Macroeconomic scenarios for London's economy post COVID-19

Scenarios approach, storylines and projections to 2030

28 February 2022

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Disclaimer

- This tenth output of the macroeconomic scenarios project updates the ninth output which was published on 13th December 2021. It is an interim output, which the Greater London Authority is making available for the benefit of external stakeholders in tackling the COVID-19 crisis.

- The scenarios:
  - are **not** meant to represent optimal policy responses, but different futures against which policy responses could be tested.
  - are **not** forecasts – they do not represent what we think will happen but what could plausibly happen under alternative assumptions about the future.
  - are inevitably subjective, although they have been informed by discussions with internal and external analysts and economists.
  - do **not** capture the full range of uncertainty about the future, which is likely to lie outside the range of the scenarios.

- We will continue to track actual data in order to review our assessment of the likelihood of alternative scenario outcomes.
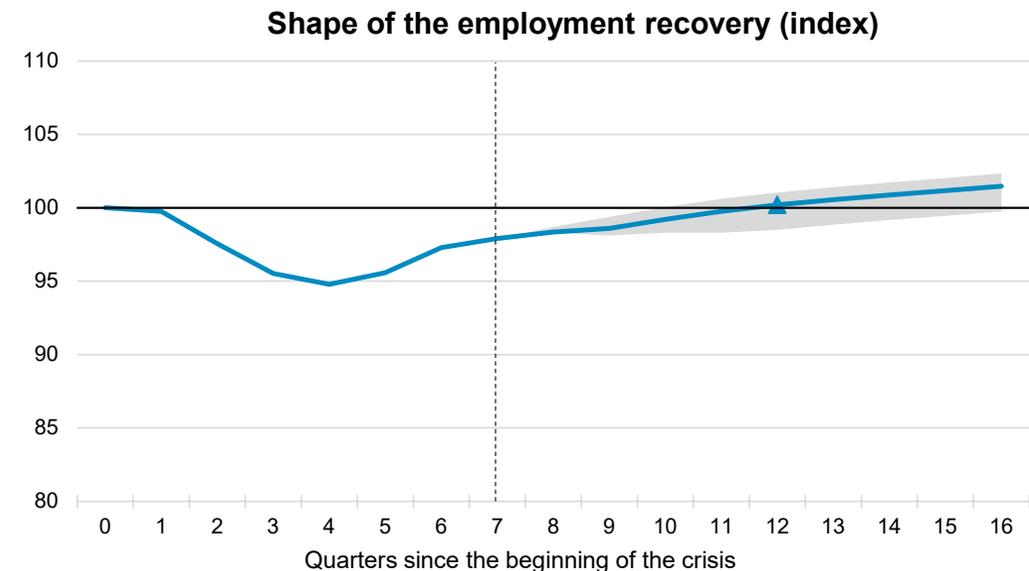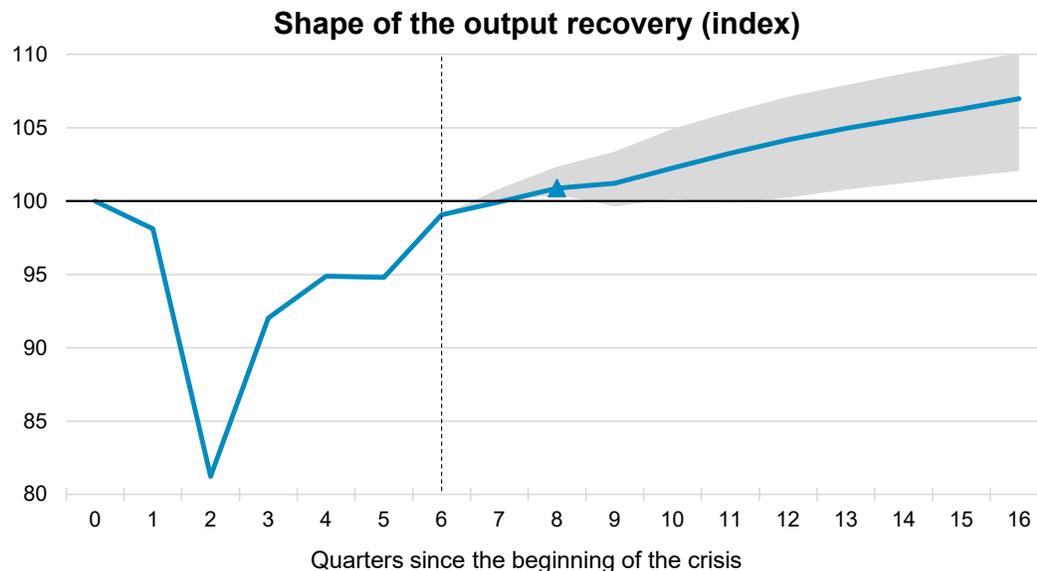
Executive Summary (1)

- This pack is the tenth output of the GLA Economics-led project developing scenarios for London's economy post COVID-19. It includes new medium-term projections and GVA projections to 2030.

- These scenarios incorporate the latest intelligence from the Bank of England forecast for the UK economy of 3rd February 2022 and the OBR forecast for the UK economy of 27th October 2021.

- The scenarios also include the most recent data on output and jobs, which point to a strong output recovery after the third lockdown and a steadily improving jobs market despite the end of furlough.

- **Risks remain tilted to the downside**, as despite the modest impact of 'Plan B' restrictions to contain the Omicron variant of COVID-19, high inflation and risks to household incomes have come to the fore as a likely drag on consumer demand in the near and medium term.

- While an upside surprise in Q2 2021 output data has boosted the recovery in most industries, further growth is now deferred later into 2022 and 2023, with sectors like Wholesale and retail, Accommodation and food services and Arts and entertainment leading the near-term slowdown.

- **There is significant uncertainty around the impact of the crisis in Ukraine.** Assuming conflict does not escalate beyond Ukraine, the main direct impact on London is likely to be through higher energy prices due to concerns over Russian oil and gas supply. However, uncertainty around the scale of this effect and other potential impacts from sanctions sharpen downside risk to the outlook.

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Executive Summary (2)

- The primary scenario dimensions include Effectiveness/nature of public health response and Effectiveness/impact of economic support measures.

- Supplementary assumptions are made around the persistence of high inflation, household savings and incomes and the intensity and duration of supply chain challenges and labour mismatches.

- Other scenario dimensions include: Brexit & migration; International economic context; Technology & innovation; Financial climate; Political economy; Economic Geography and GHG emissions.

- Three core scenarios have been developed: Scenario 1 - Fast economic recovery; Scenario 2 - Gradual economic recovery and Scenario 3 - Slow economic recovery.

- The main aim of this project was to develop a set of high-level macroeconomic scenarios to inform London's recovery strategies, reflecting unprecedented uncertainty in the economic outlook. The scenarios are intended as a common framework/set of assumptions to inform further analyses.

- More information on project aims, an overview of the scenarios approach, and underlying scenario assumptions are available in earlier versions of the macroeconomic scenarios.

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Executive Summary (3)

- In all scenarios, London's economy is expected to have recovered to the pre-crisis level of output by the end of last year. Under the Gradual economic recovery scenario, London's GVA exceeds pre-crisis levels in Q4 2021, while under the Slow economic recovery scenario, output then dips back below pre-pandemic levels due to a fresh recession in the first half of 2022.

- Employment is expected to recover slower than output, with job numbers reaching pre-crisis levels only in late 2022 in the Gradual economic recovery scenario. In the Slow economic recovery scenario, reaching this milestone takes until late 2023.

- The trajectories in the figures are for the Gradual economic recovery scenario, with shaded areas marking the scenario range.

Shape of the output recovery (index)

Shape of the employment recovery (index)

Quarters since the beginning of the crisis

Quarters since the beginning of the crisis

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Outline

1. Scenario assumptions
2. Medium-term scenario projections
3. Long-term scenario projections
4. Methodology and back series

Outline

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Effectiveness/nature of public health response

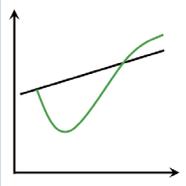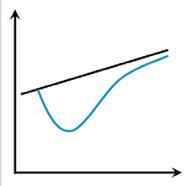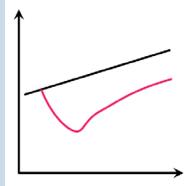| Scenario 1: Fast economic recovery	Scenario 2: Gradual return to economic growth	Scenario 3: Slow economic recovery
Vaccine booster programme reaches enough of the population to sharply shrink the pool of individuals susceptible to severe infection. Widespread inoculation against the virus across all groups and effective anti-viral treatments combine to reduce COVID deaths to levels similar to endemic diseases like flu. There is rapid identification of variants of concern, and measures to avoid a fresh wave of hospitalisations are swiftly re-authorized and prove effective. Effective domestic measures allow the UK to lift restrictions at the national border.	Vaccine booster programme for all adults is effective in preventing a resurgence of severe virus cases. Widespread inoculation against the virus and effective anti-viral treatments mean that COVID deaths continue to fall. Vaccine coverage lags in some urban areas, but local outbreaks do not become severe. There is fairly quick identification of variants of concern, and while they may prompt a rise in new cases, efforts to prevent any further waves of severe cases are effective. With severe infections under control, there are no major restrictions at national borders.	Vaccinations level off except among the most vulnerable. The virus continues to circulate in a sizeable pool of susceptible individuals. While inoculation is widespread and anti-viral treatments become available, COVID deaths fall very slowly. Patchy vaccine coverage in some urban areas allows local outbreaks, worsening existing health inequalities. Not all variants are identified quickly, so efforts to slow their spread have limited effectiveness. A fresh transmissible strain emerges in the second half of 2022, prompting renewed social distancing. New restrictions are periodically needed at the national border to combat variants.

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Impact of private and government response to the pandemic

Scenario 1: Fast economic recovery	Scenario 2: Gradual return to economic growth	Scenario 3: Slow economic recovery
Successful control of the Omicron variant worldwide means supply chain challenges unwind and business and consumer confidence swing higher, raising investment and consumer spending. Consumers draw down on the large stock of excess savings accrued during the pandemic.	Business confidence remains firm, though inflation drags on consumer sentiment. Only a modest amount of excess consumer savings are spent due to the rising cost of living and the skew in savings towards high-income groups. Rising costs also hit business margins, dampening investment.	Business and consumer confidence weaken, and another wave of cases later in the year worsen this trend. Savings remain unusually high as consumers take precautions against uncertain conditions, while firms are unwilling to commit to major investments.
International visitors start returning, and the removal of compulsory health checks gives a major boost to tourist numbers.	International visitors start returning to London, but persistent virus cases moderate any return in significant numbers.	International visitors are hesitant to return to uncertainty around the UK's control of the virus. This impacts arts and hospitality.
Government and Bank of England turn towards long-term anchors for fiscal and monetary policy after unwinding stimulus. Strong labour demand means monetary tightening has a mild effect on employment. The wider recovery remains strong into 2022. Almost no medium- or long-term economic scarring, though jobs lag output.	Government and Bank of England turn towards long-term anchors for fiscal and monetary policy after unwinding stimulus. Rising inflation, tighter macro policy and skills mismatches slow the wider recovery despite strong labour demand. Economic scarring is limited to the medium term but employment lags GVA.	A relatively light-touch to further controlling the virus also means limited fiscal support as the economy struggles, while monetary policy focuses on controlling inflation. A fresh downturn and slow medium-term growth mean there is significant economic scarring, some of which persists in the long term, as firms close and workers lose their jobs.

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Updated key assumptions for other drivers

Scenario 1: Fast economic recovery	Scenario 2: Gradual return to economic growth	Scenario 3: Slow economic recovery
Mismatches between supply and demand are transitory, both globally and domestically. The CAZ's recovery and resumed inward migration avoid long-term skill or geographic labour mismatches. The invasion of Ukraine and resultant sanctions have a limited direct impact on London. UK and EU constructively resolve a number of key outstanding issues. This mitigates the effects of UK exit from the Single Market. As travel restrictions ease, tourists and international students increasingly return. The CAZ remains a hub of economic activity, and London remains an important business centre reaping agglomeration economies.	Global supply chain challenges and geo-political tensions raise imported prices for some months, but inflation eases gradually and international sanctions have few direct effects on London. Economic restructuring means skill and geographic mismatches in the job market slightly slow the recovery. UK and EU partially manage tensions, still dampening trade. Single Market exit requires some restructuring of London's economy. As travel restrictions ease, tourists and international students return gradually. There is a loss of jobs in arts, hospitality, and tourism in the CAZ, but the area remains attractive to business and continues to reap agglomeration economies.	Mismatches in supply and demand increase price pressures, which embed in inflation expectations, prompting restrictive monetary policy. Geopolitical tensions keep energy prices high and international sanctions add to supply chain strains. Job market mismatches drag on long-term growth. UK-EU disputes persist, raising barriers to trade and cutting trade flows. This hits long-run growth, requiring heavy restructuring. Travel restrictions fluctuate due to variant fears, depressing tourism recovery. There is a loss of jobs in many sectors in the CAZ. The cumulative effect means that the area becomes less attractive to business and reaps fewer agglomeration economies.

Long-term GVA convergence assumptions

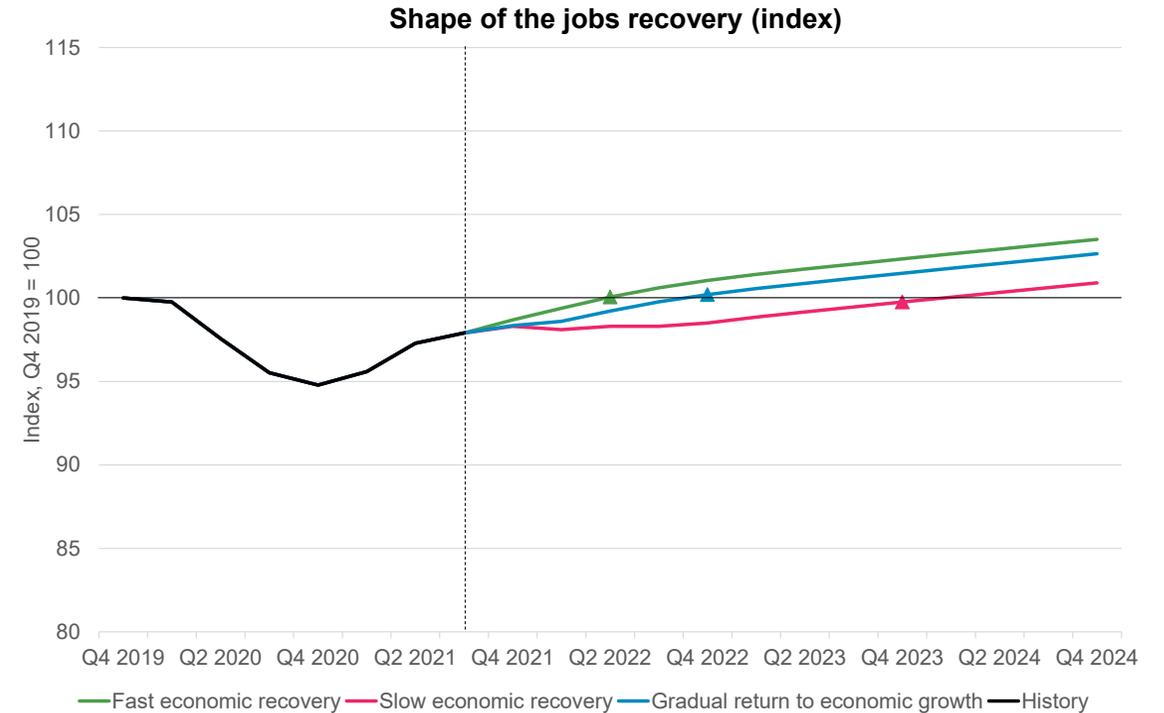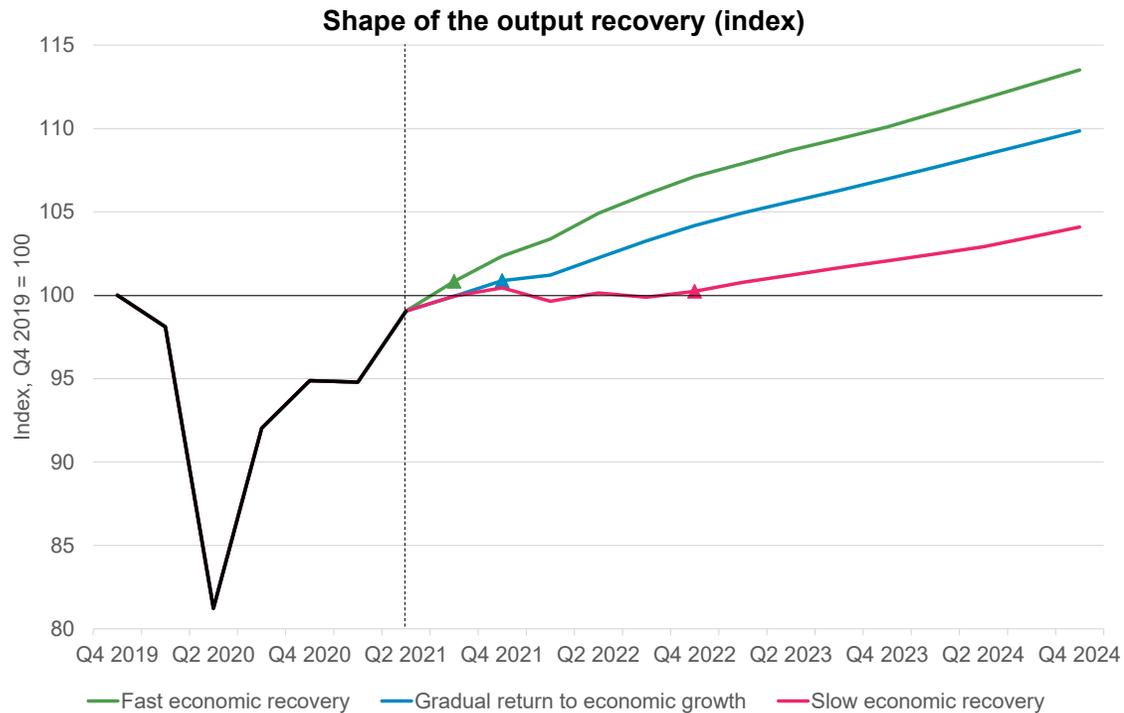| Scenario 1: Fast economic recovery	Scenario 2: Gradual return to economic growth	Scenario 3: Slow economic recovery
London's economy returns to its pre-COVID trend growth (rate and level) as soon as this year. No medium-term or long-term economic scarring.	London's economy returns near to pre-COVID trends eventually, but only in the long term (after 5+ years) as there is a degree of economic scarring in the medium term.	Persistent economic scarring means that in the long term the economy will see a slow recovery and London's output never returns to pre-pandemic trend levels.

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Outline

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The overall storyline behind the Gradual recovery scenario

Q4 2021 (Economic Recovery)	Q1 and Q2 2022 (Economic Turbulence)	Q3 2022 and beyond (A new normal)
• The pace of recovery is steady as solid growth early in the quarter largely balances out the December impact of the Omicron variant. • High global oil and gas prices and supply chain challenges prompt rising inflation. This begins to hit real spending power for consumers. • Business confidence is broadly steady, while consumer confidence drops off with the new wave of virus cases. Consumption growth is moderate, while investment improves. • Use of public transport remains muted and drops off sharply as the Omicron variant spreads. A transition to hybrid working begins. • Economic restructuring continues due to the pandemic and the ongoing effects of Brexit. • Job losses are minimal as furlough ends. • Visitors start to return, but the tourism recovery is curtailed by the Omicron COVID variant and the reintroduction of some travel controls. • Despite headwinds, output recovers to pre-crisis levels in Q4 2021.	• A mix of new restrictions and reduced social contact due to the Omicron variant slow down growth early in the new year, but demand picks up again as restrictions ease. • However, rising inflation and tax changes hit household incomes and restrain the consumer recovery. Concerns over Russian energy supplies keep imported costs high, contributing to a bumpy path for activity in H1 2022. • A slow return of visitors and tourists dents the recovery in customer-facing services further. • While employment remains below pre-crisis levels, job growth eases to a 'normal' pace. • Following the withdrawal of fiscal support there is some shake-out of unviable businesses. • The CAZ begins to undergo structural changes as firms adjust to post-pandemic trends like widespread hybrid working. • Some industries in the knowledge sector benefit from opportunities for greater use of digital technology.	• The success of the expansion will depend on 1) the ability to control virus variant outbreaks with light-touch measures, 2) London's capacity to attract investment, 3) the pace of fiscal consolidation, 4) control of inflation without scarring demand, 5) the international context and 6) transport constraints. • More rapid return of visitors and tourists in the second half of 2022. • Investment (and recapitalisations) key to supporting companies which survived the pandemic but remain weak. • Fiscal consolidation continues. • Jobs recovery continues to advance but there is disproportionate medium-term damage from the pandemic for disadvantaged groups such as young people, ethnic minorities etc • High inflation in essential goods and service prices also tends to widen existing inequalities.

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Medium-term scenario projections for London

Shape of the output recovery (index)

Shape of the jobs recovery (index)

Fast economic recovery — Gradual return to economic growth — Slow economic recovery

Fast economic recovery — Slow economic recovery — Gradual return to economic growth — History

Source: GLA Economics; Note: Index of 100 = pre-crisis level. The 'triangle' indicates the quarter when the corresponding series reaches its pre-crisis level (sometimes the triangle is above 100, meaning that pre-crisis levels were not only reached but also surpassed in the same quarter).

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Medium-term scenario projections: annual growth rates

Real GVA (annual growth rates)

Workforce jobs (annual growth rates)

Legend:
- Slow economic recovery
- Gradual return to economic growth
- Fast economic recovery

Source: GLA Economics
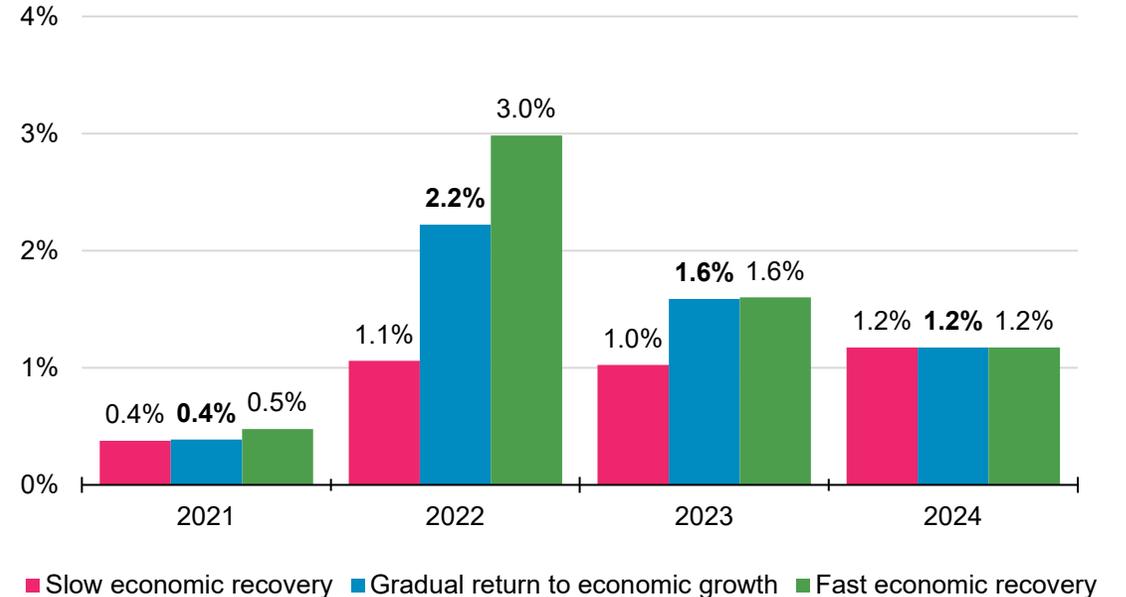
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Comparison of successive Gradual recovery scenarios across outputs (1)

Real GVA annual growth rates - Central scenario for London

	March 2021	Spring LEO	August	Autumn LEO	February 2022
2021	3.1%	5.4%	6.5%	6.4%	7.8%
2022	7.3%	6.9%	6.0%	5.0%	4.1%
2023	3.1%	3.1%	2.9%	3.1%	3.1%
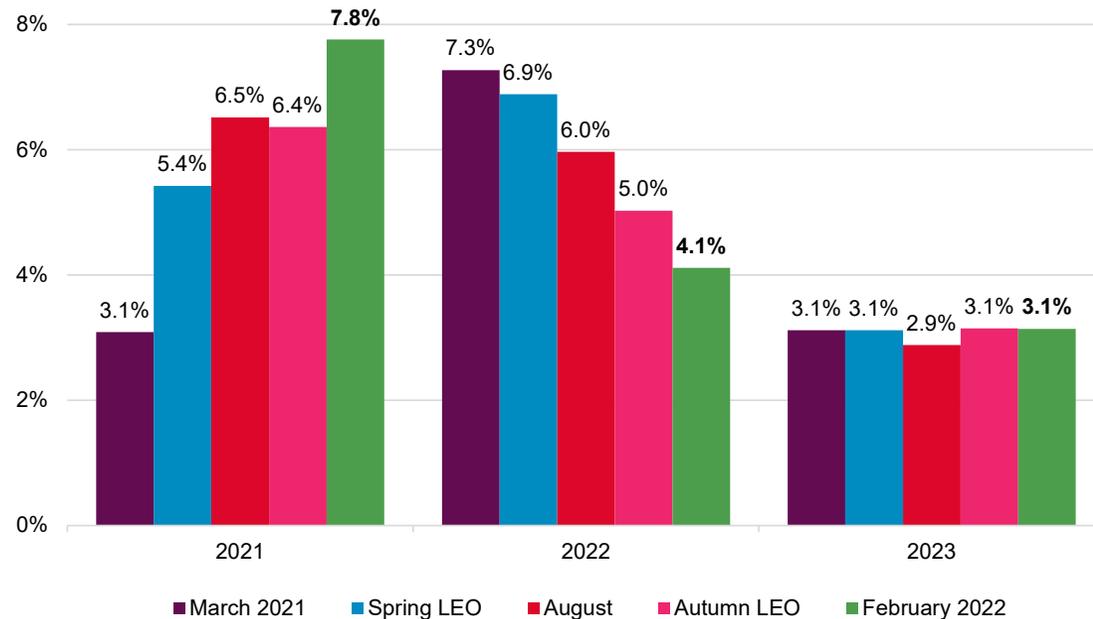
Workforce jobs annual growth rate - Central scenario for London
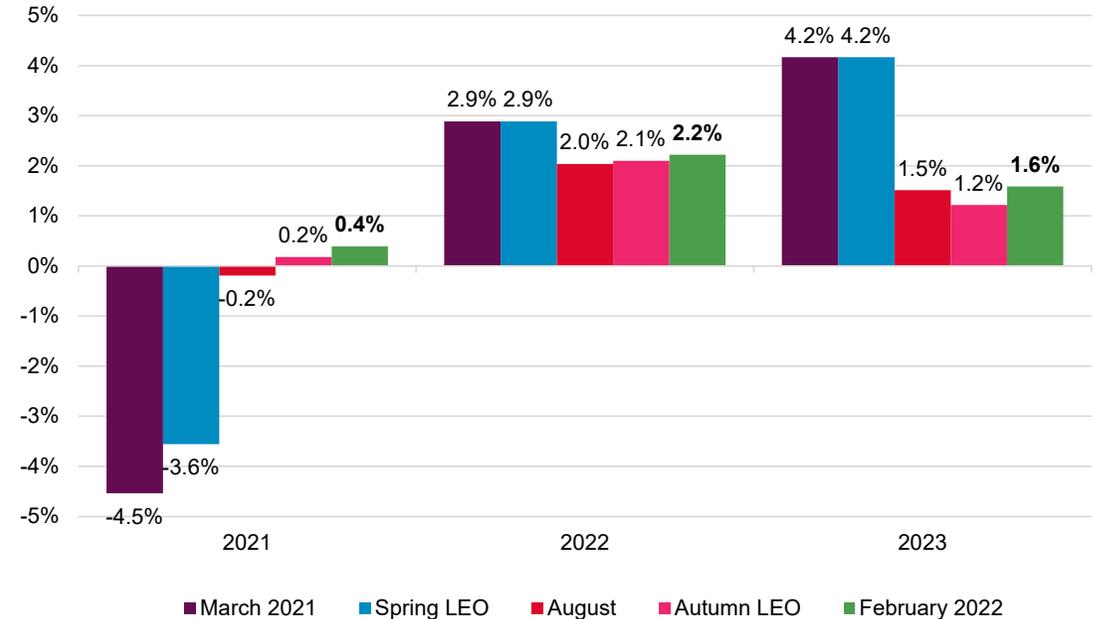
	March 2021	Spring LEO	August	Autumn LEO	February 2022
2021	-4.5%	-3.6%	-0.2%	0.2%	0.4%
2022	2.9%	2.9%	2.0%	2.1%	2.2%
2023	4.2%	4.2%	1.5%	1.2%	1.6%

Source: GLA Economics

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Comparison of successive Gradual recovery scenarios across outputs (2)

Real GVA index numbers - central scenario

Workforce jobs index numbers - central scenario
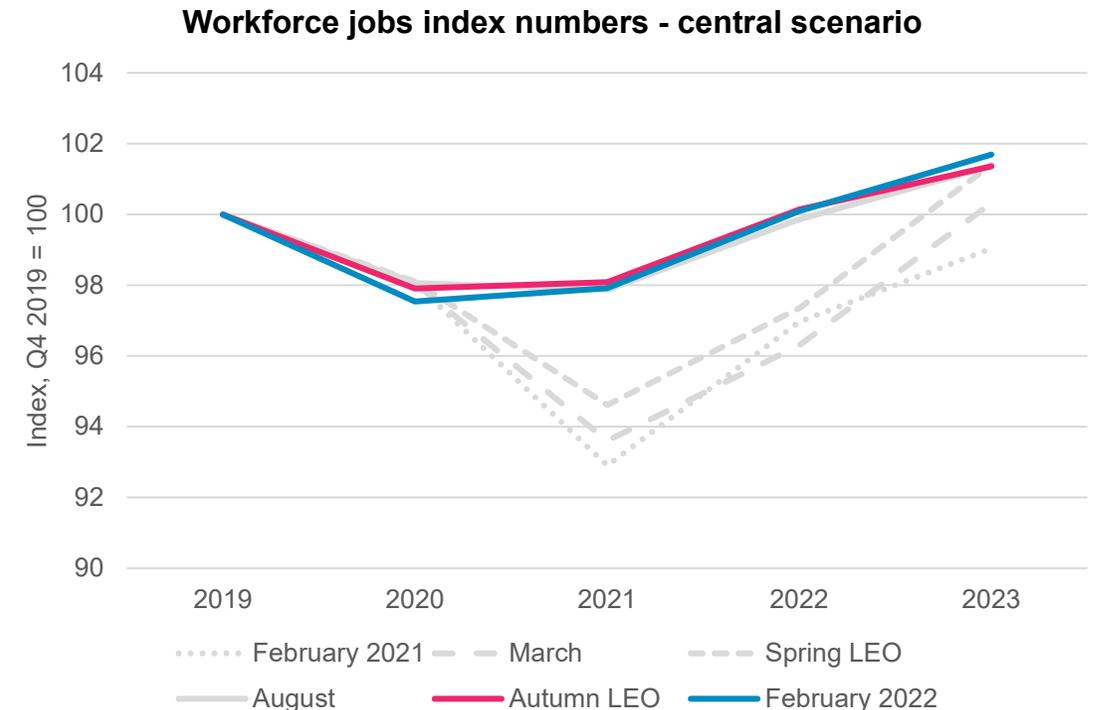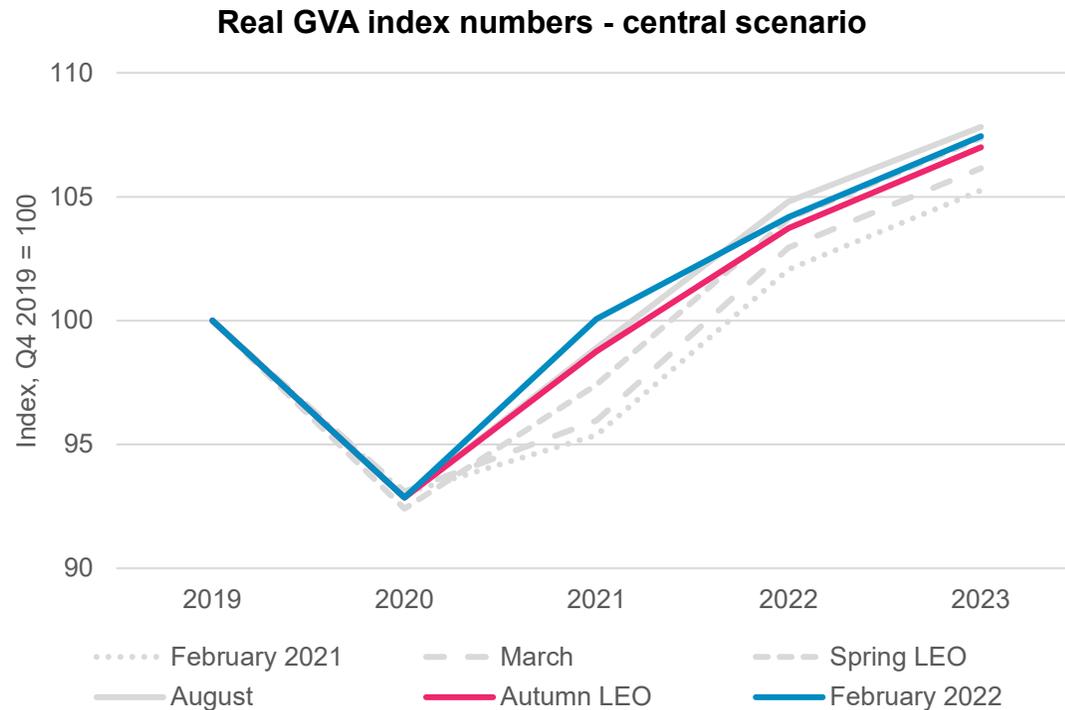
Source: GLA Economics estimates

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London sectors: GVA and jobs growth projections in 2021 and 2022

Real GVA annual growth rate	2021	2022	2023
Sector	%	%	%
Agriculture, forestry and fishing	2.5	3.3	1.3
Mining and quarrying	17.4	5.5	-0.4
Manufacturing	9.5	3.2	2.7
Electricity, gas, steam and air-conditioning supply	12.1	3.3	3.2
Water supply; sewerage and waste management	-3.8	5.3	3.3
Construction	15.2	2.7	2.4
Wholesale and retail trade; repair of motor vehicles	15.9	-0.9	1.8
Transportation and storage	8.6	16.7	6.6
Accommodation and food service activities	0.7	25.3	31.8
Information and communication	11.8	2.4	1.3
Financial and insurance activities	-0.5	7.4	2.9
Real estate activities	0.9	1.3	2.0
Professional, scientific and technical activities	8.6	3.3	2.2
Administrative and support service activities	21.4	-0.9	1.4
Public administration and defence	4.9	1.3	2.0
Education	9.5	7.4	4.1
Human health and social work activities	9.9	3.2	2.6
Arts, entertainment and recreation	6.3	20.5	13.8
Other service activities	11.8	15.2	2.9
Activities of households	16.2	12.2	2.5

Workforce jobs annual growth rate	2021	2022	2023
Sector	%	%	%
Agriculture, forestry and fishing	-57.1	167.9	1.2
Mining and quarrying	-9.1	-19.2	2.8
Manufacturing	-6.8	6.8	4.1
Electricity, gas, steam and air-conditioning supply	5.9	-0.4	1.8
Water supply; sewerage and waste management	2.5	-0.7	6.1
Construction	0.4	4.7	3.9
Wholesale and retail trade; repair of motor vehicles	0.8	-1.2	0.7
Transportation and storage	-1.1	2.3	1.2
Accommodation and food service activities	-1.1	5.2	2.4
Information and communication	-1.2	7.0	1.5
Financial and insurance activities	0.7	-1.4	1.3
Real estate activities	-6.4	5.4	4.4
Professional, scientific and technical activities	1.3	-0.1	0.7
Administrative and support service activities	-0.4	7.8	2.5
Public administration and defence	3.9	0.7	1.2
Education	-2.5	0.1	1.3
Human health and social work activities	6.6	-0.2	0.4
Arts, entertainment and recreation	-6.4	6.0	3.9
Other service activities	4.9	0.8	1.2
Activities of households	17.7	3.5	-3.9

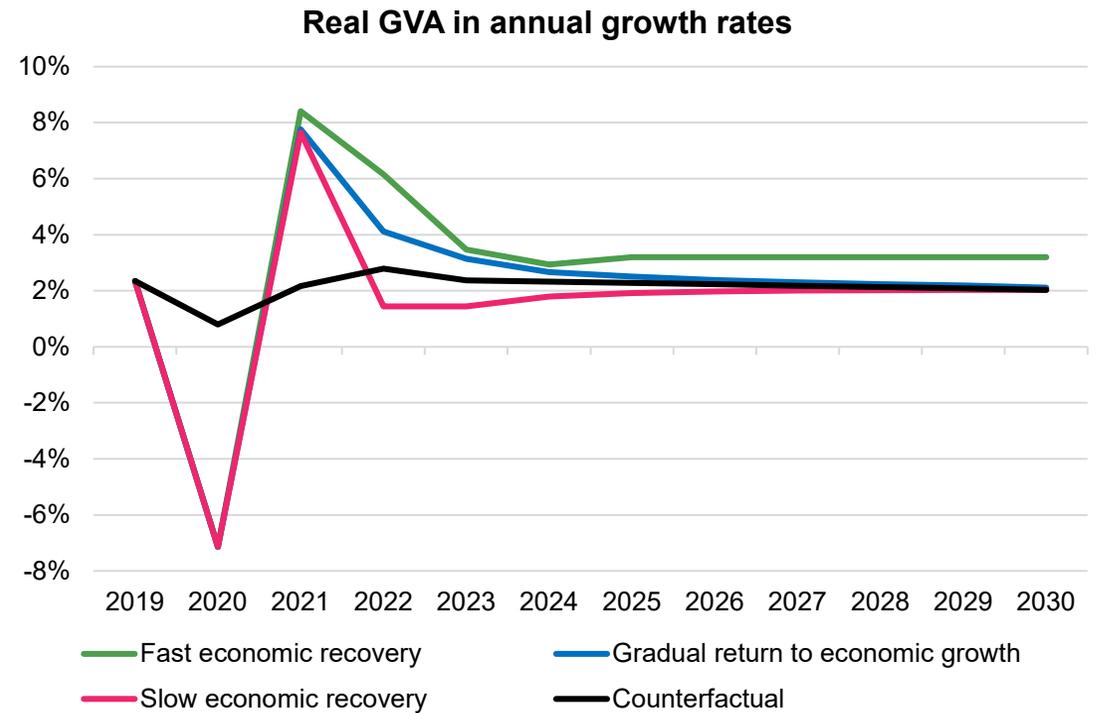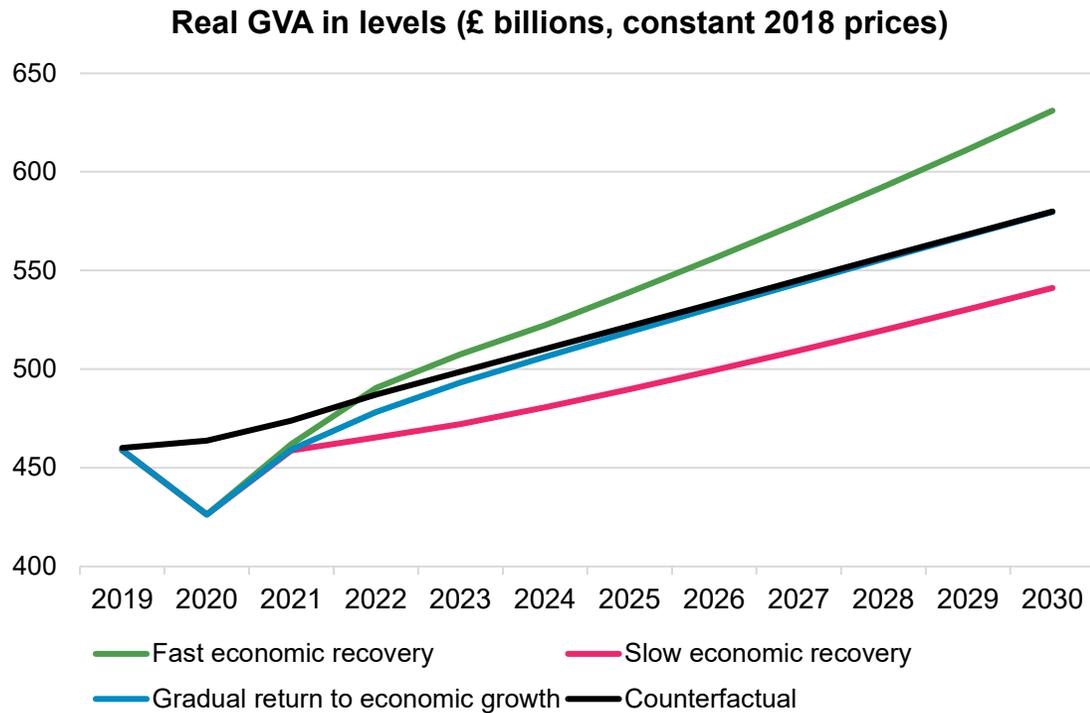*Source: GLA Economics estimates – 'Gradual return to economic growth' scenario*

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Outline

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Key assumptions behind the long-term projections

	NO-COVID / Counterfactual	Scenario 1: Fast economic recovery	Scenario 2: Gradual return to growth	Scenario 3: Slow economic recovery
GVA level in 2023	As estimated by GLAE in April 2020 forecasts	As projected in medium-term scenario 1	As projected in medium-term scenario 2	As projected in medium-term scenario 3
Time counterfactual GVA level is reached	NA	2022	2028-29 (7 years after crisis)	Never (over the relevant time horizon)
GVA Growth rate in 2030	Estimated by assuming convergence (linear or exp) from 2022 growth rate to steady state by 2041	3.2% (long-term London trend growth rate, convergence towards UK steady state does not start in the 2020s).	As in counterfactual (2%)	As in counterfactual (2%)
GVA level in 2030	Projected in line with the above assumptions	Higher than the counterfactual	Approaches the counterfactual by 2030	Counterfactual - nearly 6% (reflecting combination of microeconomic and macroeconomic scarring from COVID, plus Brexit)
GVA growth rate in 2041 (steady state)	1.5% per year (based on OBR long-term / steady-state projection)	NA	1.5% per year	1.5% per year

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Long-term scenario projections for London

Real GVA in levels (£ billions, constant 2018 prices)

- Fast economic recovery
- Slow economic recovery
- Gradual return to economic growth
- Counterfactual

Real GVA in annual growth rates

- Fast economic recovery
- Gradual return to economic growth
- Slow economic recovery
- Counterfactual

Source: GLA Economics

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Comparison with the financial crisis

- Despite a deeper and more rapid fall, London's output is bouncing back more quickly from this crisis than from the financial crisis.

- Employment has also shrunk more rapidly this time. While the time to recover may be similar to that taken after the financial crisis, the greater loss of jobs in a weak labour market may create economic scarring, as workers lose contact with the labour market and become inactive.

Shape of the output recovery (index)

Financial crisis — Covid-19 crisis

Shape of the employment recovery (index)

Financial crisis — Covid-19 crisis

Quarters since the beginning of the crisis

Quarters since the beginning of the crisis
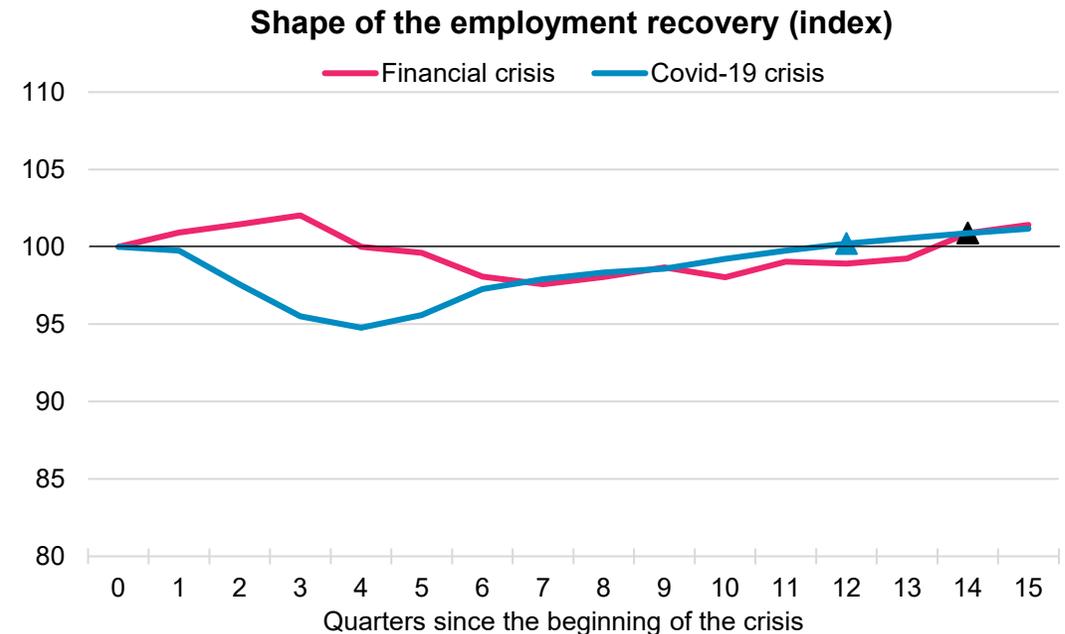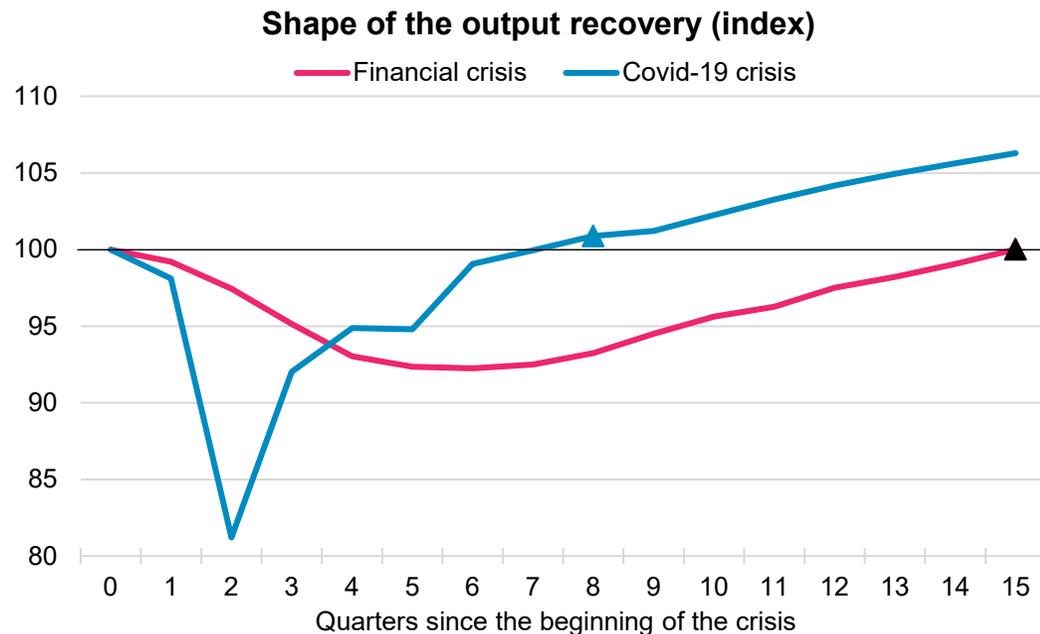
Source: GLA Economics

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Summary of GVA annual growth rates in selected years

Real GVA – annual growth rates (selected years)

Year	Scenario 1: Fast economic recovery	Scenario 2: Gradual return to economic growth	Scenario 3: Slow economic recovery
	GVA	GVA	GVA
2020	-7.1%	-7.1%	-7.1%
2021	8.4%	7.8%	7.6%
2022	6.2%	4.1%	1.4%
2023	3.5%	3.1%	1.4%
2025	3.2%	2.5%	1.9%
2030	3.2%	2.1%	2.0%

Source: GLA Economics

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Summary of GVA in levels in selected years

Real GVA – £m 2018 prices (selected years)

Year	Scenario 1: Fast economic recovery	Scenario 2: Gradual return to economic growth	Scenario 3: Slow economic recovery
	GVA	GVA	GVA
2020	426,163	426,163	426,163
2021	461,988	459,233	458,735
2022	490,436	478,133	465,340
2023	507,423	493,147	472,070
2025	539,065	518,944	489,758
2030	631,015	579,795	541,053

Source: GLA Economics

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Real GVA quarterly levels over the forecasting period – Gradual recovery scenario

Real GVA – levels, £m 2018 prices

Q1 2021	Q2 2021	Q3 2021	Q4 2021
110,297	115,260	116,297	117,378

Q1 2022	Q2 2022	Q3 2022	Q4 2022
117,774	118,980	120,154	121,226

Q1 2023	Q2 2023	Q3 2023	Q4 2023
122,116	122,894	123,665	124,472

Source: GLA Economics

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Workforce jobs quarterly levels over the forecasting period – Gradual recovery scenario

Workforce jobs – levels, thousands

Q1 2021	Q2 2021	Q3 2021	Q4 2021
5,804	5,907	5,945	5,971
Q1 2022	**Q2 2022**	**Q3 2022**	**Q4 2022**
5,987	6,024	6,058	6,084
Q1 2023	**Q2 2023**	**Q3 2023**	**Q4 2023**
6,106	6,125	6,144	6,162

Source: GLA Economics

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Summary of methodology

- Quarterly ONS UK output data is available to Q4 2021 for the UK and to Q2 2021 for London by sector. Q3 2021 and Q4 2021 London output tracks UK trends.

- Quarterly jobs data by sector available for London and the UK to Q3 2021. Payrolled employee jobs estimates for Q4 2021 for London and the UK inform jobs forecast.

- Development of scenarios considers modelling of published and non-published external forecasts. For this iteration, it pays particular attention to the latest estimates by the Bank of England (BoE) and the Office for Budget Responsibility (OBR). The modelling also builds on previous versions of GLAE scenarios.

- Sector level modelling reflects the disproportionate sectoral effects of the crisis. It expects rapid growth in the sectors most affected, such as arts and hospitality, but which may still not be enough to reach pre-pandemic levels until 2023 or later. The impact of Brexit will dampen medium-term growth in export-oriented finance and professional service sectors.

- The subsequent recovery glides towards the longer-term paths (explained in earlier slides) expected for each London scenario. Specifically, for the Gradual return to economic growth scenario there is an assumption that output returns near to the counterfactual scenario.

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Back series

- Some of this data has been estimated by GLA Economics. For output, ONS GVA data to 2019 is spliced with GDP data to Q2 2021

- In the absence of other data, GVA and GDP data are taken as equivalent, and so the effects of taxes and subsidies are ignored (GVA = GDP + subsidies – taxes)

- ONS Workforce Jobs data is available to Q3 2021. The latest data include large swings in self-employment across several sectors and our modelling has treated this as temporary.

- An ONS nowcasting GVA series for London is available to Q3 2021, but this has not been used as established data as it remains an experimental series.

Real GVA – levels, £m 2018 prices

Q4 2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021
116,362	114,151	94,517	107,088	110,408	110,297	115,260

Workforce jobs – levels, thousands

Q4 2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021
6,072	6,057	5,924	5,800	5,755	5,804	5,907	5,945

Source: ONS, GLA Economics

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