

Draft New London Plan – Technical Seminar

Employment projections

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What we're going to cover

1. Outline of methodology & results
2. Projecting in times of uncertainty
3. Summary

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GLA Economics (GLAE) has an established, trend-based methodology to produce employment projections.....

 A **variable's history** includes the effect of everything that has driven it;

 **Alternative approaches** are likely to be less reliable when looking at the long-term. Indeed, our previous projections have performed relatively well when compared to other forecasters.

A variable's history can be the basis of a (trend-based) projection as long as:

(1) It has a reasonably stable pattern and is not random

(2) Future shocks and structural changes are no bigger than in the past (a judgement).

The variable of interest – employment.....

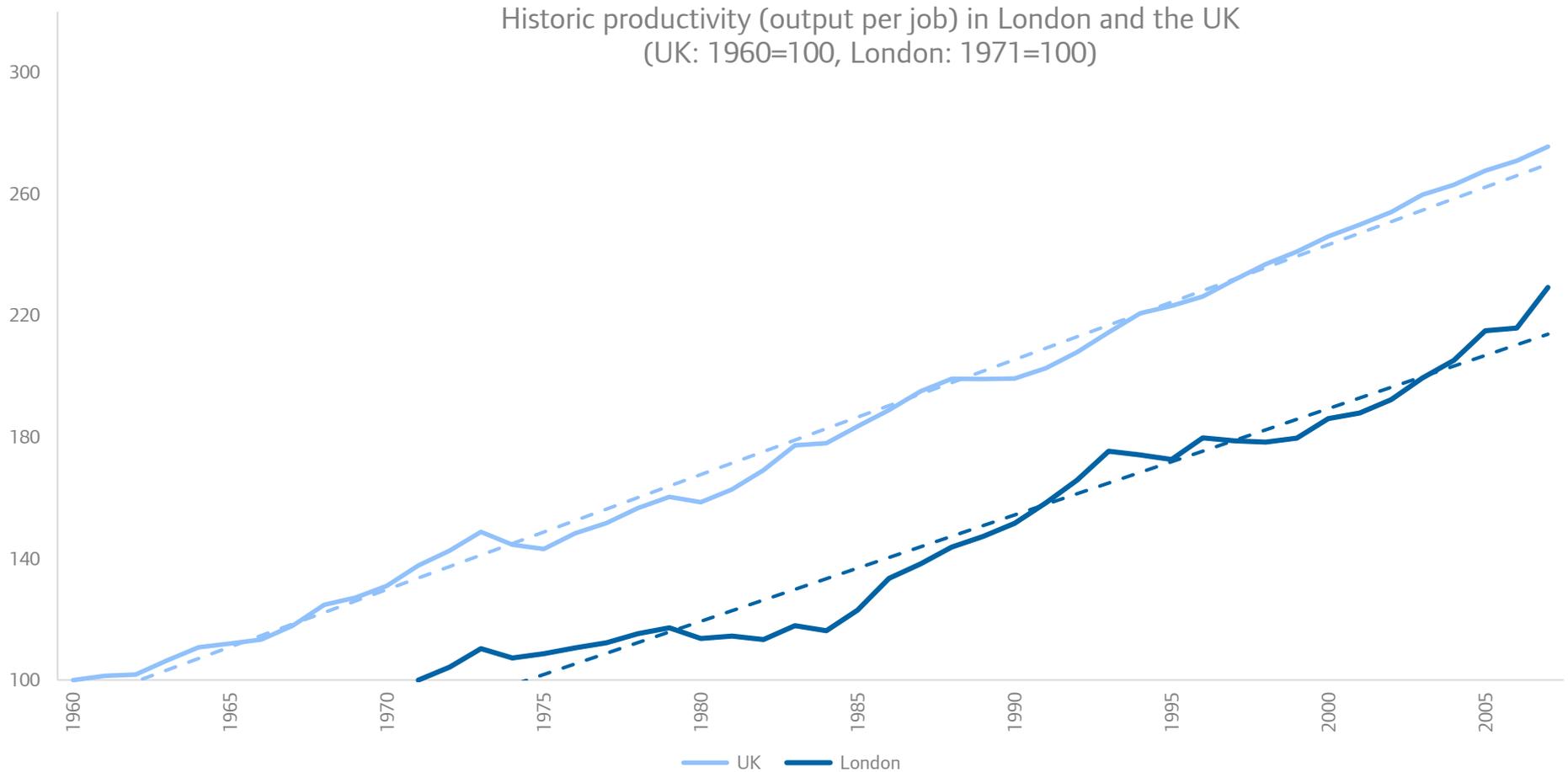
The level of employment in London is **not a random variable** - it has shown a relatively stable historical trend.

It is arithmetically related to output and productivity changes, such that:

$$\Delta \text{ in employment} = \Delta \text{ in output} - \Delta \text{ in productivity}$$

So we **project** forward the historical productivity/employment relationship and input a long-term output (GVA) growth path which is informed by OBR forecasts.

... has a stable relationship with output over a number of economic cycles in the UK...



Source: GLA Economics calculations using ONS WFJ and ABMI CVM GDP

Running the projections is not a mechanistic exercise – it requires a degree of professional judgment



Weight to be attached to employment/output relationship experienced in selected historic periods. Relationships in specific historic time periods can be assumed to have a greater influence on the future path of employment (in the medium term and/or longer-term)

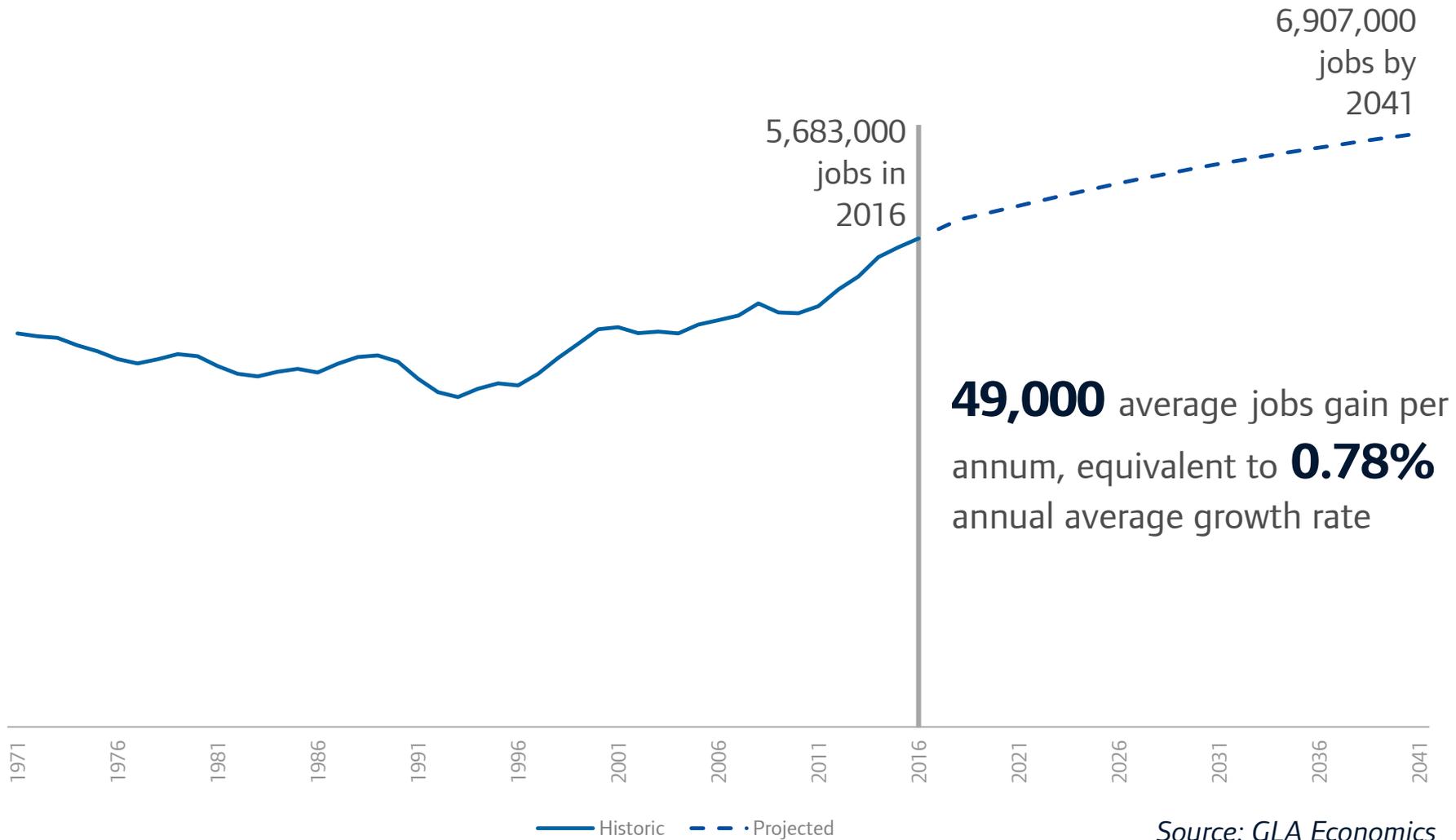


Assumptions on future London's GVA growth. We use London's Economic Outlook forecasts in the medium term and we look at other forecasters (especially OBR) expectations on long-term growth (to 2041), with an assumption of long-term convergence to UK output growth.



Overall plausibility of projected growth. Annual growth rates sense checked for plausibility against past experience, other forecasters and GLA population projections.

The 2017 GLAE employment projections (central case) see London jobs growing to 6.9 million by 2041...

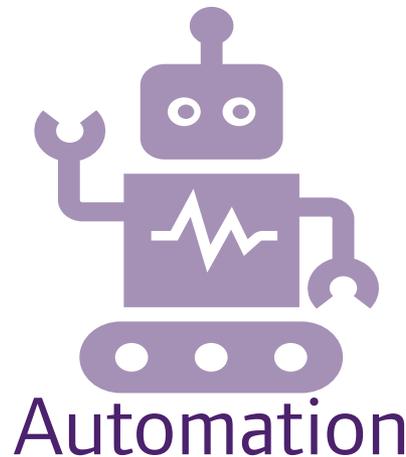


Source: GLA Economics

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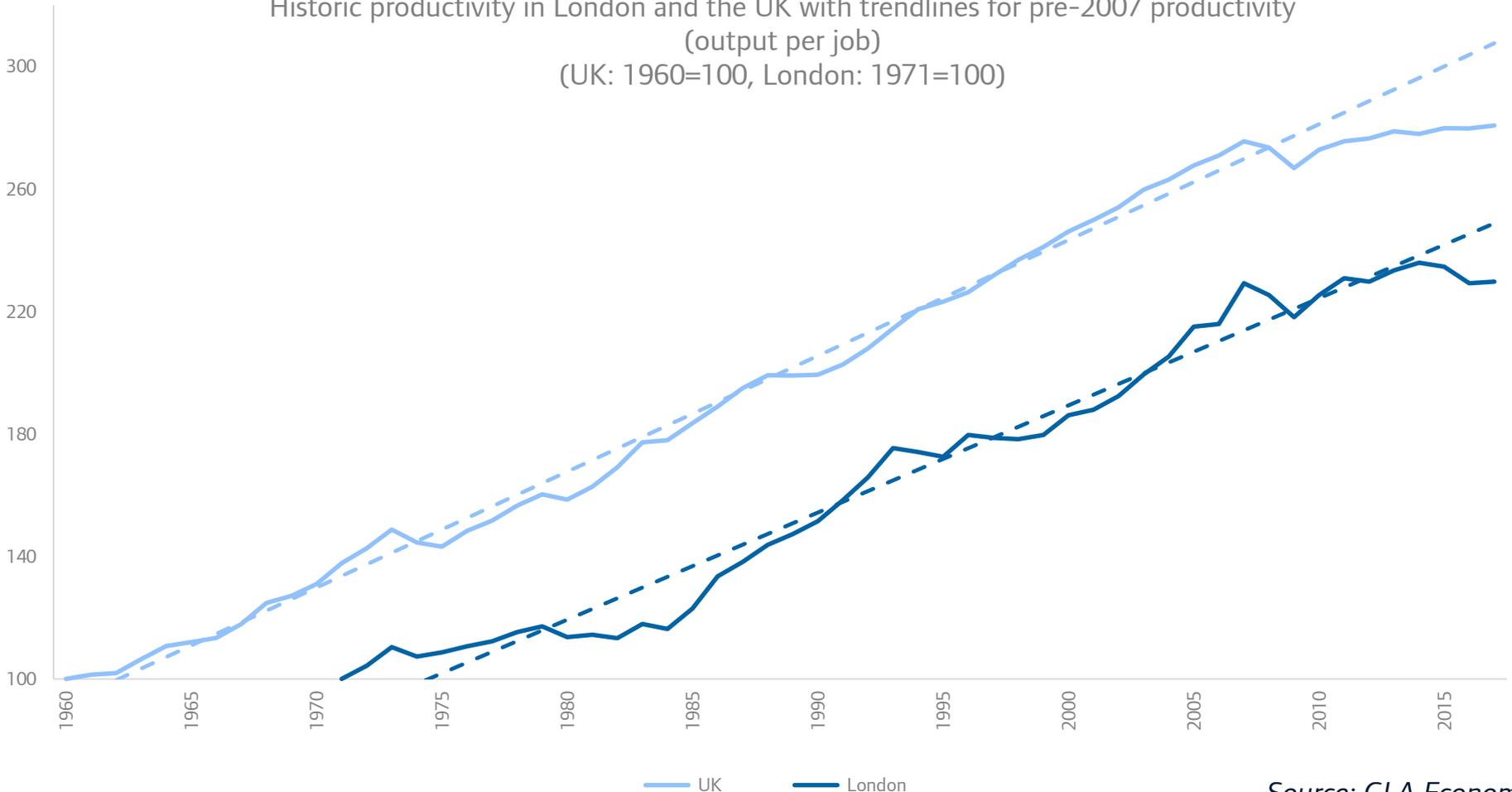
The UK, and London, face a number of uncertainties.





GVA per job shows a markedly different trend since the recession, both in the UK and in London...

Historic productivity in London and the UK with trendlines for pre-2007 productivity (output per job)
(UK: 1960=100, London: 1971=100)



Source: GLA Economics



... a number of possible explanations have been put forward to explain the weak productivity growth ...

Increasing strength of evidence

Record-low interest rates supporting the survival of less productive ('zombie') firms (cyclical/structural)

Subdued rates of growth of export demand (cyclical)

Mismeasurement of economic output and/or employment (cyclical/short-term)

Tight credit supply conditions and impaired financial markets (cyclical/structural)

Sectoral shift from higher to lower productivity sectors (cyclical/structural)

A widespread fall in business investment during the crisis, and weak growth thereafter (cyclical/structural)

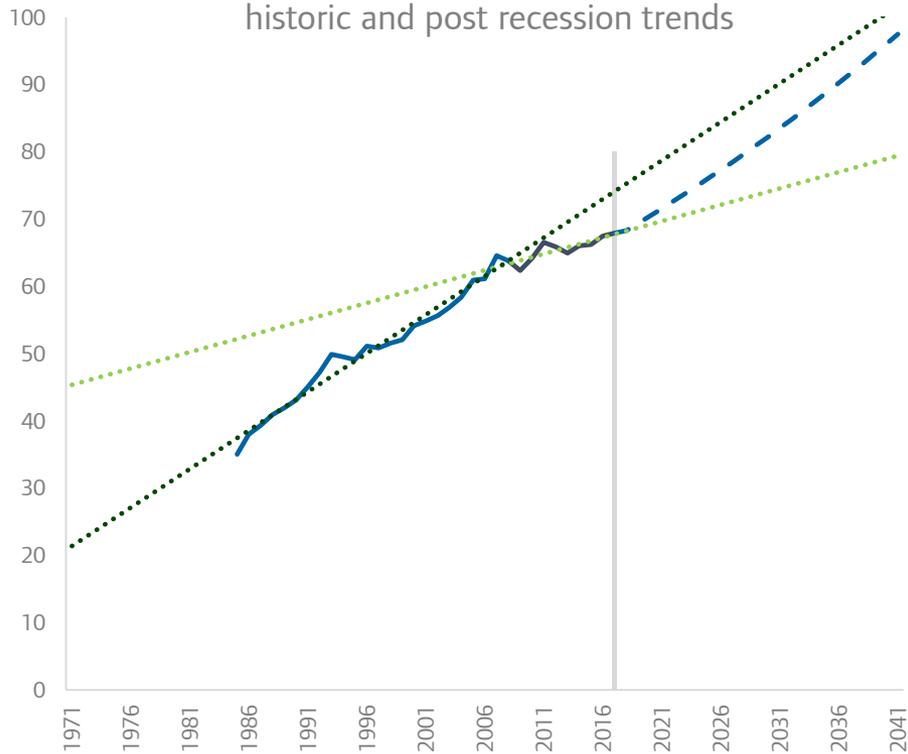
Marked productivity slowdown in the finance sector (cyclical/structural)

Labour hoarding and excess labour capacity (cyclical)



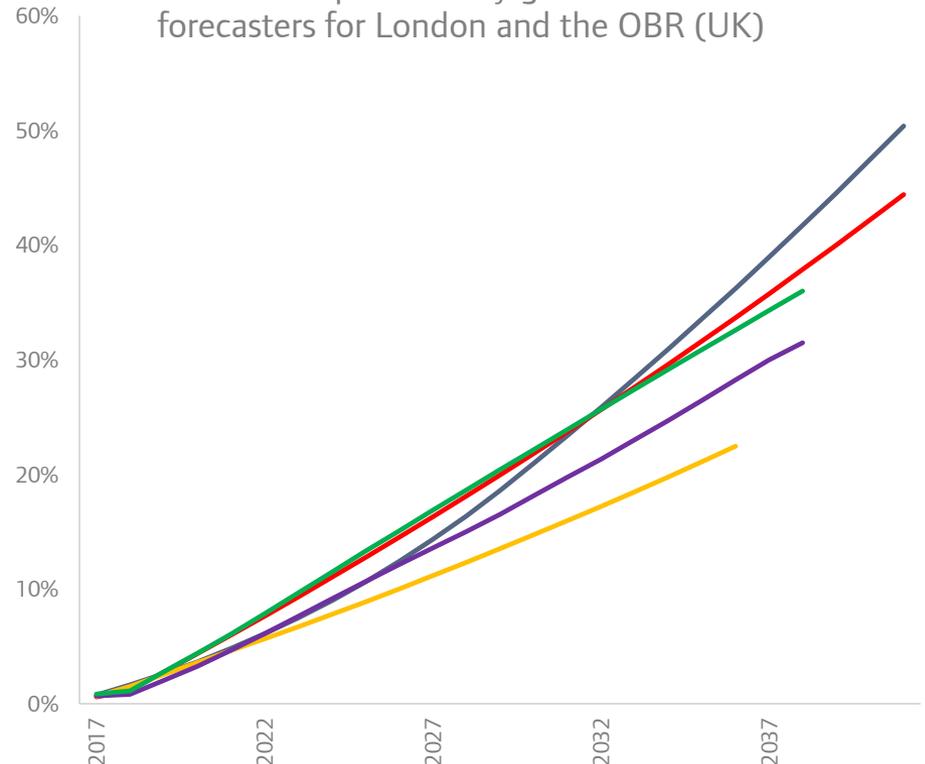
... on balance a gradual path of productivity recovery seems a reasonable and consistent assumption

Projected productivity (output per job) against historic and post recession trends



- Productivity Projected
- ... Linear (Productivity Post recession)
- ... Linear (Productivity Pre-recession (from 1985))

Cumulative productivity growth assumed forecasters for London and the OBR (UK)



- OBR
- GLA Economics
- Forecaster 1
- Forecaster 2
- Forecaster 3



Globalisation has shaped London's economy but now faces an uncertain future ...

London is an **international city**.
Its global connectivity has increased trade and allowed industrial specialisations;

... those
[risks to global growth]
including the threat of increased global protectionism, rising oil prices and emerging market vulnerabilities, have become more prominent'
VP of the ECB (2018)

52%:48%

The UK votes to leave the EU

"Protection will lead to great prosperity and strength."
Donald Trump (2017)

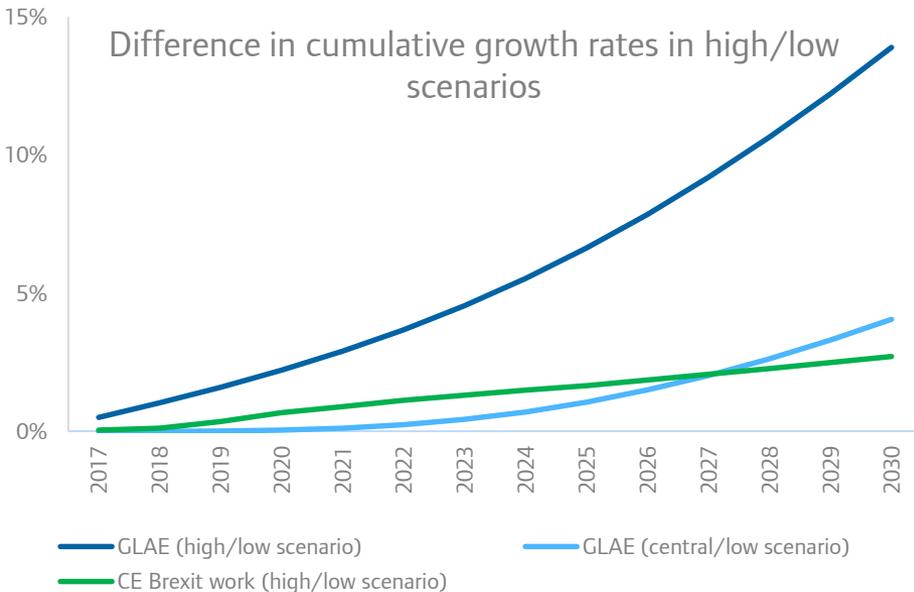
... and, although Brexit is certain, the terms are not.

Given the current uncertainty as to how the Government will respond to the choices and trade-offs facing it during the negotiations, we **still have no meaningful basis for predicting a precise outcome upon which we could then condition our forecast...**

Forecast long-term impact of Brexit on GDP, relative to remaining in the EU

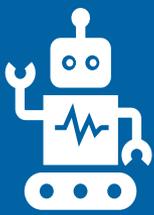


Source: Institute for Government analysis



... moreover, even if the outcome of the negotiations were predictable, its impact on the economy, monetary policy and the public finances would still be uncertain.

(OBR, Economic & Fiscal Outlook, March 2018)



Automation

Will a 4th industrial revolution occur and what will it mean for employment?

Can **replace** jobs
(or, more accurately, tasks)

Can **create** jobs
(e.g. to operate, create and develop the technology or by driving additional or new consumer demands)

Its adoption depends on more than just technology.
It also relies on economic conditions incl. labour costs, borrowing costs and regulation

Will automation replace more jobs than it creates?

There are likely to be **transitional** impacts in the short term, where creation lags replacement. However, London-focused studies suggest the Capital is less exposed to job losses from AI and history suggest automation should lead to a *net* gain in jobs in the long-run.

“Labor will become less and less important. More and more workers will be replaced by machines. I do not see that new industries can employ everybody who wants a job”

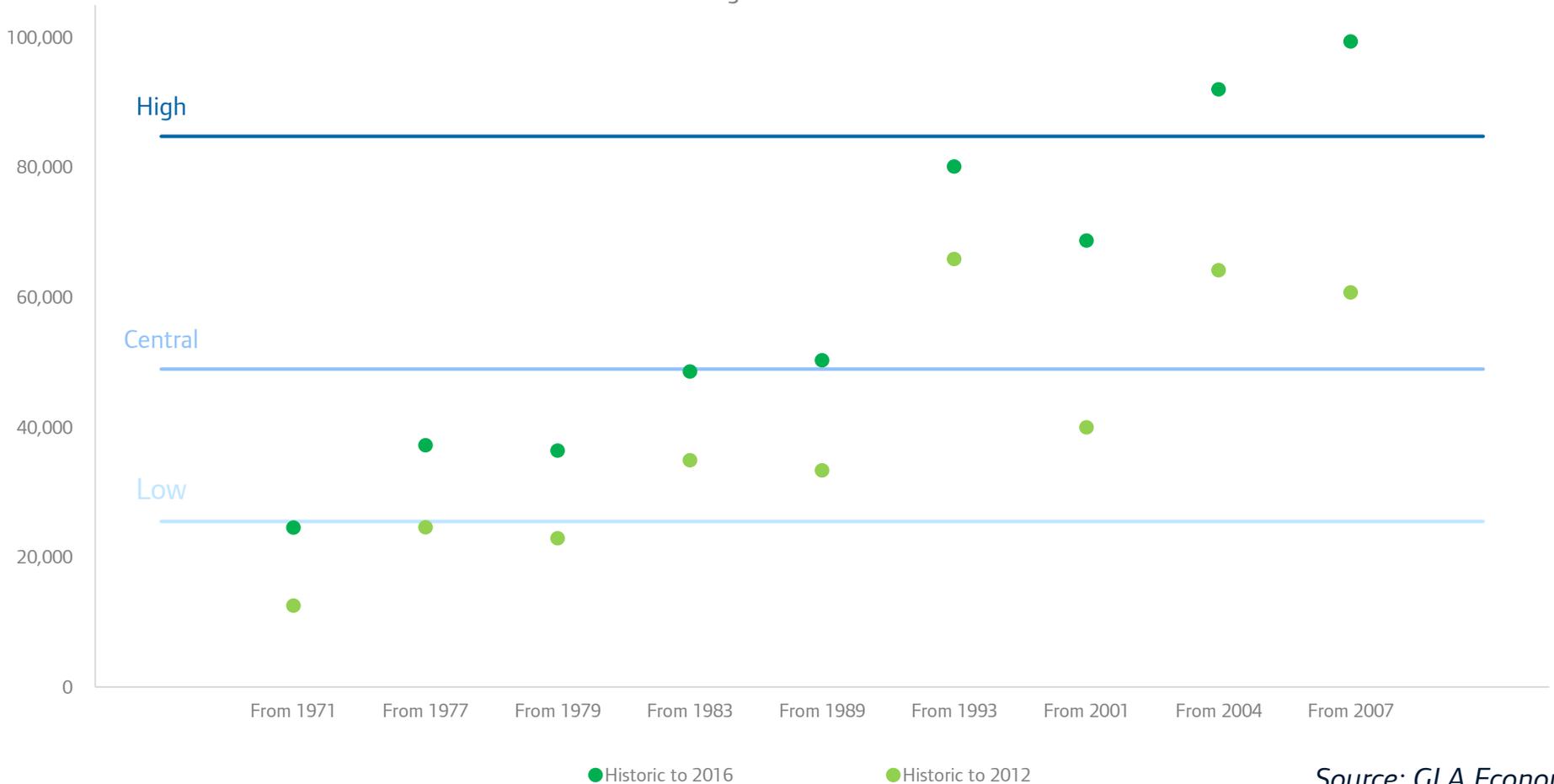
Wassily Leontief (1983)

*‘We are being afflicted with a new disease
.....unemployment due to our discovery of means of economising the use of labour outrunning the pace at which we can find new uses for labour.’*

John Maynard Keynes (1930)

So what does this uncertainty mean for GLAE projections?

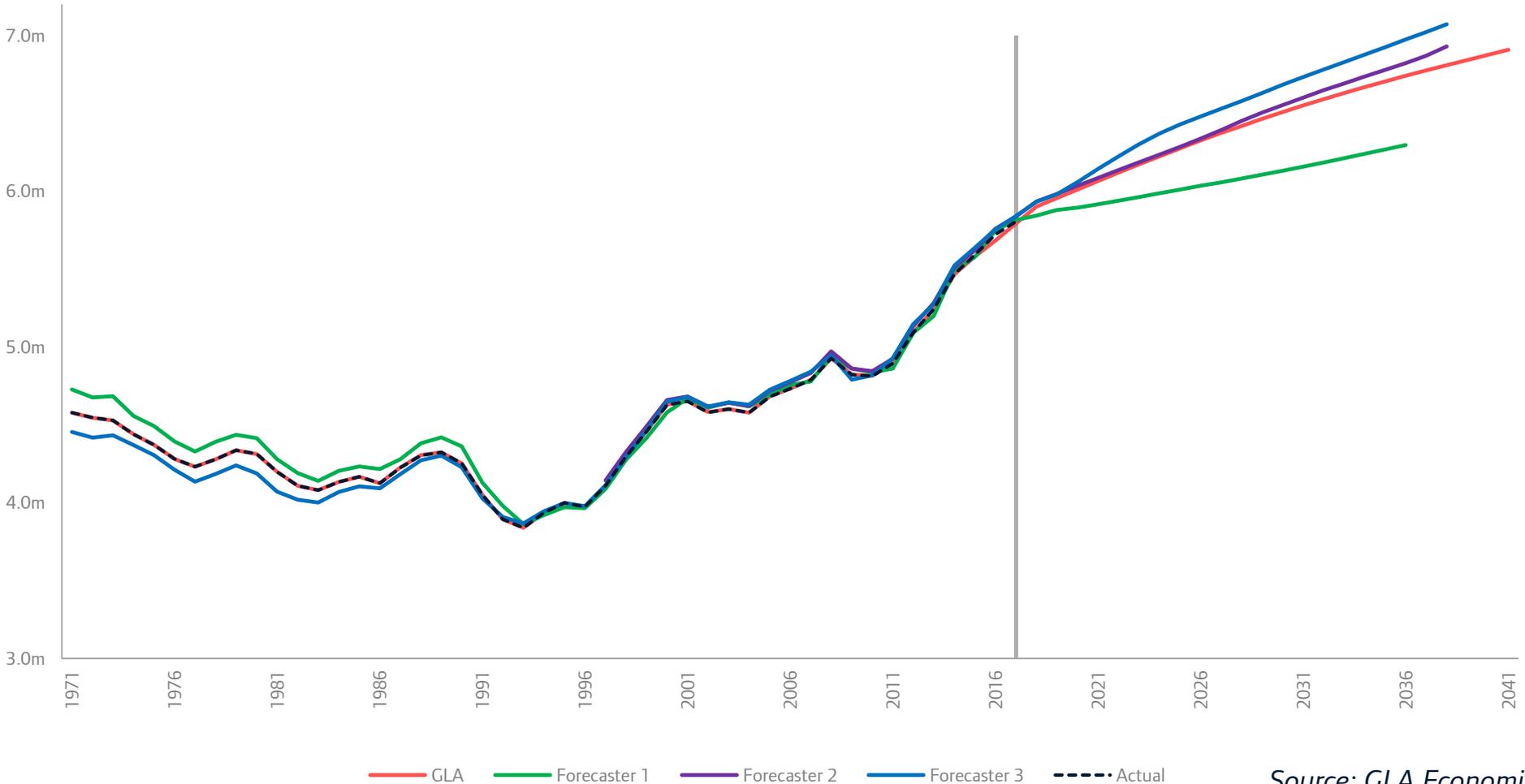
Annual average growth of employment under different output growth assumptions compared to historic employment growth rates



Source: GLA Economics

Though GLAE projections remain comparable with other forecasters

GLA Economics' 2017 projections against external forecaster's latest projections



Source: GLA Economics

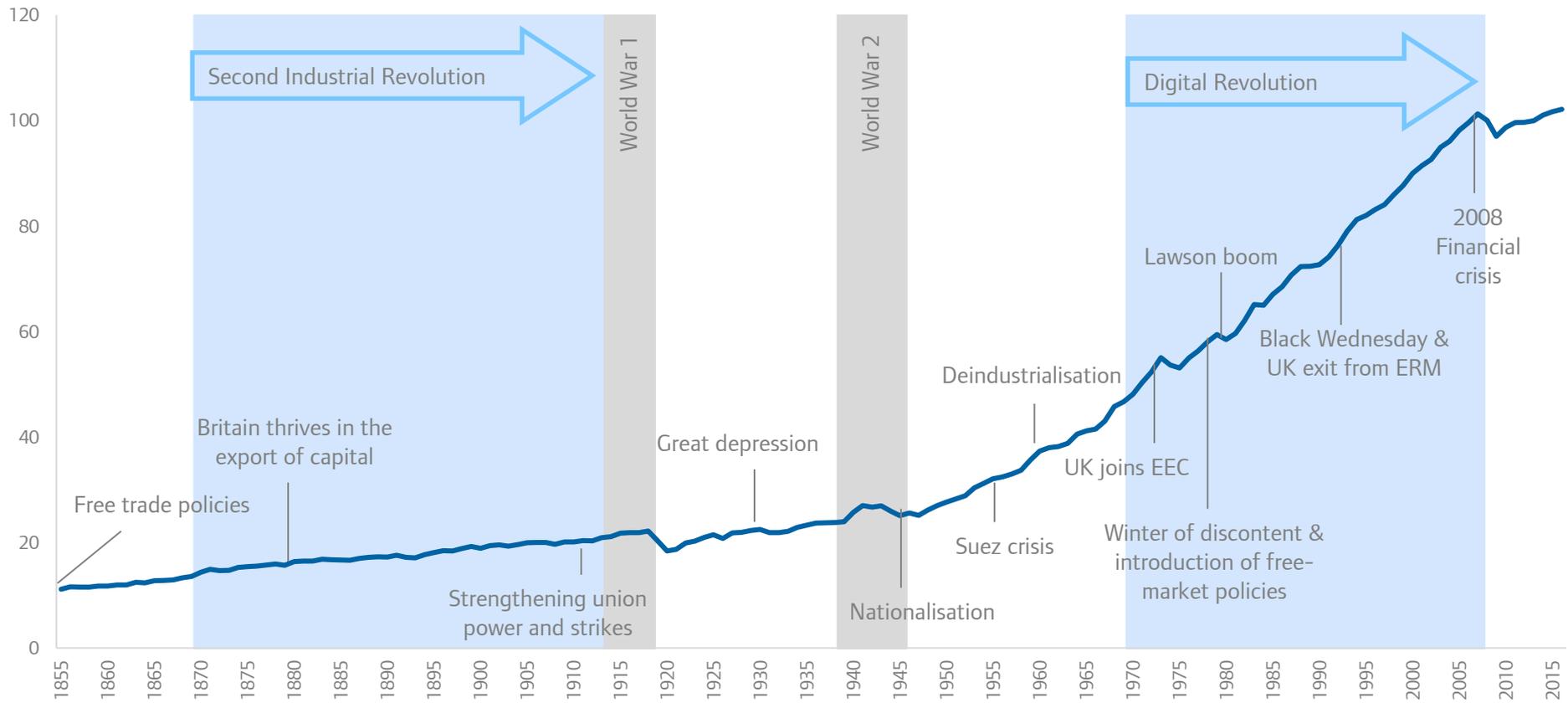
...and we have faced uncertainties before, returning to trend ...



Source: GLA Economics

... even over the very long-run.

UK productivity per head of employment, 1855-2016
(2013=100)



Source: GLA Economics using 'A Millennium of Macroeconomic Data for the UK', BoE (2017)

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GLAE projections remain suitable for long-term planning purposes

- The GLA Economics projections are based on a sound **long-term methodology** that has **performed well** in the past;
- Our central projections and assumptions **remain comparable** to other independent forecasters.
- We are currently facing **significant uncertainties** on the future trajectory of the economy. Our uncertainty ranges reflect a variety of possible futures.
- We will need to **monitor developments** (as are other bodies), including in the short-term the outcome of Brexit negotiations