# Economic Forecasting

GMCA GREATER MANCHESTER COMBINED AUTHORITY

# Economic Forecasts for Greater Manchester

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Postscript Note: The analysis in this paper was produced before the Covid-19 pandemic started to impact on the UK economy. Covid-19's impact on the world economy and the UK Government's policy response will clearly impact on the performance of the GM economy. This will affect some of the variables considered in the forecasting outlined in this paper. Given the significant uncertainties about the length and nature of the eventual economic recovery from Covid-19 globally, in the UK and in Greater Manchester we consider that there is not currently a robust enough evidence base to revise the forecasts outlined in this paper across the plan period (2020-2037). This is considered in greater detail in the accompanying paper *Covid-19 and the Greater Manchester Economy - Implications for the GMSF*

# Executive Summary

**Background**

- This report presents the results of the Greater Manchester Forecasting Model 2019 (GMFM-2019) produced in October 2019. In addition to the GMFM, which is a baseline scenario, this report also provides the results of the Accelerated Growth Scenario (AGS) for Greater Manchester (GM) produced in February 2020. This shows a future where improvements to the skills base, innovation, and transport boost GVA, employment, and productivity growth across the North. GM's economy both drives, and benefits from, this growth.
- The GMFM is produced by an independent forecasting firm, Oxford Economics, and uses assumptions from their world and UK economic models, including the latest views on productivity, employment growth, and major risks – as far as they were understood up to the end of 2019 – such as Brexit. These are detailed in the main report, including a reasoned justification for the growth rates used throughout the analysis.
- The analysis focuses on the main GMFM variables, which include: economic output (GVA); employment; productivity (GVA per employment), resident employment rates (the proportion of residents working), and population size.
- **The main timeframe for forecasts is 2017 to 2037**. This is consistent with the 20 year horizon provided in all previous GMFM reports, and includes - as its starting point - the latest 'actual' ONS data inputs (not provisional data) for GVA, employment, and population at the time of writing.

**GMFM-2019 Main findings**

- GMFM-2019 shows GVA growing at 1.6 % per year up to 2037, 0.1% points less than the rate of growth forecast in the previous GMFM-2018 model.
- Productivity is forecast to grow at an average annual rate of 1.0%, slower than the GMFM-2018 forecast of 1.3%. There is a risk that productivity growth regresses further, particularly if Brexit results in lower inflows of FDI.
- Total employment is forecast to grow at 0.6% per year in GM, equating to a net increase of 183,000 jobs between 2017 and 2037, compared to 122,100 in the previous GMFM-2018 published model.
- Employment growth is largely driven by Business, Financial, and Professional Services - accounting for 45% of the net increase in the total number of jobs in GM up to 2037.
- Sectors are broadly similar in their employment prospects compared to the previous published results, with stronger jobs growth in Logistics, Business, Financial and Professional services, Construction, and Health and Social Care; and slightly slower growth in Wholesale and Retail, and Hospitality and Tourism.
- The baseline forecast suggests that total population will grow by 184,900 from 2017 to 2037, up 3,600 compared to GMFM-2018.
- GMFM-2019 forecasts a net increase of 127,300 GM residents in employment between 2017 and 2037. The resident employment rate (proportion of residents aged 16-64 in employment) in GM is forecast to reach 76.8% by 2037.

**Accelerated Growth Scenario (AGS)**

- GVA is forecast to grow at an average annual rate of 2.4% between 2017 and 2037 (compared to UK average of 1.6%). Under the AGS, GM is projected to grow faster than the UK – reflecting the city-region's ambitions to help drive growth across the Northern Powerhouse. This is equivalent to an additional £38.9 billion of economic activity in GM by 2037.
- Stronger GVA growth is supported by a strong shift towards higher value sectors. This means productivity growth in GM is stronger in the AGS scenario than the baseline forecast, averaging productivity growth of 1.5% per year from 2017 to 2037. It also reflects the fact that faster economic growth is assumed to be supported by investments that boost overall productivity.
- Total employment in GM is forecast to rise by 260,100 between 2017 and 2037 in the AGS-2019 scenario, (197,000 in AGS-2018), equivalent to 77,100 more jobs than the GMFM-2019 baseline; and 63,100 more than last year's AGS.
- Population growth is stronger in the AGS scenario than in the baseline forecast. Total population is projected to rise by 295,700 from 2017 to 2037, of which 110,800 is the additional uplift compared to the GMFM-2019 baseline.
- The AGS assumes that the majority of new jobs will be taken by GM residents. Adjusting for residents that may hold more than one job, this equates to an additional 80,300 GM residents in employment in 2037 compared with the baseline scenario.

## Key tables

**A) Headline growth, GMFM-2019 and AGS-2019, 2017 to 2037**

| | Model: | GMFM-2019 | | AGS-2019 | |
|---|---|---|---|---|---|
| | Measure: | Net increase/ decrease | % Compound Annual Growth | Net increase/ decrease | % Compound Annual Growth |
| | Period: | *Level in 2017 vs level in 2037* | *2017 to 2037* | *Level in 2017 vs level in 2037* | *2017 to 2037* |
| GM | GVA | £23.9bn | 1.6% | £38.9bn | 2.4% |
| GM | Productivity | £9,600 | 1.0% | £15,900 | 1.5% |
| GM | Employment | 183,100 | 0.6% | 260,100 | 0.8% |
| GM | Population | 184,900 | 0.3% | 295,700 | 0.5% |

*Source: Oxford Economics GMFM-2019, AGS-2019*

**B) Baseline GMFM-2019 forecast for GVA and employment by main sectors in GM, 2017 to 2037**

| Main GMCA defined sectors | GVA (rounded) | | Employment (rounded) | |
|---|---|---|---|---|
| Measure | Net increase/ decrease (millions) | % Compound Annual Growth | Net increase/ decrease | % Compound Annual Growth |
| Period | *Level in 2017 vs level in 2037* | *2017 to 2037* | *Level in 2017 vs level in 2037* | *2017 to 2037* |
| Construction | £965.2m | 1.1% | 26,000 | 1.3% |
| Manufacturing | £1,490m | 0.9% | -21,200 | -0.9% |
| Logistics (transport and storage) | £1,110m | 1.4% | 12,200 | 0.7% |
| Wholesale and retail | £2,932m | 1.7% | 18,500 | 0.4% |
| Other personal services | £253m | 1.2% | 5,800 | 1.0% |
| Business, financial, professional services | £9,946m | 2.1% | 81,900 | 1.2% |
| Creative and digital industries | £2,641m | 2.4% | 12,800 | 0.7% |
| Hospitality, tourism and sport | £1,190m | 1.6% | 22,800 | 0.9% |
| Education | £66m | 0.1% | 200 | 0.0% |
| Health and social care | £2,596m | 1.7% | 28,600 | 0.7% |
| Public administration | -£177m | -0.3% | -4,700 | -0.4% |

*Source: Oxford Economics GMFM-2019. Main sectors defined by GMCA, excludes agriculture and utilities*

**C) AGS-2019 forecast for GVA and employment by main sectors in GM, 2017 to 2037**

| Main GMCA defined sectors | GVA (rounded) | | Employment (rounded) | |
|---|---|---|---|---|
| Measure | Net increase/ decrease (millions) | % Compound Annual Growth | Net increase/ decrease | % Compound Annual Growth |
| Period | *Level in 2017 vs level in 2037* | *2017 to 2037* | *Level in 2017 vs level in 2037* | *2017 to 2037* |
| Construction | £1,515m | 1.7% | 29,000 | 1.5% |
| Manufacturing | £2,652m | 1.5% | -20,600 | -0.9% |
| Logistics (transport and storage) | £2,032m | 2.4% | 20,900 | 1.1% |
| Wholesale and retail | £4,048m | 2.3% | 26,800 | 0.6% |
| Personal services | £394m | 1.7% | 6,900 | 1.2% |
| Business, financial, professional services | £16,516m | 2.5% | 100,300 | 1.4% |
| Creative and digital industries | £4,523m | 3.6% | 18,600 | 1.0% |
| Hospitality, tourism and sport | £1,770m | 2.3% | 27,300 | 1.1% |
| Education | £481m | 0.5% | 12,700 | 0.5% |
| Health and social care | £3,556m | 2.3% | 37,700 | 0.9% |
| Public administration | £220m | 0.4% | 300 | 0.0% |

*Source: Oxford Economics GMFM-2019. Main sectors defined by GMCA, excludes agriculture and utilities*

# 1. Introduction

## Background

1.1. Greater Manchester (GM) has consistently invested in developing a robust evidence base to inform strategy and policy development. Since 2005, a central part of this evidence base has been the Greater Manchester Forecasting Model (GMFM).

1.2. Updated annually, the GMFM provides economic and demographic forecasts for GM local authorities and benchmark UK cities, regions, and nations. The GMFM has been produced by Oxford Economics (OE) since 2005, and is part of, and fully consistent with, their suite of global, national, and regional models.

1.3. The main model outputs are a set of 'baseline case' forecasts (GMFM-2019) representing 'business as usual' - which take into account risks such as the UK's long-term productivity challenge - and the modelled risks from Brexit.[1]

1.4. The GMFM includes the following main variables:

- Total economic output, referred to as real-Gross Value Added (GVA)[2], which includes the profits and wages (less costs) of goods produced in GM;
- Total employment within GM, including employees and the self-employed, broken down by industry sector;
- Productivity, calculated by dividing total economic output (GVA) by total employment;
- Resident employment and unemployment numbers and rates
- Employment by main occupational group and highest level of qualification
- Population, total and by broad age group; and net migration across all ages.

1.5. The GMFM is the starting point for looking at scenarios or alternate futures. OE were commissioned to update the Accelerated Growth Scenario (AGS-2019) for GM. The AGS shows a future where improvements to the skills base, innovation, and transport boost GVA, employment, and productivity growth across the Northern Powerhouse. GM's economy both drives, and benefits from, this growth.

1.6. This report is accompanied by a detailed data release providing historic and forecast data for all Gross Value Added (GVA), employment, and population variables for both the GMFM-2019 and AGS-2019. These can be downloaded from the GMCA website.

## Report structure

1.7. The remainder of this report is set out as follows:

- **Section 2** provides the main assumptions and headlines from the GMFM-2019 forecast;
- **Section 3** provides the main assumptions and headlines from the AGS-2019 scenario;
- **Annex 1** shows a list of the main data sources which form the inputs to the GMFM and AGS;
- **Annex 2** shows a comparison of the GMFM/Oxford Economics forecasts with those of other forecasters.

[1] More detail on Brexit is included in the main body of the report. The assumptions are based on Oxford Economics' view on the risks of Brexit in mid-2019.
[2] Real GVA – figures expressed as constant prices, removing the effects of inflation, and using regional deflators

# 2. GMFM-2019 baseline forecast

## Introduction

1.1 This section presents the latest forecasts produced in the GMFM-2019. It includes a summary of the key assumptions underpinning the baseline forecasts; a comparison of the projected level of growth for the UK by OE and other leading forecasters, and headline forecasts for GVA, employment, unemployment, and population.

**Key messages**

- **GMFM-2019** shows **GVA** growing at 1.6% per year up to 2037, 0.1% points less than the rate of growth forecast in the previous GMFM-2018 model.
- **Productivity** is forecast to grow at an average annual rate of 1.0%, slower than the GMFM-2018 forecast of 1.3% per year.
- **Total employment** is forecast to grow at 0.6% per year in GM, equating to a net increase of 183,000 jobs between 2017 and 2037, compared to 122,100 in the previous GMFM-2018 model.
- **Employment growth** is largely driven by Business, Financial, and Professional Services - accounting for 45% of the net increase in the total number of jobs in GM up to 2037.
- **Job losses in Manufacturing** are forecast (a decrease of 21,200 between 2017 and 2037), however productivity improvements (particularly in Advanced Manufacturing) continue to drive GVA growth in the industry.
- Sectors are broadly similar in their employment prospects compared to the previous published results, with **stronger jobs growth in Logistics, Business, Financial and Professional services, Construction, and Health and Social Care; and slightly slower growth in Wholesale and Retail, and Hospitality and Tourism.**
- **The baseline forecast suggests that total population will grow by 184,900 from 2017 to 2037, up 3,600 compared to GMFM-2018.**
- GMFM-2019 forecasts a net increase of 127,300 GM **residents in employment** between 2017 and 2037. The **resident employment rate** (proportion of residents aged 16-64 in employment) in GM is forecast to reach 76.8% by 2037.

## Forecast modelling assumptions

*Macro economy*

1.2 **Oxford Economics (OE) remain cautious about the forecast pace of growth in the UK in the medium term to 2022.** In the February 2020 HMT comparison of independent forecasting organisations' medium-term GDP growth forecasts (detailed in Annex 2), OE suggests growth of 1.0% in 2020, 1.9% in 2021, and 1.7% in 2022. This is similar to the Office for Budget Responsibility (OBR) forecast in March 2020 which stood at 1.1% for 2020, 1.8% for 2021 and 1.5% for 2022.[3] OE's GMFM forecast assumes that UK productivity growth averages 1.1% a year over the next five years, which would be stronger than the average seen since the global financial crisis, but well below pre-crisis norms.

*The productivity puzzle*

1.3 In the period since the global financial crisis, productivity growth has consistently fallen short of expectations**. It is increasingly unrealistic to forecast that productivity will consistently regain pre-crisis growth rates, when the reality continues to suggest otherwise.** Furthermore, the persistence of low interest rates, and little prospect for impactful increases over the next few years, means corporate insolvency rates have stayed low. This means that weak firms have been more likely to continue trading, rather than being wound up and replaced by more dynamic organisations.[4]

1.4 Evidence from the BoE points to a permanent, structural rather than cyclical, slow-down in UK productivity.[5] **OE expect labour productivity growth in the UK to average 1.1% per year from 2017 to 2037 – lower than the growth of 1.3% per year forecast in GMFM-2018 for the same period.** In the immediate short term, there are heightened risks that productivity may slow as investment in capital could be withheld until the full implications of Brexit are clear. In the longer term, **slower productivity growth than in the period prior to the recession is likely to be the main constraint on growth.**

[3] Office for Budget Responsibility (March 2020): Economic and Fiscal Outlook http://obr.uk/efo/economic-and-fiscal-outlook-march-2020/
[4] Source: BoE (2018): The UK's Productivity Problem – Speech by Andrew Haldane; https://www.bankofengland.co.uk/-/media/boe/files/speech/2018/the-uks-productivity-problem-hub-no-spokes-speech-by-andy-haldane.pdf Further analysis is presented in the Greater Manchester Independent Prosperity Review – Audit of Productivity
[5] Ibid

*Brexit risks*

1.5 **The baseline GMFM forecast incorporates Oxford Economics' assessment of Brexit's impact on economic growth, both for Greater Manchester and across the UK.** OE's assumption is that the ultimate withdrawal agreement will include an open-ended UK-EU customs union which remains in place for a prolonged period. Under these assumptions OE anticipate that GDP growth will average 1.5% over the forecast period to 2037. However, OE have modelled the impact of a no-deal scenario and found that additional trade frictions and a sizeable depreciation of sterling would cause a significant slowdown in the UK economy, even if fiscal and monetary policy are loosened. They found that GDP growth would be 0.7% points a year below the baseline forecast over the next three years under this scenario.

1.6 The UK's departure from the EU is expected to weigh on productivity growth, with negative effects building over time. Reasons for this include:

- **Trade disruption:** While empirical research points to a positive relationship between the degree of trade openness and productivity, the UK is likely to see some trade disruption post-Brexit for the following reasons:

1. **Friction in trade and supply chains:** Whilst the forecast assumes the UK will be able to agree tariff-free trade across a range of goods sectors, non-tariff barriers (such as enforcement of different market standards and regulations) are likely to build over time as the UK develops its own standards, moving away from EU regulations.
2. **Other non-tariff barriers and border checks:** It is likely that some form of customs checks will be introduced, in particular to demonstrate regulatory compliance and "rules of origin". The extra administrative costs and delays will add to the cost of trade.
3. **Loss of trade agreements:** When the UK left the EU, it ceased to be part of free trade agreements that it previously accessed through its membership of the EU. Some of these have been "rolled-over" but many are yet to be determined. Changes in the UK's relationship with the EU will also bring about shifts in the UK's comparative advantage which are likely to have a negative impact on productivity.

- **Reduction in FDI:** Foreign direct investment (FDI) is generally thought to enhance economy-wide productivity. Brexit is likely to make the UK a less attractive destination for FDI, as it is likely to dampen the UK's long term growth prospects (and thus potential rates of return), as well as no longer offering firms a gateway to EU markets, alongside wider issues such as reduced skills availability and regulatory uncertainty, which could contribute to firms' decisions to invest elsewhere.
- **Weaker business investment:** Brexit uncertainty also weighs on business investment which has been weak in the UK for a number of years. Investment intentions are subdued, with Brexit-related uncertainty a key factor. This is likely to persist until the UK's future trading relationship with the EU becomes clearer. Therefore, investment growth is likely to remain constrained in the short term.
- **Lower immigration:** A more restrictive points-based immigration policy is being introduced following the transition period, which may discourage EU and non-EU citizens from coming to work in the UK. Migration statistics already show a significant net fall in EU8 workers coming to work in the UK.

## Headline economic indicators

1.7 **Total GVA** in GM stood at £65.6 billion in 2017 (latest actual, as opposed to forecast, data in the GMFM-2019). In the baseline forecast, GVA is forecast to grow at an average annual rate of 1.6% per year up to 2037, slightly above the UK average of 1.5%. This is equivalent to an additional £23.9 billion of economic activity in GM's economy by 2037. [6]

1.8 **Labour productivity** (expressed as GVA per employment) in GM stood at £45,300 in 2017 (latest actual). It is forecast to grow at 1.0% per annum (0.3% points less per year than GMFM-2018).

1.9 **Total employment** in GM stood at 1.4 million in 2017, and is forecast to rise by 183,000 by 2037 (60,900 more than the previous GMFM-2018). Employment will grow at an annual average of 0.6% per year compared to the UK average of 0.4% per annum up to 2037.

**Figure 3: GMFM-2019 baseline forecasts for GM and UK (latest vs previous model)**

| Model: | GMFM-2019 | | Previous GMFM-2018 | |
|---|---|---|---|---|
| Measure: | Net increase/ decrease | % Compound Annual Growth | Net increase/ decrease | % Compound Annual Growth |
| Period: | *Level in 2017 vs level in 2037* | *2017 to 2037* | *Level in 2017 vs level in 2037* | *2017 to 2037* |

[6] GMFM-2019 GVA is expressed in 2016 constant prices

| | | | | | |
|---|---|---|---|---|---|
| GM | **GVA** | +£23,873 million | 1.6% | +£25,400 million | 1.7% |
| | **Productivity** | +£9,600 | 1.0% | +£12,800 | 1.3% |
| | **Employment** | +183,000 | 0.6% | +122,100 | 0.5% |
| | **Population** | +184,900 | 0.3% | +181,300 | 0.3% |
| UK average | **GVA** | +£597,851 million | 1.5% | +£689,739 million | 1.7% |
| | **Productivity** | +£12,400 | 1.1% | +£15,400 | 1.4% |
| | **Employment** | +2,706,100 | 0.4% | +2,299,000 | 0.3% |
| | **Population** | +4,835,400 | 0.4% | +4,647,100 | 0.3% |

*Source: Oxford Economics GMFM2019 vs GMFM-2018 (GMFM-2019 in 2016 constant prices, GMFM-2018 in 2015 prices*

## Growth by industry sector

1.10 Employment growth in the UK is expected to continue to be driven by the service sectors, with continued job losses in manufacturing (but rising GVA through productivity growth). Within GM, GVA growth will be heavily dependent on private services driving overall growth. The main sectors in terms of **GVA growth** (difference in levels from 2017 to 2037 for GMCA defined sectors) are:

- **Business, Financial, and Professional Services**: +£9,946m (2.1% growth per annum);
- **Wholesale and Retail**: +£2,932m (1.7% growth per annum);
- **Creative and Digital Industries**: +£2,641m (2.4% growth per annum).

1.11 The latest forecast shows that long-term trends for **employment growth** by key sector in GM remain largely unchanged. The main sectors in terms of employment growth are:

- **Business, Financial and Professional services**: +81,890 (1.2% per annum);
- **Health and Social Care**: +28,600 (0.7% per annum)
- **Hospitality, Tourism, Sport**: +22,830 (0.9% per annum)
- **Wholesale and Retail**: +18,520 (0.4% per annum).

1.12 Further job losses are forecast in GM's manufacturing sector as productivity improvements result in labour being substituted by technology; and the baseline forecast suggests that 4,700 jobs will be lost in GM's Public Administration up to 2037.

**Figure 5: Baseline GMFM-2019 forecast by main sectors in GM, net increase 2017 to 2037**

| GMCA defined sectors | GVA (rounded) | | Employment (rounded) | |
|---|---|---|---|---|
| Measure | Net increase/ decrease (millions) | % Compound Annual Growth | Net increase/ decrease | % Compound Annual Growth |
| Period | *Level in 2017 vs level in 2037* | *2017 to 2037* | *Level in 2017 vs level in 2037* | *2017 to 2037* |
| **Construction** | £965.2m | 1.1% | 26,000 | 1.3% |
| **Manufacturing** | £1,490m | 0.9% | -21,200 | -0.9% |
| **Logistics (transport and storage)** | £1,110m | 1.4% | 12,200 | 0.7% |
| **Wholesale and retail** | £2,933m | 1.7% | 18,500 | 0.4% |
| **Other personal services** | £253m | 1.2% | 5,800 | 1.0% |
| **Business, financial, professional services** | £9,946m | 2.1% | 81,900 | 1.2% |
| **Creative and digital industries** | £2,641m | 2.4% | 12,800 | 0.7% |
| **Hospitality, tourism and sport** | £1,190m | 1.6% | 22,800 | 0.9% |
| **Education** | £66m | 0.1% | -200 | 0.0% |
| **Health and social care** | £2,596m | 1.7% | 28,600 | 0.7% |
| **Public administration** | -£177m | -0.3% | -4,700 | -0.4% |

*Source: Oxford Economics GMFM-2019. Main industry sectors defined by GMCA*

## Resident employment rate and unemployment

1.13 In terms of **resident employment** (jobs taken by GM residents), the long-term view – encompassing 2017 to 2037 – highlights an additional 127,300 residents in employment (down from 134,800 in GMFM-2018), growing at 0.4% per year, in line with the UK average.

1.14 The GM **resident employment rate** is forecast to increase from 72.0% in 2017 to 76.8% by 2037, compared with 78.6% in the UK in 2037. Greater Manchester's economic performance will be sufficient to narrow, but not close, the gap with the UK on this measure.

1.15 A similar trend is forecast for **unemployment**. The unemployment rate in Greater Manchester is projected to be 3.5% in 2037, lower than 2017's figure of 4.5%. The comparable unemployment rate for the UK in 2037 is 3.5%.

**Figure 6: Baseline GMFM-2019 forecast resident employment 2017 to 2037**

| | Resident employment | | (ILO) Unemployment | |
|---|---|---|---|---|
| Measure | Net increase/ decrease | % Compound Annual Growth | Net increase/ decrease | % Compound Annual Growth |
| Period | *Level in 2017 vs level in 2037* | *2017 to 2037* | *Level in 2017 vs level in 2037* | *2017 to 2037* |
| **GM** | 127,300 | 0.4% | -9,000 | -0.8% |
| **UK** | 2,639,400 | 0.4% | -215,500 | -0.8% |

*Source: Oxford Economics GMFM-2019*

## Population and migration

1.16 **The baseline forecast suggests that total population will grow by 184,900 from 2017 to 2037,**[7] up 3,600 compared to GMFM-2018.

1.17 The number of **working age residents**, defined as those aged 16 to 64, is forecast to show a modest rise over the next 10 years, before falling back after 2028, and therefore the working age population of GM is forecast to be just under 1.8 million in 2037, similar to the 2017 level.

1.18 **Future population growth in GM is underpinned by positive natural change** (i.e. more births than deaths). Meanwhile, **net migration** in Greater Manchester is expected to continue to fall as the UK government adopts a more restrictive immigration policy and the UK's growth premium over other countries wanes. The levels of migration are forecast to fall steeply from 3,800 in 2018 to -700 by 2021 at which point the rate of decline slows, but overall levels of migration continue to decline, with migration eventually reaching -3,900 in 2037.

**Figure 7: Baseline GMFM forecast population, 2017 to 2037**

| | GMFM-2019 | | | Previous GMFM-2018 | | |
|---|---|---|---|---|---|---|
| | Population net increase/ decrease | Population % Compound Annual Growth | Net migration change | Population net increase/ decrease | Population % Compound Annual Growth | Net migration change |
| Period | *Level in 2017 vs level in 2037* | *2017 to 2037* | *Level in 2017 vs level in 2037* | *Level in 2017 vs level in 2037* | *2017 to 2037* | *Level in 2017 vs level in 2037* |
| **GM** | 184,900 | 0.3% | -10,100 | 181,300 | 0.3% | -6,300 |
| **UK** | 4,835,400 | 0.4% | -139,600 | 4,647,100 | 0.3% | -140,000 |

*Source: Oxford Economics GMFM-2018*

## Comparison with other forecasts

1.19 To ensure that the GMFM is 'stress tested' against other forecasts, GMCA have reviewed HM Treasury monthly compilation of forecasts (included in Annex 2); and carried out a further comparison of OE's twenty year forecasts with those produced by Experian[8].

1.20 As shown in figure 8, both baseline forecasts are broadly similar in terms of growth rates. Experian forecasts slightly slower productivity growth than GMFM-2019, but higher population and employment growth. Total GVA growth levels forecast by Experian are around £0.1 billion higher than GMFM-2019 over the twenty year period.

**Figure 8: Comparison of GMFM and Experian baseline forecasts, 2017 to 2037**

| | GMFM-2019 | | Experian-2019 | |
|---|---|---|---|---|
| Measure: | Net increase/ decrease | % Compound Annual Growth | Net increase/ decrease | % Compound Annual Growth |
| Period: | *Level in 2017 vs level in 2037* | *2017 to 2037* | *Level in 2017 vs level in 2037* | *2017 to 2037* |
| **GVA** | £23,873 million | 1.6% | £24,028 million | 1.6% |
| **Productivity** | £9,600 | 1.0% | £8,500 | 0.9% |
| **Employment** | 183,000 | 0.6% | 220,000 | 0.7% |
| **Population** | 184,900 | 0.3% | 232,000 | 0.4% |

*Source: Oxford Economics GMFM-2019 vs Experian-2019 (both models in 2016 constant prices)*

1.21 Annex 2 also includes HM Treasury's comparison of the main UK forecasters, providing **medium-term forecasts covering the period up to 2023.** The data shows that OE have a comparatively conservative view of growth in the short-term, with growth rebounding temporarily in 2021, before slowing down again over 2022 and 2023. OE's central UK forecast for 2020 (February 2020) of 1.0% is slightly below the independent forecasters' average of 1.2%.

[7] Equivalent to just under 10,000 additional residents per year over the 20-year period.
[8] December 2019 Experian regional economic forecasts (Conservative manifesto scenario) for GVA, employment, and productivity; September 2019 Experian regional economic forecasts for population

# 3. Accelerated Growth Scenario - 2019

## Introduction

1.23 This section presents the results of an Accelerated Growth Scenario (AGS-2019) for GM, including the rationale for the scenario's development, and impacts on the economy over and above those forecast by GMFM-2019.

**Key messages**

- **In addition to the baseline forecast, OE was commissioned by the GMCA to produce an 'Accelerated Growth Scenario' (AGS-2019) for GM**. This shows a future where improvements to the skills base, innovation, and transport boost GVA, employment, and productivity growth across the North. GM's economy drives and benefits from this growth.
- In the AGS-2019 scenario, **GVA is forecast to grow at an average annual rate of 2.4% between 2017 and 2037 (the UK at 1.5%).** GM would therefore grow faster than the UK up to 2037 – reflecting GM's ambitions to help narrow the 'productivity growth gap' with the UK average. This is equivalent to an additional £38.9 billion (2016 prices) of economic activity in GM's economy by 2037.
- **Stronger GVA growth is supported by a strong shift towards higher value sectors.** This means productivity growth in GM is stronger in the AGS scenario than the baseline forecast, **averaging productivity growth of 1.5% per year from 2017 to 2037 – compared with 1.0% per year in the baseline GMFM-2019**.
- **Total employment** in Greater Manchester is forecast to rise by **260,000** between 2017 and 2037 in the AGS-2019 scenario, (197,000 in AGS-2018), equivalent to **77,000 more jobs than the GMFM-2019 baseline**; and 63,000 more than last year's AGS.
- **Population growth** is stronger in the AGS scenario than in the baseline forecast. Total population is projected to rise by 296,000 from 2017 to 2037. This is 111,000 people more than the GMFM-2019 baseline projection. Population growth in AGS-2019 is economically driven i.e. determined by assumptions around GVA growth, jobs growth, and resident employment rate.
- AGS assumes that a majority of new jobs will be taken by GM residents. Adjusting for residents that may hold more than one job (and commuting), this equates to **an additional 80,000 GM residents in employment compared with the GMFM-2019 baseline**. (The equivalent figure from the GMFM-2018 and AGS-2018 was 73,000 GM residents).

## Accelerated Growth Scenario assumptions

1.24 OE were commissioned to produce an 'Accelerated Growth Scenario' (AGS) for GM. The AGS-2019 provides a projection for the GM economy that is stronger than the baseline forecast, and reflects a future where the city plays a lead role in driving forward growth ambitions for the North of England.

1.25 The AGS is consistent with the long-term economic ambitions for the 'Northern Powerhouse' as set out in the Northern Powerhouse Independent Economic Review (NPIER).[9] It aligns with the GVA output and employment growth rates that would enable GM to support transformational growth across the Northern Powerhouse projected by the NPIER. The AGS also builds upon the growth sectors in which GM is expected to have a comparative advantage, including evidence from Sector Deep Dives (2016), Productivity in Greater Manchester (2017) and Greater Manchester Independent Prosperity Review (2019).

## AGS - Headline impacts

1.26 **In the AGS-2019 scenario, the GM economy is forecast to grow at an average annual rate of 2.4% between 2017 and 2037. This is equivalent to an additional £38.9 billion of economic activity** (measured in constant 2016 prices), and the growth rate is significantly above the baseline forecast of 1.6% per year. Under this scenario, GM is forecast to grow faster than the baseline UK growth (1.6%) up to 2037.[10]

**Figure 9: Accelerated Growth Scenario for GM**

| Measure:<br>Period: | Net increase/decrease<br>*Level in 2017 vs level in 2037* | % Compound Annual Growth Rate<br>*Level in 2017 vs level in 2037* | Difference between GMFM-2019 and AGS-2019 |
|---|---|---|---|
| **GVA** | £39,800 million | 2.4% | £15,000 million higher |
| **Productivity** | £15,900 | 1.5% | £6,300 higher |

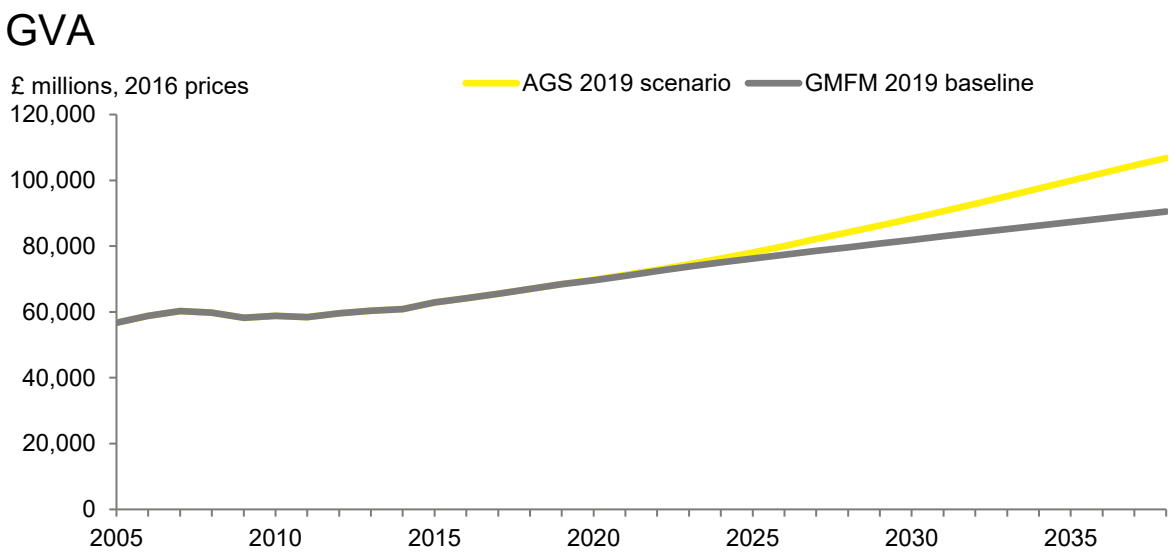
[9] http://www.northernpowerhousepartnership.co.uk/media/1029/24jun16-executive-summary-np-independent-economic-review.pdf

[10] Note the UK grows slightly faster in the AGS than the GMFM 2019 baseline, due to stronger growth in the North boosting overall UK economic growth

| | | | |
|---|---|---|---|
| **Employment** | 260,000 | 0.8% | 77,000 higher |
| **Population** | 296,000 | 0.5% | 110,800 higher |

*Source: Oxford Economics AGS-2019 and GMFM-2019*

**Figure 10: GVA in Greater Manchester, 2017 to 2037**




Source: AGS-2019

*Source: Oxford Economics GMFM-2019. AGS-2019.*

1.27 **The services sector is forecast to account for about 90% of future GVA growth in Greater Manchester under the AGS 2019 scenario.** The largest contributions are expected to come from Business, Financial and Professional Services (42% of the net increase between the levels in 2017 and 2037), and Wholesale & Retail sectors (10% of the total net increase). Digital Industries are the sub-sector forecast to grow the fastest - by 4.2% per year from 2017 to 2037.

1.28 **All major sectors provide a positive contribution to growth in the AGS-2019 scenario, and grow faster than in the baseline forecast**. At the same time, much of the public sector, as well as construction, and manufacturing in aggregate, will still account for a smaller share of the Greater Manchester economy in 2037 than they do currently. However, within the public sector, Human Health & Social Care is likely to grow broadly in line with the overall economy, as a growing elderly population underpins rising demand for healthcare.

1.29 **Overall productivity growth in GM is higher under the AGS 2019 scenario than the baseline, partly reflecting a shift towards higher-value sectors, but also because faster growth is assumed to be supported by investments into skills, infrastructure and innovation that boost overall productivity**. Average labour productivity would grow at 1.5% per year, compared with 1.0% per year in the GMFM-2019 baseline.

1.30 **The strongest productivity growth by sector in the AGS –2.8% per year in the period to 2037 – is forecast in the Digital Industries sub-sector.** The Financial Services sub-sector and all of the Manufacturing sub-sectors will also exceed the average productivity growth of 1.5% per year across the whole economy. The weakest forecast rates of productivity growth in the AGS are in Public Administration, Education and Construction.

**Figure 11: AGS-2019 forecast by main sectors in GM, 2017 to 2037**

| Broad industry sector (GMCA definition) | GVA (rounded figures) | | Employment (rounded) | |
|---|---|---|---|---|
| Measure | Net increase/ decrease (millions) | % Compound Annual Growth | Net increase/ decrease | % Compound Annual Growth |
| Period | *Level in 2017 vs level in 2037* | *2017 to 2037* | *Level in 2017 vs level in 2037* | *2017 to 2037* |
| **Construction** | £1,510m | 1.7% | 29,000 | 1.5% |
| **Manufacturing** | £2,650m | 1.5% | -20,600 | -0.9% |
| **Logistics (transport and storage)** | £2,030m | 2.4% | 20,900 | 1.1% |
| **Wholesale and retail** | £4,050m | 2.3% | 26,800 | 0.6% |
| **Personal services** | £390m | 1.7% | 6,900 | 1.2% |
| **Business, financial, professional services** | £16,520m | 3.1% | 100,300 | 1.4% |
| **Creative and digital industries** | £4,520m | 3.6% | 18,600 | 1.0% |
| **Hospitality, tourism and sport** | £1,770m | 2.3% | 27,300 | 1.1% |
| **Education** | £480m | 0.5% | 12,700 | 0.5% |
| **Health and social care** | £3,560m | 2.3% | 37,700 | 0.9% |
| **Public administration** | £220m | 0.4% | 300 | 0.0% |

*Source: Oxford Economics AGS-2019.*

**Figure 12: AGS-2019 vs GMFM-2019 – Additional growth in GVA and employment in GM, by 2037**

| Broad industry sector (GMCA definition) | GVA (rounded) | Employment (rounded) |
|---|---|---|
| Period | Growth per annum in addition to the baseline by 2037 | Growth in addition to the baseline by 2037 |
| **Construction** | £550m | 3,000 |
| **Manufacturing** | £1,160m | 1,000 fewer jobs lost |
| **Logistics (transport and storage)** | £920m | 9,000 |
| **Wholesale and retail** | £1,110m | 8,000 |
| **Personal services** | £140m | 1,000 |
| **Business, financial, professional services** | £6,570m | 18,000 |
| **Creative and digital industries** | £1,880m | 6,000 |
| **Hospitality, tourism and sport** | £580m | 4,000 |
| **Education** | £410m | 12,000 |
| **Health and social care** | £960m | 9,000 |
| **Public administration** | £400m | 5,000 fewer jobs lost |

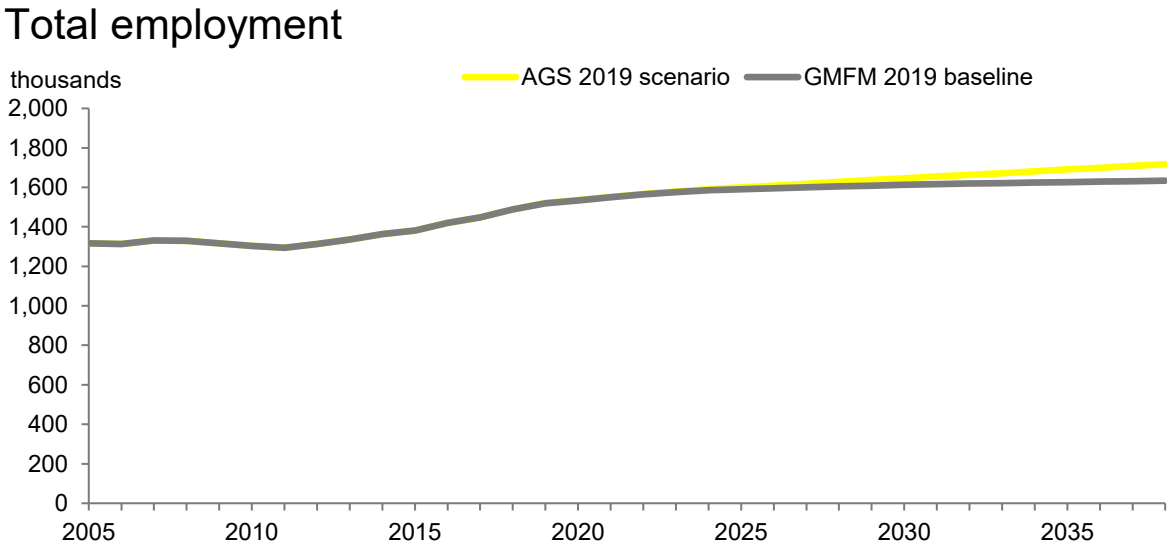
*Source: Oxford Economics GMFM-2019; AGS-2019.*

*Note: GVA show impacts in 2037 vs level recorded in GM in 2017, and additionality during 2037. For total GVA impact over time by sector requires totalling additionality every year to 2037 expressed as a Net Present Value*

## Accelerated growth in employment

1.31 **The number of jobs in GM is forecast to rise by 260,000 between 2017 and 2037 in the AGS-2019, equivalent to 77,100 more jobs than in the baseline forecast**. This represents an average annual growth rate of 0.8%, higher than the GM baseline (0.6%) and the UK baseline (0.4%).

**Figure 13: Total employment in Greater Manchester, 2017 to 2037**




Source: GMFM

*Source: Oxford Economics GMFM-2019. AGS-2019.*

1.32 **Job creation is concentrated in the services sector** – in particular within Business, Financial, and Professional Services – forecast in AGS-2019 to account for almost 40% of net additional job creation in GM in the period to 2037 (totalling an additional 100,000 jobs).

1.33 **Within Business, Financial, and Professional Services** sub-sectors, just over 41,000 of these additional jobs are forecast to be created in Professional Services (including Legal & Accounting activities, Management Consultancy activities and Real Estate activities) and 37,000 within Business Services.

1.34 **Employment growth is also strong in the AGS within Creative and Digital Industries,** in particular within Digital Industries, growing at 1.3% per annum, a net increase of 13,000 jobs between 2017 and 2037; and in **Creative Industries,** where the number of jobs is forecast to grow by 6,000 up to 2037 (0.6% per year).

1.35 **Construction is also forecast to see strong employment growth in the AGS,** increasing by 29,000 from 2017 to 2037 (at 1.5% per year).

1.36 The outlook is mixed elsewhere in the private sector. **Wholesale & Retail Trade is currently one of the largest employers in GM, and this is expected to remain the case**, with an additional 37,000 jobs by 2037. But the pace of job creation in this sector is slower than that across the total economy, at 0.6% per year under the AGS.

1.37 **The employment outlook is weaker for Manufacturing.** The number of jobs in the sector is forecast to fall by 21,000 (0.9% decline per year) between 2017 and 2037 in AGS-2019, as the adoption of new technologies means rising activity can be accommodated by fewer workers. However, AGS-2019 predicts a slightly lower level of job losses in Manufacturing compared to the GMFM-2019 baseline.

1.38 **Public sector employment is forecast to rise in the AGS-2019 scenario, but with job creation slower than the total economy average.** New jobs here will be concentrated in Health & Social Care sector, accounting for over 37,000 more jobs by 2037 – in contrast to almost no job growth in Public Administration, but modest growth in Education with an extra 13,000 jobs by 2037.

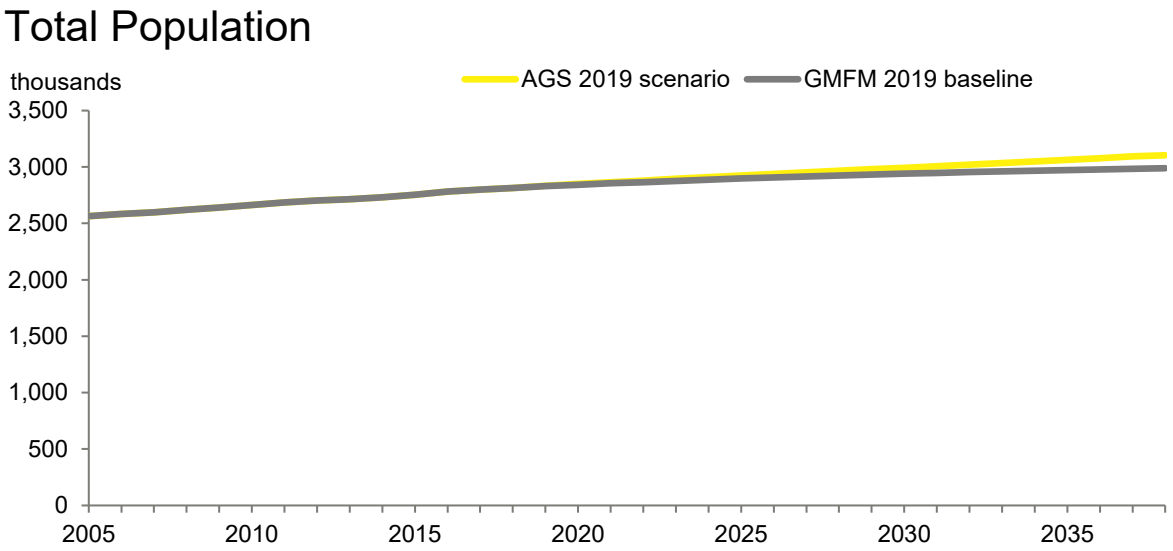
## Population and resident employment

*Population projections*

1.39 **The AGS-2019 scenario adopts an economically driven population forecast which is determined by ambitions for economic growth (GVA and employment growth) and an increase in the resident employment rate. The scenario suggests that the total population of GM will rise to over 3 million by 2037, an increase of 296,000 on the 2017 level, and 110,800 more than the baseline GMFM-2019.** The rise in the number of working-age residents, defined as those aged 16 to 64, is 87,000 between 2017 and 2037. This compares to a rise of 185,000 in the total population, and a rise of 4,000 in the working-age 16-to-64 year old population, under the GMFM-2019 baseline forecast.

1.40 The difference between the baseline and scenario projection is largely explained by the migration assumptions used in each. The baseline forecast incorporates Oxford Economics' expectations for net migration to Greater Manchester to be negative in the medium-to-long term. The population forecast for the AGS 2019 scenario has positive migration into the medium and longer term, resulting in greater population growth over the entire forecast period.

**Figure 14: Total population in Greater Manchester, 2017 to 2037**




Source: GMFM

*Resident employment*

1.41 **Employment in Greater Manchester is forecast to rise by 260,100 between 2017 and 2037 under the AGS 2019 scenario – 77,100 more jobs than under the GMFM-2019 baseline forecast.** To understand the implications of this scenario on GM's residents, it is necessary to reconcile this additional increase in employment with the population forecast in this scenario, by assessing who might fill these additional jobs, and what the associated impact will be on the resident employment rate and unemployment.

1.42 The first step is to quantify how many additional workers will be required to fill the extra jobs created in GM. The transformation from jobs to workers is necessary as a relatively small proportion of workers hold more than one job. This means the total number of additional people required to work in Greater Manchester will be lower than the number of additional jobs. **Under the AGS 2019 scenario, the additional 77,100 jobs created in GM above the baseline forecast is equivalent to 74,000 workers.**

1.43 The majority of the additional people working in GM will also be resident in the area, with the remaining roles filled by people commuting into the city-region. The 2011 Census showed around nine of every 10 jobs in Greater Manchester were held by local residents, **and the AGS 2019 scenario assumes this ratio is maintained.** This is applied to the number of additional workers in the area, to calculate how many will be residents of GM.

1.44 Another feature of the AGS 2019 scenario is that the wider northern region achieves faster growth than anticipated under the baseline scenario. Therefore, residents of GM will also benefit from additional employment opportunities in the wider region, and this again is quantified using information on commuting patterns from the 2011 Census.

1.45 AGS 2019 scenario has also been adjusted to reflect an assumption that the gap between the resident employment rate in GM and the UK average will narrows (but not fully close) by 2037 under the AGS scenario. The AGS projects the GM resident employment rate to rise from 72.0% in 2017 to 77.6% in 2037, a slightly larger increase than the baseline forecast (up to 76.8% in 2037) but still behind the UK average resident employment rate of 78.6% in 2037.

1.46 **Bringing these strands together results in an additional 80,300 Greater Manchester residents in employment in 2037 under the AGS 2019 scenario, compared with the baseline forecast. This equates to a total of 1.56 million GM residents in employment by 2037.** Formerly non-employed working-age residents will account for the majority of the additional 80,300 Greater Manchester residents employed in 2037. These people may previously have been unemployed or economically inactive.

1.47 **The assumptions adopted under the AGS 2019 scenario are that 15% of the additional resident workers will be residents who were previously unemployed, and 75% will be residents aged 16-to-64 who were neither employed or registered unemployed (i.e. economically inactive working age residents, such as full-time students, those looking after family/home, those who are temporarily or long-term sick, those who have retired early, and the long-term unemployed).** These proportions recognise there are significantly more people in the second group than the first, and that job creation benefits the economically inactive as well as the unemployed.

1.48 **The final 10% of the additional 80,300 Greater Manchester residents in employment by 2037 are assumed to be people aged over 64.** This reflects the fact that concerns over the sufficiency of pension provision, improved health among older age groups, and increases in the state retirement age have contributed to an increase in the proportion of jobs held by older workers.

1.49 Under this scenario, **GM's rising employment rate is underpinned by a combination of factors, including economic forces (stronger economic growth, and employment opportunities drawing people into the labour market) and demographic factors (such as progressively weaker growth in the working-age population, and higher participation amongst older age groups)**. A rising employment rate is also consistent with, and further supported by, local policy interventions aimed at boosting participation and employment.

# Annex 1: Data sources

1.50 This publication is accompanied by a release of the following datasets:

- GVA by: Greater Manchester Combined Authority defined sectors; and detailed sub-sectors within the model build (50 industries)
- Employees and employment by: Greater Manchester Combined Authority defined sectors; and detailed sub-sectors within the model build (50 industries)
- Productivity by: Greater Manchester Combined Authority defined sectors; and detailed sub-sectors within the model build (50 industries)
- Population by 4 categories (working age, 15-74 years, children and over retirement age)
- Employment by major occupation group and qualification level
- Expansion demand, replacement demand, and total net demand for jobs per year, by industry sector and by broad occupation group

1.51 New source data included in the report:

- New global, UK, North West outlooks, including Brexit and UK productivity assumptions (amongst others detailed in the report).
- Business Register and Employment Survey (2017)
- Mid-year population estimates (2017 and 2018)
- Earnings (2018)
- Resident employment (2018 and revised 2012-2017)
- Unemployment (2018)
- Chain-linked balanced GVA by Local Authority (1998-2017)
- Gross Disposable Household Income (1997 – 2017)

# Annex 2: Comparison of forecasts and summary of Brexit impact assessments

**UK GDP (% change) medium term forecasts from independent forecasters, published February 2020**

| Forecaster | 2020 | | 2021 | | 2022 | | 2023 | |
|---|---|---|---|---|---|---|---|---|
| (1=lowest) | % | Rank | % | Rank | % | Rank | % | Rank |
| Beacon Economic Forecasting | 1.8 | 5 | 1.8 | 5 | 2.1 | 5 | 2.2 | 6 |
| CEBR | - | - | - | - | 1.7 | 3 | 1.6 | 2 |
| Experian | 1.3 | 4 | 1.7 | 4 | 1.7 | 3 | 1.8 | 4 |
| Commerzbank | 1.1 | 2 | 1.4 | 1 | 1.4 | 1 | 1.4 | 1 |
| Liverpool Macro Research | 1.9 | 6 | 1.9 | 6 | 2.1 | 5 | 2.1 | 5 |
| NIESR | 1.3 | 4 | 1.6 | 3 | 1.6 | 2 | 1.8 | 4 |
| **Oxford Economics** | 1.0 | 1 | 1.9 | 7 | 1.7 | 3 | 1.4 | 1 |
| PwC | 1.2 | 3 | 1.4 | 1 | - | - | - | - |
| EY ITEM Club | 1.2 | 3 | 1.7 | 4 | 1.8 | 4 | 1.7 | 3 |
| Kern Consulting | 1.2 | 3 | 1.5 | 2 | 1.7 | 3 | 1.8 | 4 |

*Source: HMT (February 2020): Forecasts for the UK economy*

***Forecast long-term impact of Brexit on GDP relative to remaining in the EU (Source: Institute for Government)***