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Economic Development Needs Assessment

Rochford District Council

Final Report

September 2023

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Contents

1.0 Introduction

1.1 Rochford District Council ('the Council') commissioned Lichfields to prepare an Economic Development Needs Assessment (EDNA) for the District. The purpose of the EDNA is to update the Council's understanding of the future needs for office, industrial and distribution space and land across the District, to help ensure that emerging Local Plan policies can be responsive to market change, support key growth sectors and where possible ensure that existing viable employment land and premises are protected.

Scope of the Study

1.2 The Council is in the process of producing a new Local Plan that will set out planning policies and proposals for new development in the District over the period to 2040. In parallel, there are various other local and sub-regional evidence studies that are under preparation which may also inform the emerging Plan. In particular, at this stage the EDNA aligns with the findings of the emerging South Essex Housing Needs Assessment that will inform the housing policies of the emerging Local Plan.

1.3 The study brief identifies the following key objectives for the study:

a Review the South Essex Functional Economic Market Area (FEMA) and test its validity. The analysis will draw on data from the Office for National Statistics and evidence included within the 2017 South Essex EDNA, South Essex Joint Strategic Plan Scoping Report, Growth and Recovery Prospectus 2020 and South East Local Industrial Strategy.

b Assess the economic needs by undertaking a series of future growth scenarios in line with the National Planning Policy Framework (NPPF) and Planning Practice Guidance (PPG) for the Plan period to 2040. These scenarios will include a labour demand scenario, past trends and labour supply scenario.

c Identify the supply and demand balance of Rochford by drawing on the employment supply analysis undertakes for the purposes of the Housing and Economic Land Availability Assessment in 2021 and the latest available monitoring evidence on extant permissions.

1.4 This EDNA has been prepared in line with NPPF and the methodology for determining future economic development needs as presented in the PPG. The NPPF (July 2021) requires local authorities to, "*set out a clear economic vision and strategy which positively and proactively encourages sustainable economic growth, having regard to Local Industrial Strategies and other local policies for economic development and regeneration*" (para 82.a).

1.5 The national guidance for preparing 'Housing and Economic Needs Assessments'[1] states that authorities need to prepare an evidence base to understand existing business needs to reflect local circumstances and market conditions. This includes assessing:

- *'the best fit functional economic market area (FEMA);*

[1]DLUCH (2020); Housing and Economic needs assessment guidance

- *the existing stock of land for employment uses within the area;*
- *the recent pattern of employment land supply and loss – for example based on extant planning permissions and planning applications (or losses to permitted development);*
- *evidence of market demand (including the locational and premises requirements of particular types of businesses) – sourced from local data and market intelligence, such as recent surveys of business needs, discussions with developers and property agents and engagement with business and economic forums;*
- *wider market signals relating to economic growth, diversification and innovation; and*
- *any evidence of market failure – such as physical or ownership constraints that prevent the employment site being used effectively.'*

1.6 To provide an understanding of the underlying requirements for office, general business and warehousing sites, the PPG emphasises the importance of considering projections (based on past trends) and forecasts (based on future scenarios) and sites which have been developed for specialist economic uses. The PPG recommends that analysing supply and demand concurrently will enable conclusions to be drawn on whether these is a mismatch between quantitative and qualitative supply of and demand for employment sites.

1.7 On this basis, the EDNA includes consideration of economic development with a primary focus upon the typologies set out in the Business Use Classes as outlined below:

- **B2 general industrial:** typically comprising factory and manufacturing space.
- **B8 storage and distribution:** warehouses, wholesale and distribution.
- Since 1 September 2020, the former "B1 uses" have changed as follows:
  - Former Class B1(a) to **E(g)(i)**: office space;
  - Former Class B1(b) to **E(g)(ii)**: research and development space; and
  - Former Class B1(c) to **E(g)(iii)**: light industrial space.

1.8 References to 'employment space' refer to the above uses.

1.9 An important consideration for any work of this type is that it is inevitably a point-in-time assessment. This study has incorporated the latest data and other evidence available at the time of preparation during 2022/23. The accuracy and sources of data derived from third party sources has not been checked or verified by Lichfields.

Structure of the Report

1.10 The remainder of the report is structured as follows:

- **Functional Economic Market Area** (Section 2.0): establishes the various functional economic market areas that operate across Rochford and the wider sub-region, to provide an understanding of the various economic inter-relationships, linkages and flows which characterise the sub-regional economy.

- **Future Requirements for Employment Space** (Section 3.0): presents a series of future growth scenarios for the District and associated employment land requirements over the new Local Plan period to 2040.
- **Supply/Demand Balance** (Section 4.0): presents the employment requirements identified in the previous section against the available employment supply across the District.
- **Conclusions** (Section 5.0): summarises the overall findings of the EDNA.

2.0 Functional Economic Market Area

2.1 This section tests the validity of the South Essex Functional Economic Market Area previously identified as extending across the boundaries of Basildon, Castle Point, Rochford, Southend-on-Sea and Thurrock.

2.2 The analysis draws on data from the Office for National Statistics (ONS) and evidence included within the 2017 EDNA, South Essex Joint Strategic Plan Scoping Report, Growth and Recovery Prospectus 2020 and the South East Local Industrial Strategy.

2.3 This in particular reviews factors that may lead to change in the dynamics of the sub-regional economy over time and influence the extent of the FEMA, and it particularly discusses the economic interrelationships that exist between Rochford and Southend.

Labour Market Areas

Commuting Flows

2.4 The latest commuting flows data from the 2011 Census can be used to define Travel to Work Areas (TTWAs) to consider the relationship between where people live and work. This data remains the latest available at the time of drafting as the ONS indicates that 2021 Census origin-destination data will not be released until late 2023.

2.5 Furthermore, the ONS has identified potential limitations associated with the Census 2021 origin-destination data which coincided with the Covid-19 pandemic and periods of national lockdown and furlough measures, which will have affected travel-to-work patterns and the nature of responses. ONS is therefore currently advising as follows:

"We advise users to continue to make use of the 2011 Travel to Work Areas for analytical and statistical work, and we will continue to update users on future developments."[2]

2.6 On this basis, the 2011 commuting flows have been utilised to understand the spatial commuting interrelationships across the subregion. Table 2.1 below summarises several key commuting indicators across Rochford.

2.7 In 2011, a total of 24,362 working residents commuted outside the District for their employment, mainly to the authorities of Southend-on-Sea, Basildon, Castle Point and to London, in particular Westminster and Tower Hamlets. In comparison, 10,416 workers commuted into the District for employment, largely from the nearby authorities of Southend-on-Sea, Castle Point, Basildon and Chelmsford. Based on this, Rochford is characterised as a net exporter of labour, with a net outflow of 13,946 at the time of the 2011 Census. The resident self-containment rate in Rochford was 25.5%.

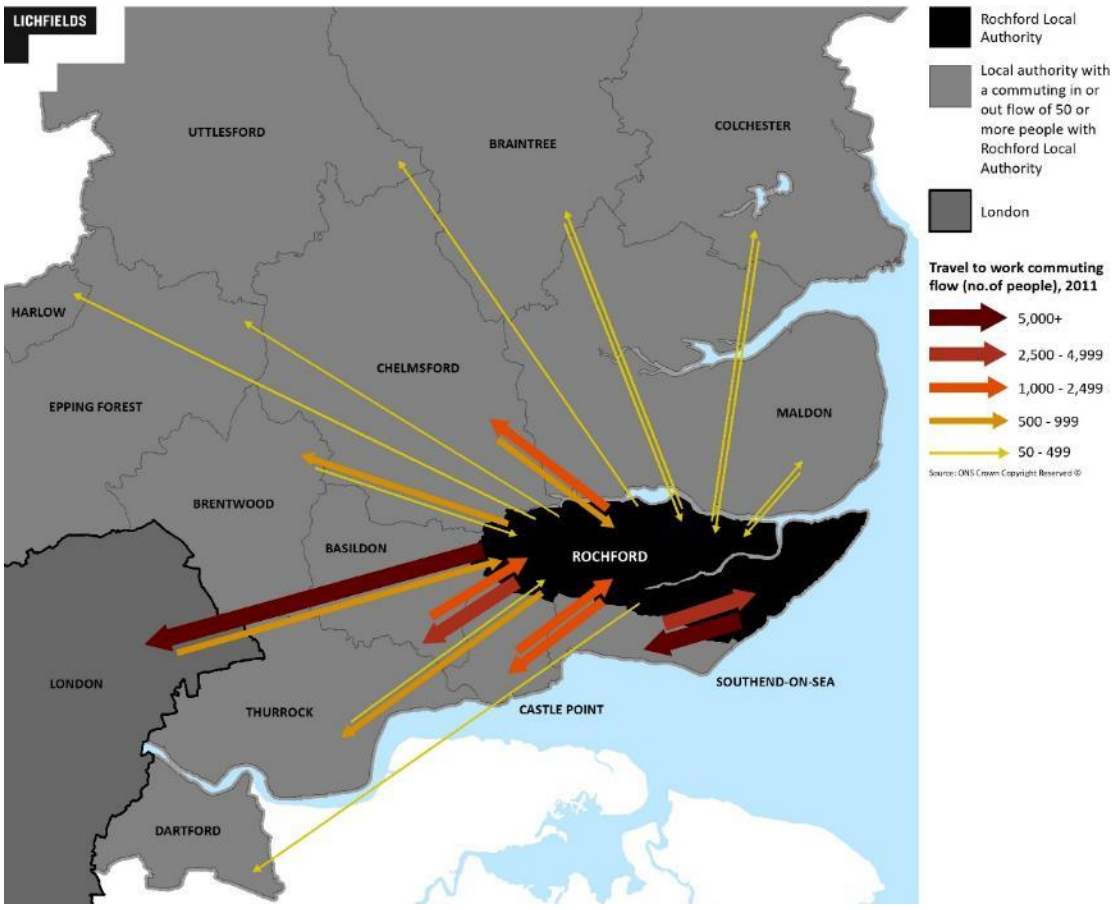
[2] Travel to work quality information for Census 2021
https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/methodologies/traveltoworkqualityinformationforcensus2021

Table 2.1 Commuting data for Rochford

Indicator	Rochford
Total working residents (number of people living in the authority that are in work, regardless of where they work)	32,703
Total workplace workers (number of people working in jobs based in the authority)	18,757
Live and work in authority	8,341
Resident self-containment rate	25.5%
Out-commuting workers	24,362
Top out-commuting destinations	Southend-on-Sea (8,466 people); London (6,443 people); Basildon (3,209 people)
In-commuting workers	10,416
Top in-commuting destinations	Southend-on-Sea (4,958 people), Castle Point (1,554 people), Basildon (1,327 people)
Net outflow of workers	13,946

Source: ONS, 2011 Census / Lichfields analysis

Figure 2.1 Travel to work flows for Rochford (2011)



Source: ONS Census (2011) / Lichfields analysis

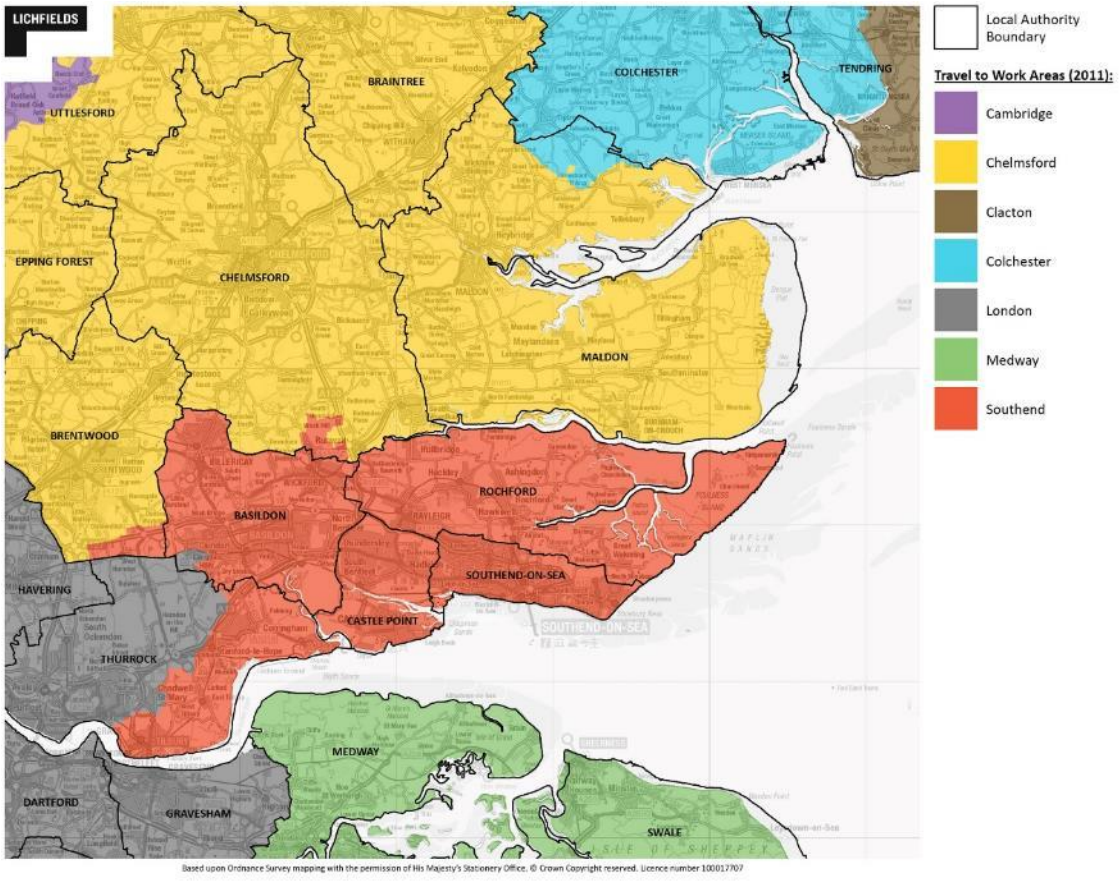
Travel to Work Areas

2.8 ONS defines labour market areas as those areas where most of the resident population also work in the same area. Defining labour market areas requires analysis of commuting flows data to identify the Travel to Work Areas (TTWAs) of a local economy. The standard definition of TTWAs adopted by the ONS is that they are the area from which at least 75% of an area's resident workforce is employed, and at least 75% of the people who work in the area also reside. The area must also have a working population of at least 3,500 people.

2.9 TTWAs represent the area from which local businesses are most likely to recruit their employees, while key strategic routes can extend TTWAs beyond the immediate sub-region.

2.10 In 2015, the ONS used 2011 Census data on home and work addresses to define 228 TTWAs that cover the whole of the UK. This analysis identifies a 'Southend TTWA' that covers the entirety of Southend-on-Sea, Rochford, Castle Point and Basildon, in addition to the eastern area of Thurrock and small sections of Brentwood and Chelmsford.

Figure 2.2 Travel to work areas (2011)



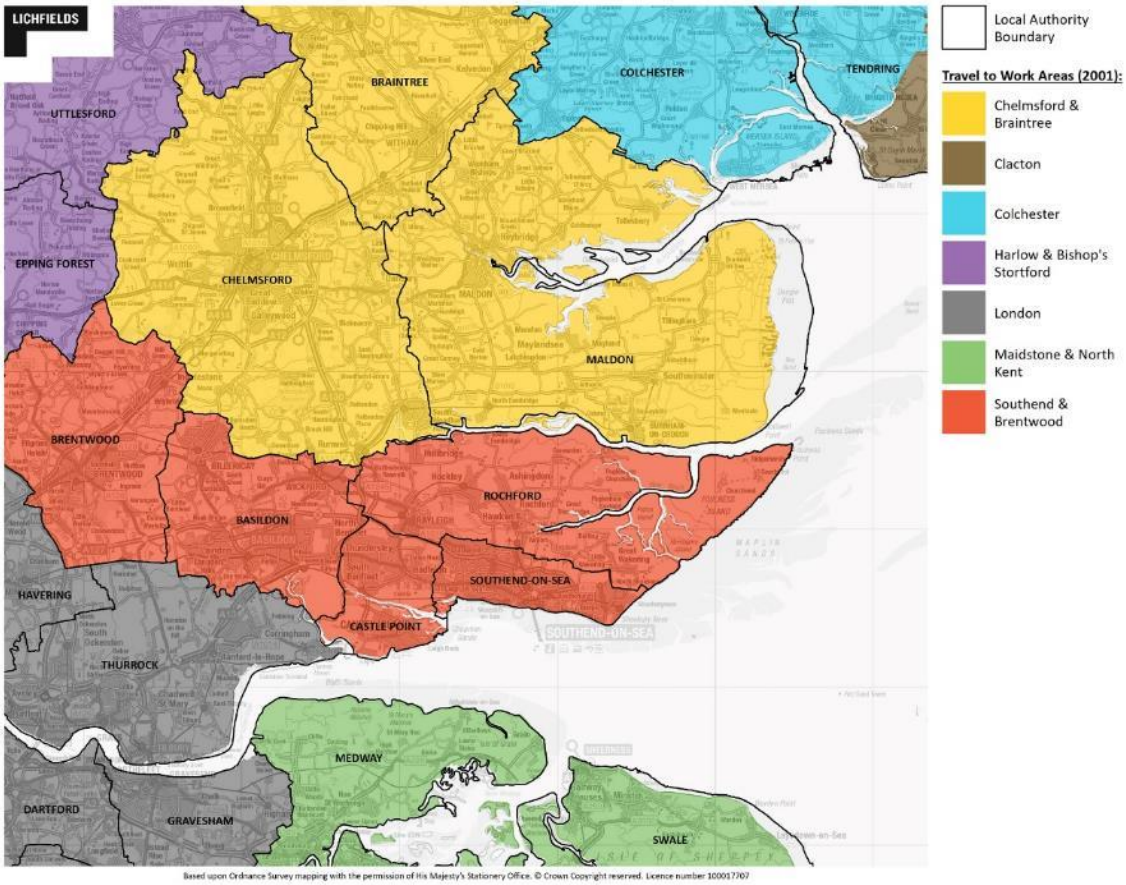
Source: ONS Census (2011) / Lichfields analysis

2.11 A comparison with the equivalent analysis prepared using 2001 Census commuting data identifies some key changes to the spatial extent and reach of the TTWA over this ten-year period.

2.12 Since the earlier 2001 Census, the Southend and Brentwood TTWA has contracted in overall size to become the Southend TTWA. A large proportion of Brentwood District was

transferred to the adjacent Chelmsford TTWA, however the eastern section of Thurrock was absorbed, previously forming part of the London TTWA.

Figure 2.3 Travel to work areas (2001)



Source: ONS Census (2001) / Lichfields analysis

Rochford Local Travel to Work Area

2.13 Commuting data from the 2011 Census also allows travel-to-work patterns to be examined at a more detailed geographical scale, with travel-to-work flows provided at the Middle Super Output Area (MSOA) level. This level of analysis provides a more detailed understanding of the travel-to-work linkages between Rochford and other centres within the surrounding region.

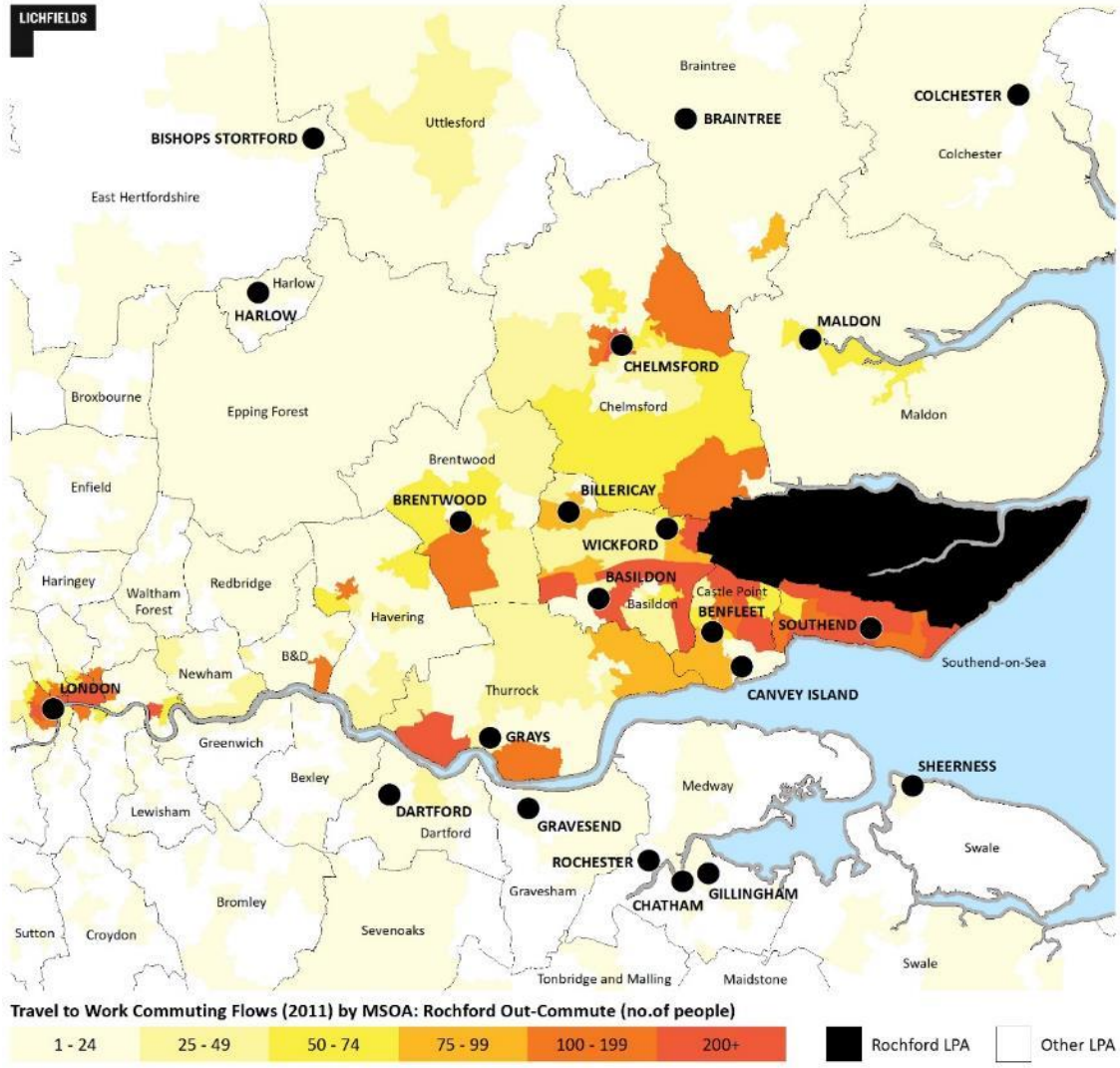
2.14 The most significant destinations for out-commuting residents from Rochford include MSOA's across the City of London, Southend-on-Sea, Basildon and Castle Point.

2.15 The origins of in-commuting workers to Rochford are less geographically dispersed, with significant inflows of workers commuting from neighbouring MSOA's across the local authorities of Southend-on-Sea and Castle Point, followed by those in Basildon and Chelmsford.

2.16 MSOA level commuting flows data underlines the strong functional economic and labour market linkages between Rochford and its surrounding local authorities. Despite this,

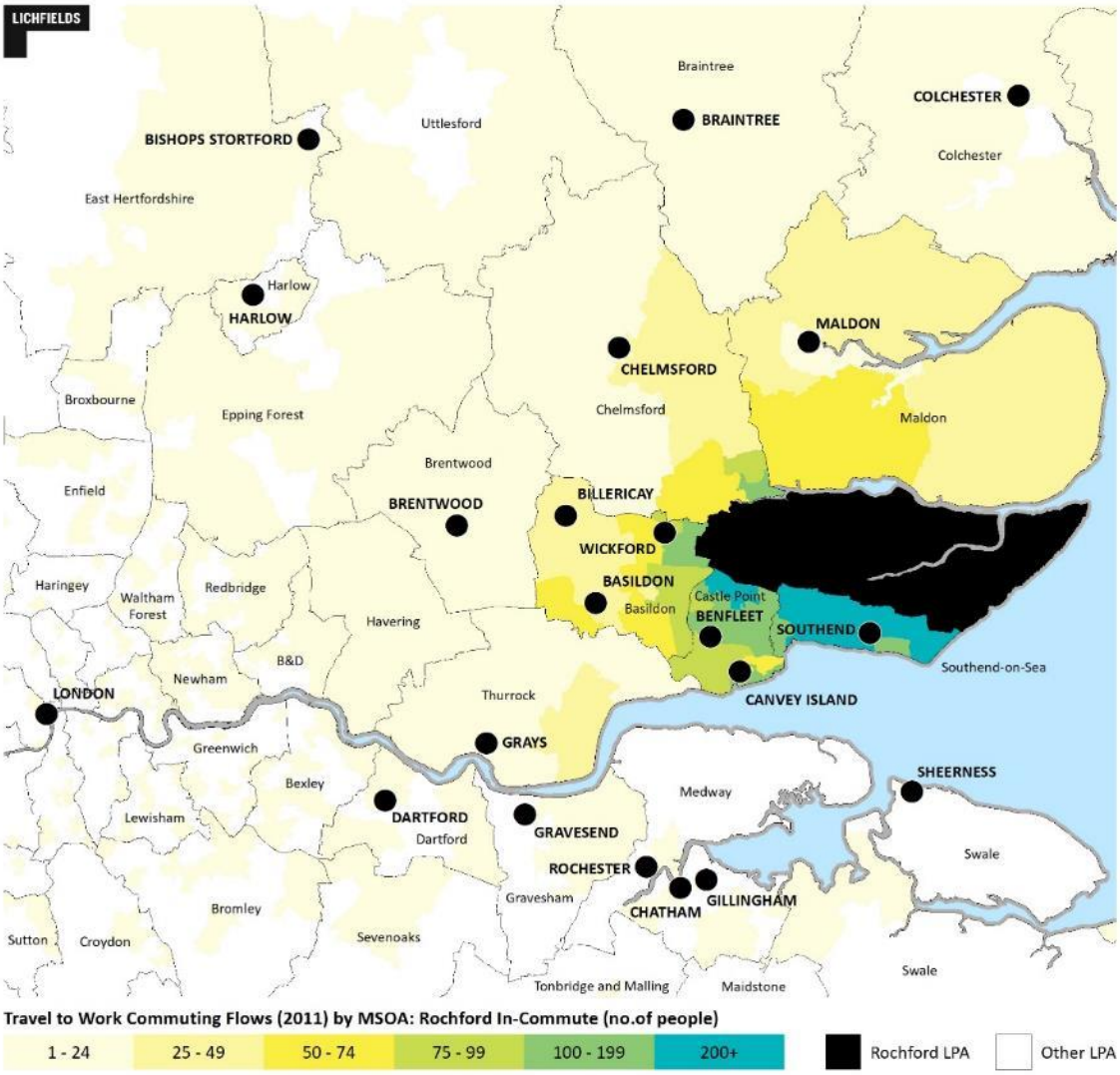
Rochford maintains strong out-commuting flows to areas within London including City of London and Tower Hamlets.

Figure 2.4 Out-commuting flows at MSOA level for Rochford (2011)



Source: ONS Census (2011) / Lichfields analysis

Figure 2.5 In-commuting flows at MSOA level for Rochford (2011)



Source: ONS Census (2011) / Lichfields analysis

Housing Market Areas

2.17 A housing market area (HMA) is a geographical area defined by household demand and preferences for all types of housing, reflecting the key functional linkages between places where people live and work. HMAs are a useful input to the process of considering the spatial extent of FEMAs due to the influence they have upon travel-to-work and labour market flows. Close relationships typically occur between the boundaries of sub-regional housing markets and sub-regional labour markets (generally referred to as Travel to Work Areas as explored above). Unless resident workers opt to take a job in another location and to accept a commensurately longer journey time, they are likely to look for somewhere to live within the same travel to work area if they move to a new house.

2.18 The South Essex Strategic Housing Market Assessment (2016)[3] analyses a range of spatial indicators including migration, house prices and commuting flows to determine the extent to which the Thames Gateway South Essex (TGSE) authorities[4] represent a single housing market area. It is also understood that the emerging South Essex Housing Needs Assessment is concluding that it is reasonable to expand the original TGSE housing market area to also include of the administrative area of Brentwood. The assessment indicates that TGSE represents an appropriate HMA, with justifications based on containment of moves within the geography, broad commonality in house prices and strong containment with regard to commuting flows, despite London clearly remaining an important place of work for residents across South Essex.

Commercial Property Market

Market Geographies

2.19 Commercial property market signals represent a key element to defining FEMAs as the geographical extent of markets can be defined by the location of customers, supply chains, competitors (including competing employment schemes) and enquiries, as well as the proximity to key transport infrastructure. Much of the activity occurring within a commercial property market represents the gradual churn of existing local occupiers.

2.20 From an office market perspective, Chelmsford represents the main concentration of activity across the Essex market, where the South Essex Authorities have more dispersed activity characterised as smaller secondary office markets. The office market primarily relates to local businesses that need to locate close to the town centres, with few exceptions in terms of larger companies that seek larger premises located on out-of-town business parks.

2.21 From an industrial market perspective, the A127 corridor is considered the main driver from the perspective of logistics and industrial occupiers linking Southend and the Airport with the M25 and London. On this basis, Brentwood, Basildon, Rochford and Southend share similar market characteristics, however demand is influenced by available supply and on this basis, Basildon represents the largest concentration of activity. However, the development of the Airport Business Park Southend could influence these dynamics. Thurrock has the advantage of proximity to the ports and in particular the recently designated Thames Freeport, alongside the inter-relationships with London and the pressures to accommodate industrial demand arising from London.

Market Signals

2.22 Essex as a whole has a well-established industrial property market, with strong demand and low vacancy rates (at 2.2% in late 2022)[5]. Demand for industrial space is increasing particularly for large warehouses[6] which is reflected by rent growth of 9.9% over the last 12-months. The office market outlook has been less certain, with low leasing activity resulting

[3] South Essex Strategic Housing Market Assessment (2016) https://localplan.southend.gov.uk/sites/localplan.southend/files/2019-02/South%20Essex%20Strategic%20Housing%20Market%20Assessment%202016.pdf
[4] The Thames Gateway South Essex authorities include Basildon, Castle Point, Rochford, Southend-On-Sea, and Thurrock
[5] CoStar Database (2022)
[6] Large warehouses are those of 50,000 sqft or over, including the Big Boxes that are units with a size of typically above 100,000 sq ft.

from the pandemic and changing working patterns. This has pushed vacancies up to 3.2%, the highest levels seen since 2017; albeit still a low level considering that a vacancy rate of 8% is typically assumed to reflect a normal functioning market. Office rental growth slipped slightly during the pandemic and is expected to remain at 2.6%, significantly lower than the equivalent growth for industrial rents.

2.23 The industrial property market in Rochford is characterised as a mid-sized submarket of Essex comprising around 205,000 sq.m[7] of industrial stock. The last 5-year vacancy rate average is at 3.5%. Net absorption[8] over the past year was at 9,000 sq.m (c.100,000 sqft), almost double that of the last 5-year average. This is due to the new supply provided at the Airport Business Park Southend and Phase 1 of Arterial Park. According to CoStar, the District's inventory has expanded by 17.6% over the past three years. Rents have grown by 8% over the last year.

2.24 The office market in Rochford is considered to be very small, containing around 43,000 sq.m of office inventory. The vacancy rate has risen over the past year but remains relatively low at 2.2%. There is a negative net absorption of 580 sq.m over the last year as well as over the last 5 years (-70 sq.m) showing that there is limited demand for office space across the market. Grade A properties such as Cohav House (built in 2009) and Ryan House (built in 2008) in Aviation Way have available space for leasing and this indicates that the office demand is limited at the moment. Office rents have increased by 2.3% over the last year, which is below the growth seen across Essex of 3.3% and below the growth seen over the last 10 years in Rochford, which also averages at 3.3%.

2.25 The wider South Essex sub-market has some similar characteristics with Rochford, but in both office and industrial terms the sub-market overperforms compared to Rochford with higher rental growth, stronger net absorption and lower vacancy rates, as highlighted in Table 2.2.

Table 2.2 Market signals

Market Signals	Essex	Rochford
Office Market		
Rent per sqft	£18.9	£15.8
12 month rent growth	2.6%	2.3%
Vacancy levels	3.2%	2.2%
Absorption level (sq.m)	11,400	-580
12-month deliveries in sq.m	2,081	0
Industrial Market		
Rent per sqft	£12.0	£10.0
12 month rent growth	9.9%	9.0%
Vacancy levels	2.7%	11.3%
Absorption level (sq.m)	111,500	9,000
12-month deliveries in sq.m	111,500	8,788

Source: CoStar (Autumn 2022) / Lichfields analysis

[7] CoStar Database (2022)

[8] This is the measure of total space occupied (indicated as a Move-In) less the total space vacated (indicated as a Move-Out) over a given period of time. Lease renewals are not factored into net absorption.

Transport and Connectivity

2.26 Transport accessibility and connectivity has a strong influence on the geography of FEMAs, with the strategic transport network playing a key role in shaping commercial property, labour and housing market flows.

2.27 The District is bounded by the A127 to the south, leading west towards Basildon and the M25 motorway. The A130 to the west of Rochford leads north towards Chelmsford, and connects the District with the A13 towards Tilbury. The larger settlements of Rochford, Rayleigh and Hockley are served by strong rail links, connecting the District with neighbouring authorities, as well as providing regular services to London Liverpool Street.

2.28 The District also benefits from access to London Southend Airport, located immediately to the south of Rochford straddling the border with Southend-on-Sea. The Airport provides significant employment opportunities across the surrounding areas, as well as international flight connections although these have been reduced following the Covid-19 pandemic with fewer flights currently and more operating on a seasonal basis only.

Retail and Consumer Catchments

2.29 Within the context of identifying FEMAs, it is also relevant to review existing retail and consumer market areas across the sub-region to consider the spatial area from which users of goods and services are drawn.

2.30 Rochford is bounded by Castle Point, Basildon, Chelmsford and Southend-on-Sea, with the District's main retail provision located in Rayleigh, Rochford and Hockley. Rayleigh is the main shopping destination in Rochford, with a wide comparison and convenience offer serving the town and surrounding villages. Rochford has a high proportion of convenience floorspace, with a localised catchment including the surrounding rural villages. Similarly, Hockley serves a largely localised catchment area. The main out-of-town retail provision is located at Southend Airport Retail Park, which abuts the district boundary with Southend and comprises a range of comparison goods retailers.

2.31 The South Essex Retail Study (2017)[9] provides an overview of the existing network of centres across South Essex, as well as the role of competing centres located across the wider region. Retail provision in South Essex comprises the larger regional centres of Basildon, Lakeside and Southend, alongside smaller centres such as Billericay and Hadleigh. Lakeside shopping centre is the largest comparison destination within South Essex and exerts a significant influence over shopping patterns across the study area. The overlap in retail catchments across South Essex authorities is strengthened by significant out-of-centre retail provision, which competes with the established network of centres for expenditure.

Summary

2.32 Based on the assessment of various market areas across South Essex in terms of labour markets, housing markets, consumer catchments and transport connectivity, it is possible to consider the spatial extent of the FEMA within which Rochford is situated.

[9] South Essex Retail Study (2017) https://www.rochford.gov.uk/sites/default/files/SouthEssexRetailStudyVolume%201.pdf

2.33 Synthesising the analysis, it is considered that the South Essex authorities of Basildon, Castle Point, Rochford, Southend and Thurrock represent a self-contained functional economic area. Brentwood has clearly strong inter-relationships with the rest of the South Essex Authorities, but it also has strong economic interdependencies with Chelmsford. It should also be highlighted that all the authorities have some economic linkages with locations further afield, such as Chelmsford and London, particularly in relation to commuting flows.

2.34 Brentwood forms part of the Association of South Essex Local Authorities (ASELA) that have come together to promote growth and prosperity in the region and are preparing a regional plan to 2050. On this basis, there are also administrative boundaries and associated synergies that need to be considered when identifying the FEMA and, in this context, Brentwood can also be considered part of the South Essex FEMA; however, this might not be the only FEMA relevant to Brentwood. In addition, the emerging South Essex Housing Needs Assessment states that Brentwood comprises part of the South Essex housing market area which reinforces that Brentwood can also be considered part of the South Essex FEMA.

2.35 In summary, the six authorities in South Essex are strongly interconnected in relation to labour market activity and commuting flows, with Rochford maintaining important linkages to the nearby local authorities of Southend-on-Sea, Basildon and Castle Point in this context. Some commuting journeys also take place between Rochford and the remaining South Essex authorities of Brentwood and Thurrock. The identified FEMA is also relevant in regard to housing market areas, with a high containment of moves and broad commonality in house prices across the area. The existing transport links across South Essex, including road and rail connectivity also provide justification for its classification as a self-contained FEMA.

3.0 Future Requirements for Employment Space

3.1 This section considers future economic growth needs in Rochford by drawing on several methodologies that are guided by the Planning Practice Guidance (PPG) and aligned with the National Planning Policy Framework (NPPF). These scenarios are used to inform an assessment of future employment space needs for office, industrial and distribution uses over the Plan period between 2020 and 2040.

Methodology

3.2 The NPPF (July 2021) Paragraph 82 point (a) requires local authorities to:

"set out a clear economic vision and strategy which positively and proactively encourages sustainable economic growth, having regard to Local Industrial Strategies and other local policies for economic development and regeneration".

3.3 In this context and having regard to the PPG on preparing economic development needs assessments, a number of potential future economic scenarios have been developed in this study to provide a framework for considering future economic growth needs and employment space requirements in Rochford to 2040. These future scenarios draw upon:

1 Projections of employment growth **(labour demand baseline- Scenario 1)** within the main office, industrial and distribution sectors derived from economic forecasts produced by Cambridge Econometrics (March 2022 release). In addition, a **growth scenario** based on sector adjustments to the labour demand scenario is also considered;

2 Estimates of **local labour supply and subsequently the supported job growth (Scenario 2)** based on demographic, housing and commuting assumptions applied as part of the South Essex Housing Market Assessment prepared by Turley; and

3 Consideration of **past trends in completions of employment space (Scenario 3)** based on monitoring data collected by the Council covering the period since 2010/11, and how these trends might change in the future.

3.4 All of these approaches have limitations and consideration needs to be given as to how appropriate each is to the circumstances in Rochford. Further, to be robust, the economic growth potential and likely demand for employment space in the District needs to be assessed under a variety of future scenarios, to reflect both lower and higher growth conditions that could arise in the future.

3.5 It should also be noted that the ultimate judgement as to the level of need that the local authority should plan for is not purely quantitative, and that there will be a range of qualitative factors such as market signals to consider which will influence the employment space requirements that will need to be planned for. For instance, previous overarching evidence[10] highlights Rochford's need for more mid-sized 'grow-on' space for office and industrial (including workshops and warehousing) use. Both office and industrial space are noted to have moderate demand, but limited supply and poor quality stock in this size category. The study also states that key projects such as the Airport Business Park

[10] BBP Regeneration (2020), South Essex Grow-on Space- A case for intervention

Southend, and related growth in presence of digital and technology businesses, could lead to increased demand for offices within the District.

3.6 Outputs from these scenarios are presented for the new Local Plan period from 2020 to 2040.

Scenario 1: Labour Demand

3.7 Employment growth forecasts for the District during the period to 2040 were obtained from Cambridge Econometrics (CE) March 2022 release (the latest available at the time of analysis). These local level employment forecasts are consistent with the Cambridge Econometrics March 2022 UK macro forecast, with further detail on key assumptions summarised below.

Cambridge Econometrics Forecast Assumptions: March 2022

"A sharp recession was experienced in the first half of 2020 (and the first quarter of 2021) as the UK government introduced public health measures and social distancing to contain the outbreak of COVID-19. Economic recovery has generally been robust as restrictions were wound down (i.e. in 2020H2 and 2021Q2), however the recovery has been uneven (across groups/regions/expenditure categories) and there is evidence of scarring in some economic variables.

The export outlook for UK has deteriorated since the previous forecast owing to supply chain issues (e.g. shortage of UK HGV staff, border disruptions, fuel shortages etc) and owing to impacts associated with UK exit of EU. These issues are expected to persist in the medium term, weighing down the recovery of exports over 2022-24 (note also, that unlike most other expenditure categories, published data indicate that exports continued to contract in 2021, despite the partial reopening of the global economy).

Despite the reversal of restrictions, persistent economic scarring and a muted economic recovery is expected. This comes as a result of business closures, weak capital accumulation and lasting productivity impacts of the pandemic. Moreover, UK trade prospects remain very weak due to slow global economic growth and Brexit trade disruptions.

Given this, the central assumption of this forecast is a 2.4% increase in GDP in 2022 (the final 'recovery' year in which above-trend growth rates are observed) and a 1.3% increase in GDP in 2023."

More details about this forecast are provided in **Appendix 4.**

3.8 Reflecting the greater than usual degree of uncertainty and variability attached to the most recent forecasts as well as the fact that the current period of high inflation and rising interest rates are likely to influence further the future macro-economic outlook, these may need to be re-considered as the Local Plan progresses depending on how the economic situation changes in the intervening period.

Implied Employment Change

3.9 Table 3.1 summarises employment change implied by the CE forecasts by office, industrial and distribution uses as well as total employment change over the new Local Plan period. This includes an allowance for jobs in other sectors that typically use office, industrial or warehousing space.

Table 3.1 Forecast Employment Change in Rochford, 2020-2040

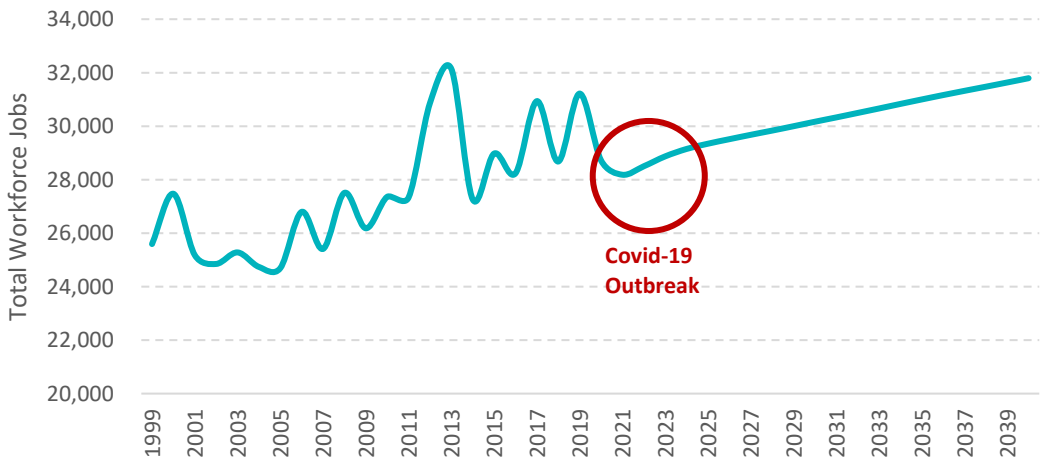
Type of Space / Use Class	Number of Workforce Jobs		Change (2020-2040)
	2020	2040	
Office E(g)(i)/(ii)	4,700	5,370	+665
Light Industrial E(g)(iii)	2,590	3,020	+430
Industrial B2	2,570	2,180	-390
Distribution B8	1,510	1,630	+120
Total Employment Use Sectors	**11,370**	**12,200**	**+820**
Total Workforce Jobs	**28,720**	**31,790**	**+3,070**

Source: CE (March 2022) / Lichfields analysis Note: totals rounded

3.10 Under this scenario, total workforce jobs are expected to increase by 11% within the Plan period resulting in an additional 3,070 workforce jobs in the District. About 26% of all job growth is expected to be within office, light industrial and distribution sectors, with office-based sectors driving the majority of employment growth. General industrial job growth is forecast to decline by 390 jobs, meanwhile light industrial jobs will increase by 430 jobs.

3.11 Figure 3.1 illustrates the trajectory of total job growth implied by the CE forecasts (March 2022 release) for the District. Under this scenario, workforce jobs are expected to grow during the course of 2022 to 2024 as labour market effects recover from the Covid-19 pandemic. The historic job growth in Rochford has fluctuated significantly, and since 2014 the average employment base has totalled 29,220 jobs. Based on the forecast, it is expected that the workforce base will rebound from 2024 onwards, with steady growth then predicted for the remaining years of the Local Plan period to 2040.

Figure 3.1 Forecast Employment Growth in Rochford to 2040 Total Workfoce Jobs



Source: CE (March 2022) / Lichfields analysis

3.12 Table 3.2 below identifies the fastest growing and declining sectors in the District in employment terms during the forecast period. **Appendix 2** presents the growth change across all the sectors. The forecasts suggests that wider sectors such as health, construction and food & beverage services will also play a significant role in driving local job growth in

future, alongside sectors whose activity is typically found in office and distribution space such as other professional services, IT services and warehousing and postal.

Table 3.2 Fastest Growing and Declining Employment Sectors in Rochford, 2020-2040

CE Sector	Forecast Change in Workforce Jobs 2020-2040	
	No	%
FASTEST GROWING EMPLOYMENT SECTORS		
Health	960	54%
Construction	840	24%
Other professional services[11]	340	28%
Food & beverage services[12]	240	13%
IT services	180	32%
Warehousing & postal	160	18%
FASTEST DECLINING EMPLOYMENT SECTORS		
Financial & insurance	-150	-34%
Other manufacturing & repair	-150	-35%
Other transport equipment	-145	-22%

Source: CE (March 2022) / Lichfields analysis

3.13 According to CE, the sectors that are forecast to see employment losses in Rochford over the period to 2040 include some office-based services such as financial and insurance and some industrial-based sectors including manufacturing & repair services and transport equipment.

3.14 The decline in finance and insurance jobs may reflect a number of factors, including the downturn in the industry since Brexit. Another possible reason for the drop in employment in the finance and insurance sector is also due to wider technological changes and the expansion of the fintech sector which means some jobs within the finance sector are now increasingly classified as being within the technology sector. Similarly, the decline in manufacturing & repair services and transport equipment may reflect the increased automation and digitisation of the industry as a whole (see more details in **Appendix 4**).

3.15 Overall, this suggests that key office and distribution sectors are overall expected to continue to grow over the coming years, alongside other sectors such as health, while manufacturing-based sectors will potentially decline.

Converting to Employment Space Requirements

3.16 The office, industrial and warehousing component of these employment growth forecasts are converted to future employment space requirements by applying the latest published job density figures for employment space, which take account of recent trends in occupancy for the different employment uses. The following average ratios have been applied:

- **Offices (E(g)(i)/(ii)):** 1 workforce job per 14.4 (GEA) sq.m;
- **Light industrial (E(g)(iii)):** 1 workforce job per 56.4 (GEA) sq.m;

[11] According to Appendix 4, other professional services are all the remaining 'IT, financial and insurance, real estate, professional, and scientific and technical services' if you exclude the following: Computer programming, Information services, Financial services, Insurance & pensions, Advertising, etc., Aux. financial services, Real estate, Legal & accounting, Head offices, etc., Architect. & related, Scientific research and Veterinary.

[12] Excluding hospitality (see more details in Appendix 2).

- **General industrial (B2):** 1 workforce job per 37.8 (GEA) sq.m; and
- **Warehousing (B8):** 1 workforce job per 70 (GEA) sq.m.

3.17 These assumptions are based on the latest HCA guidance on job density ratios produced in 2015. This guidance takes account of trends such as changing utilisation of employment space, including more efficient use of office floorspace due to a higher frequency of flexible working and hot-desking. They all relate to Gross External Area (GEA).

3.18 An allowance of 8% is added to all positive floorspace requirements to reflect normal levels of market vacancy in employment space (Table 3.3). Where a reduction in jobs is forecast, the associated negative floorspace is halved. This reflects that while there may be ongoing manufacturing job losses (e.g. as firms use more efficient production approaches), it does not automatically follow that all of the existing employment floorspace will be lost.

Table 3.3 Net Employment Space Requirements: Labour Demand, 2020 to 2040 (Scenario 1)

Type of Space / Use Class	Net Employment Floorspace 2020 to 2040 (GEA sq.m)
Office E(g)(i)/(ii)	10,340
Light Industrial E(g)(iii)	26,090
General Industrial B2	-7,400
Distribution B8	9,170
Total	**38,205**

Source: CE (March 2022) / Lichfields analysis Note: totals rounded

Scenario 2: Growth Scenario (Labour Demand)

3.19 A growth scenario has also been developed which aims to reflect the Council's Economic Growth Strategy, London Southend Airport Joint Area Action Plan and wider corporate ambitions. It provides a 'policy-on' employment need estimation. The approach is based on an analysis of short to longer term historic growth rates across the 45 economic sectors as provided by CE in scenario 1, with emphasis on those priority sectors identified in the 2017 South Essex EDNA.[13]

Baseline Growth

3.20 CE provided the baseline employment growth across the District covering the period from 2000 to 2040 across 45 economic sectors. An analysis of the historic growth over the last 5, 10 and 20 years has been undertaken in order to identify the historic drivers of growth and also to quantify the growth that has been seen across those sectors identified as the priority sectors in the 2017 South Essex EDNA. This was then compared against the baseline jobs growth forecast (i.e. scenario 1). The findings per sector are summarised in **Appendix 2** and **Appendix 3**.

3.21 The baseline forecast (scenario 1) appears positive compared to historic growth over the same period. As analysed above, across all sectors, growth of 3,070 jobs is anticipated

[13] It should be noted that other scenarios contained in the 2017 EDNA relevant to Rochford have not been considered as part of this assessment. Growth plans at London Southend Airport were paused following Covid-19 and the significant decline in airport passengers, while there is no consistent and up to date evidence to provide a basis for the London Industrial Land Re-location scenario.

between 2020 and 2040. Over the last 20-year, job growth in Rochford increased in overall terms by 1,251 jobs.

3.22 Not all job growth is accommodated within office, manufacturing and distribution space that comprises the employment designations of the Local Plan (i.e. previously B class, now B/E class). Therefore, the historic and future jobs forecasts have been categorised according to office-, industrial- and distribution-based sectors as presented in Table 3.4 below.

Table 3.4 Historic and Future Jobs Growth per Type of Employment Space (Jobs)

Type of Space / Use Class	Historic Growth 2000 to 2020	Future Growth (Baseline) (Scenario 1) 2020 to 2040
Office E(g)(i)/(ii)	514	665
Light Industrial E(g)(iii)	-19	428
General Industrial B2	-543	-391
Distribution B8	-315	121
Jobs in Other Sectors	1,614	2,247
Jobs in Employment Use Sectors	**-363**	**823**
Total Jobs (including all sectors of the economy)	**1,251**	**3,070**

Source: CE (March 2022) / Lichfields analysis

3.23 This shows that there has been historically a significant loss of employment in sectors that typically occupy land designated for employment purposes. The future baseline forecast shows that the trend will change and there will be an increase in jobs across all sectors, however this will be relatively modest for those sectors occupying designated space for office, industrial and distribution purposes.

Growth Scenario Adjustments

3.24 Lichfields has been asked to model a policy-on forecast that aligns as far as possible with the 2017 South Essex EDNA's growth sectors for Rochford. Table 3.5 presents the growth sectors that relate to key sub-regional investments across the area, namely Airport Business Park Southend.

Table 3.5 Priority Sectors – Strategy and Investment Plan

Priority Sectors/Initiatives & Relevant CE Sectors	Alignment with Council's Priorities
Airport Business Park Southend - Relevant Sectors include: Head offices & management consultancies Other professional services Land transport Warehousing & postal	Building on the opportunities that the nascent development of the Airport Business Park Southend is unlocking, the Council is aiming to facilitate, in parallel, growth of London Southend Airport to realise its potential as a regional transport hub, which will provide significant new employment opportunities, overall regeneration and business development.

Source: GVA (2017), CE (March 2022) / Lichfields analysis

3.25 These sectors have been selected in accordance with the below:

- Consideration of the outline consent for the Airport Business Park Southend as well as the Area Action Plan, and associated promotion material; and
- Review of the Economic Growth Strategy 2022 to 2025 objectives and initiatives.

3.26 In order to identify the most appropriate growth assumptions for each of the priority sectors, a detailed quantitative analysis of future and historic trends has been undertaken which is summarised in Table 3.6.

Table 3.6: Historic and Future Growth Rates per Annum (%)

Relevant CE Sectors	Historic Growth Rates				Future Growth Rate – Baseline 2020 - 2040
	2015 - 2020	2010 - 2020	2000 - 2020	Average Rate (Last 10 & 20 years)	
Head offices & management consultancies	2.3%	2.6%	4.9%	3.8%	0.6%
Land transport	4.7%	-0.5%	1.4%	0.4%	0.1%
Other professional services	-4.6%	-0.1%	1.8%	0.9%	2.0%
Warehousing & postal	6.0%	7.2%	2.6%	4.9%	0.8%

Source: CE (March 2022) / Lichfields analysis

3.27 The growth rates recorded over the last 5 years have been excluded from further analysis as these may not be representative due to the impact of the Covid-19 pandemic period.

3.28 Considering the above, Table 3.7 presents the proposed assumptions related to the Growth Scenario for each individual sector.

Table 3.7 Growth Scenario Proposed Assumptions and Adjustments

Relevant CE Sectors	Uplift Assumptions
Head offices & management consultancies	The baseline forecast suggests an increase of 66 jobs across the Plan period equivalent to an annual growth rate of 0.6%. This has been uplifted by applying for the first 10 years (i.e., 2020 to 2030) the average growth rate of 3.8% that has been recorded over the last 10 and 20 years across the sector. For the remaining period (i.e., 2030 to 2040) the 10-year longer-term historic growth rate of 2.6% is applied.
Land transport	The baseline forecast suggests a modest increase of 15 jobs across the Plan period equivalent to an annual growth rate of 0.1%. This has been uplifted by applying the longer-term historic growth rate of 1.4% over the last 20 years applied across the whole period (2020-2040).
Other professional services	No further adjustment has been undertaken as the baseline growth rate is significantly higher than all the historic rates.
Warehousing & postal	The baseline forecast suggests an increase of 161 jobs across the Plan period equivalent to an annual growth rate of 0.8%. This has been uplifted by applying for the first 10 years (i.e., 2020 to 2030) the average growth rate of 4.9% that has been recorded over the last 10 and 20 years across the sector. For the remaining period (i.e., 2030 to 2040) the 20-year longer-term historic growth rate of 2.6% has been applied.

Source: Rochford (2022), CE (March 2022) / Lichfields analysis

3.29 The combined effect of these adjustments results in an increase to the expected employment growth from 3,070 jobs across all sectors (i.e. baseline forecast) to 4,646 jobs

under the growth scenario. Table 3.8 presents shows the change to each priority sector in terms of absolute employment.

Table 3.8 Job Growth in Priority Sectors, 2020 to 2040

Relevant CE Sectors	Jobs in 2020	Baseline Scenario Jobs Increase	Growth Scenario Jobs Increase	Difference
Head offices & management consultancies	564	66	654	+588
Land transport	627	15	195	+180
Other professional services	709	341	341	-
Warehousing & postal	898	161	968	807
Total	**2,798**	**583**	**2,159**	**+1,576**

Source: CE (March 2022) / Lichfields analysis

3.30 It should be noted that the increase of 1,576 jobs relates to the local economy as a whole. Table 3.9 shows the anticipated increase in the office-, industrial- and distribution- based sectors only.

Table 3.9 Future Jobs Growth per Type of Employment Space (Jobs)

Type of Space / Use Class	Future Jobs Growth (Growth Scenario 2020 to 2040
Office E(g)(i)/(ii)	1,253
Light Industrial E(g)(iii)	428
General Industrial B2	-391
Distribution B8	623
Jobs in Other Sectors	2,733
Jobs in Employment Use Sectors	**1,912**
Total Jobs (including all sectors of the economy)	**4,646**

Source: CE (March 2022) / Lichfields analysis

3.31 Finally, by applying the same density assumptions as those presented in Scenario 1, the employment space requirements for scenario 2 are presented in Table 3.10.

Table 3.10 Net Employment Space Requirements (sq.m)

Type of Space / Use Class	Growth Scenario 2020 to 2040
Office E(g)(i)/(ii)	19,484
Light Industrial E(g)(iii)	26,093
General Industrial B2	-7,399
Distribution B8	47,063
Jobs in Employment Use Sectors	85,241

Source: CE (March 2022) / Lichfields analysis

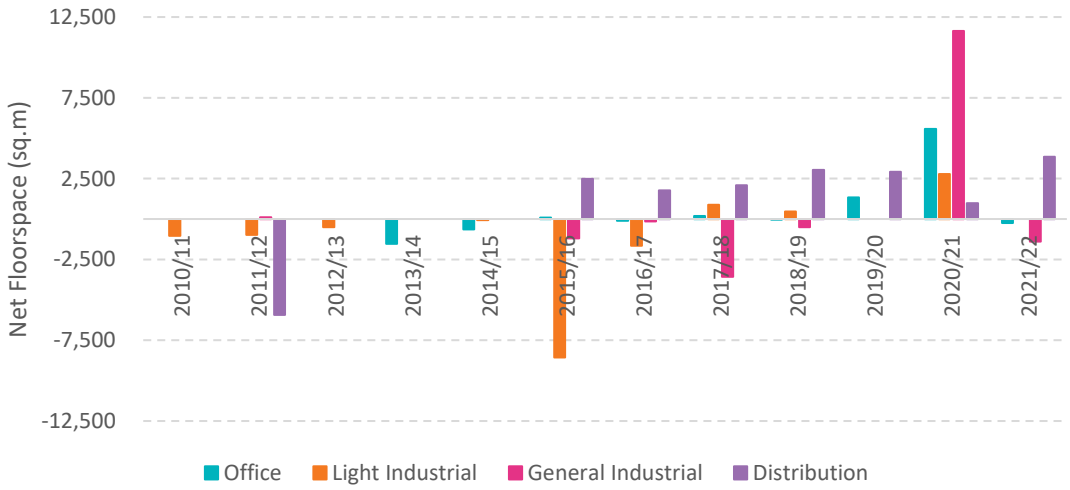
Scenario 3: Past Development Rates

3.32 Past development rates reflect market demand and actual development patterns, so can provide a reasonable basis for informing future space needs. Whilst forecasts show job growth in net terms, past trend-based analysis takes account of historic patterns in employment space development and the role that recycling of sites can play in terms of supporting employment uses in an economy.

3.33 An analysis of monitoring data on past completions of employment space between 2010/11 and 2021/22 has been provided by the Council. During this period, average annual net completions[14] for office, industrial and distribution uses in Rochford amounted to 1,005 sq.m per annum or a total of 12,050 sq.m[15]. Gross completions[16] were higher, at an average of 4,170 sq.m per annum or a total of 50,080 sq.m.

3.34 As presented in Figure 3.2 and Table 3.11, development activity in the District has recently increased due to the commencement of initial phases primarily at two sites: Airport Business Park Southend and the Arterial Park in Rayleigh. This increase relates primarily to the delivery of new industrial and distribution space.

Figure 3.2 Net Completions of Employment Space in Rochford, 2010/11 – 2021/22



Source: Rochford District Council / Lichfields analysis

Table 3.11 Net Completions of Employment Space in Rochford, 2010/11 – 2021/22

Monitoring Year	Office	Light Industrial	General Industrial	Distribution
2010/11	0	-1,036	0	0
2011/12	0	-987	105	-5,940
2012/13	0	-510	0	0
2013/14	-1,525	0	0	0
2014/15	-651	-73	0	0

[14] Net completions take into account losses of employment floorspace as well as completions.
[15] This excludes half of the provision in the Airport Business Park Southend, in line with the 2014 Joint Area Action Plan (see paragraph 4.3 for details)
[16] Gross completions relate to only deliveries of new floorspace and does not take into account losses of employment floorspace, hence gross.

2015/16	85	-8,571	-1,203	2,495
2016/17	-107	-1,655	-146	1,770
2017/18	194	873	-3,570	2,095
2018/19	-27	457	-503	3,036
2019/20	1,331	0	0	2,914
2020/21	5,578	2,774	11,642	987
2021/22	-238	0	-1,393	3,852
Total	**5,026**	**-8,727**	**4,932**	**11,210**

Source: Rochford District Council / Lichfields analysis

3.35 Net losses have been recorded across all types of uses since 2010, however, of note is the loss of light industrial space in 2015. This relates to the demolition of former light industrial facilities of c 5,370 sq.m at 90 Main Road in Hawkwell that has been redeveloped for housing, alongside the loss of 3,200 sq.m at 26A Brook Road, Rayleigh, to leisure and assembly space. As a result, light industrial floorspace is the only use class which saw a net loss during the monitoring period of around 8,730 sq.m, equivalent to an average annual net loss of 730 sq.m. Although in quantitative terms, the evidence particularly on light industrial uses suggests that there have been losses, such evidence should be interpreted alongside qualitative factors such as market performance and availability of land supply.

3.36 In overall terms, there has been a total net gain in employment floorspace, with distribution uses presenting the highest net gain of 11,210 sq.m over the monitoring period, followed by general industrial with a net gain of 4,930 sq.m. Mixed B developments have also seen an increase of 10,600 sq.m since 2010/11. To inform further this scenario, 'Mixed B' has been apportioned to office, industrial and distribution uses based on the annual delivery per type of space across the monitoring period. The findings are summarised in Table 3.12 below.

3.37 One view of future growth in Rochford could assume that these past development trends will carry on in the future and as presented below, these would result in a moderate net requirement of 20,100 sq.m.

Table 3.12 Net Employment Space Requirements: Past Development Rates, 2020 to 2040 (Scenario 2)

Type of Space / Use Class	Assumed Net Annual Floorspace Change (sq.m)	Net Floorspace Requirements 2020-2040 (GEA sq.m)
Office E(g)(i)	390	7,740
Light Industrial E(g)(iii)	-730	-14,540
General Industrial B2	410	8,220
Distribution B8	930	18,680
Total	**1,005**	**20,100**

Source: Rochford District Council / Lichfields analysis Note: totals rounded

3.38 There are some limitations in relation to the monitoring evidence to inform planning policy requirements. In addition, an analysis of qualitative factors including market trends and feedback[17], should also be considered to contextualise these trends.

[17] Not part of the scope of this study

Scenario 4: Labour Supply

3.39 The South Essex Housing Market Assessment (2022) provides estimates of local labour supply and subsequently the supported jobs growth based on demographic, housing and commuting assumptions. As a result, the emerging South Essex Housing Market Assessment reports an increase of 4,056 jobs being required to support the future growth of the economically-active population in Rochford.

3.40 The detailed sector mix of these jobs has been based on the apportionment within the Cambridge Econometrics baseline forecast, and the density and plot ratio assumptions used to convert employment growth to floorspace requirements are the same as those presented in paragraphs 3.16 to 3.18. Table 3.13 presents the jobs and floorspace requirements by type of space across the Plan period.

Table 3.13 Net Employment and Floorspace Requirements: Labour Supply, 2020 to 2040 (Scenario 4)

Type of Space / Use Class	Employment (No. of Jobs)	Employment Floorspace (GEA sq.m)
Office E(g)(i)/(ii)	1,250	19,550
Light Industrial E(g)(iii)	810	49,320
General Industrial B2	-740	-15,100
Distribution B8	230	17,330
Jobs in Employment Use Sectors	**1,555**	**71,090**
Total (including all sectors of the economy)	4,056	-

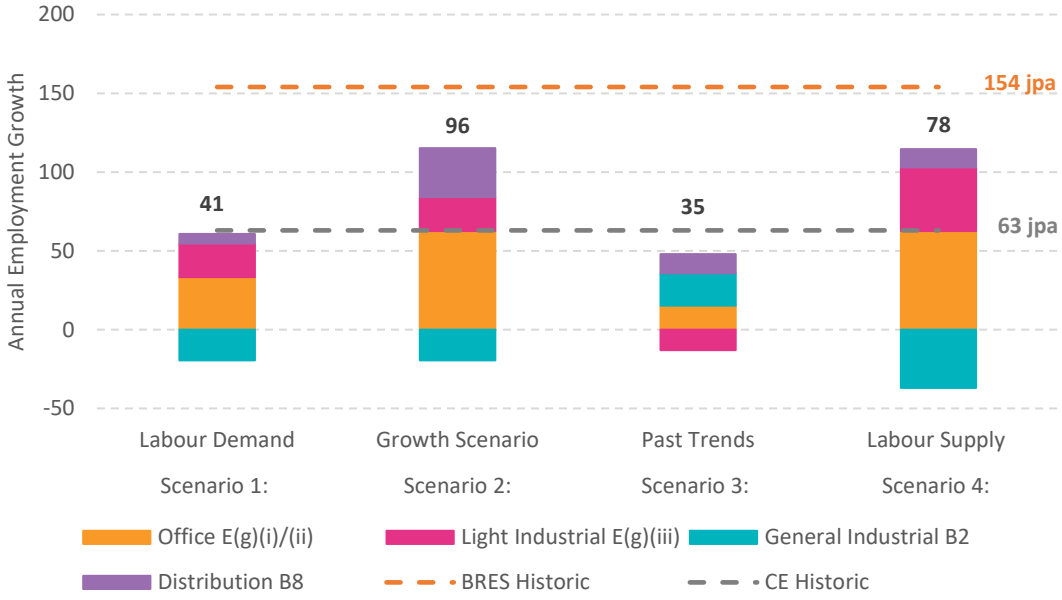
Source: Turley (2022) / Lichfields analysis Note: totals rounded

Employment Growth Comparisons

3.41 Given the range of potential requirements implied by these different scenarios, it is important to test how reasonable each appears against other factors and how sensitive they are to different assumptions. It is, therefore, useful to compare the employment growth implied by the scenarios outlined above with the historic employment growth in the District as recorded by CE for 2001 to 2020 (i.e. a period equivalent to the length of the Plan period) and the latest BRES data.

3.42 Figure 3.3 shows the annual job growth per scenario. In this context, the lowest estimate based on past take-up (Scenario 3) implies a net gain of 35 employment jobs per annum over the Plan period. The highest growth estimate is based on the growth scenario (Scenario 2) and implies an annual growth of 96 jobs. Labour demand (Scenario 1) implies an annual growth of 41 jobs, just above Scenario 3. Labour supply (Scenario 4) implies an annual growth of 78 jobs, lower than Scenario 2.

Figure 3.3. Annual Employment Growth Comparisons with Historic Growth



Source: CE / BRES / Rochford / DLUHC) / Lichfields analysis

3.43 The four scenarios are then compared with historic trends derived by CE for the period between 2001 and 2020 (which imply growth of 63 jobs per annum) and BRES data for the period between 2009 and 2021 (which records 154 jobs per annum). Based on these comparisons, Scenario 1 (Labour Demand) and Scenario 3 (Past Trends) appear to understate the District's growth potential, while Scenarios 3 and 4 appear to better align with the historic trends in employment growth over the past 20 years.

Net to Gross Employment Requirements

3.44 Drawing together the results from each of the future economic scenarios, Table 3.14 summarises the net employment floorspace requirements across the Plan period to 2040.

Table 3.14 Net Employment Floorspace Requirements in Rochford, 2020-2040 (GEA sq.m)

Type of Space/ Use Class	Scenario 1 Labour Demand	Scenario 2 Growth Scenario	Scenario 3 Past Trends	Scenario 4 Labour Supply
Office E(g)(i)/(ii)	10,340	19,480	7,740	19,550
Light Industrial E(g)(iii)	26,100	26,090	-14,540	49,320
General Industrial B2	-7,400	-7,400	8,220	-15,100
Distribution B8	9,170	47,060	18,680	17,330
Total	**38,205**	**85,240**	**20,100**	**71,090**

Source: Lichfields analysis Note: totals rounded

Safety Margin

3.45 To estimate the overall requirement of employment floorspace that should be planned for in allocating sites, and to give some flexibility of provision, it is normal to add an allowance as a safety margin for factors such as delays in some sites coming forward for development.

3.46 There is a need to ensure a reasonable, but not over-generous, additional allowance that provides for some flexibility but avoids over-provision of land through policy. However, it also needs to reflect that there may be potential delays in some of the District's development sites coming forward for development.

3.47 It is usually acceptable to use two years of net take-up to include flexibility of provision. However in the case where this is negative, it would produce a negative margin. Therefore, an allowance related to two-year average gross take-up for light industrial uses in Rochford between 2010 and 2021 has been applied. For the rest of the employment uses the net figure has been utilised. Overall, this safety margin appears an appropriate level relative to the estimated scale of the net requirements. Table 3.15 presents the margin applied in this assessment drawing on the completions' assumptions presented above.

Table 3.15 Safety Margin Allowance (sq.m)

Type of Space/ Use Class	Annual Net Completions	Annual Gross Completions	Safety Margin
Office E(g)(i)/(ii)	390	n/a	770
Light Industrial E(g)(iii)	-730	330	660
General Industrial B2	410	n/a	820
Distribution B8	930	n/a	1,870
Total			**4,120**

Source: Rochford District Council Note: totals rounded

Losses

3.48 To translate the net requirement of employment space into a gross requirement, an allowance is typically made for the replacement of losses of existing employment space that may be developed for other, non-employment uses. This allowance ensures that sufficient space is re-provided to account for employment space that is anticipated to be lost in the District.

3.49 There are typically four approaches to calculate the level of this allowance, including:

1 Forecast the quantity of floorspace that will be lost in future and assume that a proportion of this space will need to be replaced. The issue here is that there is no definitive way of forecasting how much space will be lost, and the future may be very different from the past. If this method is used, the Council needs to look carefully at past losses and use local knowledge to make a judgement on how the future might compare with the past.

2 Make an overall adjustment to the preferred scenario to give an allowance for replacement. This is a simple approach but is likely to rely on making a fairly broad assumption.

3 Monitor the loss of employment space through regular reviews in the local plan thereby avoiding the need to make assumptions about the future loss of employment space. If these periodic reviews indicate a loss of high quality, occupied floorspace and vacancy rates continued to be low, the Council could take steps to replace this space by increasing the floorspace requirement accordingly. However, any Local Plan review reflecting the monitoring findings would take some time to come forward.

4 As part of the employment evidence the Council undertakes a qualitative assessment of existing employment sites, to identify those which could be lost to non-employment uses, either because they are no longer suitable or viable for employment, or because they are judged as being needed for an alternative use, such as housing. Based on this assessment the employment land calculation can develop different scenarios to illustrate possible futures, and plan for new sites accordingly.

3.50 The fourth approach, in which the Council specifically identifies employment sites and areas that may be lost to other uses, is generally the most robust way of dealing with losses. The qualitative assessment of existing employment areas is an essential element of the planning evidence base. As well as policies and decisions regarding new development sites, it informs policies on the safeguarding or release of existing employment sites. Without such policies, there is a risk of losing employment land to other uses which may be desirable to safeguard. Conversely, they also risk protecting sites which do not merit protection, because they are no longer suitable or commercially attractive for employment.

3.51 At this stage, it is assumed that there are no planned losses of employment space coming forward. If this were to change, these requirements would need to be adjusted accordingly. On this basis, Table 3.16 presents the gross employment requirements for the Plan period.

Table 3.16 Gross Employment Floorspace Requirements in Rochford, 2020-2040 (GEA sq.m)

Type of Space / Use Class	Scenario 1: Labour Demand	Scenario 2: Growth Scenario	Scenario 3: Past Trends	Scenario 4: Labour Supply
Office E(g)(i)/(ii)	11,120	20,260	5,510	20,320
Light Industrial E(g)(iii)	26,750	26,750	-13,890	49,970
General Industrial B2	-6,580	-6,580	9,040	-14,280
Distribution B8	11,040	48,930	20,550	19,200
Total	**42,330**	**89,360**	**24,220**	**75,200**

Source: Lichfields analysis Note: totals rounded

3.52 The above floorspace requirements can be translated to land requirements by applying appropriate plot ratio assumptions. These assumptions are as follows:

- Offices: it is assumed that 50% of new floorspace would be in lower density, business park developments with a plot ratio of 0.4, with 50% in higher density town centre locations at a plot ratio of 2.0; and
- Light/general industrial and distribution: a plot ratio of 0.4 is applied.

Table 3.17 Gross Employment Land Requirements in Rochford, 2020-2040 (ha)

Type of Space / Use Class	Scenario 1: Labour Demand	Scenario 2: Growth Scenario	Scenario 3: Past Trends	Scenario 4: Labour Supply
Office E(g)(i)/(ii)	1.7	3.0	1.3	3.1
Light Industrial E(g)(iii)	6.7	6.7	-3.5	12.5
General Industrial B2	-1.6	-1.6	2.3	-3.6
Distribution B8	2.8	12.2	5.1	4.8
Total	**9.5**	**20.3**	**5.2**	**16.8**

Source: Lichfields analysis Note: totals rounded

Summary

3.53 In interpreting the outputs of this section, regard should be given to the PPG, which states that local authorities should develop an understanding of the future economic needs of their area based on a range of data and forecasts of quantitative and qualitative requirements. In this respect, planning for growth should avoid relying upon using single sources of data or forecasts which tend to rely on a number of different variables that are inevitably subject to change.

3.54 It is also important to recognise that there are inevitably uncertainties and limitations related to modelling assumptions under any of the future growth scenarios considered in this assessment. As explained above, there are some inherent limitations to the use of local level economic projections, particularly within the context of significant economic uncertainty at both macro and local level particularly in the post Covid-19 period. Employment forecasts are regularly updated, and the resulting employment outputs will change over the plan period for Rochford.

3.55 In this context, this assessment considers four different scenarios of future employment space requirements in the District based on approaches that reflect forecast economic growth, past development trends, and potential housing growth factors. The overall gross employment floorspace requirements related to these different scenarios range from 24,220 sq.m (5.2 ha) to 89,360 sq.m (20.3 ha) across the Plan period.

3.56 When compared with historic growth (see paragraphs 3.41 to 3.43), the labour supply scenario (Scenario 4) would appear to provide the most balanced view of future requirements. This level of need is also close to what the requirements identified by the earlier employment evidence set out in the 2017 South Essex EDNA[18] (i.e., 73,300 sq.m).

3.57 As a minimum, the Council should seek accommodating Scenario 1 (i.e., 42,330 sq.m or 9.2ha). However, both Scenario 2 (Growth Scenario) and Scenario 4 (Labour Supply) align better with historic growth indicating that if possible, the Council could seek to provide for higher requirements in order to not unduly constrain the local economy's potential and to align better with the Council's Economic Development Strategies and the overarching economic ambitions across South Essex.

3.58 It should be noted that these forecast scenarios should be supplemented by a review of qualitative factors including through engagement with the commercial market and the key economic stakeholders across the District to ensure there is a rounded view of future planning requirements, in line with advice contained in the PPG.

[18] See 2017 South Essex EDNA, Table 85, pg.207

4.0 Demand and Supply Balance

4.1 This section draws together the forecasts of future employment land needs estimated in section 3.0 and the District's emerging supply position to identify any need for more provision of employment space, or potential surpluses of it, in quantitative terms.

Future Supply Position

4.2 For the purposes of this analysis, the emerging supply of employment space comprises extant permissions and unimplemented employment allocations at September 2022. This totals at 72,747 sq.m (Table 4.1) mainly comprised of the supply at Southend Airport Business Park, phase 2 of Arterial Park in Rayleigh and the allocation at Star Lane in Great Wakering.

Table 4.1 Employment Supply Position as in September 2022 (GEA)

Source of Supply	Office (E(g)(i)/(ii)	Light Industrial (Eg(iii))	Industrial (B2)	Distribution (B8)	Total
Extant Permissions (excl. Airport Business Park related permissions)	1,974	1,060	13,849	13,530	30,412
Unimplemented Employment Allocations	-	-	5,000	-	5,000
Southend Airport Business Park Extant Permissions (*50%)	1,927	3,374	-	1,917	7,218
Southend Airport Business Park Awaiting Decisions (*50%)	-	-	6,875	1,240	8,116
Southend Airport Business Park Remaining Outline Permission (*50%)	4,000	8,752	9,250	-	22,001
Future supply at Southend Airport Business Park (50%-see para 4.3)	*5,927*	*12,125*	*16,125*	*3,158*	*37,335*
Total	**7,901**	**13,185**	**34,974**	**16,687**	**72,747**

Source: Rochford District Council (September 2022) / Lichfields analysis

4.3 Airport Business Park Southend is a key employment site across both Rochford and Southend authorities and based on the London Southend Airport & Environs Joint Area Action Plan (adopted in 2014) half of the provision will be used to accommodate the needs of Southend and the remaining half to meet needs arising from Rochford. Appendix 1 includes further information on the masterplan (which is also aligned with the various applications plans) for the site.

4.4 Based on the outline permission for Airport Business Park Southend (15/00781/OUT)[19] a total of 86,900 sq.m (GEA) of employment space will be provided. A total of 11,500 sq.m has been completed in relation to the IPECO site in 2021. Currently a total of 10,600 sq.m is under construction relating to 'The Launchpad' innovation centre (3,854 sq.m; planning ref 22/00393/DOC) and The Quad (6,747 sq.m; planning ref 20/00454/REM). There are two extant permissions at plot AB14 to provide a total 1,275 sq.m (21/01185/REM) and plot 15 to provide a total of 2,560 sq.m (22/00567/FUL). In addition, there are two submitted applications pending determination that will provide for a total of 4,961 sq.m at plot 13 (22/00752/FUL) and 11,270 sq.m at plot 6 (22/00803/FUL).

4.5 Considering the above, the remaining 37,335 sq.m will come forward in the future, with plots 2 and 3 to provide office space, and plots 8, 9, 10, 12 and 16 for light and general industrial and distribution uses.

4.6 Phase 2 of Arterial Park in Rayleigh has Reserved Matters (22/00186/REM) approval for 27,697 sq.m of industrial and distribution space. It should be noted the outline consent provided for 33,500 sq.m and there is potential for this additional floorspace to come forward through a subsequent Reserved Matters application, however for the purposes of the analysis only the 27,697 sq.m has been included.

4.7 The allocation at Star Lane in Great Wakering is assumed to deliver around 5,000 sq.m of employment space. Based on information provided by the Council, this is likely to accommodate light or general industrial requirements.

4.8 Finally, it should be noted that in order to compare the demand and supply of employment space across the Plan period between 2020 and 2040, it is appropriate to add the two last monitoring years' completions in the supply (i.e. effectively the first two years of the Plan period). The completions across these years total 23,200 sq.m. However, this includes the development of the IPECO site in the Airport Business Park, of which only 50% is allocated to Rochford. This results in a total emerging supply between 2020 and 2040 of 90,220 sq.m.

Table 4.2 Employment Supply Position, 2020-2040

Source of Supply	Office (E(g)(i)/(ii)	Light Industrial (Eg(iii))	Industrial (B2)	Distribution (B8)	Total
Emerging supply as in September 2022	7,901	13,185	34,974	16,687	72,750
Completions 2020 to 2022	5,340	2,774	10,249	4,839	23,200
Completions 2020 to 2022 (Excl. half provision at IPECO - attributable to Southend)	5,340	2,774	4,515	4,839	17,470
Total Supply	**13,240**	**15,960**	**39,490**	**21,530**	**90,220**

Source: Rochford District Council / Lichfields analysis Note: totals rounded

[19] The outline permission has now been expired, however the local planning authorities (i.e., Rochford and Southend) believe that the total floorspace delivered is likely to be broadly similar however the type of space that will be provided may differ. Given that there is no further information available, the outline permission has been used for the purposes of the analysis.

Quantitative Balance

4.9 Based on the conclusions of section 3.0, there is an identified need for between 24,220 sq.m and 89,360 sq.m of employment space to 2040 which includes a safety margin to allow for potential delays in sites coming forward for development and to provide some flexibility over the Plan period.

4.10 A broad comparison of estimated demand for employment use space against the supply, as shown in Table 4.3 implies that there would be sufficient employment space in quantitative terms to accommodate all of the need scenarios. The potential surplus ranges between 860 sq.m and 66,000 sq.m depending on the scenario.

Table 4.3 Demand and Supply of Employment Space in Rochford

	Scenario 1: Labour Demand	Scenario 2: Growth Scenario	Scenario 3: Past Trends	Scenario 4: Labour Supply
Employment Requirements	42,330	89,360	24,220	75,200
Employment Supply	90,220			
Surplus (+) / Shortfall (-)	**+47,890**	**+860**	**+66,000**	**+15,020**

Source: Rochford District Council / Lichfields analysis

4.11 Beyond the headline demand-supply balance, the availability of a choice of sites in the market is also important for meeting the needs of different employment sectors, alongside providing flexibility and choice for the market. Therefore, the identified supply of employment space for office, industrial and distribution uses has been compared with the estimated need arising for these uses under each of the scenarios (Table 4.4).

Table 4.4 Demand – Supply of different employment uses

	Scenario 1: Labour Demand	Scenario 2: Growth Scenario	Scenario 3: Past Trends	Scenario 4: Labour Supply
Office				
Employment Requirements	11,120	20,260	5,510	20,320
Employment Supply	13,240			
Surplus (+) / Shortfall (-)	**2,120**	**-7,020**	**7,730**	**-7,080**
Light Industrial				
Employment Requirements	26,750	26,750	-13,890	49,970
Employment Supply	15,960			
Surplus (+) / Shortfall (-)	**-10,790**	**-10,790**	**29,850**	**-34,010**
Industrial				
Employment Requirements	-6,580	-6,580	9,040	-14,280
Employment Supply	39,490			
Surplus (+) / Shortfall (-)	**46,070**	**46,070**	**30,450**	**53,770**
Distribution				

Employment Requirements	11,040	48,930	20,550	19,200
Employment Supply	21,530			
Surplus (+) / Shortfall (-)	**10,490**	**-27,400**	**980**	**2,330**

Source: Rochford District Council / Lichfields analysis

4.12 This analysis indicates that:

- **Offices**: there would not be sufficient supply to accommodate the office requirements under Scenario 2 and Scenario 4 with a shortfall of around 7,000 sq.m in both cases. However, surpluses have been identified across industrial uses, and subject to the full permissions or the reserved matters applications that will come forward in relation to the Airport Business Park, it is possible that this shortfall could be accommodated.
- **Light Industrial:** there would not be sufficient supply to accommodate the light industrial requirements across Scenarios 1, 2 and 4, with a shortfall ranging between 10,790 sq.m and 34,010 sq.m. However, as noted above, there is an overall surplus across all the scenarios and on this basis the shortfall could be accommodated subject to future detailed permissions.
- **General Industrial:** there will be sufficient space to accommodate the identified needs across all the scenarios with surpluses varying between 30,450 sq.m and 53,770 sq.m.
- **Distribution**: there will be sufficient space to accommodate the identified needs across all the scenarios expect for Scenario 2 (Growth Scenario) with a deficit of 27,400 sq.m. All other scenarios can be accommodated with surpluses varying between 980 sq.m and 10,490 sq.m.

4.13 It should be noted that this demand-supply balance analysis assumes that all outstanding planning permissions and the identified capacity on allocations will come forward in full during the Plan period. Any deviation from this assumption could potentially have an effect on the balance of space within Rochford to 2040.

Summary

4.14 According to the PPG, the analysis of the supply and demand position is intended to allow policy makers to identify whether there is a mismatch between the quantitative and qualitative supply of, and demand for, employment uses. This enables an understanding of which market segments are potentially over-supplied and which are under-supplied.

4.15 Based on the analysis of the demand and supply position, the Council currently has a future supply position that, in overall terms, would be more than sufficient to meet the employment requirements implied by all the demand scenarios.

4.16 Across the different individual uses, there is potentially an identified shortfall for office and light industrial space. However, given there is an overall surplus against all the scenarios (Table 4.3) in quantitative terms, flexible allocations for E(g)/B2/B8 could help meet any future need for either office or light/general industrial or distribution uses and help ensure that the Plan can be responsive to market needs.

5.0 Conclusions

5.1 This section draws together overall conclusions considering the economic development needs arising in Rochford across the new Local Plan period from 2020 to 2040.

Functional Economic Market Area

5.2 This report validates the appropriateness of South Essex FEMA as the economic geography within which Rochford's economy operates and has the strongest interdependencies. This is based on consideration of the different types of market areas that operate across South Essex including labour market, housing, consumer catchments and transport connectivity.

5.3 The findings suggest that the South Essex authorities namely Basildon, Castle Point, Rochford, Southend and Thurrock represent a self-contained functional economic area, and together with Brentwood, comprise the South Essex FEMA. It should also be highlighted that all the authorities also maintain strong economic linkages with Chelmsford and London, particularly in relation to labour market flows.

Future Employment Growth

5.4 Four different scenarios of future needs are considered in section 3.0. These indicate the broad scale and type of growth arising from different approaches to modelling the District's future employment space needs. The overall employment floorspace requirements related to these scenarios range from 24,220 sq.m to 89,360 sq.m during the Plan period.

5.5 Scenario 1 (Labour Demand) utilises macro-economic forecasts provided by Cambridge Econometrics (March 2022 release[20]) for the District that indicates a growth of 823 jobs in office-, industrial- and distribution- based sectors across the Plan period. This represents a growth of 7% against an equivalent job base of 11,373 jobs in office, industrial and distribution space in 2020. Across all economic sectors (i.e., including those occupying space outside of the employment uses) the growth is expected to total 3,070 jobs. It should be noted that health (+960 jobs) and construction (+840 jobs) are those sectors expected to see the highest growth across the Plan period.

5.6 This forecast employment growth is translated to an employment space requirement (gross) of 42,330 sq.m, which comprises 11,120 sq.m of office space, 26,750 sq.m of light industrial space and 11,040 sq.m of distribution space, alongside expected industrial losses of 6,580 sq.m. This level of future requirements across the next 20 years is equivalent to 11.6% of the current (i.e. at 2020) office and industrial stock across the District based on records from the Valuation Office Agency. This suggests relatively low locally-arising requirements that are primarily driven by needs for light industrial space.

5.7 Scenario 2 (Growth Scenario) builds on the Labour Demand scenario, however factors in the priority sectors and uplifts these based on historical growth rates as contextualised in Appendix 2 and Appendix 3. This indicates a growth of 1,912 jobs in office-, industrial- and distribution- based sectors across the Plan period. This represents a growth of 16.8% against an equivalent job base of 11,373 jobs in office, industrial and distribution space in 2020.

[20] This forecast has also been used for the sub-regional employment evidence.

5.8 This forecast employment growth is translated to an employment space requirement (gross) of 89,360 sq.m, comprising 20,260 sq.m of office space, 26,750 sq.m of light industrial space and 48,930 sq.m of distribution space, alongside expected industrial losses of 6,580 sq.m. This level of future requirements across the next 20 years is equivalent to 22.9% of the current (i.e., at 2020) office and industrial stock across the District based on records from the Valuation Office Agency.

5.9 Scenario 3 (Past Trends) is based on historic delivery rates since 2010/11. It needs to be highlighted, however, that the period during the last two monitoring years is when most of the activity has been concentrated. In contrast, between 2010/11 and 2019/20 was an overall net loss of 11,150 sq.m recorded across the District. In particular, there has been moderate activity with losses recorded across all the uses except for distribution space, which is the only sector seen gains since 2015/16 in Rochford. The development activity at the Airport Business Park Southend alongside the delivery of Phase 1 Arterial Park over the last two years has balanced out most of the losses recorded in the earlier years. However, it should be noted that half of the delivery at the Airport Business Park Southend aims to accommodate the employment requirements of Southend Borough according to the principles set out in the adopted Joint Area Action Plan (see paragraph 4.3).

5.10 By analysing past trends, it appears that there has been increasing activity for distribution space across the area, while light industrial has seen significant losses. However, these data trends would benefit from some further interpretation through an analysis of wider market signals and consulting with commercial agents. For instance, some of the loss of light industrial space across the monitoring period might be a result of the existing stock's characteristics (e.g. poorer quality space no longer suited for modern business purposes) combined with the housing need pressures that has led to the conversion of these to residential uses.

5.11 Based on extrapolating trends in past completions, there is a total requirement for 24,220 sq.m, comprising 5,510 sq.m of office, 9,040 sq.m of industrial and 20,550 sq.m of distribution space, alongside a loss of 13,890 of light industrial space. There are some inherent limitations to this scenario and, as discussed in paragraph 5.9, only recently have the trends started to change. In addition, this scenario results in low employment requirements compared to the other three scenarios, and such a level of anticipated growth would not necessarily align with the NPPF requirement for positive planning to support economic growth. For all these reasons, it is not considered that Scenario 3 represents the most appropriate basis for future planning.

5.12 Scenario 4 (Labour Supply) is based on the jobs growth required to support the growth in economically-active population estimated by the emerging Strategic Housing Need Assessment for the South Essex authorities. The sector split draws upon the Cambridge Econometrics forecast for the Plan period (i.e. aligned with Scenario 1). This scenario results in a total requirement of 75,200 sq.m, comprising 20,320 sq.m of office, 49,970 sq.m of light industrial and 19,200 sq.m of distribution space as well as a loss of 14,280 sq.m of general industrial space.

5.13 In the context of the NPPF and PPG, the Council's policy approach should aim to plan positively to meet the indigenous employment space needs, which as a minimum should relate to Scenario 1 (i.e., 42,330 sq.m or 9.5 ha). However, the Council could proactively decide to accommodate the higher employment requirements or seek to attract additional

inward investment, which could in turn also drive greater economic growth, productivity, and job growth. On this basis, it is suggested that the Council could seek to accommodate the requirements associated with higher growth scenarios such as Scenario 2 (i.e., 89,360 sq.m or 20.3 ha) and/or Scenario 4 (75,200 sq.m or 16.8 ha). These could provide increased employment choices for the District's existing and new residents, as well as supporting the Council's Economic Development Strategy and the overarching economic ambitions across South Essex.

5.14 It should be noted that the employment demand is assessed across the District and not apportioned to individual settlements. Therefore, it is possible that there may be spatial deficiencies within the District that are appropriate for the emerging Local Plan to address in the interests of promoting sustainable development. For example, should the emerging Local Plan pursue a strategy that includes focusing housing growth in a small number of locations, it may be appropriate to align employment development in order to encourage sustainable and balanced communities.

Employment Space Supply

5.15 An analysis of the existing and emerging employment pipeline – as provided by the Council in September 2022 – shows that there is a total of 90,220 sq.m of employment space across the Plan period, including 17,470 sq.m delivered between 2020 and 2022 and 72,750 sq.m identified through extant permissions and allocations.

5.16 The key employment development opportunities are at Southend Business Airport which, for Rochford, equates to a remaining of 37,335 sq.m (see further details at paragraphs 4.3 to 4.6), Phase 2 of Arterial Park in Rayleigh (27,697 sq.m), and Star Lane in Great Wakering (c. 5,000 sq.m).

5.17 When set against the identified employment space requirements, this indicates there is sufficient employment space and land to accommodate the need with a surplus varying from 860 sq.m (Scenario 2) to 66,000 sq.m (Scenario 3). Across the different uses, there would be sufficient space to accommodate all but office and light industrial demand under Scenarios 1, 2 and 4 (see paragraph 4.16). However, given there is an overall surplus against all the scenarios (Table 4.3) in quantitative terms, flexible allocations for E(g)/B2/B8 could help meet any future need for either office or light/general industrial or distribution uses and help ensure that the Plan can be responsive to market needs.

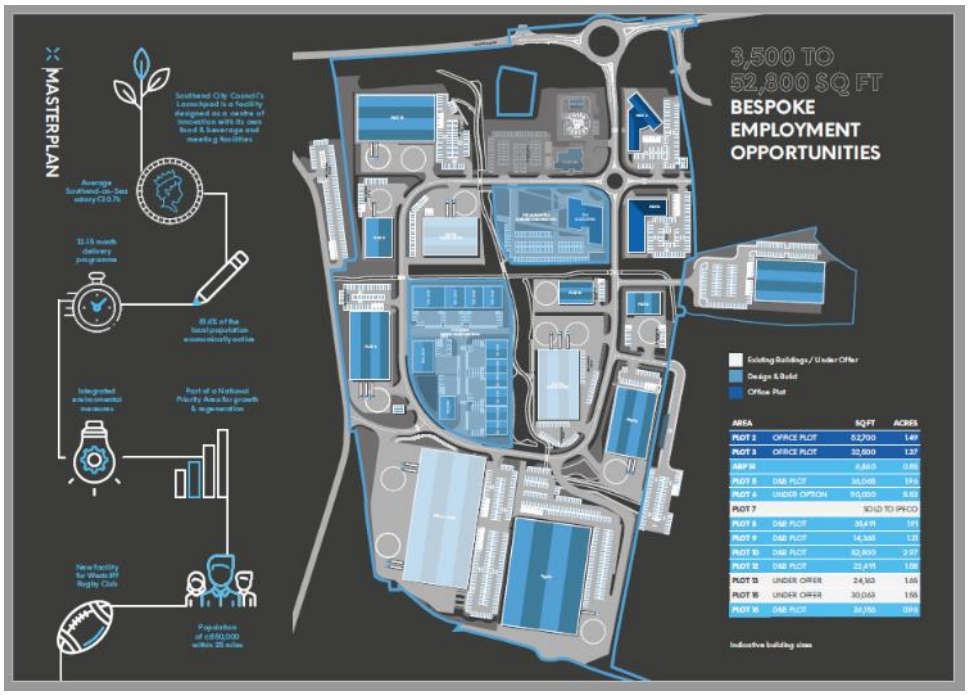
5.18 It should also be acknowledged that while there does appear to be sufficient identified supply to meet the employment requirements outlined by all four scenarios, the emerging supply does not account for any unforeseen or subsequently planned losses of existing employment space. As such, additional work would be required to factor in potential losses, and these calculations may lead to additional floorspace requirements to replace lost employment space.

5.19 In addition, the emerging policy should seek to encourage employment intensification within the existing employment designations as appropriate. Such an approach should focus on those sites that may be underutilised to help meet employment space needs across the Plan period. Moreover, given the new Use Class Order and the increased flexibility of Class E, there is potential for some employment needs, particularly small-scale office or flexible co-working space, to be accommodated within the District's town centres.

Appendix 1: Airport Business Park Southend Indicative Masterplan

Figure A.1 Overview of Plots

Figure A.2 Indicative Masterplan



Source: Airport Business Park Southend brochure, available at: https://abpsouthend.co.uk/, [accessed October 2022]

Appendix 2: Jobs Growth in Rochford

The table below presents the absolute growth rate between 2015 and 2020; 2010 and 2020 and 2000 and 2020 as recorded by Cambridge Econometrics. The last column presents the baseline jobs growth anticipated across the Plan period.

Historic and Future Growth (Jobs)

Sectors (CE, 45-split)	Historic Growth			Future Baseline Growth 2020 to 2040
	5-year Growth	10-year Growth	20-year Growth	
Accommodation	-9	13	92	54
Agriculture, forestry & fishing	-175	-389	-711	160
Air transport	144	265	163	138
Architectural & engineering services	340	170	163	62
Arts	107	117	44	-104
Business support services	-545	-168	-502	110
Chemicals	4	4	9	-4
Coke & petroleum	0	-2	0	0
Construction	142	2	696	837
Education	-64	142	1,062	70
Electrical equipment	7	-19	-105	-4
Electricity & gas	33	95	-860	0
Electronics	-65	-77	-347	-29
Financial & insurance	-30	66	-194	-150
Food & beverage services	151	491	376	237
Food, drink & tobacco	-21	-7	-157	9
Head offices & management consultancies	60	128	349	66
Health	473	719	960	962
IT services	65	167	-44	183
Land transport	128	-32	149	15
Legal & accounting	-134	158	128	143
Machinery	-31	-246	81	-91
Media	-121	18	23	14

Sectors (CE, 45-split)	Historic Growth			Future Baseline Growth 2020 to 2040
	5-year Growth	10-year Growth	20-year Growth	
Metals & metal products	-54	-119	-146	-66
Mining & quarrying	2	3	13	-7
Motor vehicles	-17	-42	-214	-5
Motor vehicles trade	-85	204	169	146
Non-metallic mineral products	71	109	57	-39
Other manufacturing & repair	-186	-243	-59	-148
Other professional services	-187	-5	216	341
Other services	-340	-97	-85	-22
Other transport equipment	137	182	-201	-144
Pharmaceuticals	-2	6	10	0
Printing & recording	113	51	-304	-106
Public Administration & Defence	-66	-578	-262	49
Real estate	-6	-68	189	58
Recreational services	-50	28	166	-58
Residential & social	-115	41	-150	108
Retail trade	-191	-15	497	-5
Textiles etc	-22	-25	-139	-5
Warehousing & postal	226	450	358	161
Water transport	17	-4	4	-3
Water, sewerage & waste	230	248	394	135
Wholesale trade	-143	-316	-543	27
Wood & paper	-42	-60	-94	-25
Total Jobs	**-251**	**1,365**	**1,251**	**3,070**

Appendix 3: Growth Rates per Sector per Annum

The table below presents the annual growth rates per sector against the last 5, 10 and 20 years, alongside the baseline forecast annual growth rate per sector.

Historic and Future Annual Growth Rates (%)

Sectors	5-year Rate	10-year Rate	20-year Rate	Future Growth – Baseline - Rate
Accommodation	-1.0%	0.8%	3.8%	1.4%
Agriculture, forestry & fishing	-14.9%	-12.4%	-8.6%	3.9%
Air transport	15.2%	31.1%	4.4%	2.0%
Architectural & engineering services	10.8%	2.3%	1.1%	0.4%
Arts	8.5%	4.7%	0.7%	-2.0%
Business support services	-5.5%	-1.0%	-1.3%	0.3%
Chemicals	8.4%	4.1%	7.2%	-2.0%
Coke & petroleum	0%	-100.0%	0%	0.0%
Construction	0.8%	0.0%	1.1%	1.1%
Education	-0.5%	0.5%	2.4%	0.1%
Electrical equipment	6.8%	-5.5%	-7.9%	-0.9%
Electricity & gas	4.7%	9.3%	-8.8%	0.0%
Electronics	-15.5%	-9.0%	-9.9%	-4.4%
Financial & insurance	-1.3%	1.7%	-1.8%	-2.1%
Food & beverage services	1.8%	3.3%	1.2%	0.6%
Food, drink & tobacco	-9.6%	-2.0%	-8.5%	1.2%
Head offices & management consultancies	2.3%	2.6%	4.9%	0.6%
Health	6.4%	5.3%	3.9%	2.2%
IT services	2.5%	3.5%	-0.4%	1.4%
Land transport	4.7%	-0.5%	1.4%	0.1%
Legal & accounting	-4.8%	4.0%	1.5%	1.3%
Machinery	-2.1%	-6.3%	1.8%	-2.0%
Media	-11.3%	1.3%	0.8%	0.5%
Metals & metal products	-4.2%	-4.2%	-2.5%	-1.7%

Sectors	5-year Rate	10-year Rate	20-year Rate	Future Growth – Baseline - Rate
Mining & quarrying	3.4%	2.7%	0%	-3.8%
Motor vehicles	-16.2%	-14.0%	-13.7%	-2.7%
Motor vehicles trade	-2.3%	3.5%	1.4%	1.0%
Non-metallic mineral products	4.8%	3.9%	0.9%	-0.6%
Other manufacturing & repair	-7.0%	-4.4%	-0.6%	-2.1%
Other professional services	-4.6%	-0.1%	1.8%	2.0%
Other services	-5.7%	-0.9%	-0.4%	-0.1%
Other transport equipment	4.8%	3.3%	-1.3%	-1.2%
Pharmaceuticals	-3.6%	9.6%	0%	0.0%
Printing & recording	13.2%	2.4%	-4.0%	-2.8%
Public Administration & Defence	-2.0%	-6.3%	-1.7%	0.4%
Real estate	-0.2%	-1.2%	2.3%	0.5%
Recreational services	-1.5%	0.5%	1.6%	-0.5%
Residential & social	-2.1%	0.4%	-0.7%	0.5%
Retail trade	-1.4%	-0.1%	1.1%	0.0%
Textiles etc	-18.0%	-10.2%	-11.6%	-2.4%
Warehousing & postal	6.0%	7.2%	2.6%	0.8%
Water transport	0%	-2.1%	1.4%	-1.0%
Water, sewerage & waste	13.7%	7.4%	8.7%	1.2%
Wholesale trade	-3.1%	-3.1%	-2.5%	0.2%
Wood & paper	-7.5%	-5.1%	-3.6%	-1.7%

Appendix 4 CE Forecast Guide (March 2022)

UK forecast assumptions (March 2022)

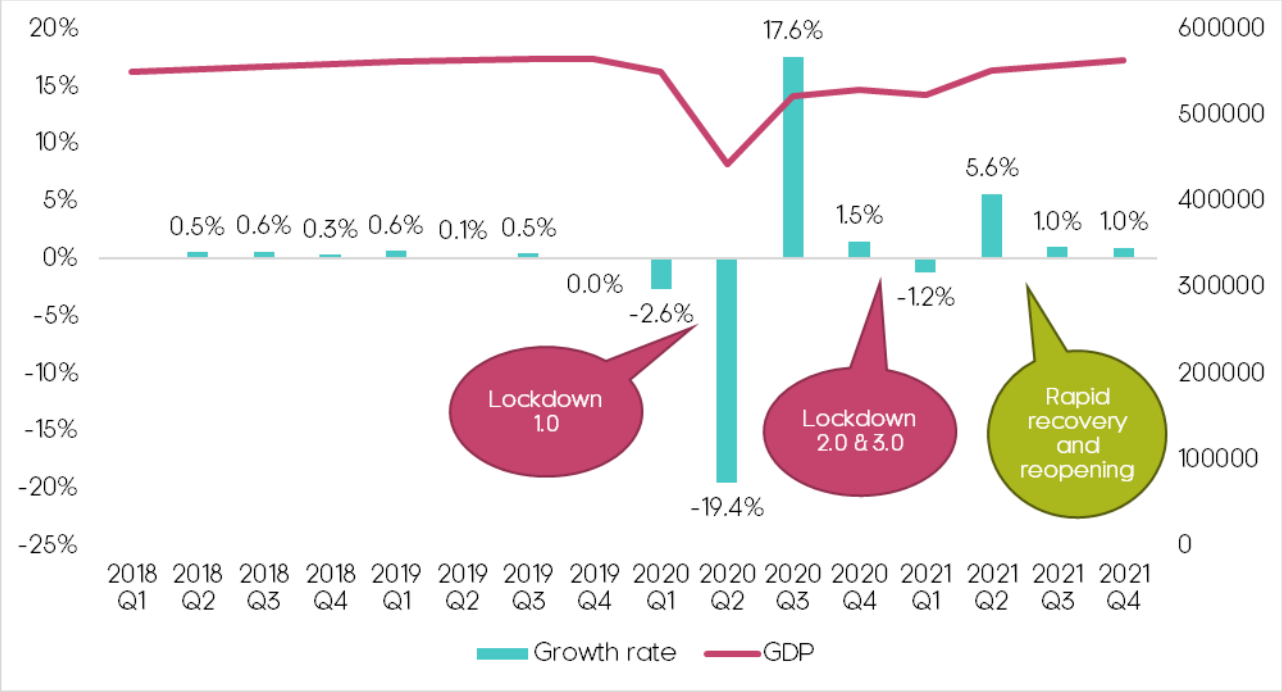
March 2022

Assumptions regarding COVID-19

Overview

A sharp recession was experienced in the first half of 2020 (and the first quarter of 2021) as the UK government introduced public health measures and social distancing to contain the outbreak of COVID-19. Economic recovery has generally been robust as restrictions were wound down (i.e. in 2020H2 and 2021Q2), however the recovery has been uneven (across groups/regions/expenditure categories) and there is evidence of scarring in some economic variables. These developments are reflected in the quarterly GDP profile in Figure 1.

Figure 1 Quarterly GDP 2018-2021[1]



In the near term, it is assumed that UK policy will transition towards "living with COVID" in which restrictions are no longer placed on activities of households and businesses. There are therefore no further COVID-related restrictions assumed in the forecast period.

The export outlook for UK has deteriorated since the previous forecast owing to supply chain issues (e.g. shortage of UK HGV staff, border disruptions, fuel shortages etc) and owing to impacts associated with UK exit of EU (see following section). These issues are expected to persist in the medium term, weighing down the recovery of exports over 2022-24 (note also, that unlike most other expenditure categories, published data indicate that exports continued to contract in 2021, despite the partial reopening of the global economy).

[1] https://www.ons.gov.uk/economy/grossdomesticproductgdp/bulletins/gdpmonthlyestimateuk/december2020

Despite the reversal of restrictions, persistent economic scarring and a muted economic recovery is expected. This comes as a result of business closures, weak capital accumulation and lasting productivity impacts of the pandemic. Moreover, UK trade prospects remain very weak due to slow global economic growth and Brexit trade disruptions (see EU exit section below).

Given this, the central assumption of this forecast is a 2.4% increase in GDP in 2022 (the final 'recovery' year in which above-trend growth rates are observed) and a 1.3% increase in GDP in 2023.

Key forecast components

The post-pandemic economic trajectory (i.e. short-term economic prospects) will depend on the responses of households, businesses and government.

- **Households** – Both upside and downside uncertainties are present and the future outlook of households is expected to be heterogenous. High levels of household saving have been recorded during the pandemic, which has helped fuel economic recovery. Household choices regarding these savings could influence the future outlook. It is assumed in this forecast that due to the distribution of savings (skewed to high-income households with lower propensity to consume) and due to the dampening effects of rising inflation, the outlook for consumption is relatively muted in comparison to 2021 growth rates. Another key consideration is productivity and pay growth. Pay growth is expected to be sluggish, in line with scarred productivity. Household spending is assumed to recover partially in the short term, but experience permanent impacts from the pandemic.
- **Businesses** – Cash-flow issues are expected to weigh down on business investment in in the near/medium term, in light of rising input costs and weakened position as a result of economic shocks of COVID-19.

The medium-term prospects for the UK economy is dependent on developments in the global economic outlook. On the one hand, improvements in the global vaccine rollout have been observed since the previous forecast. However, new COVID variants and developments in Ukraine (war, sanctions and uncertainty) could dampen the global outlook.

Long-term COVID-19 assumptions

Due to a lack of conclusive evidence, the previous version of the forecast did not assume any specific long-term impacts of the COVID-19 pandemic. Since then, we have evaluated further evidence on:

- The impact of COVID on UK population and its distribution. In the previous forecast we had introduced a temporary adjustment to UK population and its distribution due to international and internal migration. Additional evidence suggests that this impact on migration will likely have a lasting effect on UK population. Therefore, we assume that during the pandemic around 350,000 people have permanently left the UK. We also assume that as a result of flexible working policies and lifestyle changes, 180,000 people have permanently relocated from London to other UK areas. Furthermore, some additional population scarring effects of the COVID-19 pandemic are also reflected in this update of the forecast, as the population projections have been updated to align with the 2020-based ONS population projections.
- We have also reviewed the evidence on the long-term impact of the COVID-19 pandemic on productivity and the capacity of the economy, not only as a result of health scarring directly due to COVID-19, but also as a result of the response policies. There is limited evidence on how severe and lasting the health scarring could be, and therefore, we are not introducing any related assumptions in this forecast.

- School closures and remote education will likely lead to long-term impacts on human capital and productivity. In order to account for this, we are introducing an assumption based on the evidence from a McKinsey study, which found that lost education of the current student cohort could lower their lifetime earnings by approximately 3%. We apply this assumption as an exogenous shock to employee earnings in the model. Weighted by population and average earnings in different age groups, our assumption is that employee earnings will be 0.5% lower by 2040, when approximately 16% of the total workforce will have been at school during the pandemic. This is only a first-order direct impact, which could have further impacts throughout the economy calculated by the model. This impact is additional to the short and medium-term impacts of the pandemic already captured as part of our assumptions, or as part of dynamic modelling.

How the EU exit assumptions were developed

Overview

Our previous version of the forecast utilised assumptions on the future impact of Brexit that were aligned with the EU–UK Trade and Cooperation Agreement signed in December 2020. In broad terms, the agreement was assessed to be similar to a standard FTA with very few special provisions. Therefore, we adopted the following political assumptions for our forecast:

- The agreed Free Trade Agreement with the EU avoids reversal to WTO terms, but results in some barriers to trade which will gradually phase in from 2022-30;
- The points-based migration system introduced restrictions on inward migration from the EU;
- The uncertainty about the possibility of no-deal Brexit was lifted in 2021. However, some uncertainty remains over the speed of regulatory divergence.
- Some uncertainty remains over the possibility of changes to the agreement in the future that could affect the barriers to trade, such as the equivalence rules in the financial sector.
- The UK will continue to seek other trade agreements, which will reduce barriers to trade with non-EU countries in the future.

Since the previous forecast version, we have assessed the relevant developments relating to new trade agreements. An FTA with Australia was signed in December 2021 (currently pending ratification), and similar deals with New Zealand and Singapore are at closing stages. The government suggests that the UK could join the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) by the end of 2022, although CE assesses that the impact of such a deal could be limited, as the UK is already enjoying similar trade terms with most of the CPTPP members as a result of the 'rolled-over' agreements it had as an EU member. In addition, a consultation with the Gulf Co-operation Council (GCC) has been launched in October 2021, although the negotiations have not begun yet.

Overall, these developments are aligned with CE's assumptions used in the previous 2021 version of the forecast, which aside from the negative effect of Brexit on exports to the EU, also assumed a small increase in UK exports to selected nations as a result of the likely trade deals with New Zealand, Australia, Canada, and a future trade deal with the US (for which the negotiations are still at an early stage). We also reviewed the new evidence on the short-run impact of Brexit on UK-EU trade, which tends to affirm our views. Therefore, Brexit trade assumptions remain identical to these supporting previous year's forecast.

In this version, we updated our migration projections to align with the newly-released 2020-based ONS migration projections. In comparison to the 2018-based projections, these suggest higher net migration to the UK in the next 20 years (by approximately 10,000 people annually, against the 2018-based projections). However, our assumption on the specific impact of Brexit on net migration from the EU remains unchanged from last year, as outlined below.

These political assumptions were converted into *economic* and *modelling* assumptions to explore the macroeconomic implications. The modelling assumptions provide inputs for our MDM-E3 model, the central economic model used in the forecast. For the forecast, we focussed primarily on the macroeconomic effects of Brexit on **exports**, **migration** and **investment**.

Export assumptions

We assume that UK trade with the EU will decline by 30.6% in the long term, with the impact on services trade being roughly twice as high as for manufacturing. We assume that a larger share of the total long-run impact happened immediately in 2021 (following the end of the transition period on 31 December 2020) for goods exports, compared to services exports. This reflects the relatively greater significance of non-tariff barriers at the border for goods trade (such as customs declarations), compared to services trade.

In addition, we have incorporated into the assumptions the potential effect of the future trade deals with non-EU countries, such as the US, Australia, Canada and New Zealand. We take a moderate view that is aligned with the potential impact of the UK-US free trade agreement modelled by the Department for International Trade. We assume that UK exports to the US, Australia, Canada and New Zealand will increase by 4.3% in the long run (relative to a counterfactual in which UK remains in EU). The implicit assumption on trade with the remaining parts of the world is that the UK will form trade arrangements similar to those it achieved through EU membership.

The resulting combined effect of these assumptions is a decline in UK exports to the world by 13.2% in the long run, which is similar in magnitude to the impact assumed in the previous version of the forecast.

We used the relationships in MDM-E3 to develop a forecast for imports; no additional economic or modelling assumptions were developed as inputs to the model with respect to imports.

Migration assumptions

Our assumption in this version of the forecast remains the same as in the previous version. It is assumed that the long run net migration to the UK will decline as a result of the new UK immigration policy. The starting point in developing the migration assumptions are the ONS population projections, which include migration assumptions. These migration assumptions have been updated in this version and are now based on the latest 2020-based ONS principal population projections[2], which we subsequently adjusted using our estimate of the effect of Brexit on *total* net migration to the UK.

[2] ONS National population projections: 2020-based interim

The adjustment remains the same as in the previous version of the forecast, and is aligned to the recommendation made by the Migration Advisory Committee in 2018[3], and the likely effect of the points-based system currently in place. Our assumption is that net annual migration will decline to 160,000 in the long run. Effectively, this reduces net immigration of the working-age population by 40,000 annually, a change primarily driven by a decline in net migration from the EU. This assumption is comparable with other estimates in the literature on the impact of Brexit.

The estimated decline in annual net migration is distributed across UK sectors according to the proportion of EU nationals in the sector's workforce. Data on workforce by nationality are obtained from the Annual Population Survey[4].

Investment assumptions

The investment assumptions remain unchanged from the previous version. Post-referendum uncertainty about the future of the UK-EU relationship depressed investment. While the new agreement clarifies the current relationship, our expectation is that reductions in UK-EU trade will outweigh any gains made through other trade agreements (as above). Combined with continued uncertainty about the speed of any future regulatory divergence, we continue to assume that UK investment post-Brexit will be lower than it might otherwise have been.

We assumed that the overall impact of the new agreement on investment in the UK will lead to a 5% decline in investment in the long-run (relative to a counterfactual in which UK remains in EU). This magnitude is similar to the realised impact of the post-referendum uncertainty. As post-referendum uncertainty lifted in 2021, in the short run the net combined impact of lifting of the uncertainty and the withdrawal agreement will be positive (viewed in isolation of the assumed impact of COVID-19), before the full negative impact of the withdrawal agreement is realised in the long run.

These long-run investment impacts have been distributed across broad sectors. We characterised these impacts according to several simplifying categories:

- there would be no change in investment levels;
- investment would adjust (up or down depending on the sector) based on changes to public spending;
- investment would slow down:
  - some businesses moving a proportion of their activity out of the UK – this would result in a decrease in investment, proportional to the lower level of activity in the UK;
  - diminished growth prospects of a particular sector within the UK – this could further dampen investment intentions in the UK, as multi-national organisations in those sectors may choose to divert a disproportionate amount of their investment to countries with better growth prospects.

In the last case, expectations of diminished growth prospects may stem from factors such as lack of Single Market access, or skill shortages that have been further exacerbated by migration restrictions. Growth may also dampen in sectors that rely heavily on cooperation with other member states or funding from the EU. The mechanisms through which expectations of sectoral growth may diminish were not explicitly accounted for when

3 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/741926/Final_EEA_report.PDF

4 ONS Number of UK nationals, EU nationals, and non-EU nationals in employment by industry and region, April 2018 to March 2019

developing the economic and modelling assumptions. A judgement was taken on which of these are most applicable at a sectoral level.

Detailed explanations of the assumptions in the forecast

The summary table below presents a qualitative overview of the specific long-term economic assumptions of the impacts of Brexit by broad sector:

Table 1: UK forecast assumptions

Sector	Export assumptions	Employment assumptions	Investment assumptions
Agriculture	Mild negative impact on EU demand	Moderate employment constraints	Mild negative impact on investment
Mining & quarrying	No specific impact modelled	Moderate employment constraints	Moderate to pronounced negative impact on investment
Low and medium-low tech manufacturing	Mild negative impact on EU demand	Strong employment constraints	Moderate to pronounced negative impact on investment
High and medium-high tech manufacturing	Mild to moderate negative impact on EU demand	Strong employment constraints	Moderate to pronounced negative impact on investment
Construction	Mild negative impact on EU demand	Moderate employment constraints	Moderate to pronounced negative impact on investment
Utilities	Mild negative impact on EU demand	Moderate employment constraints	No specific impact modelled
Transport, distribution, retailing, accommodation, catering, and administrative and support services	Moderate to pronounced negative impact on EU demand	Moderate employment constraints	Moderate to pronounced negative impact on investment
IT, financial and insurance, real estate, professional, and scientific and technical services	Pronounced negative impact on EU demand	Mild employment constraints	Moderate to pronounced negative impact on investment
Public administration and defence, education, health and social work, and other services (arts and other services)	Mild negative impact on EU demand	Mild employment constraints	Mild negative impact on investment

Source: Cambridge Econometrics.

Appendix: mapping to broad sectors

The broad sector outlined above map to 86 MDM sectors according to the following classifications:

Broad sectors	**MDM sectors**	
Agriculture	1 Crop & animal product.	3 Fishing
	2 Forestry & logging	
Mining & quarrying	4 Coal	7 Other mining
	5 Oil extraction	8 Mining support service
	6 Gas extraction	
Low and medium-low tech manufacturing	9 Food products	18 Coke & petroleum
	10 Beverages	21 Rubber & plastic
	11 Tobacco	22 Other non-metallic
	12 Textiles	23 Basic metals
	13 Wearing apparel	24 Metal products
	14 Leather, etc.	30 Furniture
	15 Wood, etc.	31 Other manufacturing
	16 Paper, etc.	32 Repair & installation
	17 Printing & recording	
High and medium-high tech manufacturing	19 Chemicals, etc.	27 Machinery, etc.
	20 Pharmaceuticals	28 Motor vehicles, etc.
	25 Computers, etc.	29 Other trans. Equip
	26 Electrical equipment	
Utilities	33 Electricity	36 Sewerage
	34 Gas, heat & cooling	37 Waste disposal
	35 Water	38 Waste management
Construction	39 Construction	41 Specialised construction
	40 Civil engineering	
Transport, distribution, retailing, accommodation, catering, and administrative and support services	42 Motor vehicles trade	52 Publishing
	43 Wholesale trade	53 Film & music
	44 Retail trade	54 Broadcasting
	45 Land transport	55 Telecommunications
	46 Water transport	69 Rental & leasing
	47 Air transport	70 Employment activities
	48 Warehousing, etc.	71 Travel agencies, etc.
	49 Postal & courier	72 Security, etc.
	50 Accommodation	73 Services to buildings

	51 Food & beverage	74 Office admin.
IT, financial and insurance, real estate, professional, and scientific and technical services	56 Computer programming	63 Head offices, etc.
	57 Information services	64 Architect. & related
	58 Financial services	65 Scientific research
	59 Insurance & pensions	66 Advertising, etc.
	60 Aux. financial serv	67 Other professional
	61 Real estate	68 Veterinary
	62 Legal & accounting	
Public administration and defence, education, health and social work, and other services	75 Public admin. & def	81 Libraries, etc.
	76 Education	82 Gambling
	77 Health	83 Sport & recreation
	78 Residential care	84 Membership organ.
	79 Social work	85 Repair of goods
	80 Arts & entertainment	86 Other personal

Source: Cambridge Econometrics.

Celebrating 60 years

Birmingham
0121 713 1530
birmingham@lichfields.uk

Bristol
0117 403 1980
bristol@lichfields.uk

Cardiff
029 2043 5880
cardiff@lichfields.uk

Edinburgh
0131 285 0670
edinburgh@lichfields.uk

Leeds
0113 397 1397
leeds@lichfields.uk

London
020 7837 4477
london@lichfields.uk

Manchester
0161 837 6130
manchester@lichfields.uk

Newcastle
0191 261 5685
newcastle@lichfields.uk

Thames Valley
0118 334 1920
thamesvalley@lichfields.uk

@LichfieldsUK

lichfields.uk