# Macroeconomic scenarios for London's economy post COVID-19

Scenarios approach, storylines and projections to 2030

26 August 2021

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# Disclaimer

- This eighth output of the macroeconomic scenarios project updates the seventh output which was published on 25th May 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.

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# Executive Summary (1)

- This slide pack is the eighth output of the GLA Economics-led project on developing economic scenarios for London's economy post COVID-19.

- It updates the seventh output published on 25th May 2021 by including new medium-term projections and a set of projections to 2030 for GVA only.

- These scenarios incorporate the latest intelligence of the Bank of England forecast for the UK economy of 5th August 2021.

- The scenarios also include the most recent data on output and jobs, which shows a more rapidly improving jobs market.

- The main aim of the project was to develop a set of high-level macro-economic scenarios in order to inform the development of recovery strategies in London, reflecting unprecedented uncertainty in the economic outlook.

- The scenarios are envisaged as a common framework/set of assumptions to inform more detailed GLA 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](#).
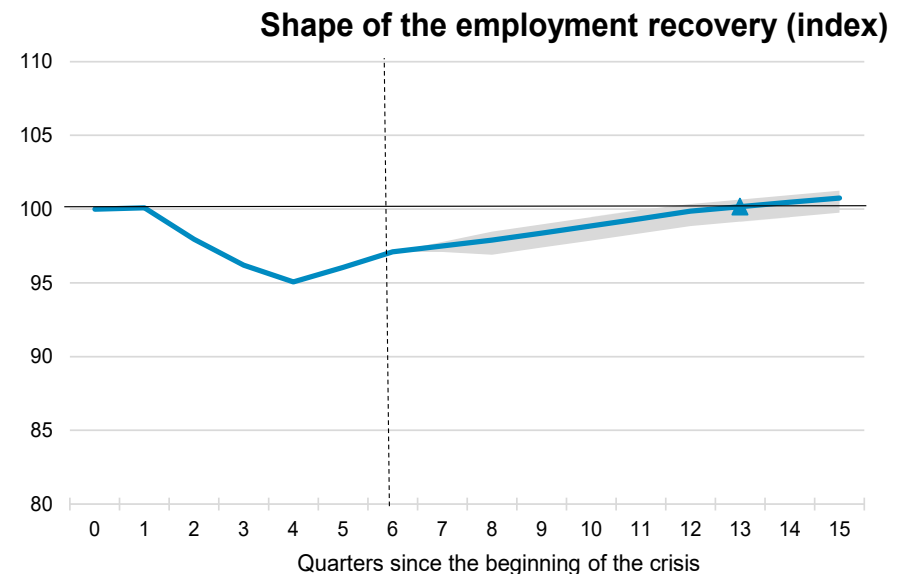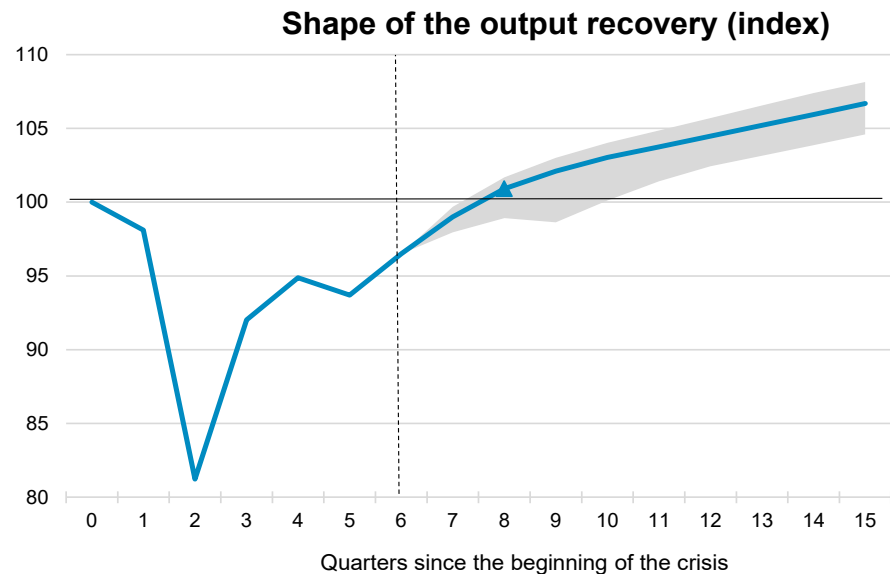
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# Executive Summary (2)

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

- Other scenario dimensions (not provided here) include: Brexit and migration; International economic context; Technology and innovation; Financial climate; Political economy; Economic Geography and GHG emissions.

- Three core scenarios have been developed: Scenario 1 - Fast economic recovery (an optimistic but plausible scenario); Scenario 2 - Gradual economic recovery and Scenario 3 - Slow economic recovery.

# Executive Summary (3)

- In all scenarios, London's economy is expected to recover to the pre-crisis level of output by the end of next year at the latest. Under the Gradual return to economic growth scenario, London's GVA reaches pre-crisis levels in Q4 2021.

- Employment recovery is projected to be significantly slower than output recovery, so that pre-crisis employment levels are not reached until Q1 2023 in the Gradual economic recovery scenario and not before the end of the same year in the Slower economic recovery scenario.

- The trajectories in the figures is for the Gradual economic recovery scenario, and the shaded areas mark the range of the scenarios

**Shape of the output recovery (index)**

Quarters since the beginning of the crisis

**Shape of the employment recovery (index)**

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

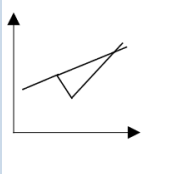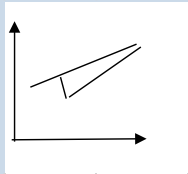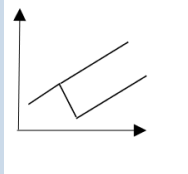| Scenario 1: Fast economic recovery | Scenario 2: Gradual return to economic growth | Scenario 3: Slow economic recovery |
|---|---|---|
| Vaccine programme continues to roll-out successfully and at pace. It is effective in reducing the spread of the virus. | Vaccine programme continues to roll-out successfully. It is effective in reducing the spread of the virus. | Vaccine programme continues to roll-out successfully, but supply problems slow the pace. |
| There is widespread public trust in the vaccine, and inoculation against the virus, across all groups. | There is widespread public trust in the vaccine, and inoculation against the virus, across most groups. Coverage is patchy in some urban areas. | There is public trust in the vaccine, and inoculation against the virus, across most groups. Coverage is very patchy in some urban areas. |
| Remaining restrictions at the national border are effective in limiting the spread of virus variants. | Restrictions at the national border are mostly effective in limiting the spread of virus variants. | Restrictions at the national border are patchy in their effectiveness in limiting the spread of virus variants. |
| There is quick identification of variants, and efforts to limit their spread are effective. | There is fairly quick identification of variants, and efforts to limit their spread are mostly effective. | Not all variants are identified quickly, and so efforts to limit their spread have limited effectiveness. Vaccines have limited effectiveness against these variants. There are further restrictions in Winter 2021/22. |

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# Effectiveness/impact of economic support measures

| Scenario 1:<br>Fast economic recovery | Scenario 2:<br>Gradual return to economic growth | Scenario 3:<br>Slow economic recovery |
|---|---|---|
| Business and consumer confidence return markedly and continues through 2021 with noticeable increases in investment and consumption spending. Subsidies for investment in Budget 2021 have a marked effect. | Business and consumer confidence return in Q2 2021. Subsidies for investment in Budget 2021 have some effect. | Business and consumer confidence remain muted. This is further dampened with the introduction of restrictions in Q4 2021 and Q1 2022 as the virus takes hold again. Subsidies for investment in Budget 2021 have marginal effect. |
| International visitors start returning, and an easing of public health checks proves effective in encouraging a return in significant numbers. | International visitors start returning, although public health checks dampen the enthusiasm for a rapid return in significant numbers. | International visitors remain hesitant to return to London dampening the recovery of the arts and hospitality sectors. |
| Unprecedented fiscal and monetary policies, including the furlough scheme, end after Q3 2021. The momentum of jobs recovery is such that job losses after the end of furlough have a limited impact on aggregate trends. Little medium or long-term economic scarring, although employment recovery lags GVA. | Unprecedented fiscal and monetary policies, including the furlough scheme, end after Q3 2021. The loss of jobs after furlough dents the momentum of jobs recovery which remains positive. Economic scarring limited to the medium term as employment recovers less quickly than GVA. | Unprecedented fiscal and monetary policies, including the furlough scheme, end after Q3 2021. There is widespread economic scarring after businesses close down and workers lose their jobs, some of which persists in the long-term. Job numbers fall in the second half of 2021. |

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# Updated key assumptions for other drivers

| Scenario 1:<br>Fast economic recovery | Scenario 2:<br>Gradual return to economic growth | Scenario 3:<br>Slow economic recovery |
|---|---|---|
| UK and EU relationship proves effective in handling tensions, and is constructive in resolving issues, mitigating the effects of UK exit from the Single Market. | UK and EU relations are not fully effective in managing tensions, reducing confidence in trading relationships, and affecting trade flows. Re-structuring of London's economy with loss of access to the Single Market takes effect. | UK and EU relations descend into disputes, there are new restrictions on trade, and adverse effects on trade flows. Re-structuring of London's economy begins in earnest. |
| Travel restrictions for visitors to the UK ease further later in 2021, and some international students return in Q3 2021. | Travel restrictions for visitors to the UK remain tight, and there is a limited return of international students in Q3 2021. | Travel restrictions for visitors to the UK remain tight, and there is no return of international students in Q3 2021. |
| The CAZ remains a hub of economic activity, and London remains an important business centre reaping agglomeration economies. | There is a loss of jobs in arts, hospitality, and tourism in the CAZ, but despite some scarring in the medium term the area remains attractive to business and continues to reap agglomeration economies. | There is a loss of jobs in arts, tourism, hospitality, tourism, and other businesses in the CAZ, and the cumulative effect is such that the area becomes less attractive to business and reaps fewer agglomeration economies. |
| Mismatches between supply and demand in sectors such as hospitality and Manufacturing as the economy recovers are transitory. | Mismatches in supply and demand dampen the potential pace of recovery. | Mismatches in supply and demand increase inflationary pressures which spread across the economy. The Bank of England tightens the money supply which slows the economy. |

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# Long-term GVA convergence assumptions

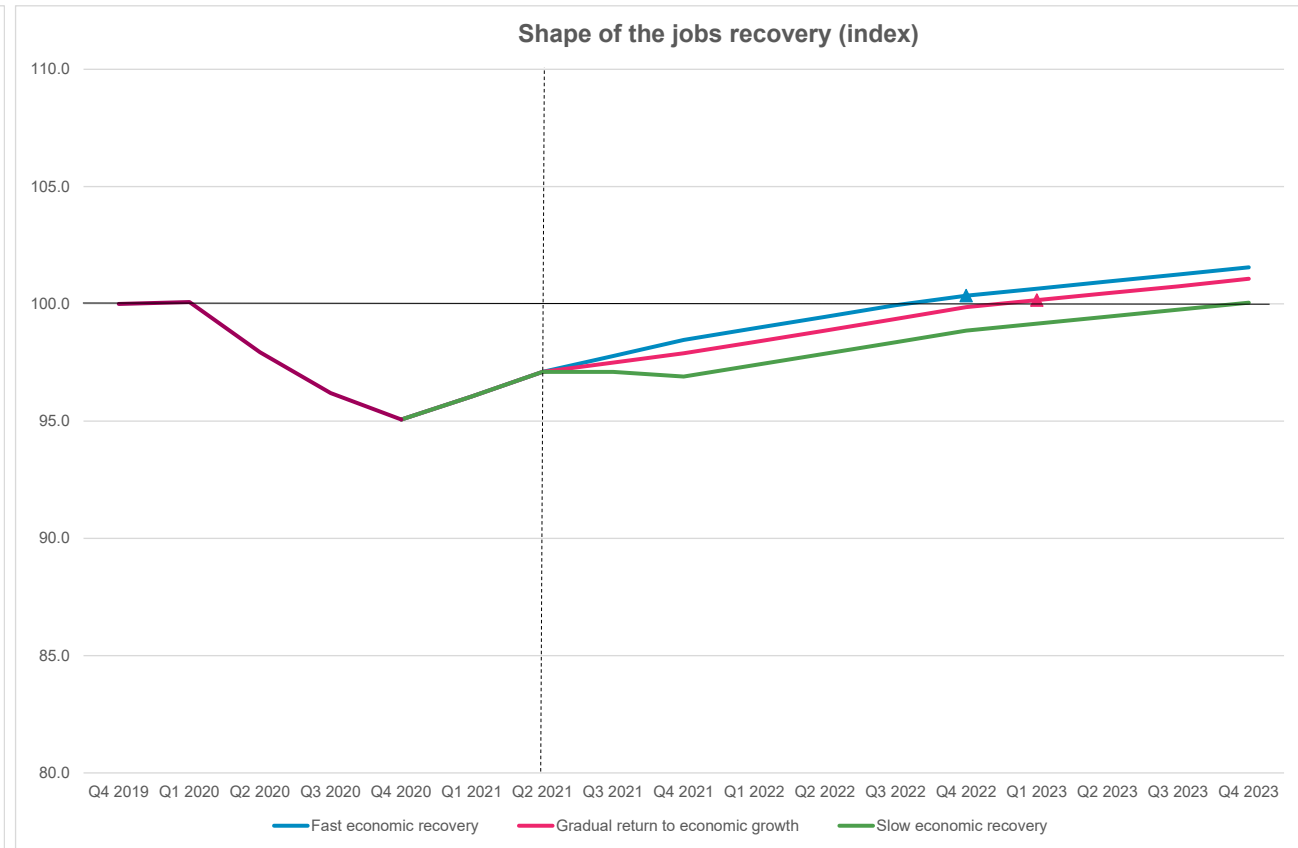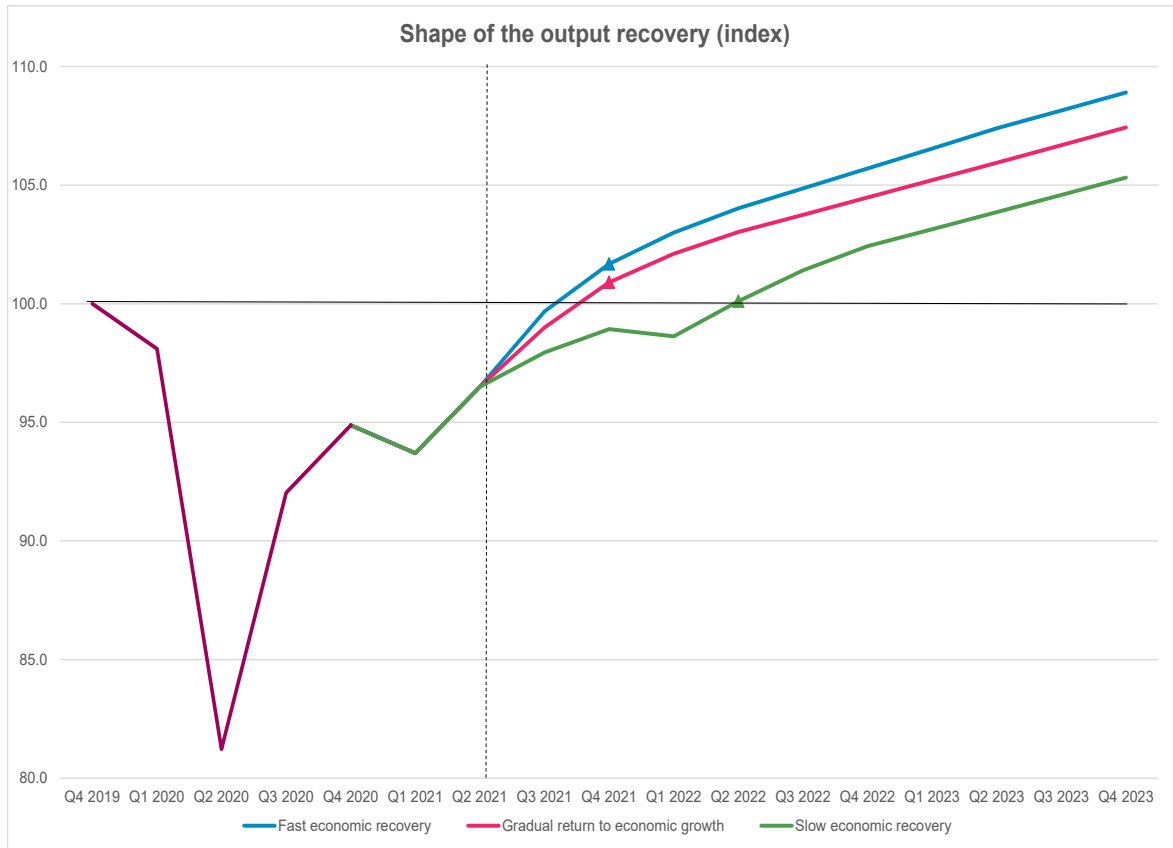| Scenario 1:<br>Fast economic recovery | Scenario 2:<br>Gradual return to economic growth | Scenario 3:<br>Slow economic recovery |
| --- | --- | --- |
| London's economy returns to its pre-COVID trend growth (rate and level) by 2023. No Medium-term or long-term economic scarring. | London's economy returns to its pre-COVID trend growth rate 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 to a diminished trend growth trajectory by 2030. |

# Outline

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# The overall storyline behind the Gradual recovery scenario

| Q3 2021 (Economic Transition) | Q4 2021 (Economic Recovery) | 2022 and beyond (Reconstruction) |
|---|---|---|
| • The economy continues to recover, if at a slower rate<br>• Business and consumer confidence improve. The growth in consumer spending slows, although business investment picks up<br>• Use of public transport remains muted – a transition to hybrid working begins<br>• Attendance at large scale cultural and sporting events face some, if reduced, constraints<br>• There is some mismatch between supply and demand as the economy recovers in sectors such as hospitality and Manufacturing. This is short-lived and inflationary pressures pass.<br>• Economic restructuring continues across other parts of the economy – the ongoing effects of Brexit contribute<br>• The jobs recovery is sufficiently strong that job losses as furlough ends diminish, but do not eliminate, jobs growth<br>• Visitors start to return - falls in COVID numbers in Europe and the US leads to fewer travel restrictions, and less need for tests before and after travel | • The economy rebounds after the lifting of most public health restrictions.<br>• Output recovers to pre-crisis levels<br>• There is little, if any, scarring in the labour market<br>• There are job losses after the end of furlough diminish. These diminish but do not eliminate jobs growth.<br>• As fiscal support is withdrawn there is some shake-out of unviable businesses<br>• The CAZ begins the process of adjustment to fewer international tourists and more hybrid working<br>• Some sectors grow taking advantage of the opportunities for greater use of digital technology | • More rapid return of visitors and tourists in 2022.<br>• Investment (and recapitalisations) key to support companies which survived but remain weak.<br>• Fiscal consolidation continues.<br>• The success of the expansion will depend on 1) light-touch control of outbreaks of virus variants, 2) London's capacity to attract investment, 3) the kind of fiscal consolidation which actually happens, including the phasing out of the CJRS 4) the international context and 5) transport constraints<br>• Jobs recovery remains healthy but there continue to be disproportionate impacts on disadvantaged groups such as young people, ethnic minorities etc |

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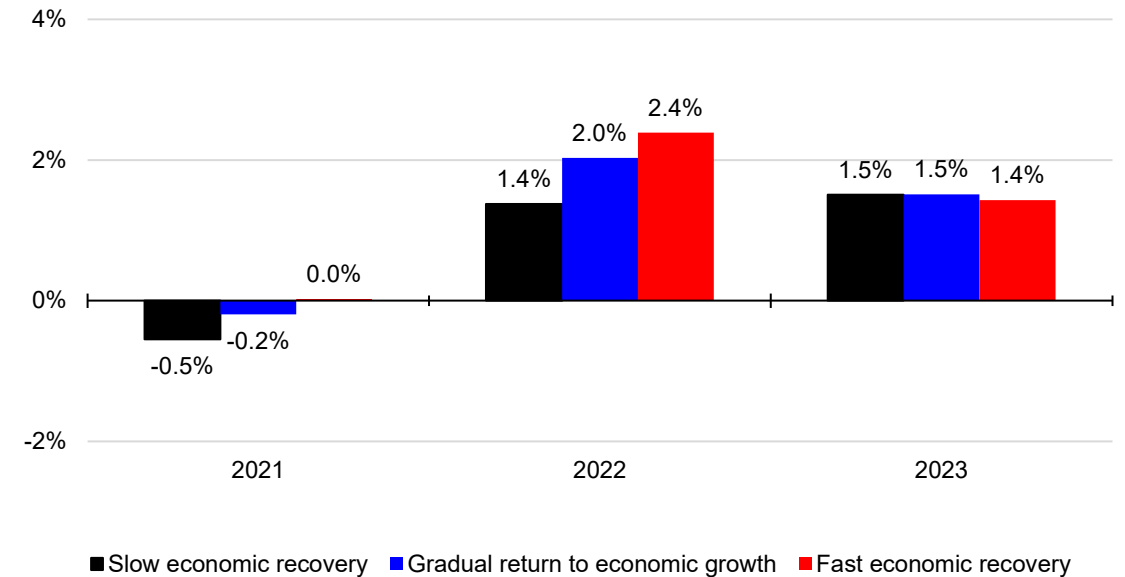
Source: GLA Economics. Index of 100 = pre-crisis level. The 'triangle' indicates the quarter when the corresponding series reaches its pre-crisis level (sometimes the triangle is above 100, meaning that pre-crisis levels were not only reached but also surpassed in the same quarter).

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# Medium-term scenario projections: annual growth rates



**Real GVA (annual growth rates)**
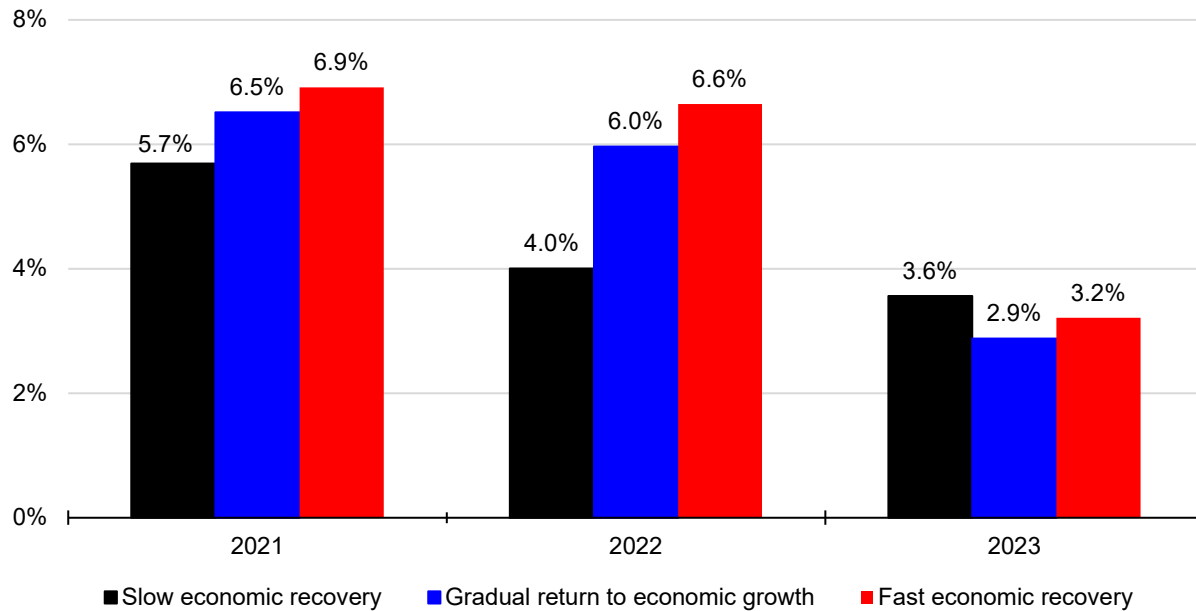
| | 2021 | 2022 | 2023 |
|---|---|---|---|
| Slow economic recovery | 5.7% | 4.0% | 3.6% |
| Gradual return to economic growth | 6.5% | 6.0% | 2.9% |
| Fast economic recovery | 6.9% | 6.6% | 3.2% |

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

**Workforce jobs (annual growth rates)**

| | 2021 | 2022 | 2023 |
|---|---|---|---|
| Slow economic recovery | -0.5% | 1.4% | 1.5% |
| Gradual return to economic growth | -0.2% | 2.0% | 1.5% |
| Fast economic recovery | 0.0% | 2.4% | 1.4% |

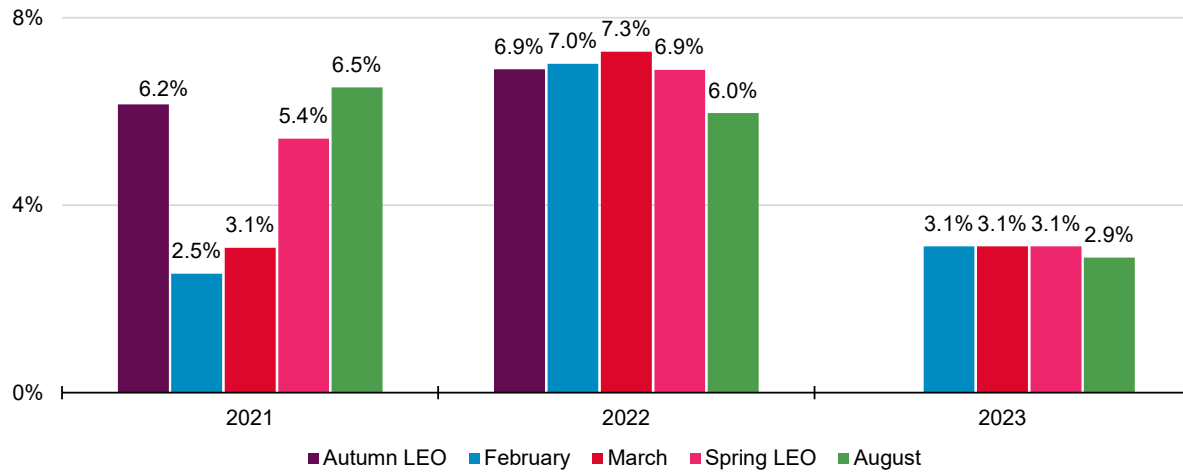■ Slow economic recovery  ■ Gradual return to economic growth  ■ Fast economic recovery

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# Comparison of successive Gradual recovery scenarios across outputs (1)

**Real GVA annual growth rates - Central scenario for London**



**Workforce jobs annual growth rate - Central scenario for London**
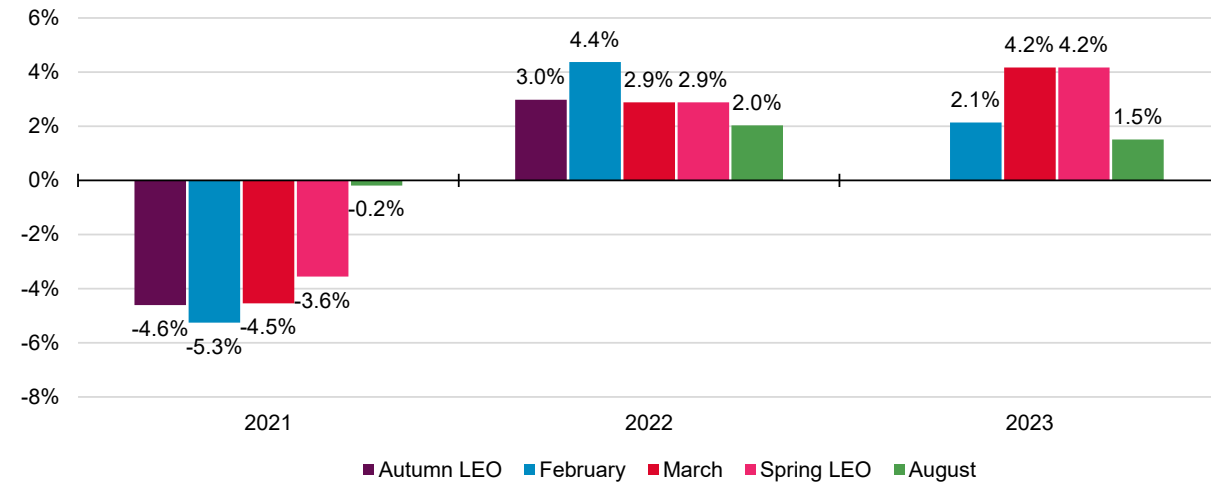


Source: GLA Economics

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# Comparison of successive Gradual recovery scenarios across outputs (2)



**Real GVA index numbers - central scenario**

Autumn LEO — February — March ⋯ Spring LEO — August

**Workforce jobs index numbers - central scenario**

Autumn LEO ⋯ February — March ⋯ Spring LEO — August
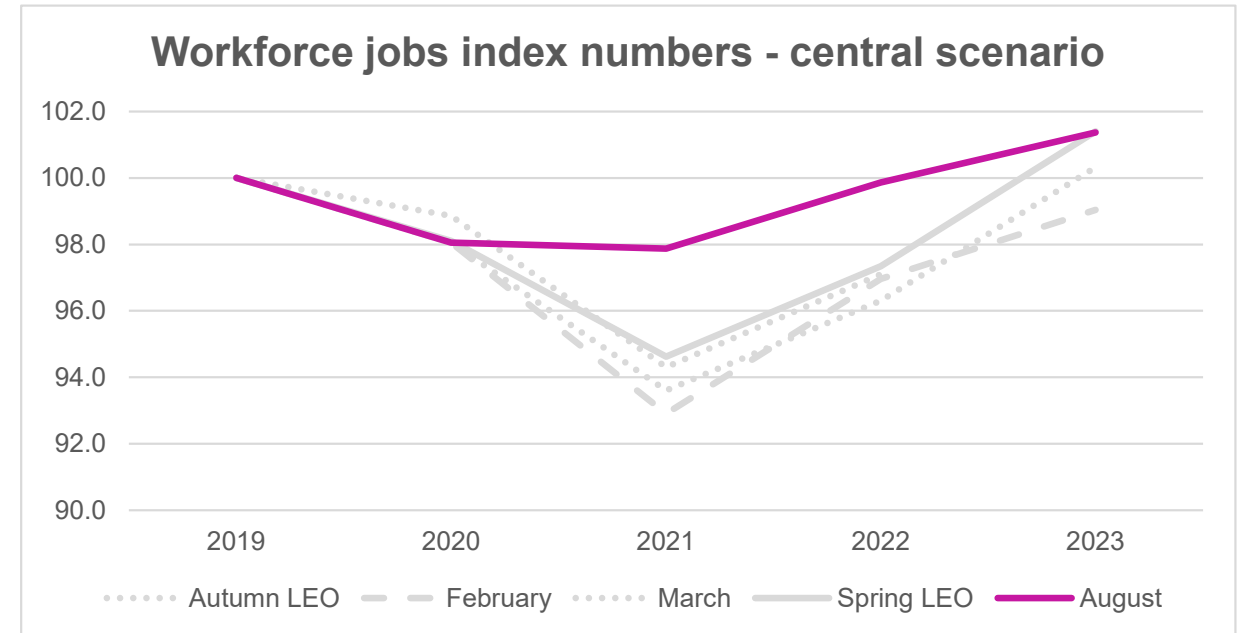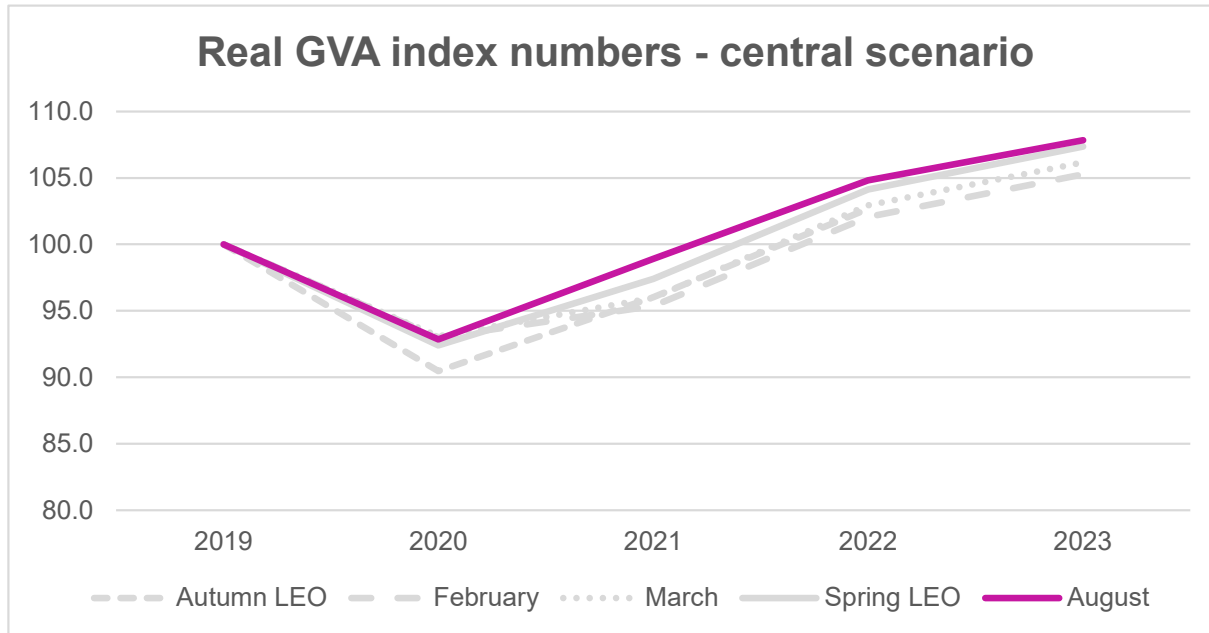
Source: GLA Economics estimates

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

| Real GVA annual growth rate | 2021 | 2022 |
|---|---|---|
| **Sector** | **%** | **%** |
| Agriculture, forestry and fishing | 2.1 | -6.0 |
| Mining and quarrying | 2.5 | -2.2 |
| Manufacturing | 12.0 | 5.2 |
| Electricity, gas, steam and air-conditioning supply | 1.7 | 11.5 |
| Water supply; sewerage and waste management | -5.5 | 11.6 |
| Construction | 15.2 | 3.5 |
| Wholesale and retail trade; repair of motor vehicles | 9.1 | 2.4 |
| Transportation and storage | 3.7 | 9.4 |
| Accommodation and food service activities | -6.7 | 41.6 |
| Information and communication | 8.5 | 5.6 |
| Financial and insurance activities | 5.3 | 3.6 |
| Real estate activities | 2.1 | 3.3 |
| Professional, scientific and technical activities | 9.6 | 4.2 |
| Administrative and support service activities | 4.8 | 6.8 |
| Public administration and defence; compulsory social security | 8.4 | 3.6 |
| Education | 8.9 | 2.3 |
| Human health and social work activities | 5.3 | 11.5 |
| Arts, entertainment and recreation | 6.1 | 38.9 |
| Other service activities | 5.9 | 19.3 |
| Activities of households | 0.5 | 8.6 |

| Workforce jobs annual growth rate | 2021 | 2022 |
|---|---|---|
| **Sector** | **%** | **%** |
| Agriculture, forestry and fishing | -22.8 | -6.4 |
| Mining and quarrying | -16.1 | -8.9 |
| Manufacturing | 0.0 | 1.2 |
| Electricity, gas, steam and air-conditioning supply | -20.0 | -3.5 |
| Water supply; sewerage and waste management | -8.5 | -2.3 |
| Construction | -5.6 | 3.4 |
| Wholesale and retail trade; repair of motor vehicles | 0.0 | -2.4 |
| Transportation and storage | 1.2 | 1.5 |
| Accommodation and food service activities | -5.8 | 7.2 |
| Information and communication | -4.9 | 2.0 |
| Financial and insurance activities | 5.1 | 2.6 |
| Real estate activities | -1.3 | 3.0 |
| Professional, scientific and technical activities | 0.6 | 2.8 |
| Administrative and support service activities | 1.3 | 2.5 |
| Public administration and defence; compulsory social security | 2.5 | 1.0 |
| Education | -1.0 | 0.9 |
| Human health and social work activities | 3.9 | 1.0 |
| Arts, entertainment and recreation | -4.4 | 6.0 |
| Other service activities | 8.2 | 2.9 |
| Activities of households | -32.7 | 0.4 |

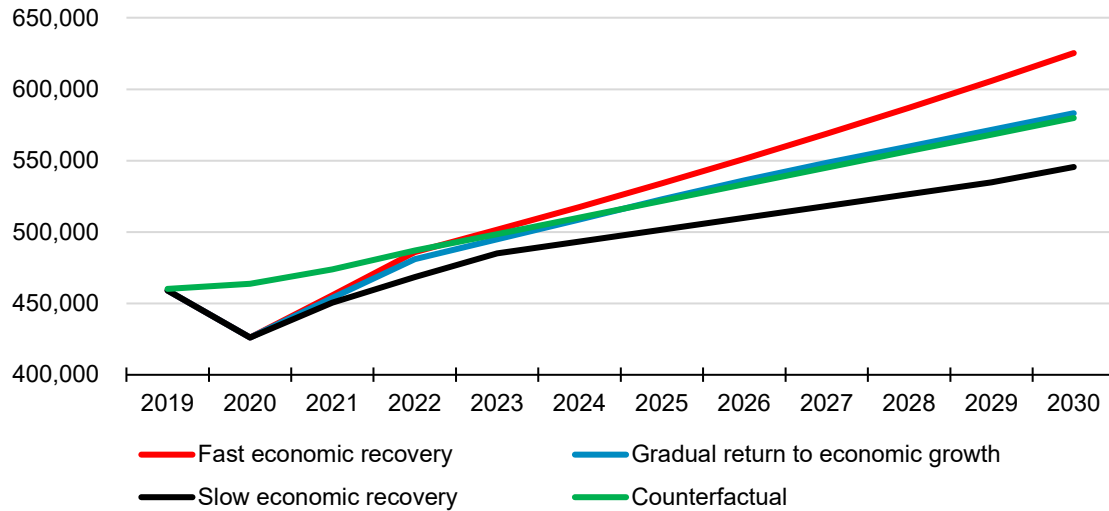Source: GLA Economics estimates – 'Gradual return to economic growth' scenario

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# Outline

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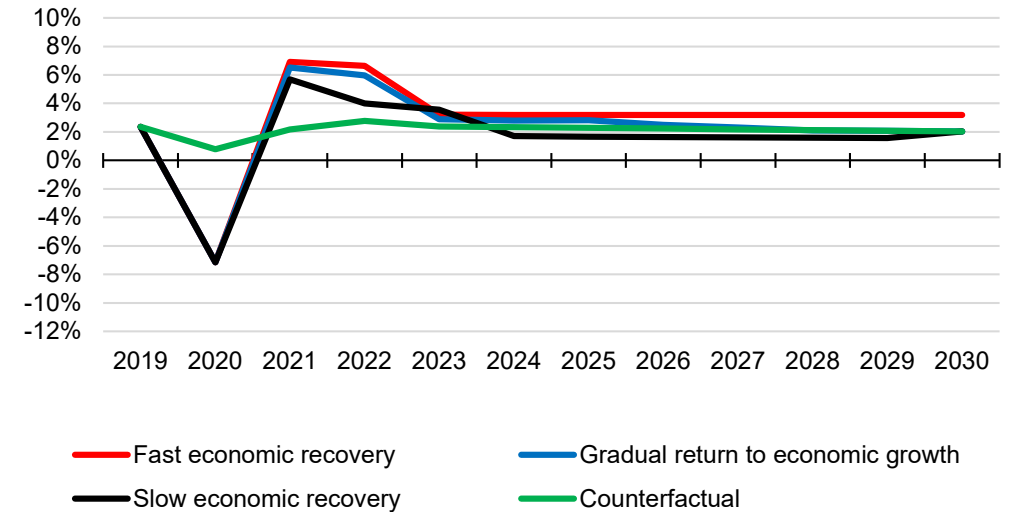# Key assumptions behind the long-term projections

| | NO-COVID / Counterfactual | Scenario 1: Fast economic recovery | Scenario 2: Gradual return to economic growth | Scenario 3: Slow economic recovery |
|---|---|---|---|---|
| GVA level in 2022 | 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 | 2023 | 2025 (5 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 (2.1%) | As in counterfactual (2.1%) |
| GVA level in 2030 | Projected in line with the above assumptions | Higher than the counterfactual | As in counterfactual in 2030 | Counterfactual - 5% (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 |

# Long-term scenario projections for London

**Real GVA in levels (£million)**



Legend:
- Fast economic recovery (red)
- Gradual return to economic growth (blue)
- Slow economic recovery (black)
- Counterfactual (green)

**Real GVA in annual growth rates**



Legend:
- Fast economic recovery (red)
- Gradual return to economic growth (blue)
- Slow economic recovery (black)
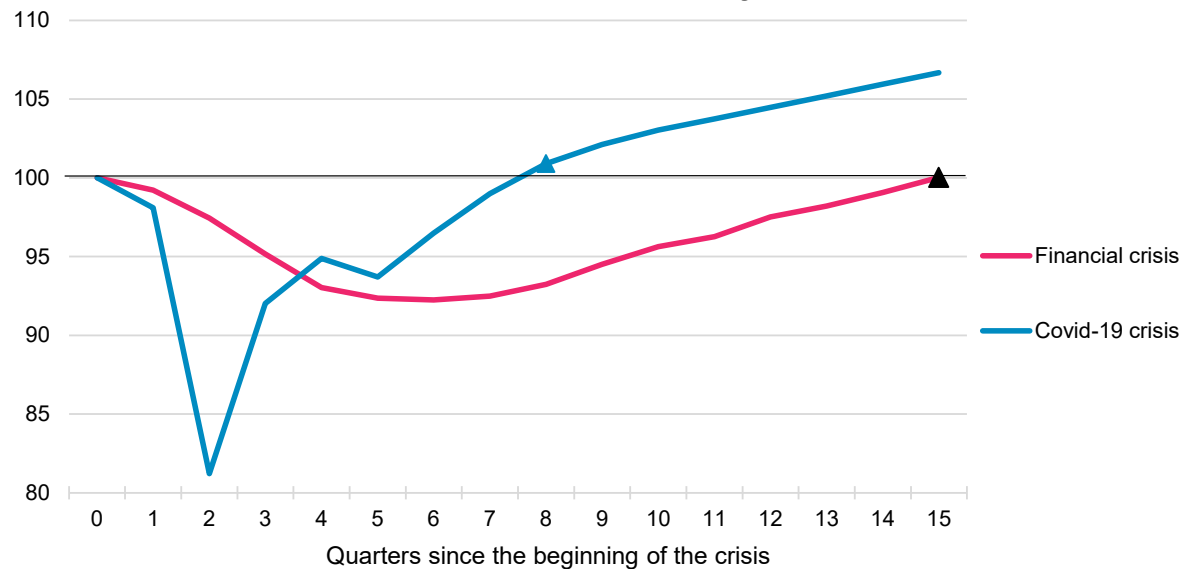- Counterfactual (green)

Source: GLA Economics

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# Comparison with the financial crisis

- Despite a deeper and more rapid output 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 jobs market is likely to increase scarring, where individuals lose contact with the labour market and become inactive.

**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

Financial crisis

Covid-19 crisis

Source: GLA Economics

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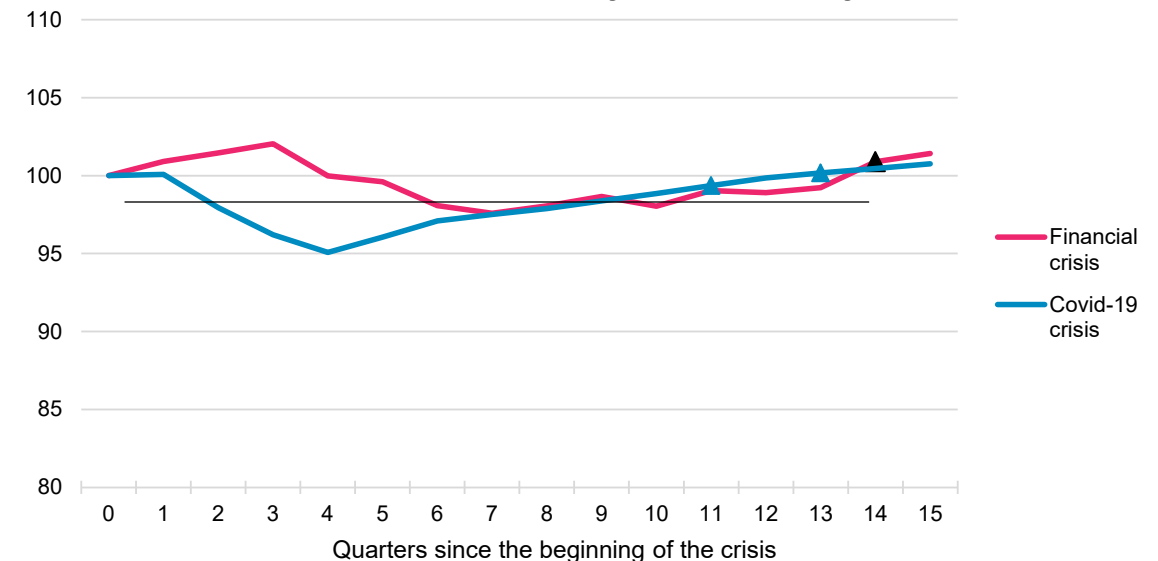
# Summary of GVA annual growth rates in selected years

**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 | 6.9% | 6.5% | 5.7% |
| 2022 | 6.6% | 6.0% | 4.0% |
| 2023 | 3.2% | 2.9% | 3.6% |
| 2025 | 3.2% | 2.8% | 1.7% |
| 2030 | 3.2% | 2.0% | 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 |
| 2019 | 458,948 | 458,948 | 458,948 |
| 2020 | 426,163 | 426,163 | 426,163 |
| 2021 | 455,629 | 453,927 | 450,406 |
| 2022 | 485,919 | 481,004 | 468,444 |
| 2023 | 501,524 | 494,858 | 485,136 |
| 2025 | 534,135 | 523,004 | 501,655 |
| 2030 | 625,244 | 583,227 | 545,577 |

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 | Q1 2022 | Q2 2022 |
|---------|---------|---------|---------|---------|---------|
| 109,031 | 112,289 | 115,198 | 117,409 | 118,818 | 119,887 |

| Q3 2022 | Q4 2022 | Q1 2023 | Q2 2023 | Q3 2023 | Q4 2023 |
|---------|---------|---------|---------|---------|---------|
| 120,727 | 121,572 | 122,423 | 123,280 | 124,143 | 125,012 |

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 | Q1 2022 | Q2 2022 |
|---------|---------|---------|---------|---------|---------|
| 5,841 | 5,905 | 5,929 | 5,953 | 5,982 | 6,012 |
| **Q3 2022** | **Q4 2022** | **Q1 2023** | **Q2 2023** | **Q3 2023** | **Q4 2023** |
| 6,042 | 6,073 | 6,091 | 6,109 | 6,127 | 6,146 |

Source: GLA Economics

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# Outline

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# Summary of methodology

- Quarterly ONS UK output data is available to Q1 2021 for the UK and to Q4 2020 for London by sector.

- Q4 2020 and Q1 2021 output for London tracks UK output trends.

- Quarterly jobs data by sector available for London and the UK to Q1 2021.

- Payrolled employee jobs estimates for Q2 2021 for London and the UK inform all jobs forecast

- Development of scenarios takes into modelling of published and non-published external forecasts.  For this iteration it pays particular attention to modelling of latest estimates by the Bank of England (BoE).  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 while still not recovering to former levels until 2023 or later.  The impact of Brexit will dampen 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 it returns 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 Q4 2020
- 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 Q1 2021

**Real GVA – levels, £m 2018 prices**

| Q4 2019 | Q1 2020 | Q2 2020 | Q3 2020 | Q4 2020 |
|---------|---------|---------|---------|---------|
| 116,362 | 114,151 | 94,517  | 107,088 | 110,408 |

**Workforce jobs – levels, thousands**

| Q4 2019 | Q1 2020 | Q2 2020 | Q3 2020 | Q4 2020 |
|---------|---------|---------|---------|---------|
| 6,081   | 6,086   | 5,956   | 5,850   | 5,781   |

Source: GLA Economics

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