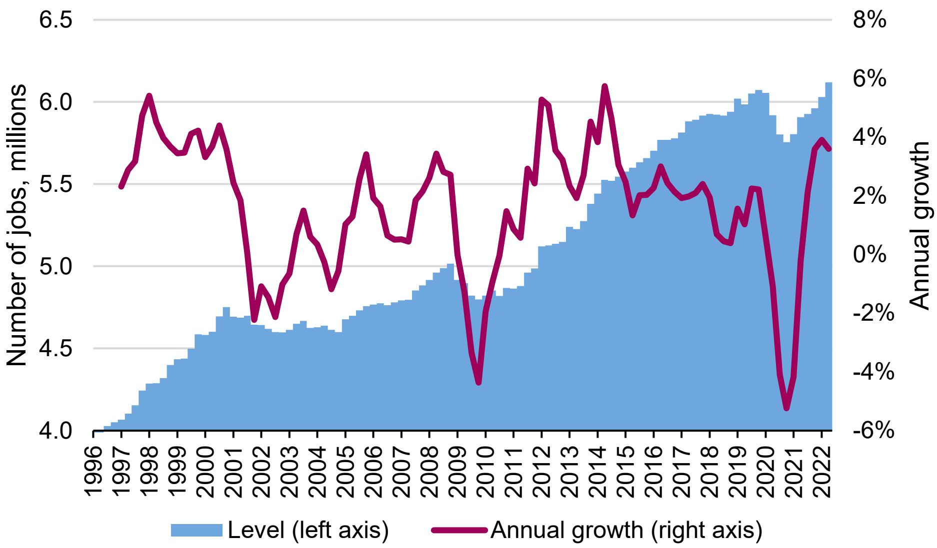
While London's economy is through the downturn from the pandemic, there will be a legacy on its structure. The cost of living crisis is likely to exacerbate some of those effects, due to its primarily consumer-focused impact. As real incomes fall, leisure activities and property purchases will become less affordable, putting continued pressure on Accommodation and Real estate. Wholesale and retail is likely to lose some of its pandemic gains, while Arts will lose some of its recovery. For more detail on some of the major shocks affecting the outlook, Box 3.1 discusses the ongoing effects of rapidly rising prices on Londoners, while Box 3.2 looks at the ongoing impact of Brexit on London's economy.

It is also worth briefly noting the significant shifts that came with the latest round of ONS revisions to London's output data. While overall output is in a comparable position after the revisions (at least relative to the new figures for late 2019), the sectoral balance has shifted. For instance, Real estate, Transport, Health and Public administration all received sharp downward revisions to their 2020 profiles, while Construction and Information and communication were revised upwards. Transport also saw a sharp downwards revision to its 2021 recovery, alongside Administrative services, while Arts and entertainment, Accommodation and food services, Health and Education were all revised up in 2021. We can see the impact of these shifts in **Figure 3.2**, for instance in the way Transport and storage is now by far the biggest laggard in terms of its recovery to pre-pandemic output levels.

At the time of writing the latest data on London's labour market is for September 2022. The employment rate shows the share of residents aged 16-64 who are in work. This figure stood at 75.3% in the three months to September, edging up 0.1 percentage points on the year, but still 1.4 percentage points down from the three months to February 2020. The unemployment rate shows the share of the resident population aged 16 and over who are unemployed but who are seeking and available for work. This figure stood at 4.2% in the three months to September, down 1.4 percentage points on a year earlier, and 0.3 percentage points lower than the three months to February 2020. By comparison, the UK's employment rate stood at 75.5% in the three months to September and the unemployment rate was 3.6%.

The trend in the number of jobs in London's economy has been less volatile than the trend for output. Job numbers fell gradually over 2020 before picking up over 2021. The London labour market has now recovered to have 47,000 more workforce jobs than its pre-pandemic peak (**Figure 3.3**). The government's furlough scheme, officially known as the Coronavirus Job Retention Scheme, is credited with keeping workers attached to their employers during the crisis and enabled employers to give work to existing employees as the economy picked up, saving on redundancy and recruitment costs. As the recovery in wider economic activity has progressed, the labour market has tightened, and the unemployment rate fell below its pre-pandemic low in July 2022.

Figure 3.3: Number of workforce jobs in London (Q1 1996 – Q2 2022)



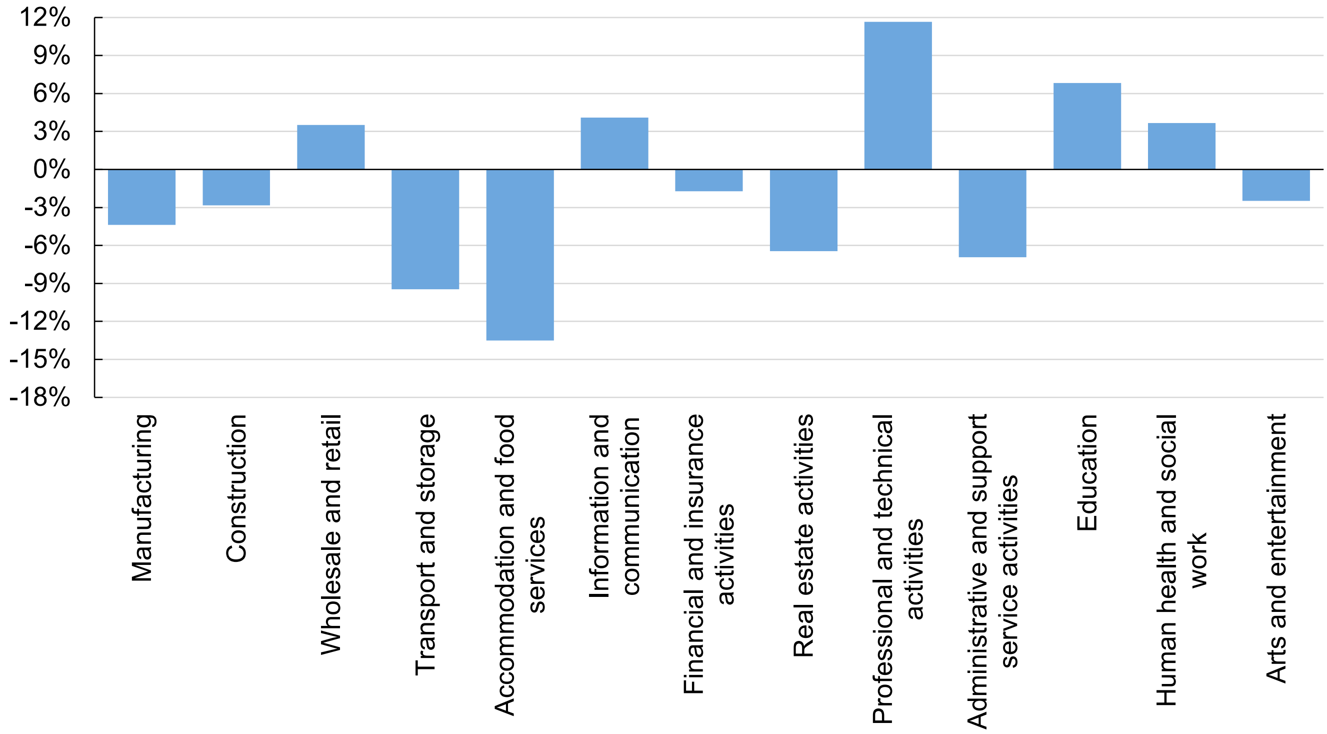
Source: ONS Workforce Jobs

Yet other dynamics paint a less healthy picture for London's workers. Part of the tightness in the labour market is also due to a rising inactivity rate – the share of working-age adults who are not in work and not looking for work. After initially remaining low during the pandemic, this figure has picked up to 1.7 percentage points above its pre-pandemic level in the three months to February 2020. Now at 21.4% in the three months to September 2022, London's inactivity rate is close to the UK rate of 21.6%, having been lower from early 2020 to spring 2022. While two-thirds of inactive Londoners said they were likely or certain to work again in the future, only one-fifth wanted work immediately. The number citing long-term illness as the reason for inactivity has risen, suggesting that the pandemic may be playing a more long-term role in the labour market. GLA Economics recently published a report on out-of-work trends[19].

[19] GLA Economics (2022), "Out-of-work trends in London", November 2022. Accessible on the labour market analysis page.

As the economy restructures, with jobs moving into sectors which have benefited from the pandemic such as Digital activities, there are likely to be continued job losses in sectors which have done less well. The data in **Figure 3.4** show that there has been solid jobs growth since the pandemic in Professional services, Information and communication, Wholesale and retail, Education and Health. In comparison, Accommodation and food services, Transport and storage, Administrative services and Real estate all see jobs more than 5% below pre-pandemic levels. Clearly, while the furlough scheme protected jobs in some, of the sectors most affected by the pandemic, several still suffered. It is perhaps in sectors with weaker employment protection that there have been the greatest job losses.

Figure 3.4: Proportionate change in workforce jobs by industry* in London Q4 2019 – Q2 2022



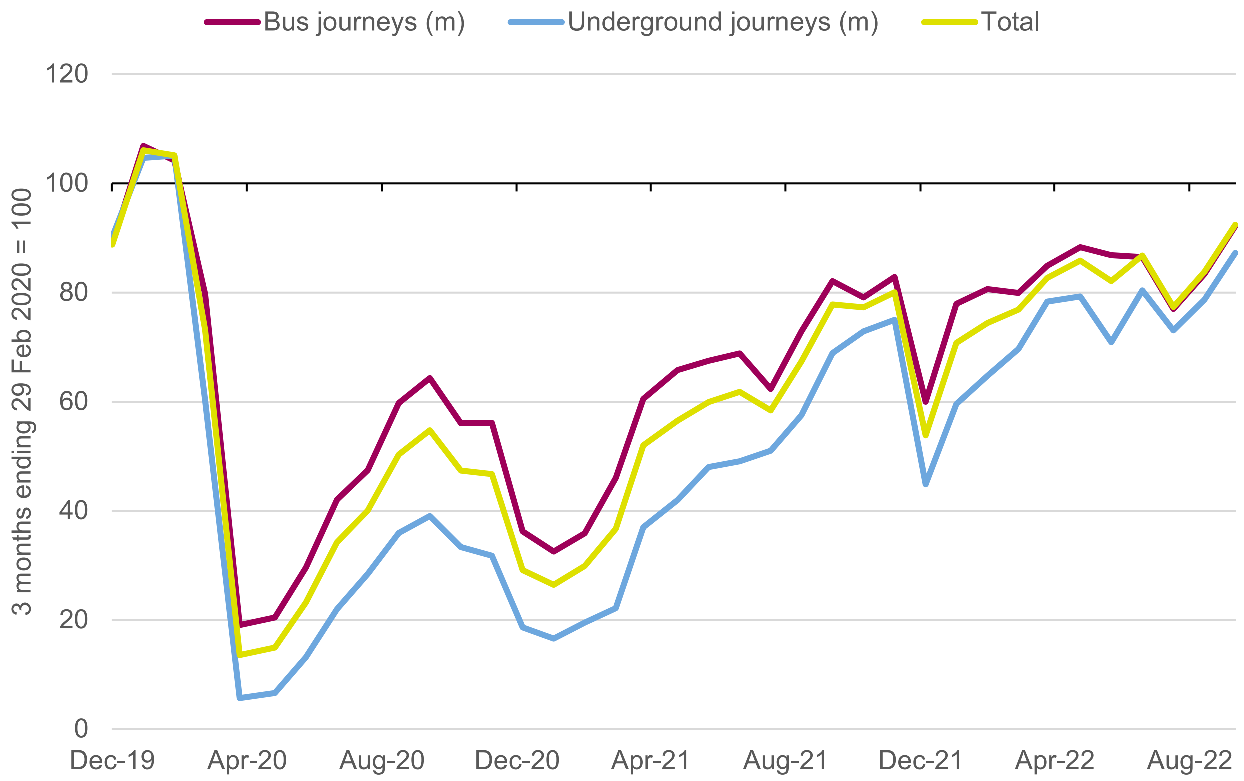
*Source: GLA Economics based on ONS – workforce jobs data. *The following smaller industries have been excluded for simplification purposes: Primary sector and utilities, Public administration and defence, Other service activities, and Activities of households.*

Outside the formal GVA and employment figures, we can get more timely indications of London's activity levels from weekly public transport use data. While the trends do not distinguish between journeys to work or journeys for leisure, both factors are key drivers of economic activity in London. TfL journeys had been growing steadily in 2019, but the first pandemic lockdown all but wiped out public transport use. Yet this data has now staged a solid recovery – albeit visibly interrupted by the second lockdown and Plan B restrictions (**Figure 3.5**).

The pandemic hit journeys on the London Underground harder than journeys on the bus network. While the gap between them has narrowed, London Underground journeys still lag, still nearly 13% below pre-pandemic levels. The bus network accounts for around 55% of journeys on the TfL network, and is now just under 8% below pre-pandemic levels of activity.

The decline in transport mobility compared to pre-pandemic levels is one factor that negatively affects London's economy through lower spending in London's Central Activity Zone. The broader reduction in international travel has also had a bearing on spending. Other factors such as increased homeworking and the impact of Brexit on migration and business activity may also have a role in explaining this. While public transport usage looked like it might be levelling out at a new equilibrium around 15% below pre-pandemic levels in spring/summer of 2022, recent data have shown another uptick. This means it remains difficult to gauge what the lasting effects of home working will be on London's transport system. The cost of living crisis is also likely to cut public transport usage, especially for leisure.

Figure 3.5: Level of public transport passenger journeys in London relative to pre-pandemic



Source: GLA Economics based on Transport for London data. Notes: data is not seasonally adjusted; each series uses its value from 8 December 2019 to 29 February 2020 as its index reference; Total includes Bus, London Underground, DLR, Tram, Overground, London Cable Car and TfL Rail. Last data point is the 30-day period ending on 15 October 2022.

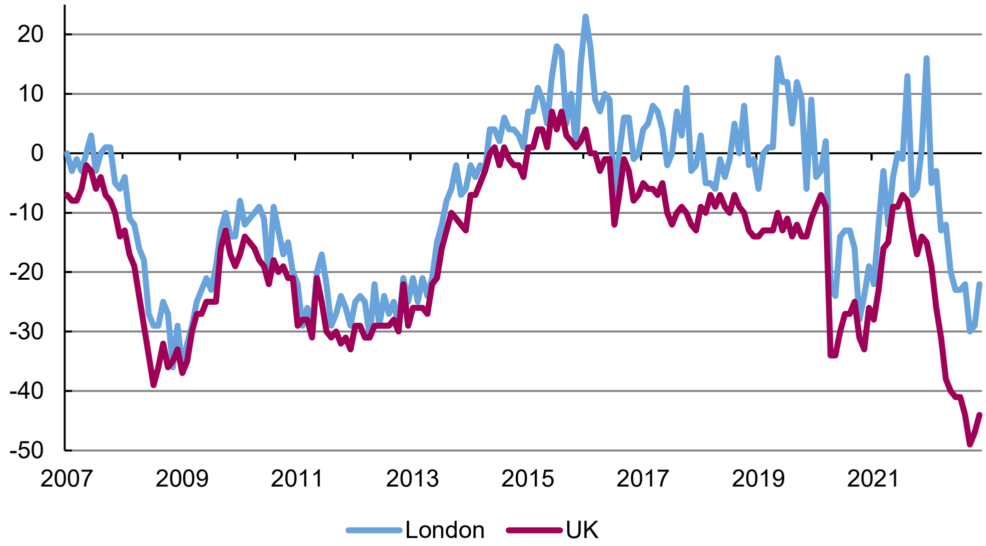
The GfK Consumer Confidence Barometer, a consumer confidence index, is a reliable indicator to measure how private consumption in London is being affected by overall uncertainty[20]. The data suggest that there has been a long-term trend of London households being more optimistic than national averages since 2016 (**Figure 3.6**). This trend held up during the pandemic. While consumer confidence dropped sharply in London and the wider UK in the immediate aftermath of the pandemic, London consumers did not drop to the levels of pessimism seen after the financial crisis – unlike the UK average. Both London and UK households saw confidence undergo a stop-start recovery after the first lockdown until reaching pre-pandemic levels by around July 2021. In London's case this meant a return to positive readings, while the UK figure has been negative since summer 2016.

This relief was short-lived, however, with sentiment turning negative during the third wave of the pandemic in late 2021. The losses over last winter only extended as inflation began to accelerate sharply and the rising cost of living came to the fore of consumers' minds. Strikingly, the UK gauge has now fallen past the pessimism seen after the financial crisis, and hit record lows since the data series started in 1974. Still,

[20] The GfK Consumer Confidence Barometer reflects people's views on their financial position and the general economy over the past year and the next 12 months. A score above zero suggests positive opinions; a score below zero indicates negative sentiment.

households in the capital have remained less pessimistic than the wider UK, with the London gauge never reaching the worst of the financial crisis lows. The latest data have seen an uptick in sentiment, possibly due to the arrival of energy bill assistance from the government. This means it is unclear whether the improvement could be durable, or will end when energy support stops.

Figure 3.6: GfK Consumer Confidence Barometer for London and the UK

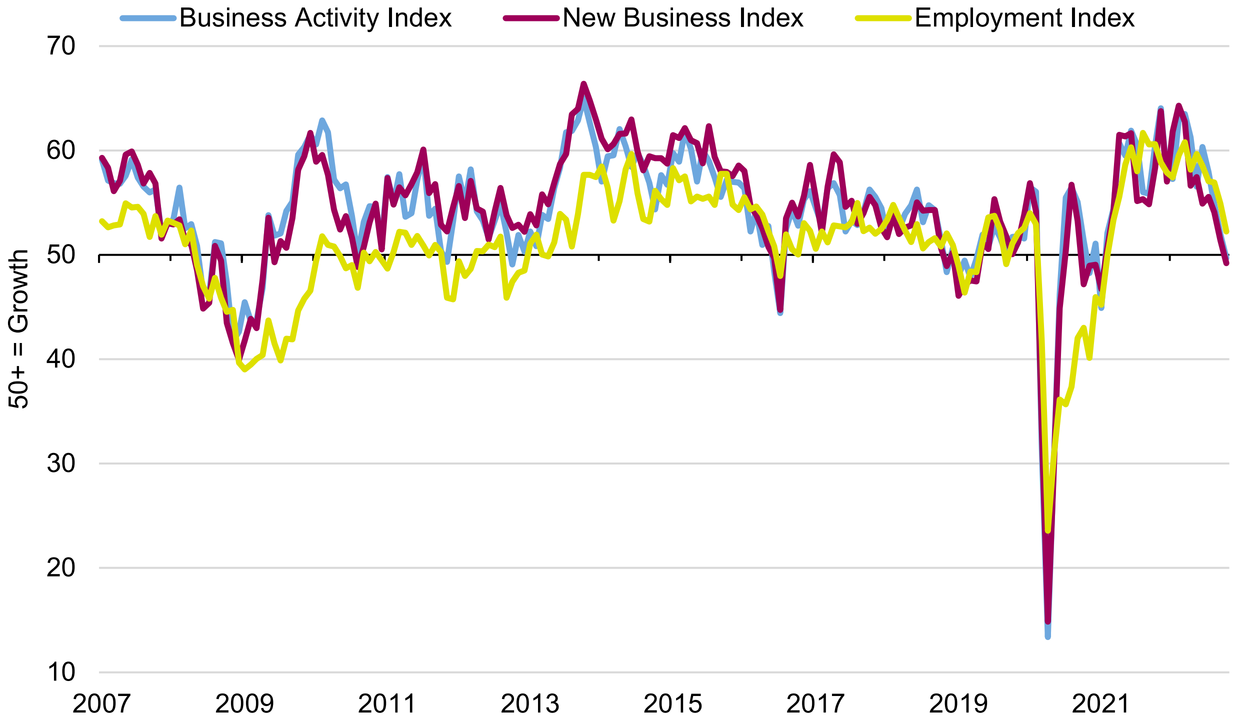


Source: GLA Economics based on GfK-NOP data. Last data point is November 2022.

Another high frequency indicator that correlates strongly with economic activity is the Natwest London Purchasing Managers' Index (PMI) survey, which focuses on the sentiment of businesses in the capital[21]. It does so by asking private sector firms about the month-on-month trends in a variety of business indicators like workload and employment. PMI data in 2019 prior to the pandemic held slightly above 50 on average – indicating slightly expanding conditions. With the emergence of COVID-19 these indicators were dragged down to all-time lows in March and April 2020. A rapid, if interrupted, recovery then began as soon as summer 2020. By spring 2021, the PMI figures had pushed well above pre-pandemic levels, indicating rapid growth for London businesses (**Figure 3.7**). While London business sentiment proved resilient in the third wave of the virus and the initial onset of the cost of living crisis, the gauges for overall business activity and new business have now fallen below 50 again. ONS surveys suggest that rising costs are now the top concern for businesses around the UK. The PMI employment gauge is also decelerating rapidly, suggesting London's job market may soon cool off after a long spell of tightness.

[21] PMI index readings are based around the 50 no-change mark. Readings above 50 suggest an overall increase in that variable, while readings below suggest an overall decline. Readings exactly at 50 suggest no-change in that variable compared with a month earlier. Moreover, the further the index reading is away from the 50 mark, the faster the rate of growth or decline.

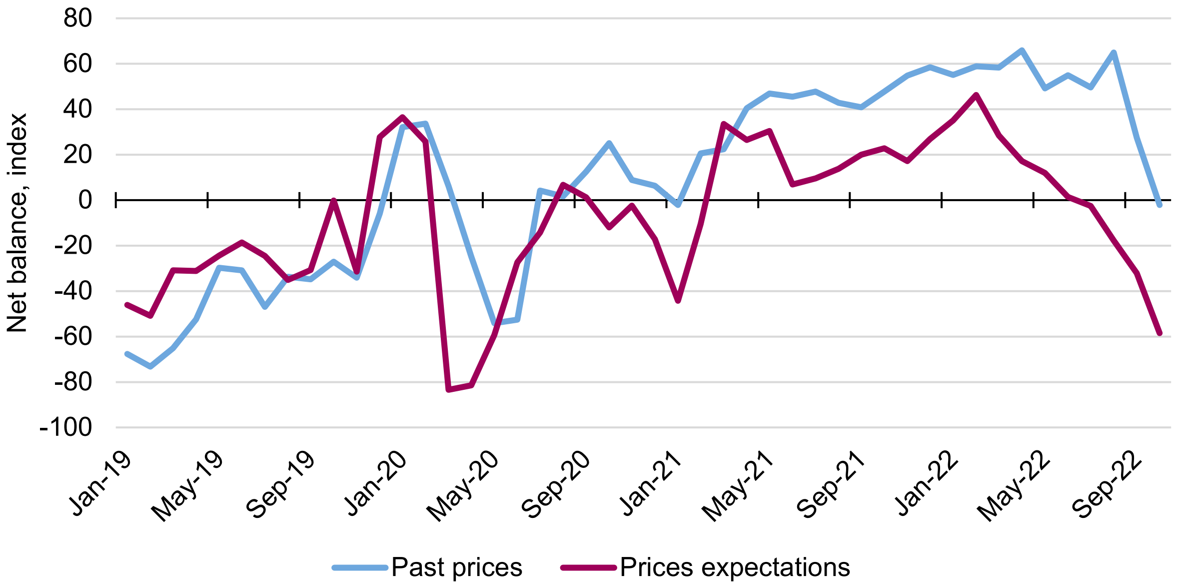
Figure 3.7: Natwest PMI Business Activity for London, New Business and Employment Indices



Source: GLA Economics based on IHS Markit data. Last data point is May 2022.

The housing market had been picking up prior to the onset of COVID-19 as gauges of recent and expected house prices had been rising through 2019. The pandemic immediately shocked both gauges, with the backward-looking measure falling to early 2019 levels and the forward-looking measure crashing to levels comparable with the financial crisis. Both gauges staged a volatile recovery from summer 2020 to spring 2021 as virus cases and activity restrictions fluctuated (**Figure 3.8**). The backward-looking measure remained strong through to August 2022, while the forward-looking gauge fell back in summer 2021 before rising again to a peak in February 2022 and then dropping once more. Both gauges have now turned negative amid affordability concerns due to mounting inflation, falling real incomes and rising interest rates. The measure for expected prices fell first, turning negative in July 2022, while the measure of recent prices only just turned negative in October 2022.

Figure 3.8: RICS house prices net balance index for London, change during last three months



Source: GLA Economics based on RICS data. The net balance index measures monthly the proportion of property surveyors reporting a rise in prices minus those reporting a decline in the last three months. Last data point is October 2022.

Beyond the challenges that London's economy is facing in the immediate outlook, we expect that the combination of two recessions in quick succession is likely to result in permanent economic scarring for London's economy. It is less clear how the scarring will roll out over the sectors of the economy and if increasingly tight liquidity leads to widespread closure of otherwise-solvent firms, although the capital's hospitality sector may be particularly at risk.

Box 3.1: Inflation and the cost of living crisis

A core driver of the economic outlook for London is the rapidly rising cost of living. Inflation, under the Consumer Price Index (CPI) measure, was up 11.1% year on year in October 2022[22] – the highest reading since 1981.

Like that period, energy costs have increased sharply due to conflicts disrupting fossil fuel supplies, but rapidly-accelerating inflation is now broad-based. Unlike in that period, wage growth is not accelerating to meet the higher inflation. On the one hand, this means that higher inflation should not become embedded in the economy after major cost shocks hopefully fade. On the other hand, it means that the UK likely faces the worst fall in living standards since the Second World War[23].

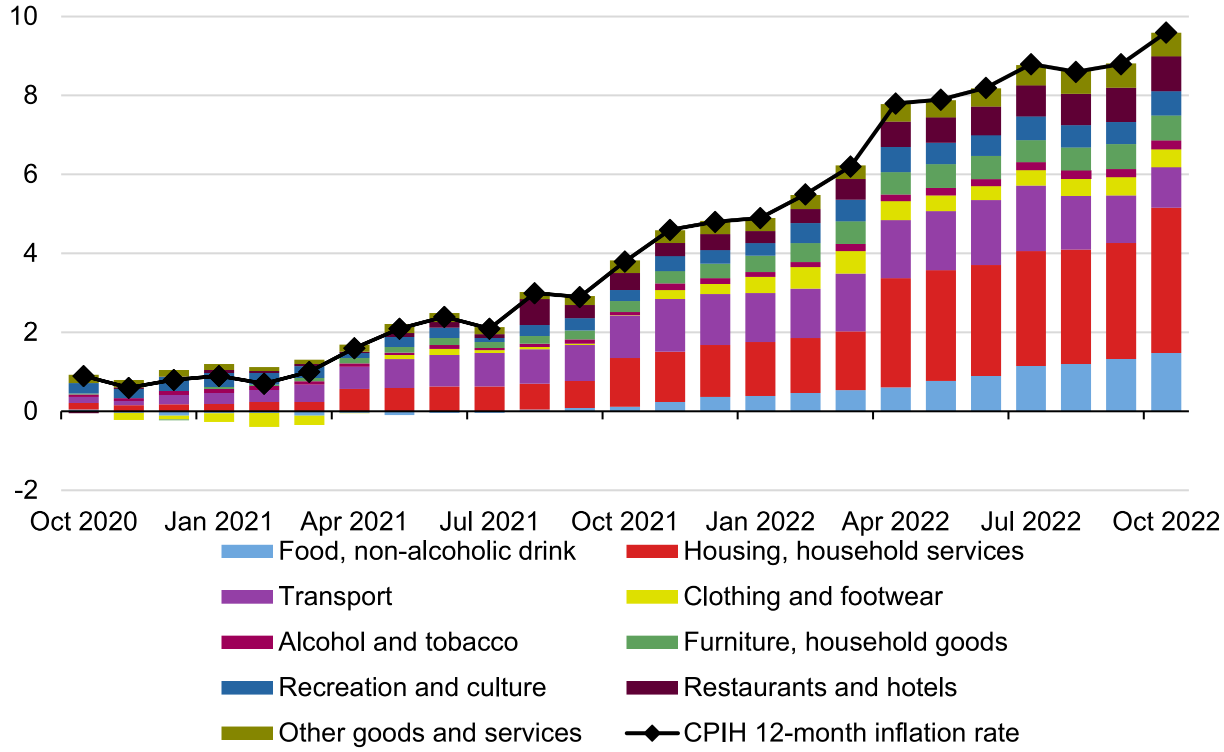
London is likely to face less of a shock from some prices – especially energy. Broader price trends point to the rest of the UK now facing higher inflation in many price categories. But this crisis will impact those on lower incomes hardest, and the worst-off Londoners tend to have some of the tightest budgets across the entire UK. Even in less-affected London, the damage is likely to spread some way up the income spectrum, with middle-income families also feeling the squeeze. In this environment, London's households face sharply lower spending power, prompting weaker demand and a downturn in output and jobs.

[22] ONS (2022), Consumer price inflation, UK: October 2022.
[23] Office for Budget Responsibility (2022), Economic and Fiscal Outlook - November 2022. Figures on p.18 show the two-year real income contraction of 7.1% across 2022-2023 as the largest since records began in 1956.

Inflation has been driven by tight supply chains and war, but is becoming broad based
Momentum in inflation began to pick up in spring 2021, and accelerated from the autumn. In the early stages, this trend seems to have been driven by global demand recovering from the pandemic ahead of global supply. This created bottlenecks in key supply chains, driving scarcity and an acceleration in prices for a range of tradable goods. This trend is still in evidence, with survey measures of supply delays[24] and bottlenecks[25]still at elevated levels. These challenges have persisted for longer than many policymakers expected, and may be exacerbated in the UK by trade frictions due to Brexit[26] (see Box 3.2).

Yet since late 2021 or early 2022, a core driver of higher costs has been the war in Ukraine. Russia is the world's second-largest producer of natural gas[27] and third-largest producer of crude oil[28], while both Russia and Ukraine are major grain exporters[29]. Even before the Russian invasion in February, key energy commodity prices were rising due to troop movements and growing tensions between the countries. Following the invasion, gas prices surged to unprecedented levels and have since shown huge volatility. Oil prices pushed to their highest levels since 2014 and have only gently eased. And agricultural goods have seen costs surge as grain and fertiliser supplies have tightened. As a result, it is perhaps unsurprising to see food and energy account for 5 percentage points of October's inflation (**Figure 3.9**).

Figure 3.9: Breakdown of contributions to CPI including owner occupier index (CPI-H)



Source: ONS; Note: CPI-H annual inflation rate often comes below the traditional CPI inflation rate.

[24] S&P Global (2022), NatWest London PMI, October 2022. Outstanding Business index still at 53.4, indicating rising backlogs for London businesses.
[25] S&P Global (2022), S&P Global PMI Commodity Price & Supply Indicators, November 2022. Global Supply Shortages Index was still high, showing shortages at 2.7 times their long-run average.
[26] OBR (2021), "Economic and fiscal outlook, October 2021", p.7, stated "In the UK, these supply bottlenecks have been exacerbated by changes in the migration and trading regimes following Brexit."
[27] International Energy Agency, Atlas of Energy: Natural Gas, 2020 data.
[28] International Energy Agency, Atlas of Energy: Crude Oil, 2020 data.
[29] Food and Agriculture Organization, FAOSTAT Rankings: Wheat, 2020 data.

This large impact from energy comes despite the moderating effect of the Energy Price Guarantee. The scheme has seen the government cap domestic energy prices at a unit cost implying average household energy bills of £2,500 a year. This is a significant cut compared to an initial Ofgem cap estimate of over £3,500[30]. Yet this is still up more than 25% from the April to September Ofgem cap of just under £2,000.

However, inflation is no longer a phenomenon confined to specific parts of the consumer basket. Prices are rising across the board, with non-energy, non-food inflation holding at an annual pace of 6.5% for a second month in October[31]. Meanwhile services inflation, which is more insulated from the cost of tradable goods and tends to be less volatile, reflecting economy-wide inflation pressures, rose to 6.3% year-on-year[32]. This shows that higher costs for businesses are driving up prices for everything in the economy.

While inflation should ease, it will take years to return to 'normal'[33] levels

There are some signs that the global pressures that have propelled inflation to multi-decade highs are peaking. Wholesale gas prices fell by late November to levels less than a third of late August peaks – though they have since turned upward again a little[34]. Global oil costs have been falling gradually since June, despite OPEC+ supply cuts to support the price[35]. And the Federal Reserve's Global Supply Chain Pressure Index has fallen sharply across this year, reaching its lowest rate in October since November 2020[36]. Meanwhile, in UK price data, the Producer Price Index for energy was still rising 46.0% year-on-year in October, but this is down from a peak of 57.9% in April 2022[37]. More broadly, producer input prices in October were up 19.2% annually in October, easing from 24.2% in June[38].

These indicators suggest that the pace of rising business costs may have peaked, which should pass through into moderating consumer inflation. Energy policy is helping over this winter, with the Energy Price Guarantee continuing to cap household energy costs, and the Energy Bill Relief Scheme doing the same for businesses and charities. Yet from next spring, the policy outlook offers less relief. While households have the certainty that their bills will continue to be capped after April 2023, the new unit cap will be 20% higher meaning annual average household bills of £3,000. Households on means tested benefits, disability benefits and the state pension will all receive income support, though. Businesses and charities have even less certainty, with their equivalent Energy Bill Relief Scheme mostly expiring in April 2023, barring promised Government support to as-yet undefined vulnerable sectors and organisations.

Commodity futures markets also bear out a slow decline in inflation triggers, with UK gas markets anticipating wholesale prices around 4-5% above current levels by September 2023[39]. Oil prices are expected to continue trending slowly downwards, reaching around 2-3% lower than current levels by next September[40] (**Figure 3.10**). However the head of the International Energy Association recently warned that this winter will not be the end of risk around energy supplies. Fatih Birol warned that in 2023, "gas markets will still be tight and volatile. This is an alarm bell for next winter as we believe we need to take immediate action now to avoid a shortage next year"[41].

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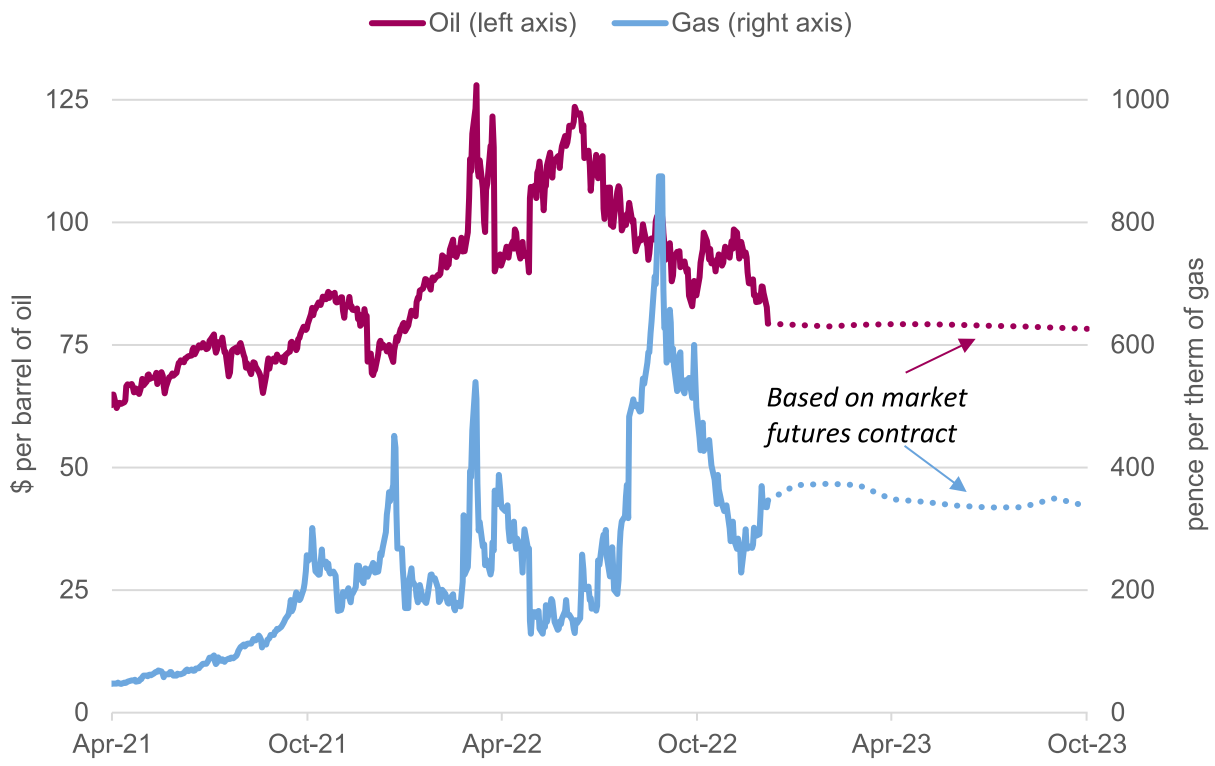
[30] Ofgem (2022), Default tariff cap level: 1 October 2022 to 31 December 2022, 26 August 2022
[31] ONS (2022), CPI 12mth: Excluding Energy, food, alcoholic beverages & tobacco, Accessed 29 November 2022
[32] ONS (2022), CPI Annual Rate: Services, Accessed 29 November 2022
[33] As defined by the Bank of England's central symmetrical target of CPI inflation at 2%.
[34] MarketWatch (2022), ICE UK Natural Gas Continuous Contract, Accessed 7 December 2022
[35] MarketWatch (2022), Brent Crude Oil Continuous Contract, Accessed 7 December 2022
[36] Federal Reserve Bank of New York (2022), Global Supply Chain Pressure Index, October 2022 update
[37] ONS (2022), Producer Price Index: Fuel and Energy, Accessed 29 November 2022
[38] ONS (2022), Producer price inflation, UK: October 2022.
[39] MarketWatch (2022), ICE UK Natural Gas Continuous Contract, Accessed 7 December 2022
[40] MarketWatch (2022), Brent Crude Oil Continuous Contract, Accessed 7 December 2022
[41] See Financial Times article "IEA sounds 'alarm bell' on Europe's 2023 gas supplies", 3 November 2022

Figure 3.10: Energy prices based on historic spot prices and futures



Source: MarketWatch

Perhaps the key development for taming medium-term inflation is that wages are not taking off by enough to compensate for higher prices. While nominal regular pay is more than 5% above its pre-pandemic five-year trend and is rising at some of the fastest rates since the data began in 2000, real pay is falling rapidly[42]. Real regular pay is down 2.8% year-on-year, with recent months seeing that measure at record lows. In London the fall is slightly less drastic, but real median pay fell 2.2% year on year[43]. And the latest data from the Bank of England show long-term inflation expectations down in August 2022 – and lower than 2019 responses[44]. So, while nominal wages are growing, further raising costs across the economy, they seem unlikely to keep pace with inflation, acting as a brake on out-of-control inflation.

The outlook for a coming recession will also put a brake on inflation in the medium term, as easing demand discourages businesses from raising prices and driving away their remaining customers. This is especially true with the Bank of England continuing to hike interest rates despite signs that the recession has already begun.

Bank of England projections[45] reflect these facts – that global inflation drivers may be peaking, but will fall slowly, and long-term inflation drivers look unlikely to spiral out of control. The Bank sees inflation peaking around its current levels, but remaining at around 10% year-on-year for the next few months. Inflation is likely to fall but will remain over 5% annually by the end of 2023. This is followed by a sharp deceleration, with inflation falling below the 2% target by mid-2024, and even reaching zero by the end of 2025.

[42] ONS (2022), Average weekly earnings in Great Britain: November 2022
[43] GLA Economics (2022), London Labour Market Update: November 2022.
[44] Bank of England (2022), Bank of England/Ipsos Inflation Attitudes Survey - August 2022.
[45] Bank of England (2022), Monetary Policy Report - November 2022. See Table 1.C.

Strikingly, the OBR sees prices falling into quite deep deflation at around the three-year time horizon[46]. Yet the deflationary outlook in both forecasts may be exaggerated by taking market interest rate expectations as a key assumption. When both forecasts were finalised in November, markets were pricing in higher interest rates than Bank of England policymakers seemed comfortable with[47]. This suggests that the actual profile for demand and inflation may involve a slightly less dramatic pullback in the medium term.

London is less exposed to rising prices in some key areas, but vulnerable in others

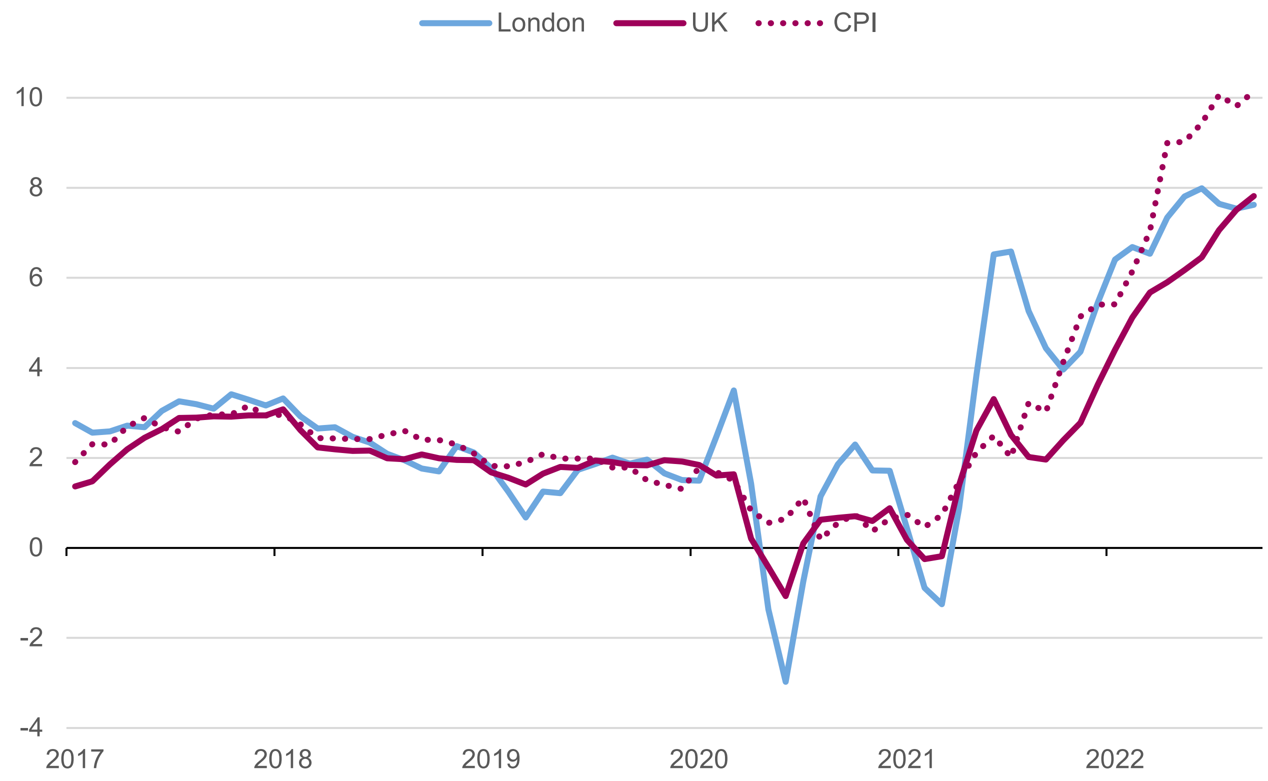
The outlook for inflation will affect the UK's regions differently. And Londoners may face lower inflation than households elsewhere in the UK. On average, a London household usually devotes a lower share of their spending to energy at home and fuel in their vehicle[48]. The capital's relatively compact housing stock (with more flats than in other regions) mean most homes are easier to heat, plus London leads the other regions in terms of Energy Performance Certificates[49]. Those living in the capital also tend to use public transport more than their own cars. This means that Londoners are less exposed to the high energy costs that have been the defining feature of the cost of living crisis.

Yet different consumption patterns are not the only way regional price trends might vary. The different demand, competition, labour cost and rental cost pictures facing businesses in different parts of the country may also drive varying paths for local prices. Here, there is also evidence that Londoners are not facing higher inflation pressures than at the national level. The ONS provides micro data with regional markers for prices collected directly by their agents in local areas[50]. This tends to lean towards everyday goods sold from physical locations like food, drink and clothing, or everyday services like restaurants and pubs. This data is not comprehensive, as some prices are collected centrally by the ONS, with one price index provided for the whole country. This tends to include bills and major purchases (such as vehicles and technology goods). Most significantly in the current circumstances, energy bills are a centrally-collected price.

Local price quotes make up roughly half the inflation basket and these shop-shelf prices in London are now growing roughly in line with those in the wider UK. From late 2021 to mid-2022, a volatility-trimmed measure of local price quotes inflation had a higher growth trend in London than in the wider UK[51] (**Figure 3.11**). Accounting for the difference in energy costs, this meant that the overall inflation experience of Londoners was probably quite close to the UK average. Yet now, Londoners look relatively insulated from the highs of inflation, with energy costs mattering less and local prices growing slower than national trends.

[46] OBR (2022), Economic and Fiscal Outlook - November 2022. See, for instance, Chart 4.
[47] See, for instance, Broadbent (2022), "The inflationary consequences of real shocks", 20 October 2022. Here, an MPC member indicates market pricing of a peak Bank rate at 5¼% would create a deep drop in output that might be inconsistent with Bank objectives. The OBR forecast was conditioned on a Bank rate peak around 5%.
[48] ONS (2022), Family spending in the UK: April 2020 to March 2021, Workbook 3: Expenditure by Region
[49] DLUHC (2022), Live tables on Energy Performance of Buildings Certificates, 27 October 2022. Table D1
[50] ONS data available online, but GLA Economics use the version assembled as the Long-Run Price Database by Professor Richard Davies.
[51] See Box 1 of our August report on the rising cost of living and its effect on Londoners for method details.

Figure 3.11: Underlying inflation measure using locally-collected price quotes, London vs. UK



Source: GLA Economics calculations using Richard Davies' Long Run Price Database

Within the categories underlying headline inflation, food prices are relatively well represented in the local price quotes data. As with the overall headline measure, food prices in London have gone from growing faster than at the national level to growing largely in line with the UK average. Within food prices, inflation for bread and cereals has come off its peak in London, while it continues to climb nationally. However, inflation for milk, cheese and eggs prices is still slightly above the national pace. Even where national price quote inflation is catching up with London, price levels may not yet have closed the gap. For instance, dairy has lately been a key factor driving higher food prices in the CPI. And we estimate that prices for cheese may still be some 10-15% higher in London than in the wider UK when compared to their level in March 2021.

Aside from energy bills, another category not covered by local quotes is housing. Here, London's relative position is ambiguous. According to commercial sources, asking rents are rising at record rates in London – well above those in the wider UK. The HomeLet Rental Index was up over 13% in London in October, well above the also-high average for the rest of the UK at just under 10%[52].

However, Londoners only tend to renew their rental contracts on average once every 20 months[53] – and many will have sought to lock in the low rents available during the pandemic. The ONS Index of Private Housing Rental Prices looks to account for these effects, showing the growth of average rental costs for everyone in the capital. Here, London rents seem to be running slower than the national average at 3.0%

[52] HomeLet (2022), HomeLet Rental Index: October 2022.
[53] Dataloft (2021), "Briefing notes 7: Moving renters – How long do renters stay in their homes?", 22 June 2021

year on year, versus 4.1% for the rest of the UK[54]. The rapid increase in asking rents is likely to feed through into higher rent cost growth going forward, but it may take some months for the effect to play out in full.

Mortgage costs are also rising due to higher interest rates, though this will also take time to feed through to London as a whole. Data from the Bank of England suggests that around 550,000 London households are facing either variable rate mortgages or fixed rate mortgages that re-fix in 2022 or 2023 – likely over 45% of mortgagers in London[55]. As a result, hundreds of thousands of households are likely to face a rapid increase in housing costs. The Resolution Foundation estimates that rising interest rates will mean an additional annual cost of £8,000 by late 2024 for Londoners whose mortgage costs are going up[56].

The lowest-income Londoners face cutting back on essentials, but all budgets will be tight
Yet outside the difference between average experiences of inflation in London versus the rest of the UK, the cost of living crisis will affect those on the lowest incomes the hardest. This picture becomes clear if we add up the share of consumption devoted to energy, food and non-alcoholic drinks at the UK level. The lowest-income decile of UK households devote nearly 30% of their spending to these goods, while the highest-income decile devote around 18%[57]. As a result, rapidly increasing food and energy prices will affect lower-income households more. According to Kantar, a consumer research organisation, UK households face grocery price inflation of 14.7% year on year in October to November 2022. That means a £682 jump in their annual grocery bill if they continue to buy the same items[58].

This effect may be sharpened by the reduced substitution possibilities for low-income households. Poverty campaigners have highlighted that while some households can substitute into low-cost versions of goods – such as own-brand items – many of the lowest-income households have already made that substitution across the board[59]. The Kantar data show that own label sales are growing faster than wider averages, with the cheapest value own label ranges seeing sales up 42% annually, compared to branded goods sales up just 0.3%. Yet the evidence on the ultimate impact of this effect on experienced inflation is mixed. ONS experimental statistics to quantify these effects suggest that the lowest-cost items appear to be growing broadly in line with average grocery prices[60].

Whether or not substitution effects are raising experienced inflation, the heightened impact of the cost of living crisis on lower-income households shows up in the GLA's polling data[61]. Nineteen per cent of households surveyed by YouGov on behalf of the GLA said they were financially struggling in November, with these households more than three times likelier to be going without essentials than the wider sample average[62]. Well over a third of Londoners earning less than £20,000 said they were financially struggling (36%), and nearly one in four Black Londoners also gave this response (23%).

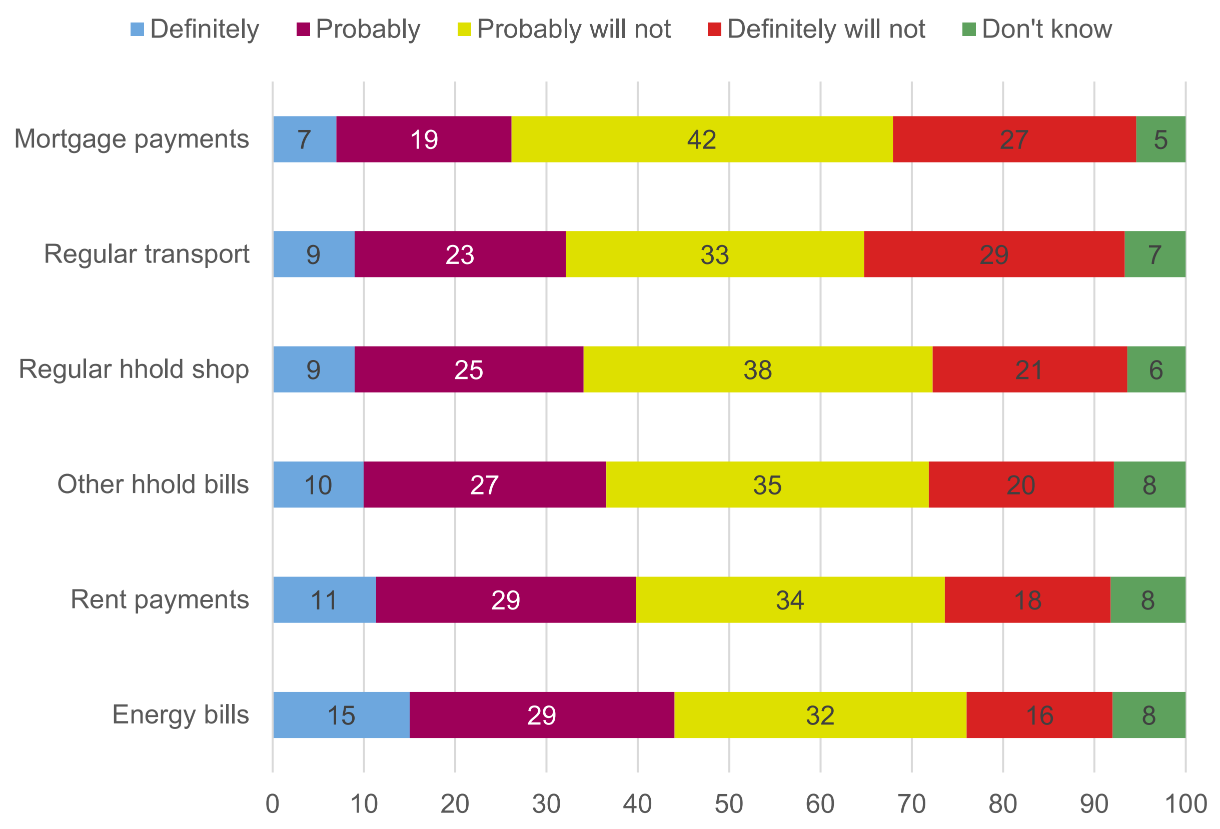
The Joseph Rowntree Foundation (JRF) found that low-income Londoners are faring the worst in the cost of living crisis out of any region of the UK. At 27%, London has the highest poverty rate of any region, and the JRF found that "London consistently had the highest proportion of low-income households experiencing hardship including going without essentials, experiencing food insecurity, in arrears with any

[54] ONS (2022), Index of Private Housing Rental Prices, UK: October 2022.
[55] Bank of England (2021), Bank of England/NMG household survey data, accessible in Research Datasets
[56] Judge, Leslie & Shah (2022), "Interesting times: Assessing the impact of rising interest rates on mortgagors' living standards", Resolution Foundation, 15 October 2022
[57] ONS (2022), Family spending in the UK: April 2020 to March 2021, Workbook 1: Detailed Expenditure
[58] Kantar (2022), UK grocery price inflation hits record 14.7%, 8 November 2022
[59] See, for instance, Jack Monroe's Twitter thread on low-value items rising faster in price than the CPI.
[60] ONS (2022), Tracking the price of the lowest-cost grocery items, UK, 25 October 2022
[61] GLA (2022), GLA cost of living polling, November update.
[62] YouGov on behalf of GLA. All figures, unless otherwise stated, are from YouGov Plc. Total sample size was 1167 adults. Fieldwork was undertaken between 18th –23rd November 2022. The survey was carried out online. The figures have been weighted and are representative of all London adults (aged 18+)

bills or outgoings, and taking out new debt since the start of the year"[63]. This was important because low-income Londoners faced the most challenging housing costs, and a larger share of these households reported rent as a driver of increasing costs in London than in the wider UK.

Yet even beyond the lowest-income Londoners, the GLA's polling shows an impact from the cost of living crisis on a very broad range of London households. Adding up the share of Londoners who report that they are financially struggling or just about managing adds up to 50% of the total. This has risen from 35% in January 2022. Meanwhile, our October polling showed that 44% of Londoners think they will definitely or probably struggle to pay their energy bills over the next six months (**Figure 3.12**).

Figure 3.12: Share of Londoners set to struggle with different types of household costs



Source: GLA/YouGov poll – October 2022; total sample size was 1162 Londoners.

3.2 The UK economy

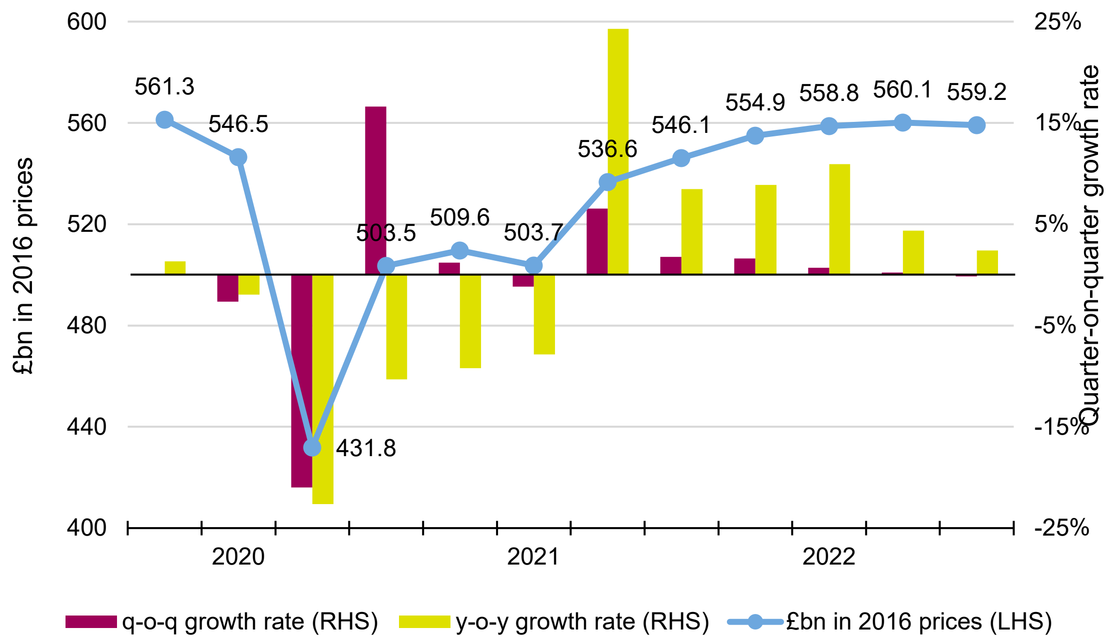
The UK economy suffered an unprecedented drop in activity during the first part of 2020 as lockdown restrictions were introduced to contain the pandemic. From late March to late May 2020, the UK economy experienced the largest contraction of real GDP for over 300 years (quarterly contractions of -2.6% in Q1 2020 and -21.0% in Q2 2020). The single-quarter decline in the economy by over a fifth compares with a peak-to-trough fall of 6% during the 2008-09 financial crisis. This historic decline in national output was the result of the initial outbreak of COVID-19 and the public restrictions taken to contain its spread.

[63] Joseph Rowntree Foundation (2022), "London, the North of England, and Scotland hit hardest by the crisis of spiralling prices", 14 October 2022

The economy rebounded rapidly in Q3 2020, but was then hit by the second lockdown late in the year, with another contraction in Q1 2021. Another rapid rebound in Q2 2021 was followed by continued recovery, though at a more moderate pace. The economy was resilient to Plan B restrictions in late 2021 and early 2022, but has then decelerated across 2022 as the cost of living began to bite in consumer spending. Q3 2022 saw the UK economy contract 0.3% on the quarter, likely heralding the beginning of a recession amid high inflation and interest rates (**Figure 3.13**).

This picture of the evolution of UK GDP has worsened after the latest revisions by the ONS[64]. The decline in 2020 has been revised down to 11.0% from 9.4% previously, while the recovery in 2021 has remained largely the same. So while previous estimates saw the UK economy pushing 0.7% above pre-pandemic levels in Q1 2022, the current estimate has GDP in Q2 2022 still 0.2% below pre-pandemic levels.

Figure 3.13: UK real GDP (Q4 2019 – Q3 2022)



Source: GLA Economics based on ONS – UK National Accounts data.

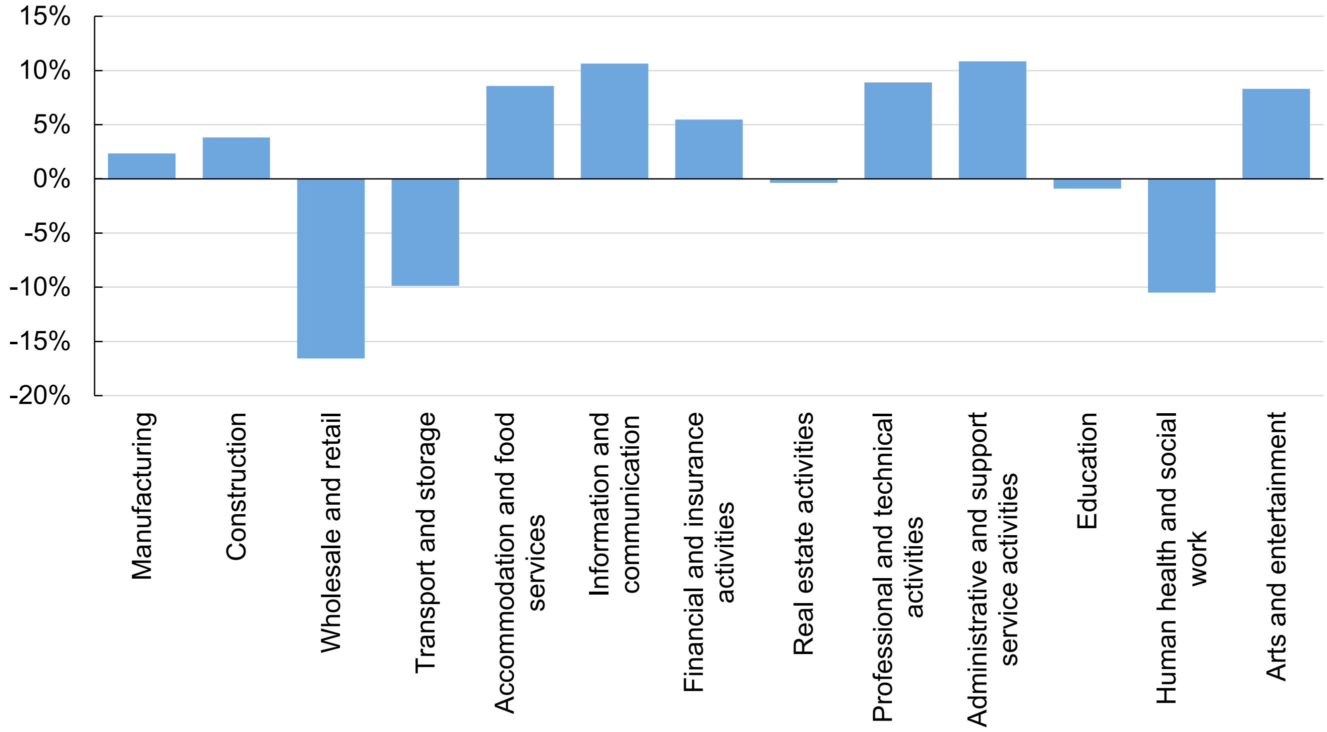
As with London, the wider UK's sectoral distribution of the impacts from the pandemic is uneven. The UK sectors still struggling the most by Q3 2022 compared to pre-pandemic levels were Wholesale and retail, Health, and Transport and storage. Real estate and Education were also below pre-pandemic levels for the UK, while the remaining sectors have recovered to at least their Q4 2019 level of output. The UK's strongest sectors, compared to pre-pandemic levels, are Administrative services, Information and communication, Accommodation and food services and Arts and entertainment (**Figure 3.14**).

The UK's sectors have experienced quite a different pattern of impact from London's. The UK hospitality, real estate and transport sectors are faring particularly better than their London counterparts. These trends may reflect the outsize importance to London of commuters and visitors. Meanwhile London did sharply better in Wholesale and retail and Information and communication. While the latter may point to London being a driving force in the technology shifts that have made life possible during the pandemic, such as remote working, the former is perhaps surprising. Perhaps this highlights London's relatively higher-income households spending their money on goods when forced to stay at home. Taken together, IT and retail

[64] ONS (2022), "Blue Book 2022 – revised impacts of the coronavirus (COVID-19) pandemic on the UK economy", 31 October 2022

make up 70% of the positive components of London's recovery, while the UK's (incomplete) GDP recovery is more spread out across sectors. It remains to be seen whether this means London is doing well at its strengths, or whether the capital's recovery is over-reliant on a limited number of sectors.

Figure 3.14: Proportionate change in real GVA by industry* in the UK Q4 2019 – Q1 2022



*Source: GLA Economics based on ONS – UK GDP data. *The following smaller industries have been excluded for simplification purposes: Primary sector and utilities, Public administration and defence, Other service activities, and Activities of households.*

GDP data can also be split into different types of final expenditure. This includes final expenditure by households, general government and the non-profit institutions serving households, as well as expenditure used in gross capital formation (e.g. business investment)[65]. For the most recent period, the year to Q2 2022, there was growth across the private sector, but government spending was falling (**Table 3.1**).

Table 3.1: Annual rates of real growth in domestic final expenditure for the UK

	2020		2021				2022	
Expenditure	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**
Households	-11.1%	-12.2%	-12.8%	24.7%	7.7%	10.1%	14.9%	4.3%
Non-profit institutions	-20.6%	-14.5%	-18.6%	30.3%	10.7%	8.6%	18.4%	4.9%
General Government	-5.5%	-3.0%	0.5%	32.1%	12.0%	9.4%	8.1%	-1.0%
Gross fixed capital formation	-10.3%	-6.5%	-4.1%	20.9%	5.2%	3.1%	8.2%	3.9%

Source: ONS (2022). 'GDP first quarterly estimate, UK: January to March 2022', 12 May 2022.

Household expenditure is the largest component of the UK economy, contributing three-fifths of UK GDP in 2021. Following annual-terms contractions in each of the four quarters to Q1 2021, there has been positive annual growth in the following five quarters to Q2 2022. There is a similar picture for other elements of domestic final expenditure in the private sector. Annual general government expenditure

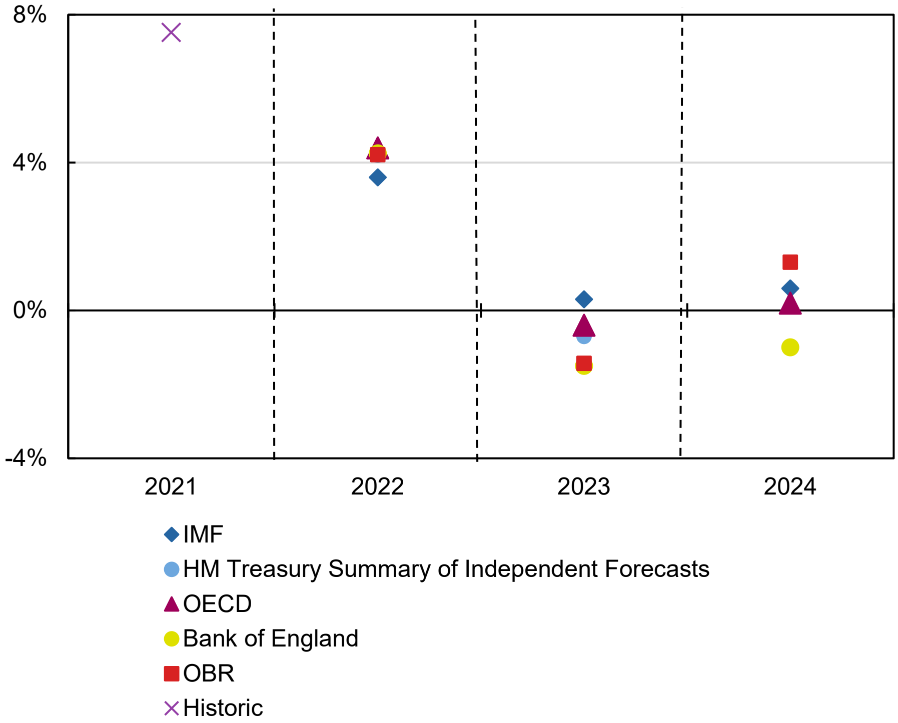
[65] It also includes net trade in goods and services.

started improving one quarter earlier from Q1 2021, and has turned negative in the most recent quarter reported, Q2 2022.

Forecasts of the UK economy

Looking to the outlook for the UK economy, the cost of living crisis (see Box 3.1), a slowing global economy, the continued impact of Brexit (see Box 3.2) and long-standing concerns on low productivity represent key downside risks. After the Mini-Budget in September exacerbated a sharp increase in government borrowing costs, the Autumn Statement saw the Chancellor promise tax hikes and spending cuts to bring down government borrowing and calm markets. However, most of the spending cuts are deferred to after 2024, and support to households' energy bills, along with direct payments to low-income households, will continue in some form in 2022 and 2023. **Figure 3.15** plots the distribution of official and private forecasts for the next three years. The consensus is that after still-firm growth on average for 2022, the economy will contract in 2023 and only experience weak growth in 2024.

Figure 3.15: External forecasts of UK real GDP growth for 2021-2024



Source: GLA Economics based on ONS, HM Treasury, Bank of England, OECD, IMF, and OBR projections
Note: historic here refers to historic ONS data for the UK economy

The OBR and HM Treasury also publish forecasts for other variables like the labour market and public-sector net borrowing (PSNB). These are shown in **Table 3.2**.

Table 3.2: Selected OBR and HM Treasury consensus forecasts for the UK economy

	HM Treasury's Average of Independent Forecasters (November 2022)		Office for Budget Responsibility (November 2022)	
	2022	2023	2022	2023
Annual real GDP growth rate	4.2%	-0.7%	4.2%	-1.4%
LFS unemployment rate	3.7%	4.3%	4.0%	4.2%
Current account	-£125.5bn	-£93.0bn	-£144.5bn	-£132.7bn
Public sector net borrowing (financial year)	-£180.8bn	£135.8bn	£177.0bn	£140.0bn

Sources: HM Treasury (2022). 'Forecasts for the UK economy: a comparison of independent forecasts', November 2022; and OBR (2022). 'Economic and Fiscal Outlook – November 2022', November 2022.

Other UK economic indicators

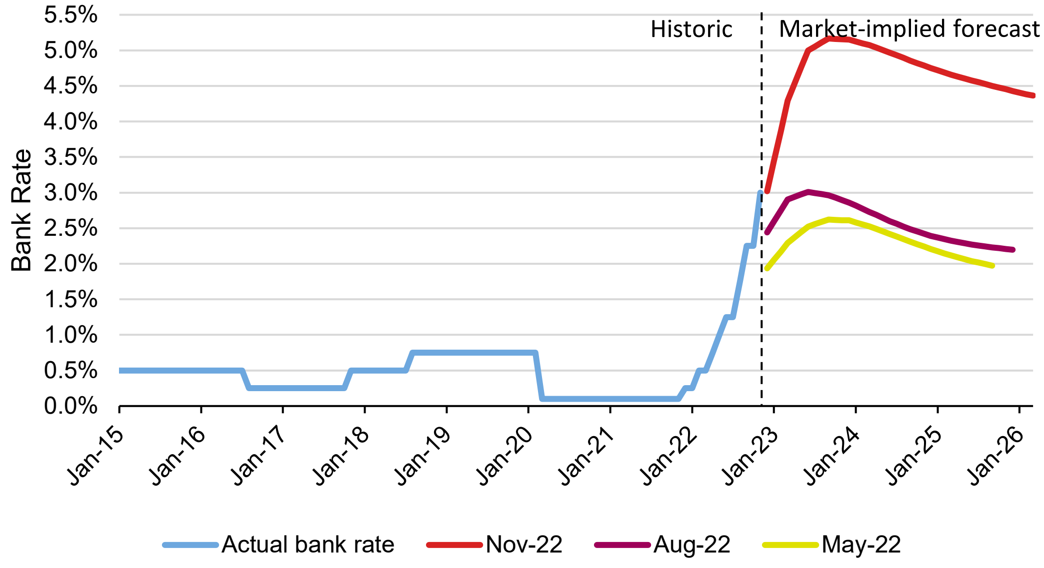
Beyond GDP, another important economic indicator is inflation, as measured by the Consumer Price Index (CPI). The large depreciation of sterling following the EU referendum pushed inflation above the Bank of England's central target of 2% for much of 2017 and 2018, but this shock largely dissipated by 2019. CPI inflation stood at 1.5% year-on-year in March 2020[66]. The weakness of demand in the economy during the pandemic further subdued inflationary pressures. When consumers are making fewer purchases, sellers are less likely to raise prices for fear of driving away the remaining buyers.

However, the easing of lockdowns then rapidly released pent-up demand. Global supply and distribution networks were not ready for the surge in orders, so supply chain bottlenecks began to create shortages that drove up prices. In the UK, the end of the Brexit transition exacerbated this effect. Inflation pushed back above the Bank's target by the end of 2021. Russia's invasion of Ukraine in February 2022 turned the situation into a crisis, with energy and food prices soaring (see Box 3.1). CPI inflation stood at 11.1% year on year in October 2022 – the highest point since 1981[67]. The Bank expects the inflation rate to peak around its current level, before falling across 2023 and heading below the 2% target in mid-2024.

With fiscal policy on a relatively restrictive footing since 2010 and few signs of inflation rising on a sustained basis, the Bank of England had kept interest rates near zero for much of the decade to 2020. While the Bank had raised rates in response to the 2017 inflation overshoot, rates were steady at 0.75% from late 2018 to spring 2020. Yet as the scale of the pandemic's impact became apparent in March 2020, the Bank lowered interest rates to 0.25% and then to a record low of 0.1%. However, the rapid acceleration of inflation that has unfolded from autumn 2021 has seen the Bank of England respond sharply. December 2021 saw the first rate rise since 2018, and by November 2022, the Bank had reached a policy interest rate of 3.0%. This is already the fastest hiking cycle since the late 1980s, and market expectations for the path of interest rates anticipate reaching the highest rates since 2008 (**Figure 3.16**).

[66] ONS (2020). 'Consumer price inflation, March 2020', April 2020.
[67] ONS (2022). 'Consumer price inflation, October 2022', November 2022

Figure 3.16: Market-implied interest rate path for the UK



Source: Bank of England (2022), 'Monetary Policy Report – November 2022', November 2022. Note: chart does not incorporate outcome of November 2022 Monetary Policy Committee meeting

Interest rate changes can influence the economy in a range of ways[68]. The most important effects are on aggregate demand. Higher interest on savings raises the 'opportunity cost' of spending – i.e. it is relatively more attractive to forgo consumption today by saving more and investing. Consumers also often borrow for major purchases, meaning higher interest rates on consumer loans make those purchases less affordable. Higher mortgage interest rates raise housing costs for owner-occupiers, which may cut their willingness to spend. Reduced homebuying due to more expensive mortgages may lower house prices, reducing households' wealth and make them less inclined to spend money. Business investment may see a similar impact. Here, higher interest rates raise the cost of borrowing to invest, and may lower the valuation of firms due to a higher discounting rate in net present value calculations. As with consumers, costlier borrowing and a dent to wealth should slow business spending.

By slowing aggregate demand, raising interest rates should slow the pace of inflation. Lowering interest rates would have the reverse of these effects. However, the magnitude of these effects depends on several factors, including the speed and scale of the interest rate changes, the time it takes for interest rates to transmit through the economy, and the current state of the wider economy. These "long and variable"[69] lags mean further uncertainty in economic forecasts. With interest rates set to return to levels unseen since before the financial crisis, the Bank of England projects a long, if relatively shallow, recession in the UK economy, with output still below mid-2022 levels by the end of 2025. The OBR also projects a recession, though with a shorter and shallower decline than the Bank of England's forecast.

A separate impact may be seen on the currency. Excluding other influences, interest rate rises can bolster the pound as returns (interest) on sterling assets would be relatively higher than on other countries' assets, leading to an increase in demand for sterling-based assets by foreigners. As the currency appreciates,

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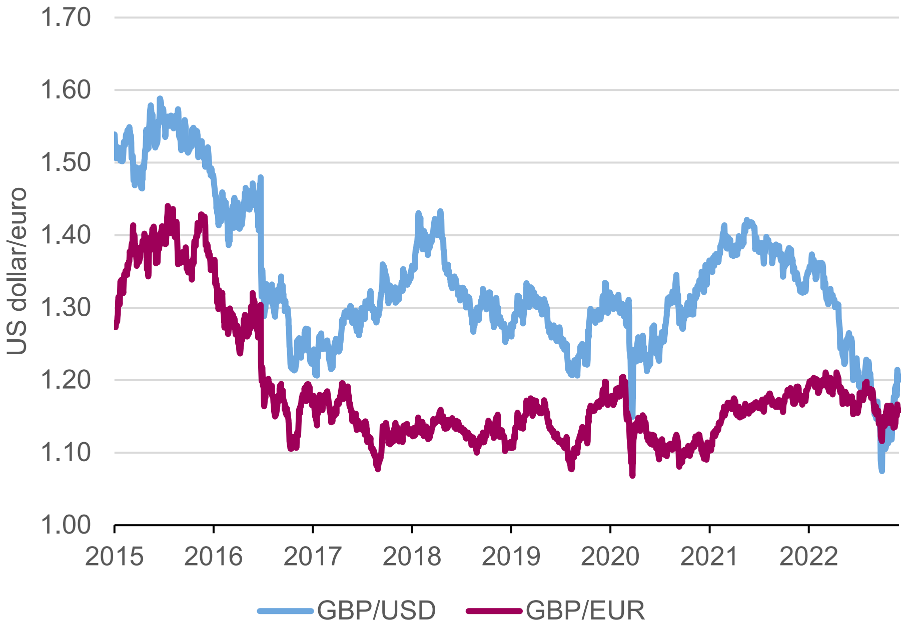
[68] See Bank of England (1999). 'The transmission mechanism of monetary policy', Bank of England Quarterly Bulletin, May 1999.
[69] This concept is often associated with the works of Milton Friedman in the late 1950s and early 1960s, c.f. Friedman (1959), "A Program for Monetary Stability", Fordham University Press, 1959

imports are relatively less costly for UK buyers to purchase. As a result, this exchange rate effect should enhance the inflation-dampening effects of rate rises.

The value of sterling fell following the result of the EU referendum in June 2016, as seen in **Figure 3.17**. Sterling had been relatively steady against the euro since mid-2017, although there have been marked down and then upward movements in the second half of 2019. This came as first a no-deal Brexit became more likely, and then a deal became increasingly likely. At the same time, sterling appreciated against the US dollar through 2017 and into the early part of 2018 but had since dropped back largely due to the continuing impact of Brexit.

In early March 2020, it became apparent that the UK economy would be significantly affected by COVID-19, and the pound depreciated against both the US dollar and the euro. In part, this reflects a flight to strong currencies, but it may also reflect the comparative weakness of the UK economy after the vote to leave the EU. Fluctuations in the US outlook saw the pound recover against the dollar, then weaken again after the election of Joe Biden as US President. Since 2021, the pound has recovered against the euro, reflecting first the strength of the UK vaccination programme and then expectations of interest rate rises. More recently, the pound has fallen against the euro and the dollar, likely reflecting diminished expectations for the UK economy during the cost of living crisis. Following the Mini-Budget in late September 2022, the pound depreciated sharply to its lowest level against the dollar since 1984. The unfunded tax cuts in the Mini-Budget put pressure on UK government bond markets, and along with a generalised loss of investor confidence in the UK economy, this impacted on sterling. The pound has made up some of its losses since as policy has stabilised.

Figure 3.17: Sterling to US dollar and euro exchange rates



Source: Bank of England; Note: Last data point is 29 November 2022

Box 3.2: An update on Brexit

The 12 previous editions of LEO[70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81] up to June 2022 have provided updates on the process of the UK leaving the EU and estimates of the impact on the London economy.

1 Legislative background

Previous editions of LEO have mentioned the UK Government's dissatisfaction with the Northern Ireland Protocol. Since the last LEO, there has been little news in the last few months about the Government's concerns indicative of a calming of relations. It remains, though, the case that the Northern Ireland Protocol Bill is still passing through Parliament. As discussed at more length in the Spring 2022 LEO[82], the EU has threatened to respond with all measures at its disposal should the UK decide to move ahead with a bill disapplying constitutive elements of the protocol. Thus the risk of a trade war detrimental to the London and UK economies remains.

On the domestic front the Government is taking through Parliament a Brexit Freedoms Bill. Under this, all EU legislation will be amended, repealed, or replaced by the end of 2023. This will enable the Government to create regulations that they say will be tailor-made to the UK's own needs[83]. This will cover 3,800 pieces of legislation[84]. It will not be possible to replace all this legislation by 2023, and so there will be areas of activity where there is no longer regulatory protection. The Regulatory Policy Committee, which reviewed the economic impact assessment, has significant concerns about the effects of the bill, saying that "The department has not sufficiently considered, or sought to quantify, the full impacts of the bill."[85] That is, the likely effects of the bill are not yet well understood. This will create uncertainty for business, and may adversely affect decision making.

2 Impact of Brexit on the UK economy

Recent analysis has looked at the impact of Brexit on UK economic performance after the EU referendum[86]. It compares the UK with a synthetic doppelganger of other economies, which provides a basis to derive the counterfactual of what would have happened to the UK economy in the absence of Brexit. The analysis is for the period up to the final quarter of 2021, and so covers recovery after the pandemic, and makes allowance for differential performance by economies during the pandemic. It concludes that since mid-2016 UK GDP is 5.2% smaller than it would otherwise have been without Brexit, investment is 13.7% lower, and goods trade 13.6% lower. UK GDP had already fallen by 2.9% relative to the counterfactual in the period from the referendum to the pandemic. Investment also began to lag at the point of the referendum, and goods trade when the UK left the single market.

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[70] GLA Economics (2016). 'London's Economic Outlook: Autumn 2016 The GLA's medium-term planning projections', November 2016.
[71] GLA Economics (2017). 'London's Economic Outlook: Spring 2017 The GLA's medium-term planning projections', June 2017.
[72] GLA Economics (2017). 'London's Economic Outlook: Autumn 2017 The GLA's medium-term planning projections', November 2017.
[73] GLA Economics (2018). 'London's Economic Outlook: Spring 2018 The GLA's medium-term planning projections', May 2018.
[74] GLA Economics (2018). 'London's Economic Outlook: Autumn 2018 The GLA's medium-term planning projections', November 2018.
[75] GLA Economics (2019). 'London's Economic Outlook: Spring 2019 The GLA's medium-term planning projections', June 2019.
[76] GLA Economics (2019). 'London's Economic Outlook: Autumn 2019 The GLA's medium-term planning projections', December 2019
[77] GLA Economics (2020). 'London's Economic Outlook: Spring 2020 The GLA's medium-term planning projections', June 2020.
[78] GLA Economics (2020), 'London's Economic Outlook: Autumn 2020 The GLA's medium-term planning projections', December 2020.
[79] GLA Economics (2021). 'London's Economic Outlook: Spring 2021 The GLA's medium-term planning projections', May 2021.
[80] GLA Economics (2021), 'London's Economic Outlook: Autumn 2021. The GLA's medium-term planning projections', December 2021.
[81] GLA Economics (2022), 'London's Economic Outlook: Spring 2022 The GLA's medium-term planning projections', June 2022
[82] GLA Economics (2022), 'London's Economic Outlook: Spring 2022 The GLA's medium-term planning projections', June 2022
[83] Department for Business, Energy and Industrial Strategy (2022), UK government to set its own laws for its own people as Brexit Freedoms Bill introduced
[84] Parker G et al (2022), Flagship UK 'Brexit freedoms' bill slammed as impact study 'not fit for purpose, Financial Times, 22 November
[85] Parker G et al (2022), Flagship UK 'Brexit freedoms' bill slammed as impact study 'not fit for purpose, Financial Times, 22 November
[86] Springford J (2022), What can we know about the cost of Brexit so far?, Centre for European Reform

More surprisingly the modelling finds that services trade had risen by 7.9% - this conclusion is not robust, though, to sensitivity analysis. Indeed, other research[87] suggests that the EU Referendum has caused a large negative effect on UK services trade between 2016 and 2019.

This does highlight the challenges of modelling the effects of Brexit, and that it will be some years before a definitive analysis of the effects of Brexit will be clear. The OBR, though, continues to conclude that the UK's trade intensity will be 15% lower in the long run than if the UK had remained in the EU[88], resulting in GDP being 4% lower than it would otherwise have been.

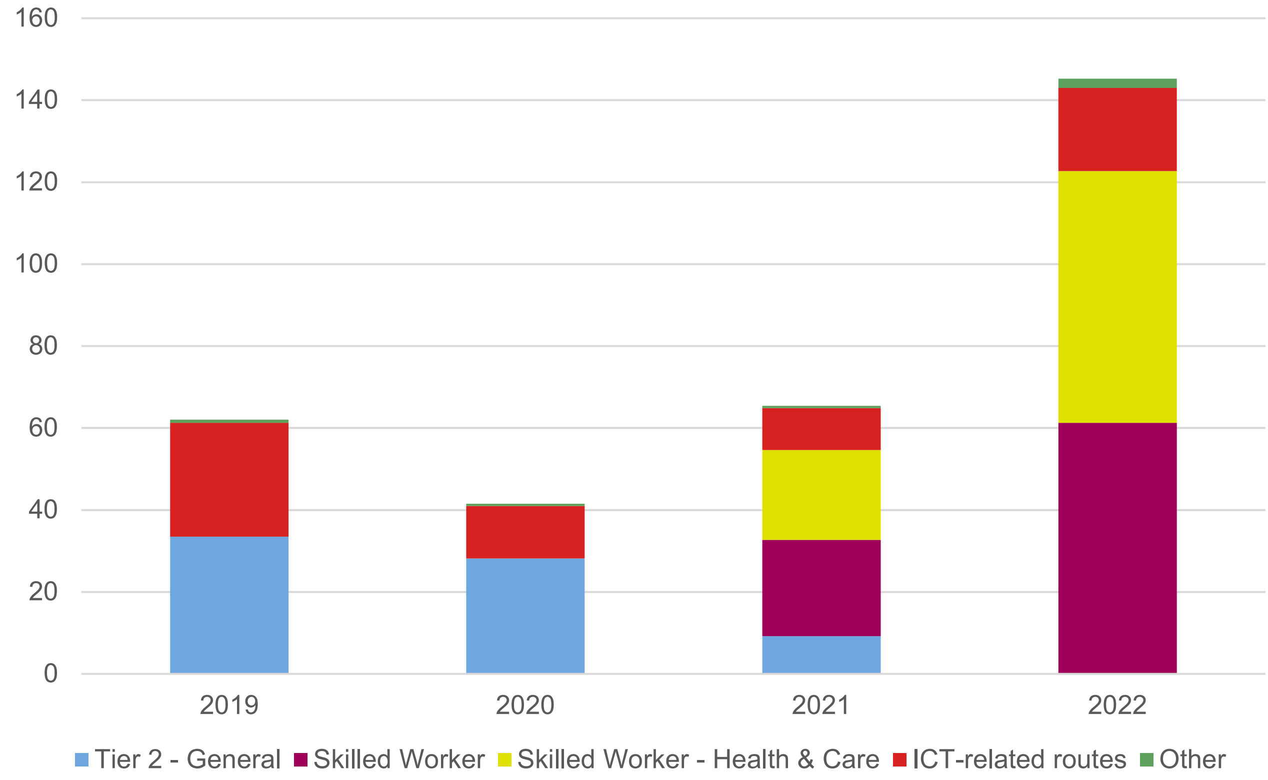
3 Brexit and migration

The OBR is also concluding that net migration, following the implementation of the post-Brexit migration regime, will be higher than previously expected[89]. There is a shift to non-EU migration consistent with the provisions of the post-Brexit migration regime arrangements to make it easier for non-EU nationals to enter the country, and harder for EU nationals[90]. Net migration is now expected by the OBR to decline from 224,000 a year in 2023 to settle at 205,000 a year from 2026 onwards. This compares to 136,000 and 129,000 in those years in the March forecast. This is in part because increases in non-EU work-related migration have significantly exceeded expectations[91]. The number of skilled worker visas has approximately doubled compared with pre-pandemic levels. This is driven by an increase in the number of visas granted to non-EU nationals, especially Indians, Filipinos and Nigerians. EU nationals only represent approximately 10% of work visas, and so do not account for the growth in work visas following the loss of the right to work and reside in the UK after Brexit.

The policy intent to shift immigration for work reasons from low paying sectors to specific sectors, notably health, has also occurred. The 'Worker' visa category includes sponsored visas which typically lead to settlement, and is the main visa category for higher paid skilled workers (**Figure 3.18)**.

[87] Portes J (ed) (2022), The economics of Brexit: what have we learned?, CEPR Press
[88] OBR (2022), Economic and fiscal outlook – November 2022
[89] OBR (2022), Economic and fiscal outlook – November 2022
[90] Portes J (ed) (2022), The economics of Brexit: what have we learned?, CEPR Press
[91] Portes J (2022), Trade, migration and Brexit, UK in a Changing Europe

Figure 3.18: Worker visas granted to main applicants by year, 2019-2022, thousands



Source: Home Office Immigration Statistics
Note: ICT is intra-company transfer

The introduction of visa routes for Ukrainian refugees and Hong Kong British Nationals (Overseas) status holders has also played a part, and the number of these visas issued has been falling. They contributed 45% of the 467,000 increase in total visa grants between 2019 and the year ending June 2022 (excluding visitors and short-term study)[92]. The rest of the increase results from students (39% of the increase) and work visas (23% of the increase).

There is also emerging evidence that since 2019 EEA nationals are taking a declining share of jobs in the London and UK labour markets, and that the share of other overseas nationals is holding up, if not increasing. In the period prior to 2019, though, jobs growth for EEA nationals was similar for both London and the UK, as it was for other overseas nationals. Growth for both groups was higher than for the London and UK economies as a whole, if more markedly for EEA nationals, (**Figure 3.19**). Jobs held by other overseas nationals rose from 23% to 26% of jobs in London between 2006 and 2019, and from 8% to 10% of jobs in the UK. In contrast, jobs held by EEA nationals were relatively less important rising from 8% to 15% of jobs in London over the same period, and 4% to 8% of jobs in the UK.

[92] Sumption M (2022), Why has non-EU migration to the UK risen?, the Migration Observatory

Figure 3.19: Growth in all jobs, jobs held by EU nationals, and other overseas nationals, London and the UK, 2006 – 2021

Source: ONS analysis of Annual Population Survey data
Note: Data defines nationals by country of birth

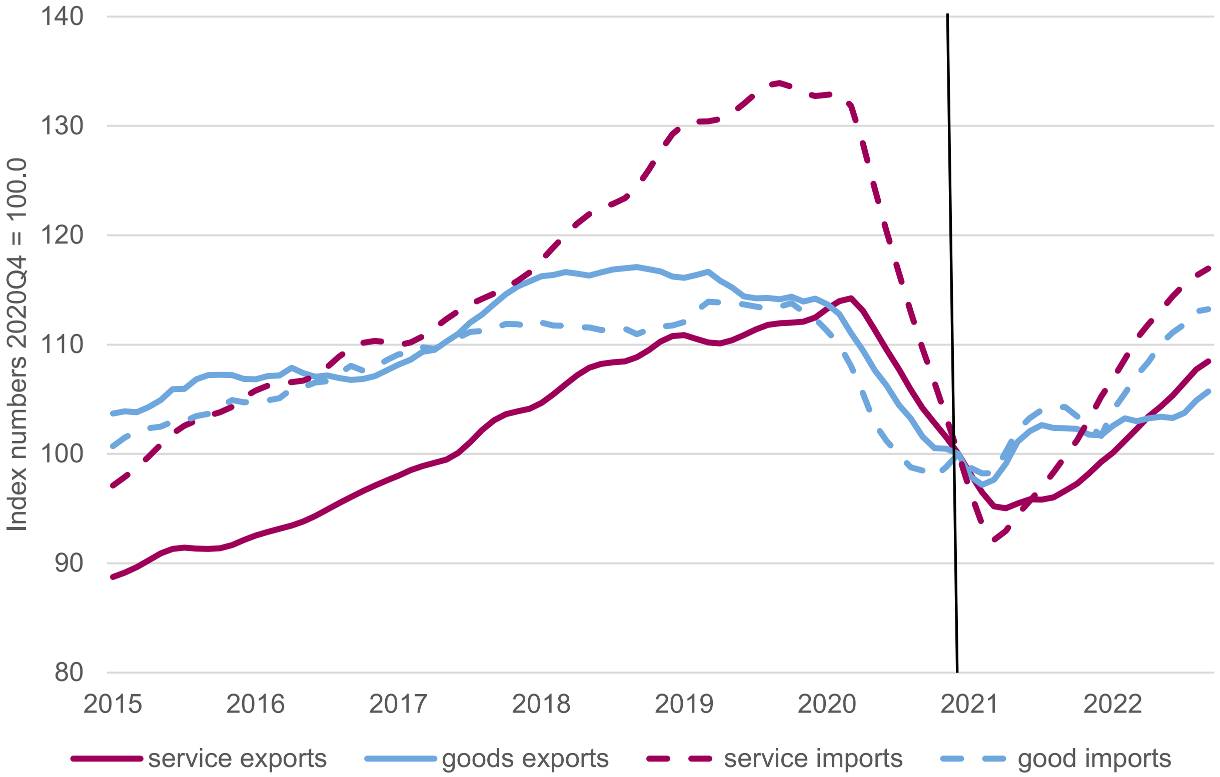
One curiosity has been around the number of applicants for the EU Settlement Scheme (EUSS), which gave EU nationals who had been resident in the UK prior to Brexit the continued right to live and work in this country. Around 4.9 million individuals applied for this scheme, which was markedly higher than previous estimates of EU citizens living in the UK. Census estimates are that there were 3.5 million EU citizens in the UK in March 2021. This excludes 400,000 Irish citizens living in the UK, who had a right to remain without joining the EUSS[93]. This suggests that there remains a considerable number of EU citizens not currently living in the UK who have a right to live and work here.

4 Brexit and trade

After the EU Referendum in June 2016 UK goods and services exports and imports increased. The exchange rate depreciation after the referendum made exports more competitive, while the UK's involvement in international supply chains may have increased demand for imports. After the onset of the pandemic, trade collapsed to below 2016 levels. This continued after the Trade and Cooperation Agreement (TCA) came into effect in the first quarter of 2021. Since then there has been a recovery more so for goods and imports respectively than services and exports (**Figure 3.20**). It is noteworthy that the UK has yet to introduce post-Brexit border checks for imports from the EU.

[93] Sumption M et al (2022), [What have we learnt about migration from the Census?](), UK in a Changing Europe

Figure 3.20: UK goods and services trade after inflation, annual moving average, January 2015 – September 2022, index numbers 2020 Q4 = 100.0

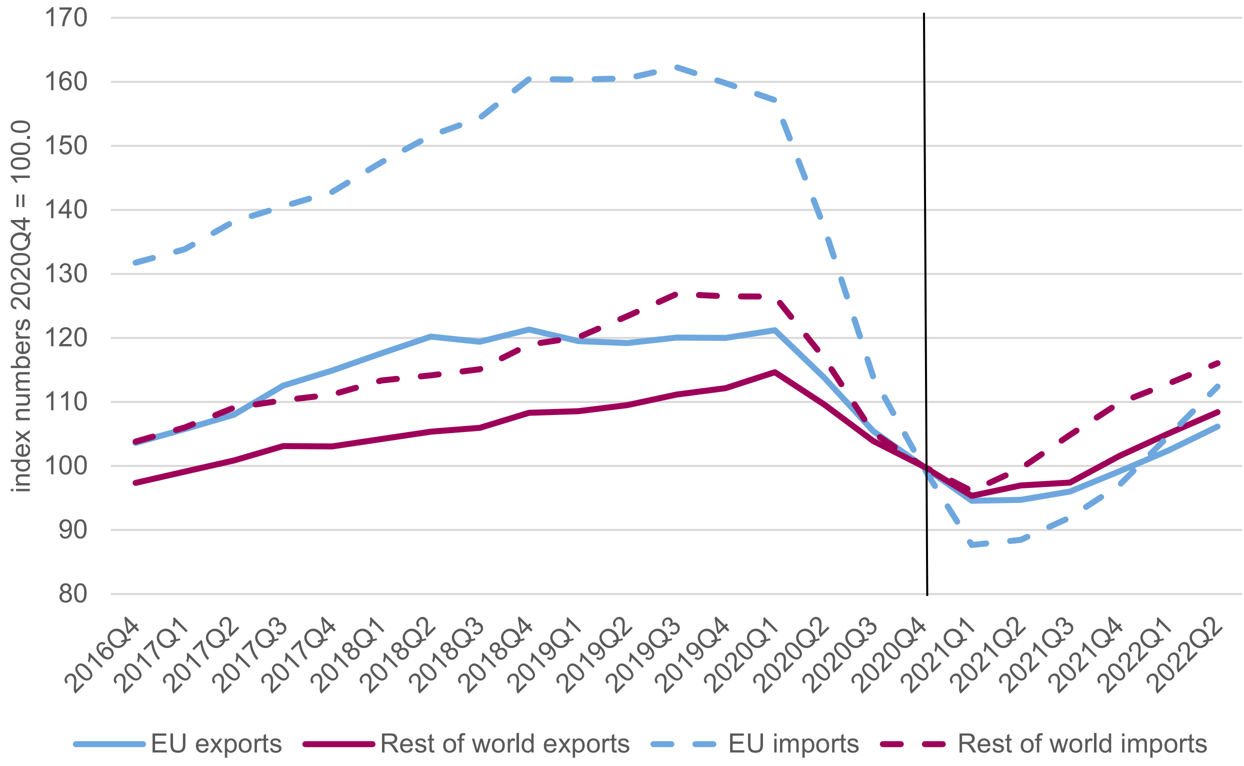


Source: ONS monthly trade statistics
Note: Inflation has been estimated for individual series by the ONS

As imports have been rising faster than exports in cash terms (not shown in the chart) there has been a further widening of the UK trade deficit. That is, the UK has become more reliant on overseas capital to fund its activity.

The expansion of UK trade in services with the EU after the EU Referendum continued into 2018 before flattening out, perhaps reflecting the uncertainty at the time about the UK's future relationship with the EU. Trade with the rest of the world continued to grow. UK services trade, both with the EU and beyond, fell dramatically during the pandemic. After a further fall in the first part of 2021 following the introduction of the TCA, there has been a subsequent recovery. The speed of the recovery has been greater for imports, and for those from outside the EU. This is consistent with the introduction of trade barriers on exports to the EU (**Figure 3.21**).

Figure 3.21: Trend in UK services trade, after inflation, to the EU and the rest of the world, annual moving average, 2016 Q4 to 2022 Q2, index numbers 2020 Q4 = 100.0



Source: ONS UK trade in services: service type by partner country
Note: Inflation measure used is the GDP deflator

Finally, the ONS has conducted analysis of recent trends in international trade flows for the G7[94]. It concludes that, "The UK's level of trade compared with its level of GDP fell further than that of other G7 countries in recent years, particularly in services trade. It has experienced a rebound in the most recent periods, although it is still behind the relative recovery of other G7 countries. This might be explained by EU Exit as there is some evidence that border frictions have come into effect, which may have been more pronounced as part of this initial adjustment phase."

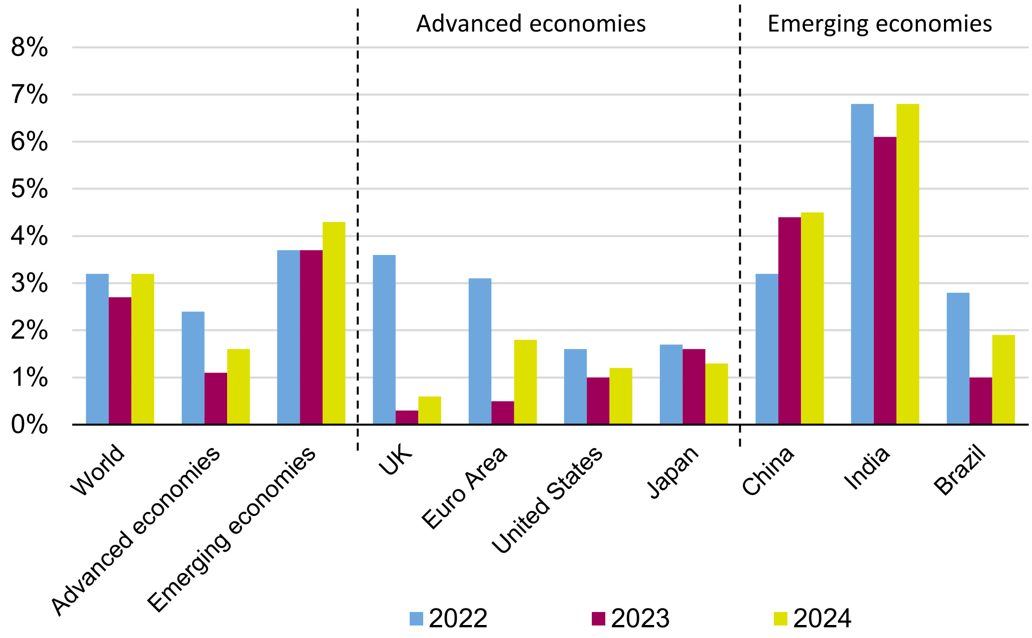
3.3 The global economy

Global economies grew in 2021 and into 2022 with the easing of the pandemic due to the vaccination programmes in the more developed countries, and the associated ending of lockdowns in most countries. However, global inflationary pressures are rising due to the impact of the war in Ukraine on commodity prices as well as ongoing supply chain issues. Central banks are responding by tightening monetary policy and global growth is expected to ease off at the end of 2022 and 2023. The IMF notes that, "the global environment is fragile with storm clouds on the horizon. Inflation is now at multi-decade highs and broadly spread across countries. The economic outlook continues to deteriorate in many countries. At the same time, geopolitical risks persist"[95]. The IMF further observes that, "confronting … stubbornly high inflation, central banks in advanced economies and many emerging markets have had to move to an accelerated path of monetary policy normalization to prevent inflationary pressures from becoming entrenched. As an intended consequence of monetary tightening, global financial conditions have tightened in most regions.".

[94] Dey-Chowdhury S et al (2022), Recent trends in the international trade flows of G7 economies, ONS, 10 October
[95] IMF (2022). 'Global Financial Stability Report: Navigating the High-Inflation Environment', October 2022.

The latest IMF World Economic Outlook[96] forecasts that the world's economy will grow by 3.2% this year (unchanged from its July forecast) but slows to 2.7% next year (0.2 percentage points down). Advanced economies are projected to expand – on average – by 2.4% this year while emerging economies will grow – on average as well – by 3.7%. This implies that the global economy is recovering from the 2020 global recession but now faces fresh global headwinds (**Figure 3.22**).

Figure 3.22: IMF forecasts of real GDP growth for selected economies



Source: IMF – World Economic Outlook, October 2022.

The advanced economies grew by 5.2% on an annual basis in 2021. The IMF expects growth in 2022 of 2.4% (down 0.1 percentage points on the July 2022 forecast), and then a moderation to 1.1% growth in 2023 (down 0.3 percentage points on their last forecast). Most advanced economies are expected to see output recover to pre-COVID levels by 2022.

Looking at the advanced economies in more detail, the **US** economy grew by 2.9% year on year in Q3 2022. This follows a year-on-year contraction of 0.6% in Q2 2022[97]. An increase in exports, non-residential fixed investment, and consumer spending drove the increase in GDP in the third quarter. Jobs growth also continues to be firm. However, business and consumer confidence has shown some weakness and although inflation dropped back somewhat in October it remains elevated. In response, the Federal Reserve has raised its benchmark lending rate to stand at 3.75-4.0%, the highest level since 2008. Although the rise in rates may moderate in the coming months, this indicates the US economy will face some challenges going into the new year.

The **Eurozone's** economy has continued to grow. In Q3 2022, GDP increased by 0.2% on a quarter-by-quarter basis, and 2.1% on an annual basis[98]. This followed quarter-by-quarter growth of 0.8% in Q2 2022. The IMF forecasts that the Eurozone will grow by 3.1% in 2022 (a rise of 0.5 percentage points on their July forecast) and by 0.5% in 2023 (a downgrade of 0.7 percentage points from July). Meanwhile, the European

[96] IMF (2022). 'World Economic Outlook: Countering the Cost-of-Living Crisis', October 2022.
[97] Bureau of Economic Affairs (2022). 'Gross Domestic Product (Second Estimate) and Corporate Profits (Preliminary), Third Quarter 2022', 30 November 2022.
[98] Eurostat (2022). 'Preliminary flash estimate for the third quarter of 2022', 31 October 2022.

Commission forecasts growth of 3.3% in 2022 and 0.3% in 2023[99]. The EU is the part of the world most dependent on Russian energy imports, and so one of the most exposed to the adverse economic effects of the war in Ukraine. The European Central Bank (ECB) has been tightening monetary policy to tackle inflation with rates increasing since July, with the main benchmark rate now standing at 1.5%, a level not seen since the 2009 sovereign debt crisis. Further rate increases are expected.

The **Japanese** economy shrank by an annualised rate of -1.2% in the third quarter of 2022 after growing by 4.6% in the second quarter[100]. The IMF expects that Japan's economy will expand by 1.7% in 2022 (unchanged on July), and by 1.6% in 2023 (0.1 percentage points lower than previously forecast).

Emerging market economies

The IMF expects growth of 3.7% in the emerging market economies in 2022 (an upgrade of 0.1 percentage points on their July forecast) and growth of 3.7% in 2023[101] (a downgrade of 0.1 percentage points on July). However, the IMF has noted that, "emerging markets are confronted with a multitude of risks from the strength of the US dollar, high external borrowing costs, stubbornly high inflation, volatile commodity markets, heightened uncertainty about the global economic outlook, and pressures from policy tightening in advanced economies"[102].

Of the major emerging markets, **China's** economy grew by 3.9% between Q3 2021 and Q3 in 2022[103]. The IMF expects growth to be 3.2% in 2022 before improving to 4.4% in 2023 (a downgrade of 0.1 percentage points for 2022 and 0.2 percentage points on their July forecast). The Asian Development Bank (ADB) also expects China's economy to grow, even if the pace is more moderate than in recent years. The ADB anticipates growth of 3.3% in 2022 and 4.5% in 2023[104]. Looking at China's economy in detail, the IMF comments that, "the frequent lockdowns under its zero COVID policy have taken a toll on the economy, especially in the second quarter of 2022. Furthermore, the property sector, representing about one-fifth of economic activity in China, is rapidly weakening. Given the size of China's economy and its importance for global supply chains, this will weigh heavily on global trade and activity"[105].

Meanwhile, **India's** economy is estimated to have grown by an annualised rate of 6.3% in the July to September 2022 quarter. Looking at the year as a whole, the IMF expects growth of 6.8% in 2022, and 6.1% in 2023 (a downgrade of 0.6 percentage points for 2022 and unchanged for 2023 on their July forecast). The ADB also expects healthy growth this year and next, at 7.0% in 2022 and 7.2% in 2023.

In **Russia**, the economy grew by 4.7% in 2021, but is estimated to have contracted by an annualised 21.8% in Q2 2022 according to the IMF. The IMF expects the economy to shrink by 3.4% in 2022 and a further 2.3% in 2023 (upgrades of 2.6 percentage points for 2022 and 1.2 percentage points for 2023 compared with their previous forecast). It notes that, "the contraction in Russia's economy is less severe than earlier projected, reflecting resilience in crude oil exports and in domestic demand with greater fiscal and monetary policy support and a restoration of confidence in the financial system".

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99 European Commission (2022). 'Autumn 2022 Economic Forecast: The EU economy at a turning point', 11 November 2022.
100 Source: OECD Economic Outlook, June 2022
101 IMF (2022). 'World Economic Outlook: Countering the Cost-of-Living Crisis', October 2022.
102 IMF (2022). 'Global Financial Stability Report: Navigating the High-Inflation Environment', October 2022.

103 National Bureau of Statistics of China (2022). 'Preliminary Accounting Results of GDP for the Third Quarter of 2022', 25 October 2022
104 Asian Development Bank (2022). 'Asian Development Outlook 2022 Update: Softening growth amid a darkened global outlook', September 2022.
105 IMF (2022). 'World Economic Outlook: Countering the Cost-of-Living Crisis', October 2022.

3.4 Risks to London's economy

The outlook for the UK economy remains precarious, and the capital is unlikely to avoid a downturn. Yet there remains considerable uncertainty around the size and lasting impact of the coming recession for London's economy. Here, we outline some of the key risks on both the upside and downside. While there remain some potential triggers for an improvement in the outlook, overall, risks are skewed to the downside.

Starting with the positive possibilities, the key near-term upside risk is around household resilience to rising inflation. While the poorest Londoners may be among the most exposed in the UK to the cost of living crisis, the average London household may see relief from a number of sources. First, Londoners have higher average incomes than in other regions. Second, Londoners on average devote less of their spending to energy and have more energy efficient housing. Evidence of this London-specific resilience may be visible in the capital's less pessimistic consumer and business confidence readings.

On top of these region-specific sources of resilience, recent national accounts revisions also show that at the UK level, there may be an even larger than previously estimated pool of pandemic excess savings on hand. The savings rate is now estimated to have been even higher during the pandemic than previously thought, and a higher share of this increase has been estimated as due to 'forced' savings because of activity restrictions[106]. Taken together, these changes mean that forced pandemic savings have been revised up from a cumulative £145 billion across the UK to £194 billion – 13% of annual household disposable income. Combining this larger-than-expected pool of excess savings during the pandemic with Londoners' higher-than-average incomes, households may have more financial capacity to deal with the rising cost of living than we currently expect. As a result, consumer spending could ultimately see less of a decline in London than we envision in our baseline.

In the longer term, one positive possibility hinges on demographics in London. As discussed in Box 3.2, the OBR has revised up its net migration forecasts, with skilled work visas at double their pre-pandemic levels. Overseas student numbers have also increased in the latest data well ahead of pre-pandemic levels. Evidence suggests that London receives a major share of skilled migrants[107], so increases in visa numbers and students could boost the capital's labour supply and human capital.

Turning to downside risks, a cluster of risks focus on triggers for even higher household costs, including around energy, food and housing. The war in Ukraine and Russia's moves to cut gas supply to Europe in response to sanctions continue to threaten higher energy costs. So do repeated moves from OPEC+ to shore up the price of oil with supply cuts. If the Government removes all controls on business energy bills after April 2023, this could also prompt higher prices as firms offset higher costs.

At the same time, with Russia a major fertilizer producer and both Russia and Ukraine major grain exporters, food costs could potentially overtake energy costs as the main driver of further inflation accelerations. A further depreciation of the pound would also increase import costs, boosting energy and food prices.

Housing costs also look likely to rise in the near term. Record increases in asking rents in London will soon begin to feed through into the overall stock of rents. And rising short- and long-term interest rates will increase mortgage costs. It is even possible that the rising costs of servicing a mortgage will see more private landlords sell off their property, while households on the margin between renting and buying cannot finance buying up that spare supply.

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106 ONS (2022), "Blue Book 2022 – revised impacts of the coronavirus (COVID-19) pandemic on the UK economy", 31 October 2022

107 Strain & Sumption (2021), "Which Parts of the UK are Attracting the Most Skilled Workers from Overseas?", Migration Observatory, 30 November 2021

Any of these triggers raising household costs in the near term would tighten the squeeze on consumers' budgets, likely deepening the fall in consumer spending.

There is also downside risk that could come from medium-term inflation drivers like higher inflation expectations or a wage-price spiral. While long-term inflation expectations are at comparable levels to pre-pandemic surveys, the distribution of responses to the Bank of England's inflation surveys have become increasingly dispersed. This means that the risk of de-anchoring inflation expectations could be higher than the average suggests as households are less certain about their expectations. As a result, households may be more prone to changing their minds about the inflation outlook – so de-anchoring could happen quite quickly.

A wage-price spiral currently looks unlikely, as the labour market is starting to cool and real wages are falling sharply. Yet the longer inflation remains high, the more compelling demands for higher wages will become, and industrial action could become more widespread. If firms respond to increased labour costs by hiking prices to preserve profit margins, this will entrench higher inflation for longer. In turn, the longer inflation remains high, the longer households are likely to depress spending.

There are also long-term downside risks. Firstly, while migration numbers have been up in recent national figures, London's inactivity rate has also been increasing, especially among older workers. The data has been somewhat volatile, making a clear trend difficult to pick out, and inactivity is still below pre-pandemic levels. Yet if recent increases were sustained and more Londoners did drop out of the pool of workers and job-seekers, this would reduce London's labour supply and its potential output.

Secondly, the arrival of a fresh downturn immediately on the heels of the pandemic shock make long-term scarring increasingly likely. Business closures have overtaken business births in recent data for London[108], raising the risk of lasting job losses. London already has a higher share of long-term unemployed than the wider UK[109]. Further increases could damage the capital's skill profile and make it harder for those out of work to quickly find new employment in a recovery. This could be a key trigger for long-term damage to London's output potential. A drop in business investment due to lower growth expectations, higher interest rates and elevated uncertainty would also damage London's long-term prospects by reducing growth in the capital stock. Lower investment is also likely to damage productivity growth in the long term. Combining these possible triggers, if London declines as an international centre for work and investment in the medium term and loses core business agglomerations, this would degrade output below our baseline in the long term.

A range of risks also arise from policy – both on the upside as well as the downside. The Bank of England's hiking cycle is already the most aggressive since the late 1980s, and rates are likely to continue to rise for some months. But if inflation remains stubbornly high for longer than the Bank currently projects, they may have to push even further, and this could do serious damage to aggregate demand. Conversely, if inflation falls faster than expected, the reduced need for interest rate hikes could provide some relief for the outlook. Meanwhile, the future path for fiscal policy faces several sources of uncertainty. If interest rates on government debt continue to increase, this will likely result in more fiscal tightening, dragging on overall economic activity. Conversely, if revenues surprise on the upside or falling inflation lowers long-term interest rate expectations, this could offer scope for less fiscal tightening, helping support demand.

[108] ONS (2022), "Business demography, quarterly experimental statistics, UK: July to September 2022", 27 October 2022
[109] GLA Economics (2022), "Out-of-work trends in London", November 2022. Accessible on the Labour Market Analysis web page.

3.5 Conclusion

The unprecedented fall in London's economic activity over 2020 reflected a decline in both demand and supply because of the COVID-19 pandemic. The successful vaccine rollout and major fiscal support built a foundation for the recovery across 2021, but the UK economy has still not returned to pre-pandemic levels. While London was hit harder by the pandemic in 2020, its rapid recovery in 2021 has allowed it to fare better than the UK average, recovering to pre-pandemic output levels by early 2022. However, global supply shocks and Russia's invasion of Ukraine now mean that London and the wider UK face a fresh headwind from rapid inflation. The cost of living crisis will depress consumer spending and recession looks unavoidable. Recovery will take until at least 2024 for London, and likely longer for the wider UK.

Despite the unprecedented policy response by the UK Government during the pandemic, all sectors of London's economy were affected by the shock. Yet some sectors such as Accommodation and food services, and Arts and entertainment were particularly heavily hit. Although these sectors have begun to recover, the more heavily hit sectors continue to lag the recovery in the rest of the capital's economy. And many of the same sectors face a disproportionate hit from the incoming shock to consumer spending generated by the cost of living crisis.

Stepping back from central projections, the outlook for London's economy remains unusually uncertain. The risks to the economic recovery are varied and continue to skew to the downside. The evolution of the global economy, supply risks from the war in Ukraine, policy responses, the depth of savings cushions, the ongoing effects of Brexit are all salient risks. The response of households and firms to all these developments will determine the evolution of the capital's economy over the coming year.

Considering all these elements, GLA Economics provides its medium-term scenario-based forecasts for London's economy in Chapter 5 of this document.

4. Review of independent forecasts

GLA Economics forecasts four economic indicators: workforce jobs, real GVA, private consumption (household expenditure) and household income in London. This chapter summarises the consensus view as of 9 December 2022 on the first three of these indicators[110], drawing on forecasts from outside (independent) organisations[111]. Chapter 5 then provides a summary of GLA Economics' own projections.

All the external forecasts were produced after the August 2022 Bank of England Monetary Policy Report, and over the period September to November. None of the external forecasts were produced after the ONS revisions to its quarterly regional GDP series that aligned that series with the Blue Book 2022 for UK national accounts.

Both annual growth rates and 'standardised' absolute levels are reported. All the data is in real terms (constant 2019 prices). The source for the historic data on GVA and workforce jobs presented in the following tables and charts is GLA Economics modelling, which in turn uses ONS data[112]. The source of historical data for Household Income and Expenditure is a mixture of Experian Economics (EE) for growth rates and GLA Economics modelling using EE data for the absolute levels data.

Beyond the headline, both the external consensus and GLA Economics deliver forecasts for employment and output growth in six broad sectors:

- Manufacturing
- Construction
- Transportation and storage
- Distribution[113], accommodation and food service activities
- Finance and business services[114]
- Other (public & private) services[115].

It should be noted, that since our spring 2012 forecast, GLA Economics has been using the 2007 Standard Industrial Classification (SIC 2007)[116].

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110 The consensus forecast for GVA and employment is based on the latest available forecast from the Centre for Economics and Business Research, Experian and Oxford Economics.
111 Most forecasters do not yet provide forecasts of household income, while a number of forecasters have not produced estimates of household expenditure since the onset of the pandemic.
112 The main underlying ONS source for output is the Quarterly country and regional GDP series and the main underlying ONS source for employment is Workforce jobs by region and industry.
113 Distribution is made from the summation of Wholesale and Retail.
114 Business services is made from the summation of Information and Communication, Professional, scientific and technical services, Real estate, and Administrative and support service activities.
115 This is made from the summation of Public admin and defence, Education, Health, Arts, entertainment and recreation and Other services.
116 For more information see Appendix A of 'London's Economic Outlook: Spring 2012', GLA Economics, June 2012.

Output

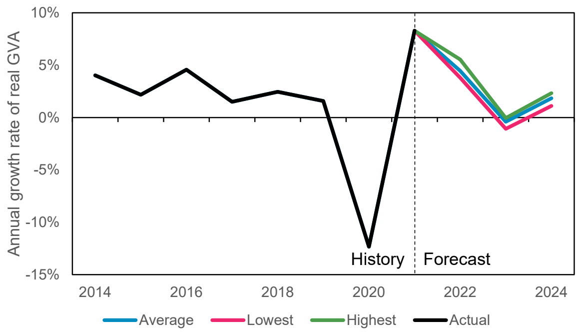
(London GVA, constant prices (base year 2019), £ billion)

The consensus (mean average) forecast puts real output growth at 4.5% in 2022, followed by a contraction of 0.4% in 2023 and then growth of 1.8% in 2024. The consensus forecast implies that in annual terms, it will take until 2024 for output to reach pre-pandemic levels.

Compared to June 2022, the consensus forecast has become far more negative after 2022. The mean estimates in June were for growth of 4.3% in 2022, 2.0% in 2023 and 1.9% in 2024. This implies the consensus projection for the total size of London's economy by 2024 is now around 2% lower than it was in June, though revisions may be pushing down the start point.

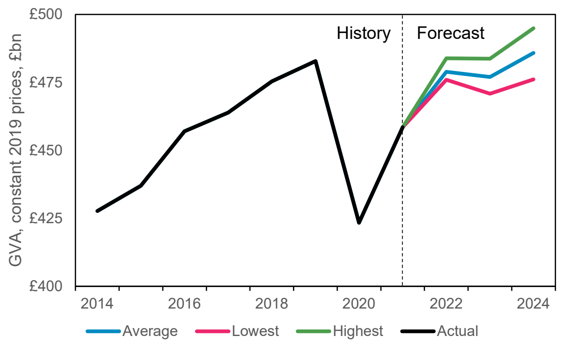
The range of estimates has narrowed since June. The widest range of estimates for growth comes in 2022, when there is a difference of 1.7ppts between the highest and lowest output growth estimates. The highest-growth profile would see London's economy 1.9% larger than the consensus profile by 2024. This profile sees output push above pre-pandemic levels in 2022 and experience stagnation, rather than contraction, in 2023. The lowest-growth profile would see London's economy 2% smaller than the consensus profile by 2024. The levels of output in 2024 under the highest- and lowest-growth profiles differ by around 4%, compared to a range in output levels of around 6% in June.

Annual growth



Annual growth (%)			
	2022	2023	2024
Average	4.5	-0.4	1.8
Lowest	3.8	-1.1	1.1
Highest	5.5	0.0	2.3

Level (constant year 2019, £ billion)



Level (constant 2019 prices, £ billion)			
	2022	2023	2024
Average	478.9	477.0	485.8
Lowest	476.0	470.9	476.1
Highest	483.9	483.7	494.9

History: Annual growth (%)

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
2.6	3.8	3.7	3.0	4.0	2.2	4.6	1.5	2.5	1.6	-12.3	8.3

History: Level (constant 2019 prices, £ billion)

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
370.4	384.7	398.9	411.1	427.7	437.0	457.0	463.9	475.4	482.9	423.3	458.5

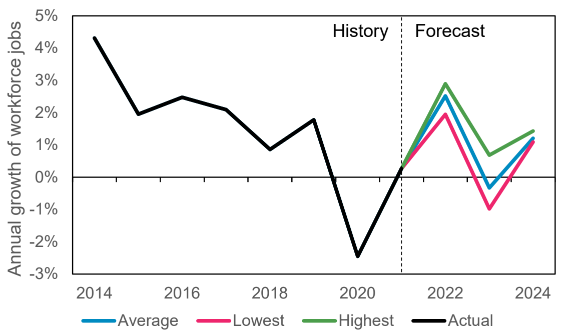
Employment
(London workforce jobs)

The consensus forecast for workforce jobs anticipates growth of 2.5% in 2022, a contraction of 0.3% in 2023 and a return to growth of 1.2% in 2024. The consensus implies that job numbers will dip below pre-pandemic levels next year, but then recover swiftly.

As with output, compared to June 2022, the consensus forecast has become significantly more negative from 2023– though 2022 job growth looks stronger. The previous consensus forecast saw growth of 1.3% in 2022, 1.4% in 2023 and 1.2% in 2024. Overall, the consensus forecast for the size of the job market in London by 2024 has fallen by 0.5% since June.

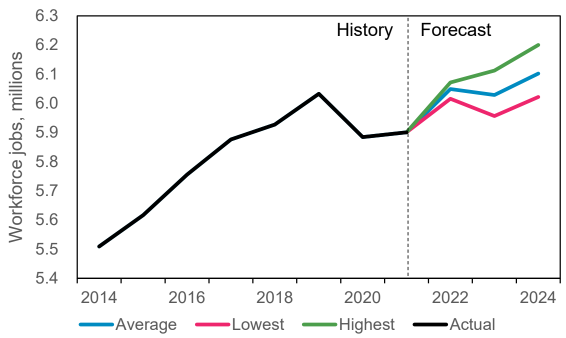
The range of estimates for the size of London's job market has widened somewhat since June, but remains narrow compared to estimates in 2021. The widest range of growth projections is in 2023, with a 1.7ppt difference between the highest and lowest forecasts. The lowest-growth profile would see employment 1.3% below the consensus level by 2024, while the highest-growth profile would leave employment 1.6% above the consensus by 2024. There are 3% more jobs in the highest-growth profile than in the lowest-growth profile by 2024, compared to 2.4% in June.

Annual growth



Annual growth (%)			
	2022	2023	2024
Average	2.5	-0.3	1.2
Lowest	1.9	-1.0	1.1
Highest	2.9	0.7	1.4

Level (millions of workforce jobs)



Level (millions of persons)			
	2022	2023	2024
Average	6.05	6.03	6.10
Lowest	6.02	5.96	6.02
Highest	6.07	6.11	6.20

History: Annual growth (%)

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
-0.4	1.7	4.2	2.9	4.3	2.0	2.5	2.1	0.9	1.8	-2.4	0.3

History: Level (millions of persons)

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
4.8	4.9	5.1	5.3	5.5	5.6	5.8	5.9	5.9	6.0	5.9	5.9

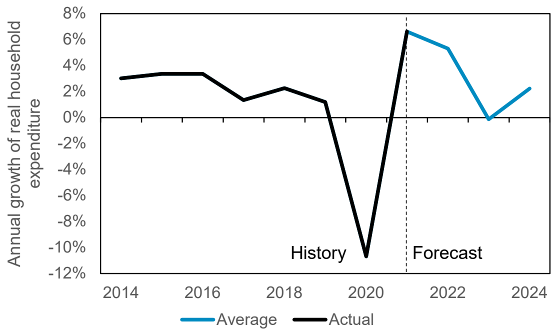
Household expenditure

The consensus forecast for consumer spending is for growth of 5.3% in 2022, a contraction of 0.1% in 2023 and growth of 2.2% in 2024. The consensus implies that spending will remain above pre-pandemic levels throughout the forecast.

Like output and jobs, the consensus forecast is weaker than in June 2022, with projections for 2023 particularly lower. The previous mean projection was for growth of 5.0% in 2022, 1.5% in 2023 and 2.5% in 2024. As a result, the consensus forecast for spending in London by 2024 is 1.9% below its level in June.

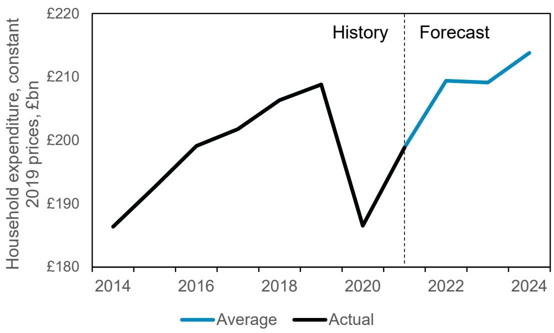
The widest range of growth projections is for 2023, with a 1.3ppt gap between the highest and lowest. Overall, by 2024 expenditure is nearly 3% higher in the highest-growth profile than in the lowest-growth profile, though this range is narrower than in June 2022[117].

Annual growth



Annual growth (%)			
	2022	2023	2024
Average	5.3	-0.1	2.2

Level (constant 2019 prices, £ billion)



Level (constant year 2019, £ billion)			
	2022	2023	2024
Average	209.4	209.1	213.8

History: Annual growth (%)

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
2.7	0.1	1.3	2.3	3.0	3.4	3.4	1.3	2.3	1.2	-10.7	6.6

History: Level (constant 2019 prices, £ billion)

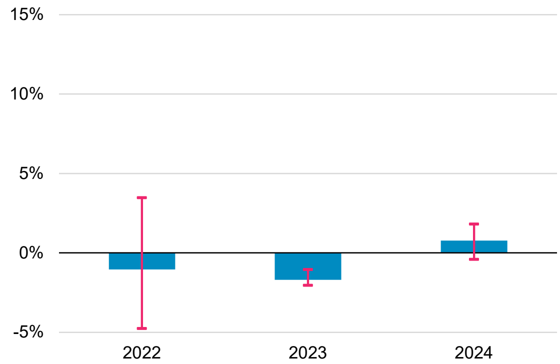
2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
174.3	174.5	176.8	180.9	186.4	192.6	199.1	201.8	206.3	208.8	186.5	198.8

[117] As only two forecasts created within the last three months include consumption and income projections for this LEO, we do not display the high and low estimates, as this could be disclosive.

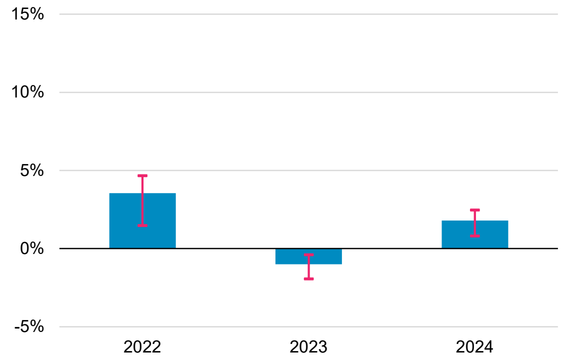
Output growth by sector

The consensus forecast sees a mixed outlook for the sectors of London's economy. While most sectors grow in 2022, most then contract in 2023 before growth resumes in 2024. The fastest growth is expected in the Transportation and storage sector in 2022 (12.2%). This sector also has the highest cumulative average growth of 5.1% a year, across 2022 to 2024.

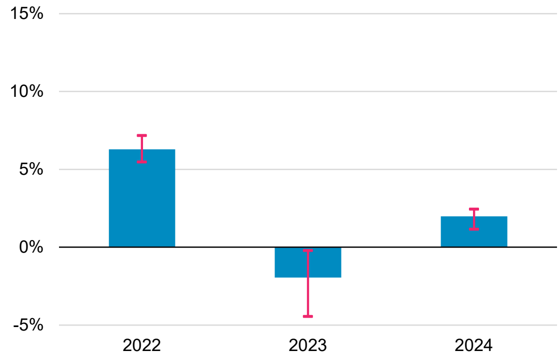
Manufacturing



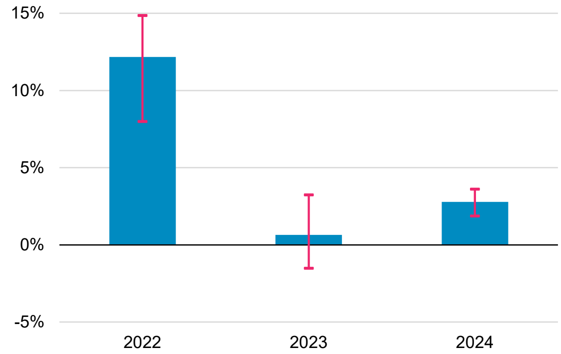
Construction



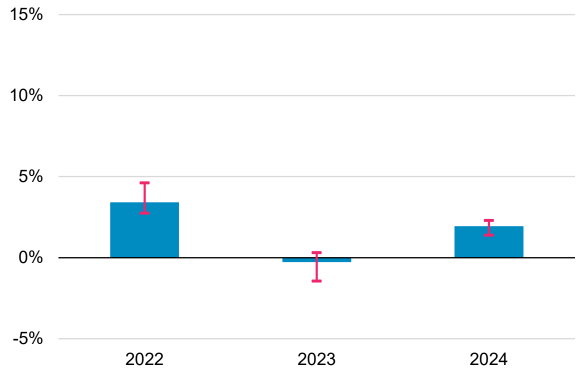
Distribution, accommodation and food service activities



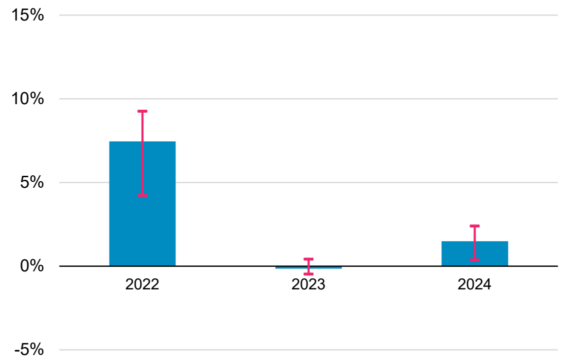
Transportation and storage



Finance and business



Other services (public and private)

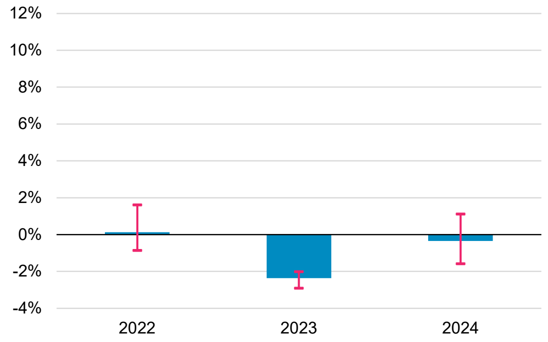


		2022	2023	2024			2022	2023	2024
Manufacturing	Average	-1.0	-1.7	0.8	**Construction**	Average	3.5	-1.0	1.8
	Lowest	-4.8	-2.0	-0.4		Lowest	1.5	-1.9	0.8
	Highest	3.5	-1.0	1.8		Highest	4.7	-0.4	2.5
Distribution, accomodation & food services	Average	6.3	-2.0	2.0	**Transportation and storage**	Average	12.2	0.6	2.8
	Lowest	5.5	-4.4	1.2		Lowest	8.0	-1.5	1.9
	Highest	7.2	-0.2	2.5		Highest	14.9	3.2	3.6
Finance and business	Average	3.4	-0.3	1.9	**Other services (public and private)**	Average	7.5	-0.2	1.5
	Lowest	2.8	-1.4	1.4		Lowest	4.2	-0.5	0.4
	Highest	4.6	0.3	2.3		Highest	9.3	0.4	2.4

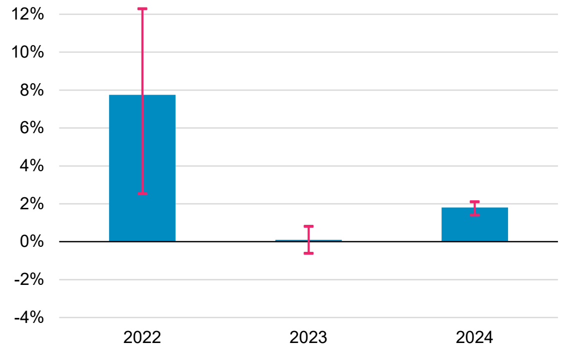
Employment growth by sector

The profile of sectoral job growth is similarly mixed. Again, most sectors see employment grow in 2022, before contracting in 2023 and then recovering in 2024. The fastest growth is expected in the Construction sector in 2022 (7.8%), and Construction also has the highest cumulative average job growth of 3.2% a year from 2022 to 2024.

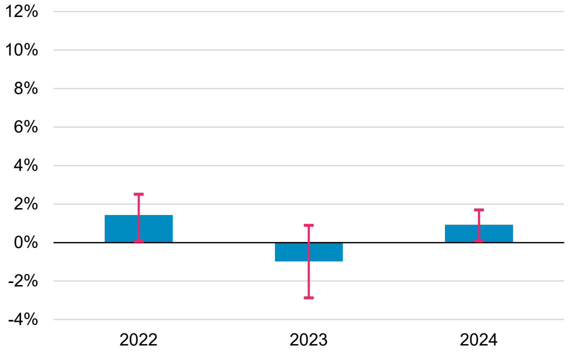
Manufacturing



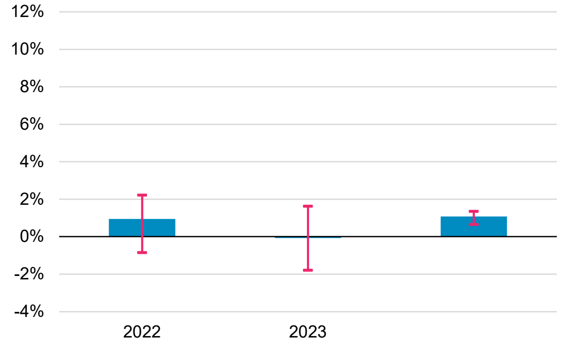
Construction



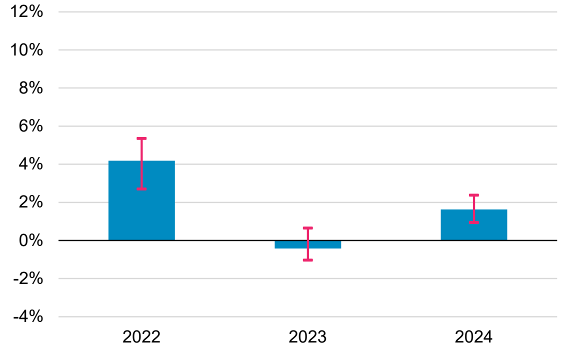
Distribution, accommodation and food service activities



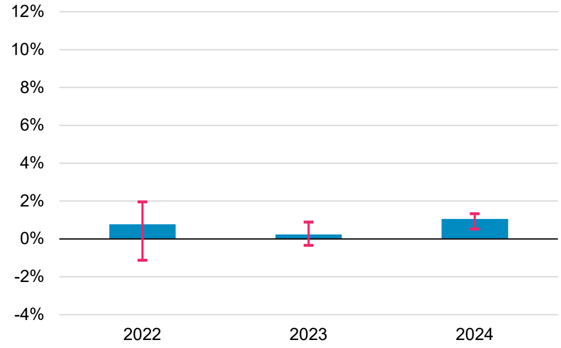
Transportation and storage



Finance and business



Other services (public and private)



		2022	2023	2024			2022	2023	2024
Manufacturing	Average	0.1	-2.4	-0.3	**Construction**	Average	7.8	0.1	1.8
	Lowest	-0.9	-2.9	-1.6		Lowest	2.5	-0.6	1.4
	Highest	1.6	-2.0	1.1		Highest	12.3	0.8	2.1
Distribution, accomodation & food services	Average	1.4	-1.0	0.9	**Transportation and storage**	Average	0.9	-0.1	1.1
	Lowest	0.1	-2.9	0.1		Lowest	-0.9	-1.8	0.7
	Highest	2.5	0.9	1.7		Highest	2.2	1.6	1.3
Finance and business	Average	4.2	-0.4	1.6	**Other services (public and private)**	Average	0.8	0.2	1.1
	Lowest	2.7	-1.0	0.9		Lowest	-1.1	-0.3	0.5
	Highest	5.3	0.7	2.4		Highest	2.0	0.9	1.3

5. The GLA Economics reference forecast

For business planning purposes (for example, the likely course of revenue), estimates of job numbers and output at a range of points in time are required. The medium-term planning projections (this forecast) provide those estimates.

This forecast differs from the GLA's long-term employment projections[118], which are trend-based. Trend projections, by definition, do not incorporate cyclical variations and the actual course of output and employment will vary around this trend. While trend projections are essential for planning to provide capacity (such as office space, housing and transport), accommodating the needs of the economy throughout and at the peak of the cycle, business planning requires estimates of actual economic aggregates, including cyclical paths.

As time progresses and more data become available, it becomes possible to identify turning points in the data; whether underlying trends are continuing, or new trends are being established.

The source for the historic data in the following tables and charts is GLA Economics modelling using ONS data.

This analysis includes a measure of uncertainty around the central scenario using alternative scenarios developed by GLA Economics. The upside scenario sees a softer downturn as London's relatively higher-income consumers are cushioned by excess savings built up over the pandemic and inflation falls rapidly. Our downside scenario sees a deeper downturn, as inflation remains higher for longer, dragging on real household spending power, and businesses defer investment due to weak demand. The prolonged spell of low growth also means deeper pandemic-related scarring on medium-term output and jobs.

5.1 Results

London's economic output had been growing every year from 2010 to 2019 before a major contraction in 2020. The ONS recently revised down the UK's 2020 total output, and the London series down with it for consistency. The new estimates show the capital's output contracting 12.3%, from a previous estimate of 9.2%. However, the latest estimates also show London growing much more firmly than the UK average in 2021. According to this data, London's output regained its losses from the pandemic by Q1 2022.

Looking ahead, London is unlikely to keep up its impressive pace of growth in 2021. With inflation at 40-year highs, the Bank of England and international organisations have revised down the UK outlook over successive forecasts. The most recent forecasts have tended to include a UK-wide recession. Consistent with this approach, we expect London to experience a contraction across several quarters in 2022-2023. While the capital should again recover faster than the national average, two economic downturns in quick succession will do long-term damage. Between the downward revisions and these scarring effects, we see a medium-term gap of around 6% opening by 2024 between the central scenario for London's output and our pre-pandemic forecasts, up from a 2% gap in June.

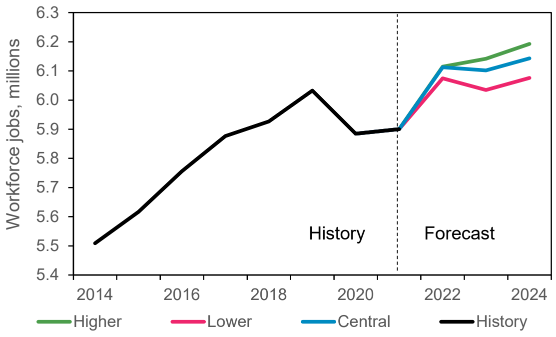
On the employment side, our forecast has worsened since the Spring 2022 LEO in June. The government's pandemic support protected jobs from the same scale of contraction as output. The latest data also show London's job numbers recovering to pre-pandemic levels by mid-2022. But a worse activity outlook in the medium term will drag on jobs growth, and we expect a downturn in 2023.

[118] GLA Economics (2022). '[London labour market projections 2022](#)'.

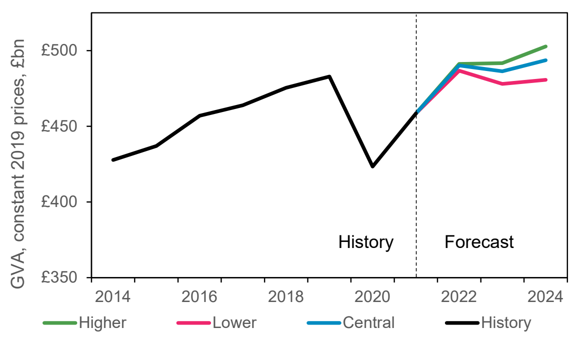
Our forecasts for household income and spending have also faced a downgrade. We now see income contracting for two successive years in 2022 and 2023, taking beyond 2024 to recover this loss. We also expect consumer spending to contract in 2023, taking until 2024 to reach pre-pandemic levels of consumption. Spending is set for less of a drop than income as we expect some release of the excess savings built up over the pandemic.

Figure 5.1: GLA Economics' forecasts and scenarios for employment and output

Employment



Output



Source: GLA Economics estimates for historic data and GLA Economics calculations for forecast

Table 5.1: Central scenario-based forecast and historical growth rates
(Annual % change)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
GVA	2.2	4.6	1.5	2.5	1.6	-12.3	8.3	6.9	-0.8	1.5
Workforce jobs	2.0	2.5	2.1	0.9	1.8	-2.4	0.3	3.6	-0.2	0.7
Household spending	3.4	3.4	1.3	2.3	1.2	-10.7	6.6	4.6	-0.4	2.2
Household income	8.1	1.9	1.4	4.1	2.0	0.1	1.5	-3.0	-0.4	2.7

Table 5.2: Scenario-based forecast and historical levels
(constant 2019 prices, £ billion except jobs)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
GVA	437.0	457.0	463.9	475.4	482.9	423.3	458.5	490.2	486.3	493.6
Workforce jobs (million)	5.6	5.8	5.9	5.9	6.0	5.9	5.9	6.1	6.1	6.1
Household spending	192.6	199.1	201.8	206.3	208.8	186.5	198.8	208.0	207.1	211.7
Household income	246.5	251.1	254.5	264.9	270.2	270.5	274.5	266.3	265.4	272.5

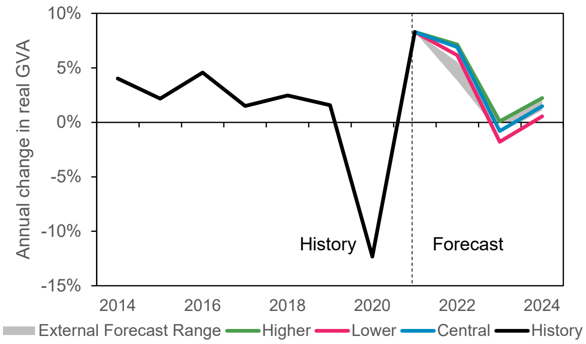
Output (London GVA, constant prices (base year 2019), £ billion)

The latest data show London's real GVA grew 8.3% in 2021, and GLA Economics projects growth of 6.9% in 2022, a contraction of -0.8% in 2023 and growth of 1.5% in 2024. This profile is consistent with a recession of around four quarters starting in Q3 2022. Recovery from this downturn will then take until around mid-2024. However, London's output may take longer than a decade to return to the trend anticipated in our pre-pandemic forecasts.

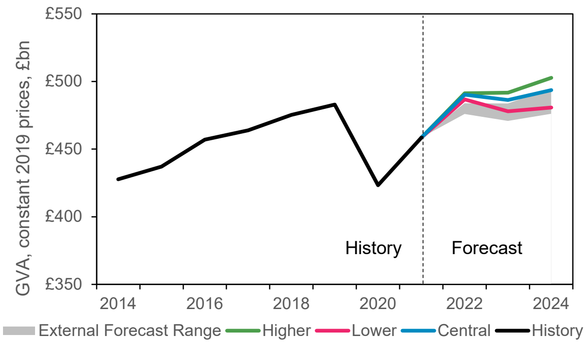
The recovery in 2022 has received an upgrade compared to our Spring LEO forecast, but this is mainly due to an arithmetic carry-over from strong 2021 growth. And the medium-term profile is significantly weaker as inflation drags demand into recession. Our forecast in June 2022 was for growth of 4.5%, 1.6% and 2.3% in 2022, 2023 and 2024 respectively. We now expect the level of London's output by 2024 to be 4.5% smaller than projected in June.

Our different scenarios envision different degrees of downturn in 2023 and different degrees of growth in 2024. Our upside scenario sees high-income consumers spend more of their savings, preventing a full-year downturn in 2023. Meanwhile our downside scenario's pessimistic assumptions about Londoners' ability to absorb real income losses see output contract sharply in 2023 and grow just 0.6% in 2024. As a result, projected output by 2024 in the upside scenario is around 4.4% above the level projected in the downside scenario.

Annual growth (%)



Level (constant 2019 prices, £ billion)



Growth (annual %)				
	2021	2022	2023	2024
Gradual return to economic recovery	8.3	6.9	-0.8	1.5
Fast economic recovery		7.1	0.1	2.2
Slow economic recovery		6.2	-1.8	0.6

Level (constant 2019 prices, £ billion)				
	2021	2022	2023	2024
Gradual return to economic recovery	458.5	490.2	486.3	493.6
Fast economic recovery		491.2	491.7	502.6
Slow economic recovery		486.7	478.0	480.7

History: Annual growth (%)

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
2.6	3.8	3.7	3.0	4.0	2.2	4.6	1.5	2.5	1.6	-12.3	8.3

History: Level (constant 2019 prices, £ billion)

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
370.4	384.7	398.9	411.1	427.7	437.0	457.0	463.9	475.4	482.9	423.3	458.5

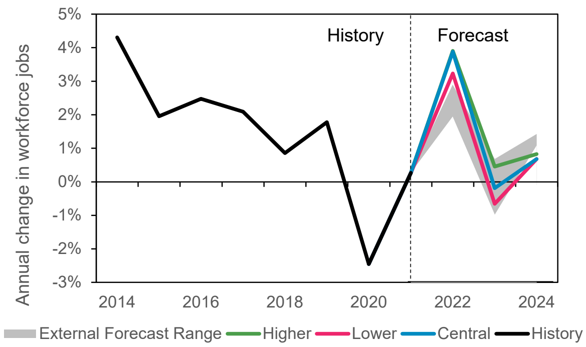
Employment (London workforce jobs)

GLA Economics projects that London's workforce jobs will grow 3.9% in 2022, contract -0.2% in 2023 and grow 0.7% in 2024. This is based on a profile of jobs declining for around a year from late 2022, and taking until late 2024 to recover again.

This outlook is a clear downgrade on our forecast in the Spring LEO, which anticipated jobs growing 2.1% in 2022, 1.1% in 2023 and 1.2% in 2024. We now expect an outright recession in workforce jobs, whereas before we anticipated a gradual, but sustained, pace of growth. But the downgrade is not as firm for jobs as it is for output, with the forecast anticipating around 0.4% fewer jobs by 2024.

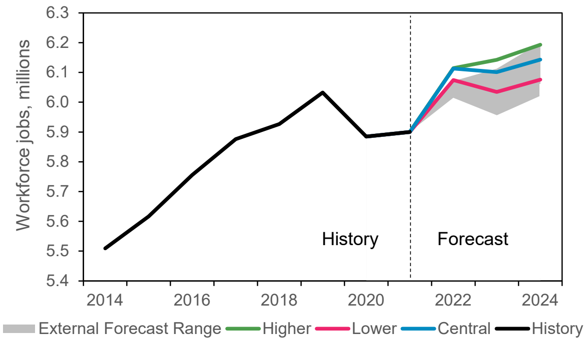
The range across our employment scenarios is slightly wider than in the Spring LEO. The fast recovery scenario sees around 1.9% more jobs by 2024 than the slow recovery scenario, from 1.7% in June 2022. Our scenario range is currently narrower than the range of external forecasts, but this may be because some forecasts do not incorporate the latest firm growth figures for mid-2022. We see risks as slightly skewed to the downside.

Annual growth (%)



Growth (annual %)				
	2021	2022	2023	2024
Gradual return to economic recovery	-2.4	3.9	-0.2	0.7
Fast economic recovery		3.9	0.5	0.8
Slow economic recovery		3.2	-0.7	0.7

Level (millions of workforce jobs)



Level (millions of workforce jobs)				
	2021	2022	2023	2024
Gradual return to economic recovery	5.9	6.1	6.1	6.1
Fast economic recovery		6.1	6.1	6.2
Slow economic recovery		6.1	6.0	6.1

History: Annual growth (%)

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
-0.4	1.7	4.2	2.9	4.3	2.0	2.5	2.1	0.9	1.8	-2.4	0.3

History: Level (millions of persons)

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
4.8	4.9	5.1	5.3	5.5	5.6	5.8	5.9	5.9	6.0	5.9	5.9

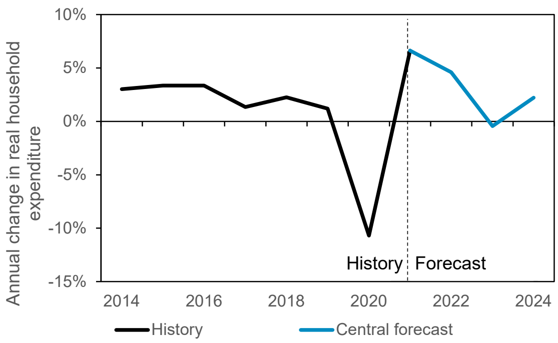
Household expenditure

(London household spending, constant prices (base year 2019), £ billion)

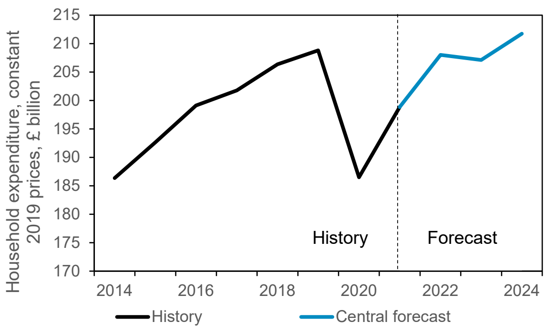
GLA Economics forecasts consumer spending to grow by 4.6% in 2022, before contracting 0.4% in 2023. Returning to growth in 2024, we see spending up 2.2%, which is broadly in line with longer-term averages. This profile implies household spending will take until 2024 to recover to pre-pandemic levels on a sustained basis – well behind output and jobs.

Broadly in line with the external consensus, this profile involves a downgrade in every year of the forecast compared to the Spring LEO. In June 2022, the GLA forecast anticipated growth of 5.2% in 2022, followed by 1.5% in 2023 and 2.5% in 2024. While the 2021 recovery proved stronger than expected, rising inflation is sharply depressing real incomes and spending power. As a result, consumer spending is likely to be the key driver of the coming recession, which will affect which sectors of output are most affected. Consumer-facing sectors like Wholesale and retail or Arts and Entertainment are likely to take a harder hit, along with sectors depending on a strong property market like Real estate.

Annual growth (%)



Level (constant year 2019, £ billion)



History: Annual growth (%)

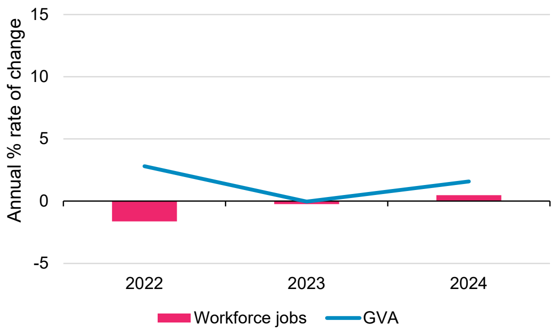
2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
2.7	0.1	1.3	2.3	3.0	3.4	3.4	1.3	2.3	1.2	-10.7	6.6

History: Level (constant year 2019, £ billion)

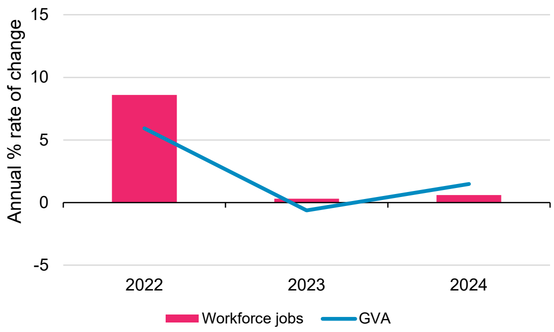
2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
174.3	174.5	176.8	180.9	186.4	192.6	199.1	201.8	206.3	208.8	186.5	198.8

Output and employment growth by sector
(% annual change)

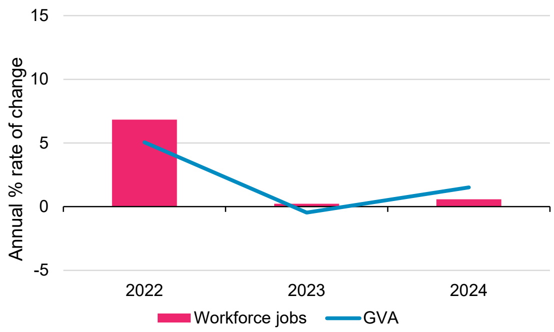
Financial services



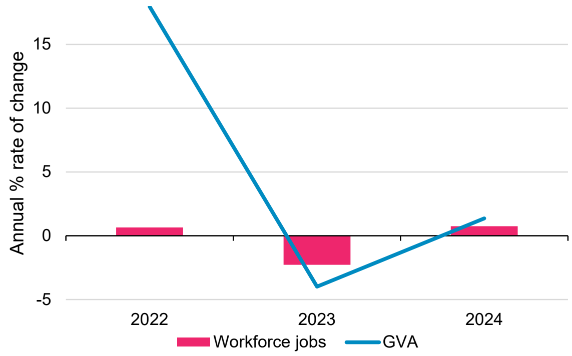
Business services



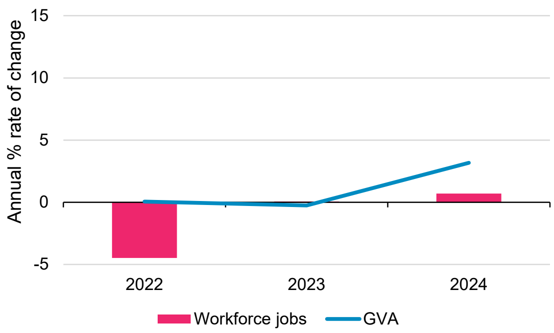
Finance and business (combined)



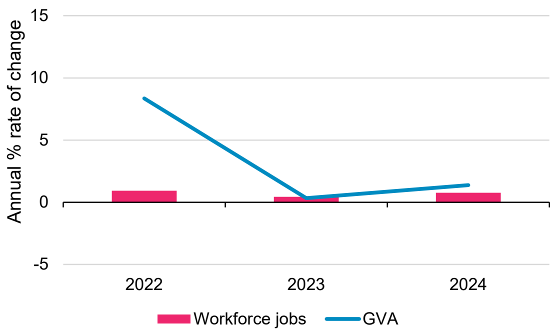
Distribution, accommodation and food services activities



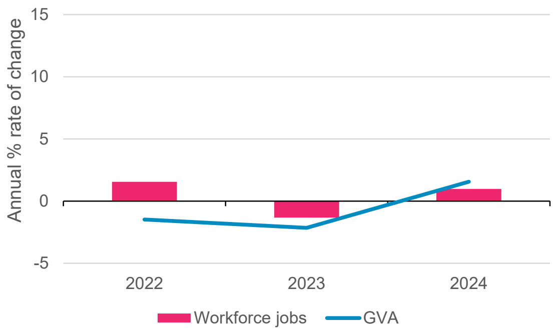
Transportation and storage



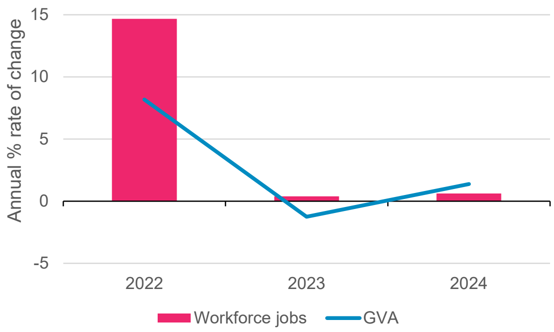
Other (public & private) services



Manufacturing



Construction



Output and employment growth by sector

(% annual change)

Main sector	**2022**	**2023**	**2024**
Financial services			
Output	2.8	0.0	1.6
Jobs	-1.6	-0.2	0.5
Business services			
Output	5.9	-0.6	1.5
Jobs	8.6	0.3	0.6
Financial and business services combined			
Output	5.0	-0.5	1.5
Jobs	6.8	0.2	0.6
Distribution, accommodation and food services			
Output	18.0	-4.0	1.4
Jobs	0.7	-2.3	0.7
Transportation and storage			
Output	0.1	-0.3	3.2
Jobs	-4.5	0.1	0.7
Other (public & private) services			
Output	8.3	0.3	1.4
Jobs	0.9	0.4	0.8
Manufacturing			
Output	-1.5	-2.2	1.6
Jobs	1.6	-1.3	1.0
Construction			
Output	8.2	-1.3	1.4
Jobs	14.7	0.4	0.6
(Memo: non-manufacturing)			
Output	7.1	-0.8	1.5
Jobs	3.7	-0.2	0.7

5.2 Comparison with previous forecasts

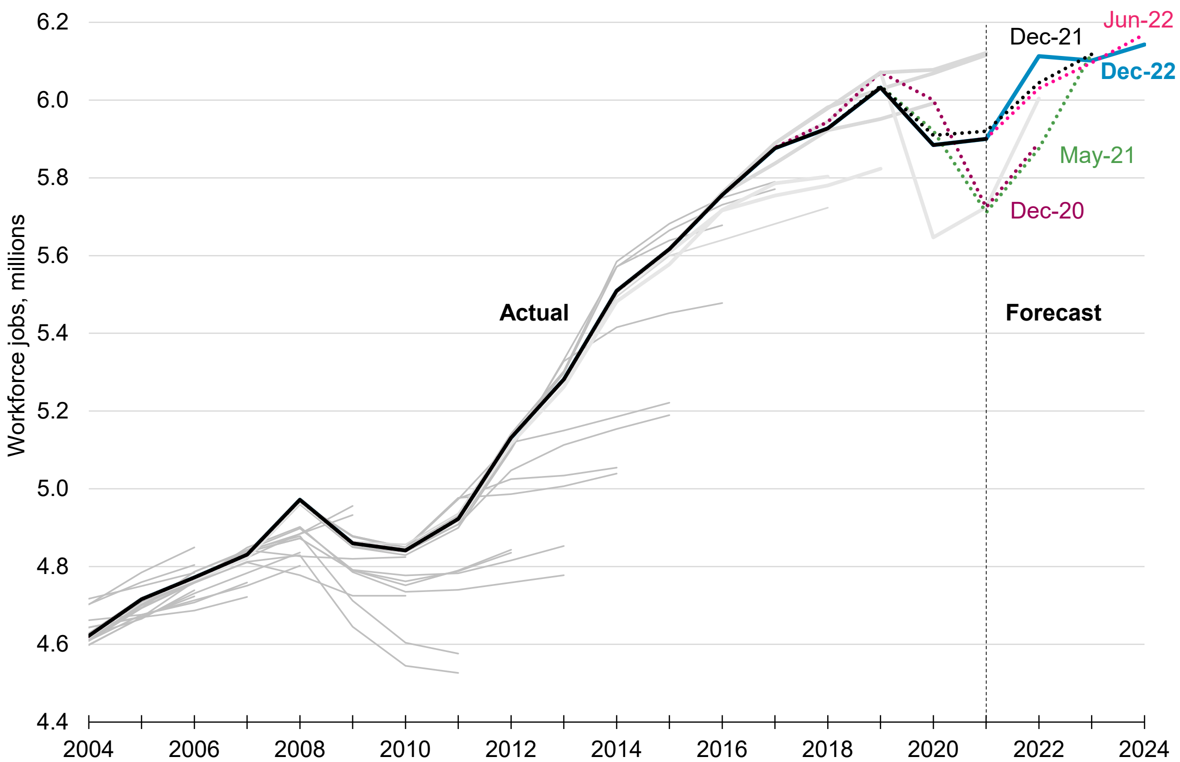
This section compares the current forecast with previous forecasts in this series. Since the base years for the forecasts change and the base data is continuously revised, the forecasts have been rebased into a common base year for the comparisons in **Figures 5.2 and 5.3**.

It should also be noted that the large variation seen in the forecasts produced in 2020 and 2021 compared to previous forecasts reflect the challenges of undertaking economic forecasts in an environment of unprecedented uncertainty and reflects in part the evolving knowledge of public health and economic policy responses.

Workforce jobs

The level of London's workforce jobs reached its 2019 level in mid-2022 and is not set to fall below that level in the coming recession. The medium-term profile of the forecast involves a downgrade on the June 2022 forecast, but a significant upgrade in the figures for this year. The profile is also a major upgrade on the forecast trajectories constructed in 2020 and early 2021. This reflects the strong recovery in labour demand after the pandemic and the limited disruption from the end of furlough.

Figure 5.2: Employment – latest forecast compared with previous forecasts
(thousands of workforce jobs)



Source: ONS, GLA Economics; Note: grey lines show job levels under historic GLA Economics forecasts of employment growth. The last five GLA Economics forecasts are also shown (and labelled) in colour.

Table 5.3: Comparisons with previous published forecasts[119]
(London workforce jobs, % annual growth)

Forecast	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Dec-22	**-0.4%**	**1.7%**	**4.2%**	**2.9%**	**4.3%**	**2.0%**	**2.5%**	**2.1%**	**0.9%**	**1.8%**	**-2.4%**	**0.3%**	**3.6%**	**-0.2%**	**0.7%**
Jun-22													2.2%	1.1%	1.2%
Dec-21												0.2%	2.1%	1.2%	
May-21												-3.6%	2.9%	4.2%	
Dec-20											-1.1%	-4.6%	3.0%		
Jun-20											-7.0%	1.4%	4.9%		
Dec-19										1.5%	0.1%	0.7%			
Jun-19										0.8%	0.7%	0.8%			
Nov-18									1.5%	0.5%	0.7%				
May-18									0.6%	0.3%	0.7%				
Nov-17								1.4%	0.3%	0.5%					
Jun-17								0.7%	0.5%	0.7%					
Nov-16							2.5%	1.2%	0.3%						
May-16							0.7%	0.7%	0.7%						
Nov-15						1.7%	1.2%	0.7%							
May-15						1.7%	1.2%	0.7%							
Nov-14					4.5%	1.2%	0.7%								
May-14					1.6%	0.7%	0.5%								
Nov-13				1.3%	0.8%	0.7%									
Jul-13				0.6%	0.7%	0.7%									
Nov-12			1.0%	0.2%	0.4%										
Jun-12			0.2%	0.4%	0.6%										
Nov-11		0.1%	0.4%	0.4%											
May-11		0.1%	0.7%	0.8%											
Oct-10	-0.6%	0.6%	1.0%												
Jun-10	-0.8%	0.8%	1.1%												
Oct-09	-2.3%	-0.6%													
Apr-09	-2.2%	-0.4%													
Oct-08	0.0%														
May-08	0.1%														

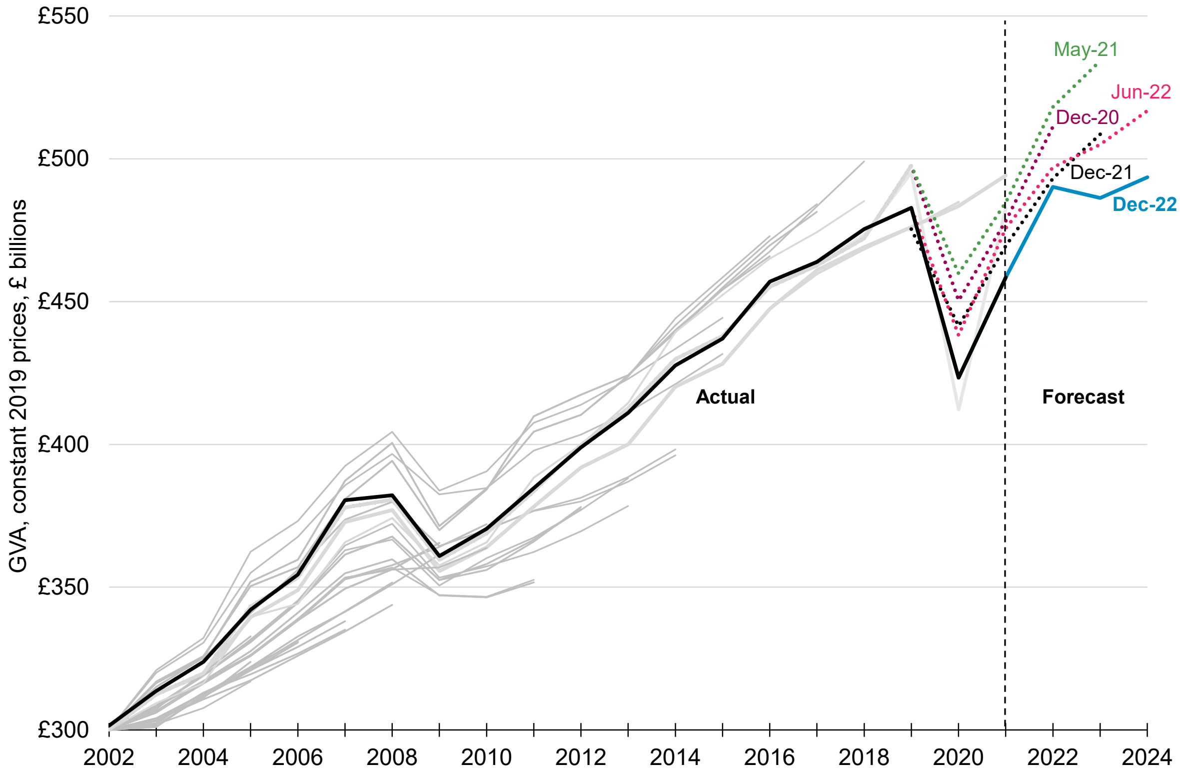
Source: ONS, GLA Economics

[119] This table only reports forecasts for 2010 onwards unlike Figure 5.2. For earlier GLA Economics forecasts please see previous editions of London's Economic Outlook.

Output

The most recent medium-term scenario-based forecast for London's GVA level has output sharply lower than the June 2022 scenario-based forecast, and generally lower than most forecasts since 2020. The historic level of London's GVA has been revised downwards once again in 2020, making the comparison less clear-cut. A stronger growth profile in 2021 than in most previous editions reflects London's resilience to the third national lockdown and Plan B restrictions. The lower medium-term growth forecasts are consistent with a series of downward revisions to national-level forecasts, culminating in the latest OBR and Bank of England forecasts projecting a recession.

Figure 5.3: Output – latest forecast compared with previous forecasts
(constant prices (base year 2019), £ billion)



Source: ONS, ESCoE, GLA Economics; Note: the grey lines show levels of GVA given historic GLA Economics forecasts of GVA growth. The last five GLA Economics forecasts are also shown (and labelled) in colour.

Table 5.4: Comparisons with previous published forecasts[120]
(London GVA, % annual growth)

Forecast	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Dec-22	**2.6%**	**3.8%**	**3.7%**	**3.0%**	**4.0%**	**2.2%**	**4.6%**	**1.5%**	**2.5%**	**1.6%**	**-12.3%**	**8.3%**	**6.9%**	**-0.8%**	**1.5%**
Jun-22													4.5%	1.6%	2.3%
Dec-21												6.4%	5.0%	3.1%	
May-21												5.4%	6.9%	3.1%	
Dec-20											-9.5%	6.2%	6.9%		
Jun-20											-16.8%	17.2%	4.5%		
Dec-19										1.8%	1.1%	1.8%			
Jun-19										1.5%	1.6%	2.2%			
Nov-18									1.9%	1.6%	1.9%				
May-18									1.6%	1.9%	2.2%				
Nov-17								2.1%	1.8%	2.6%					
Jun-17								2.3%	2.4%	2.9%					
Nov-16							2.8%	2.0%	2.3%						
May-16							2.9%	3.4%	3.3%						
Nov-15						3.4%	3.2%	2.7%							
May-15						3.6%	3.2%	2.5%							
Nov-14					4.8%	3.3%	3.1%								
May-14					3.8%	3.2%	2.6%								
Nov-13				2.2%	2.5%	2.5%									
Jul-13				1.9%	2.4%	2.5%									
Nov-12			0.9%	1.8%	2.4%										
Jun-12			1.2%	1.9%	2.5%										
Nov-11		1.4%	2.0%	2.4%											
May-11		2.0%	2.6%	2.9%											
Oct-10	1.6%	2.4%	2.9%												
Jun-10	1.0%	2.8%	3.3%												
Oct-09	-0.2%	1.5%													
Apr-09	-0.2%	1.7%													
Oct-08	1.9%														
May-08	2.2%														

Source: ONS, ESCoE, GLA Economics

[120] This table only reports forecasts for 2010 onwards, unlike Figure 5.3. For earlier GLA Economics forecasts please see previous editions of London's Economic Outlook.

Appendix A: Explanation of terms and some sources

Forecasting organisations use varying definitions of the regional indicators they supply. It is therefore not always possible to assign a completely consistent meaning to the terms used.

Throughout this report 'employment' refers to 'workforce jobs' and uses the ONS historical series as a base for the forecast.

Forecasters' definitions are broadly compatible with this but in some cases differences arise from the treatment of small items such as participants in government training schemes or the armed forces. The GLA uses civilian workforce employment throughout.

Output refers to GVA, a term introduced by the 1995 revision of the European System of Accounts (ESA95). GLA Economics' *London's Economic Outlook: December 2003* provides a more detailed explanation of this term.

At the time of writing national statistics estimates of real regional GVA are available up to 2018 from the ONS[121]. The historic real London GVA figures used in this GLA Economics' forecast are estimates produced by GLA Economics using ONS data.

Consumption refers to private consumption, otherwise known as household expenditure; in some cases, the expenditure of non-profit organisations is included and in other cases it is not.

[121] ONS Regional GVA (balanced approach).

Appendix B: Glossary of acronyms

ADB	Asian Development Bank
BIS	The Bank for International Settlements
BoE	Bank of England
bn	Billion
CE	Cambridge Econometrics
CEBR	The Centre for Economic and Business Research
CPI	Consumer Price Index
DCLG	Department for Communities and Local Government
ECB	European Central Bank
EE	Experian Economics
EERI	Effective Exchange Rate Index
EU	European Union
Fed	Federal Reserve
FT	Financial Times
GDP	Gross Domestic Product
GLA	Greater London Authority
GVA	Gross Value Added
HM Treasury	Her Majesty's Treasury
IFS	Institute for Fiscal Studies
ILO	International Labour Organisation
IMF	International Monetary Fund
LEO	London's Economic Outlook
LFS	Labour Force Survey
LHS	Left Hand Scale
m	Million
MPC	Monetary Policy Committee
OBR	Office for Budget Responsibility
OE	Oxford Economics
OECD	Organisation for Economic Co-operation and Development
ONS	Office for National Statistics
PMI	Purchasing Managers' Index
Q2	Second Quarter
QE	Quantitative Easing
RHS	Right Hand Scale
RICS	Royal Institution of Chartered Surveyors
RPI	Retail Price Index
TfL	Transport for London

Appendix C: Bibliography

Asian Development Bank (2022). 'Asian Development Outlook 2022 Update: Softening growth amid a darkened global outlook', September 2022.

Bank of England (2022). 'Bank of England/Ipsos Inflation Attitudes Survey - August 2022', August 2022.

Bank of England (2021). 'Bank of England/NMG household survey data'.

Bank of England (2022). 'Monetary Policy Report – November 2022', November 2022.

Broadbent (2022). 'The inflationary consequences of real shocks', October 2022.

Bank of England (1999). 'The transmission mechanism of monetary policy', Bank of England Quarterly Bulletin, May 1999.

Bureau of Economic Affairs (2022). 'Gross Domestic Product (Second Estimate) and Corporate Profits (Preliminary), Third Quarter 2022', November 2022.

Cambridge Econometrics (2022). 'Economic prospects for the nations and regions of the UK', March 2022.

Centre for Economic and Business Research (2022). 'The Prospects Service, London, City, and Regional Prospects', November 2022.

Dataloft (2021). 'Briefing notes 7: Moving renters – How long do renters stay in their homes?', June 2021.

Department for Business, Energy and Industrial Strategy (2022). 'UK government to set its own laws for its own people as Brexit Freedoms Bill introduced'.

Dey-Chowdhury, S. et al. (2022). 'Recent trends in the international trade flows of G7 economies/, ONS, October 2022.

DLUHC (2022). 'Live tables on Energy Performance of Buildings Certificates', October 2022.

Douglass, G & van Lohuizen, A (2016). 'The historic performance of the GLA's medium-term economic forecast model'.

European Commission (2022). 'Autumn 2022 Economic Forecast: The EU economy at a turning point', November 2022.

Eurostat (2022). 'Preliminary flash estimate for the third quarter of 2022', October 2022.

Experian Economics (2022). 'UK Regional Forecast Quarterly', September 2022.

Federal Reserve Bank of New York (2022). 'Global Supply Chain Pressure Index', October 2022 update.

Food and Agriculture Organization, FAOSTAT Rankings: Wheat, 2020 data.

Friedman, M. (1959). 'A Program for Monetary Stability', Fordham University Press, 1959.

GLA (2022). 'GLA cost of living polling', November update.

GLA Economics (2022). 'London Labour Market Update: November 2022', November 2022.

GLA Economics' (2003). 'London's Economic Outlook: December 2003', December 2003.

GLA Economics (2016). 'London's Economic Outlook: Autumn 2016 The GLA's medium-term planning projections', November 2016.

GLA Economics (2017). 'London's Economic Outlook: Autumn 2017 The GLA's medium-term planning projections' November 2017.

GLA Economics (2017). 'London's Economic Outlook: Spring 2017 The GLA's medium-term planning projections' June 2017.

GLA Economics (2018). ''London's Economic Outlook: Autumn 2018 The GLA's medium-term planning projections', November 2018.

GLA Economics (2018). 'London's Economic Outlook: Spring 2018 The GLA's medium-term planning projections', May 2018.

GLA Economics (2019). 'London's Economic Outlook: Spring 2019 The GLA's medium-term planning projections', June 2019.

GLA Economics (2019). 'Productivity trends in London: An evidence review to inform the Local Industrial Strategy evidence base'.

GLA Economics (2019). 'London's Economic Outlook: Autumn 2019 The GLA's medium-term planning projections', December 2019

GLA Economics (2020), 'London's Economic Outlook: Autumn 2020 The GLA's medium-term planning projections', December 2020.

GLA Economics (2020). 'London's Economic Outlook: Spring 2020 The GLA's medium-term planning projections', June 2020.

GLA Economics (2021). 'London's Economic Outlook: Spring 2021 The GLA's medium-term planning projections', June 2021.

GLA Economics (2021). 'London's Economic Outlook: Autumn 2021 The GLA's medium-term planning projections', December 2021.

GLA Economics (2022). London's Economic Outlook: Spring 2022, June 2022.

GLA Economics (2022), "Out-of-work trends in London", November 2022.

HomeLet (2022). .HomeLet Rental Index: October 2022'.

HM Treasury (2022). 'Forecasts for the UK economy: a comparison of independent forecasts', November 2022.

Joseph Rowntree Foundation (2022). 'London, the North of England, and Scotland hit hardest by the crisis of spiralling prices', October 2022.

IMF (2022). 'Global Financial Stability Report: Navigating the High-Inflation Environment', October 2022.

IMF (2022). 'World Economic Outlook: Countering the Cost-of-Living Crisis', October 2022.

International Energy Agency, Atlas of Energy: Natural Gas, 2020 data.

International Energy Agency, Atlas of Energy: Crude Oil, 2020 data.

Judge, L., Leslie, J., & Shah, K. (2022). 'Interesting times: Assessing the impact of rising interest rates on mortgagors' living standards', Resolution Foundation, October 2022.

Kantar (2022). 'UK grocery price inflation hits record 14.7%', 8 November 2022.

London Datastore (2022). 'Macroeconomic scenarios for London's economy post COVID-19'.

MarketWatch (2022). 'ICE UK Natural Gas Continuous Contract', 28 November 2022.

MarketWatch (2022). 'Brent Crude Oil Continuous Contract', 28 November 2022.

National Bureau of Statistics of China (2022). 'Preliminary Accounting Results of GDP for the Third Quarter of 2022', October 2022.

OBR (2022). 'Economic and fiscal outlook – November 2022', November 2022.

Ofgem (2022). 'Default tariff cap level: 1 October 2022 to 31 December 2022', August 2022.

ONS (2022). 'Average weekly earnings in Great Britain: November 2022', November 2022.

ONS (2022). 'Blue Book 2022 – revised impacts of the coronavirus (COVID-19) pandemic on the UK economy', October 2022.

ONS (2022). 'Business demography, quarterly experimental statistics, UK: July to September 2022', October 2022.

ONS (2020). 'Consumer price inflation, March 2020', April 2020.

ONS (2022). 'Consumer price inflation, UK: October 2022', November 2022.

ONS (2022). 'CPI 12mth: Excluding Energy, food, alcoholic beverages & tobacco', 29 November 2022.

ONS (2022). 'CPI Annual Rate: Services', 29 November 2022.

ONS (2022). 'Family spending in the UK: April 2020 to March 2021'.

ONS (2022). 'GDP first quarterly estimate, UK: July to September 2022', November 2022.

ONS (2022). 'GDP monthly estimate, UK: September 2022', November 2022.

ONS (2022). 'Index of Private Housing Rental Prices, UK: October 2022', October 2022.

ONS (2022). 'Labour market overview, UK: November 2022', November 2022.

ONS (2022). 'Producer Price Index: Fuel and Energy', 29 November 2022.

ONS (2022). 'Producer price inflation, UK: October 2022', October 2022.

ONS (2022). 'Tracking the price of the lowest-cost grocery items, UK', October 2022.

Orellana, E. (2020) 'The new GLA Economics forecast models for London's economy', GLA Economics Working Paper 98.

Oxford Economics (2022). 'Regional forecasts', October 2022.

Portes, J. (ed) (2022). 'The economics of Brexit: what have we learned?', CEPR Press, 2022.

Portes, J. (2022). 'Trade, migration and Brexit', UK in a Changing Europe.

S&P Global (2022). 'NatWest London PMI', October 2022.

S&P Global (2022). 'S&P Global PMI Commodity Price & Supply Indicators', November 2022.

Springford, J. (2022). 'What can we know about the cost of Brexit so far?', Centre for European Reform, 2022.

Strain, Z. & Sumption, T. (2021). 'Which Parts of the UK are Attracting the Most Skilled Workers from Overseas?', Migration Observatory, November 2021.

Sumption, M. et al. (2022). 'What have we learnt about migration from the Census?', UK in a Changing Europe, 2022.

Sumption, M. (2022). 'Why has non-EU migration to the UK risen?', the Migration Observatory, 2022.

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