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The Heart of Essex: **Economic Futures Study**

Final Report

Nathaniel Lichfield & Partners
Experian

June 2012



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& Partners**
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Heart of Essex Economic Futures Study

Final Report

Brentwood Borough Council
Chelmsford City Council
Maldon District Council

June 2012

13042/MS/CGJ

Nathaniel Lichfield & Partners

In partnership with:



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Executive Summary

The Heart of Essex Partnership authorities comprising Brentwood Borough Council, Chelmsford City Council and Maldon District Council, commissioned Nathaniel Lichfield & Partners (NLP) and Experian to prepare an Economic Futures Study for the Heart of Essex sub-region.

The Heart of Essex sub-region is one of four Essex sub-regions, which sits alongside the Thames Gateway (South Essex), Haven Gateway and West Essex. The future economic growth of Essex is being influenced through the Essex Integrated County Strategy which sets out a series of economic priorities for the county to maximise economic growth.

In responding to the brief, the methodology for the study has specifically included:

- 1 An audit of existing economic evidence, with selected updating and additional analysis to provide an up-to-date picture of economic conditions and performance across the sub-region.
- 2 A review of strategic factors including planned infrastructure and other major investment, opportunities for sector enhancement and expansion, and significant development proposals within each of the authority areas as far as they may be relevant to the future economic potential and prospects of the sub-region.
- 3 Preparation of new economic scenarios for the Heart of Essex as a whole and the individual local authority areas, taking account of the preferred housing options proposed for each authority.
- 4 Recommendations on key planning policy and economic strategy measures to maximise opportunities for delivery of future growth.
- 5 A workshop session with planning policy and economic development officers from each local authority.
- 6 Engagement with members of the Heart of Essex Partnership.

The study draws upon a range of existing evidence base and other published studies prepared for each of the local authorities and Essex more widely which are summarised and referenced where appropriate later in this report.

Potential scale of future employment growth

At present, indicative job targets and the economic strategy for the Heart of Essex authorities are contained within Policies E1, E2 and E3 of the East of England Plan – the Regional Strategy – adopted in 2008. For Brentwood, Chelmsford and Maldon, this equates to a share of the 56,000 jobs set out for the ‘rest of Essex’ area (additionally comprising Harlow, Braintree, Uttlesford and Epping Forest) for the period 2001-2021. The impending revocation of

Regional Strategies means that local authorities will be required to determine their own locally-derived employment targets.

In this context, two potential future scenarios have been developed through this study to provide a framework for considering economic futures in the Heart of Essex. These scenarios have been prepared by Experian using the latest national and regional projections profiled to take account of past trend growth and representation of economic sectors at a local level. The two scenarios are as follows:

- **Dwelling constrained scenario:** In light of the impending revocation of the East of England Plan, the three Heart of Essex authorities are currently reviewing the level of housing growth to plan for through their respective Local Plans. This “policy on” scenario models the forecast economic implications of the emerging “preferred” dwelling growth scenario for each authority as follows:
 - i Brentwood: 170 dwellings p.a.
 - ii Chelmsford: 800 dwellings p.a.
 - iii Maldon: 200 dwellings p.a.
- **Sector derived scenario:** An alternative scenario has been considered which takes account of planned investment or intelligence about future sector potential as the basis for modelling an uplift factor (on top of the dwelling constrained scenario) applied to the growth rates for individual sectors by 2031. These factors have been identified by each local authority and provide an indication of future economic potential starting from the overall growth trajectory implied by the dwelling constrained scenario. The assumptions for each local authority are set out later in this report.

Table ES.1 below summarises the overall levels of employment growth and GVA for each authority arising from the two scenarios that have been developed through this study. The outputs of each scenario are expressed in terms of total employment (including self-employed) and Gross Value Added (GVA) which provides a measure of economic output.

Under the dwelling constrained scenario, total growth of 13,400 jobs is projected across the Heart of Essex by 2031. Some 67 per cent of this growth (equivalent to 9,000 jobs) will arise in Chelmsford, alongside growth of 4,800 jobs in Brentwood and a decline of 400 jobs in Maldon District.

For all three local authorities, the sector-derived scenario generates a higher level of employment growth by 2031 than is implied by the dwelling constrained scenario. Total growth across the Heart of Essex increases to 26,000 jobs, an increase of 12,600 jobs (94 per cent). In absolute terms, the greatest increase arises in Chelmsford, but also significant is the position in Maldon District, which shifts from one of decline to positive employment growth. Economic output (as measured by Gross Value Added) increases by 37% across the Heart

of Essex as a whole, with the largest uplift arising in Maldon (+60%) followed by Chelmsford (+42%) and Brentwood (+16%).

Table ES.1 Headline scenario outputs by local authority, 2012-2031

Scenario		Heart of Essex	Brentwood	Chelmsford	Maldon
Dwelling constrained scenario	Total employment	13,400	4,800	9,000	-400
	Jobs per year *	705	250	475	-20
	GVA (£m)	£2,916	£871	£1,676	£369
Sector derived scenario	Total employment	26,000	5,400	17,800	2,800
	Jobs per year *	1,370	285	935	250
	GVA (£m)	£3,991	£1,010	£2,391	£590

Source: NLP/Experian analysis * Note: totals rounded

Key drivers of economic change

In the context of the scenarios prepared, key areas and trends which will underpin the economic futures of each local authority have been identified. This includes identification of potential risks and opportunities to achieve future economic growth, and where planning policy and wider economic strategy decisions may be required. A summary of the relevant issues within each authority is set out below.

Brentwood

Brentwood's future growth is forecast to occur within service sectors taking account of the area's existing strengths, skills base and productivity levels. Under the dwelling constrained scenario (170 dwellings p.a.), growth will be particularly strong within land transport, storage and post, and professional services. A significant number of jobs will also be created within administrative and support services and education.

Supporting local businesses and attracting inward investment by creating the right conditions for growth will be critical to achieving the service-led growth that is forecast. Infrastructure improvements, including broadband, Crossrail, and removing the barriers to obtaining access to finance and supporting businesses to identify routes to market (both domestic and export) are also key.

Local authority officers have identified that Green Belt constraints on employment land supply could restrict the Borough's ability to accommodate land intensive sectors such as transport and storage. Consequently, the sector-derived scenario incorporates assumptions about achieving economic growth through greater than otherwise forecast levels of local enhanced productivity

and more efficient use of existing space. Clearly, a challenge to achieving productivity-led growth is around businesses having the capacity and resources to invest in more efficient means of production. Business support to encourage innovation and further skills development will also be critical.

Some potential to attract inward investment within the service sector has also been identified as a result of enhanced connectivity arising from Crossrail, as well as potential to expand accommodation and food sectors building on existing strengths and opportunities in the market. Marketing of Brentwood's offer to potential investors; bringing forward strategic developments and ensuring that there is sufficient capacity to accommodate further development (either through redevelopment of existing sites or provision of new land) will be essential to realising the higher level of growth.

Chelmsford

Chelmsford is by far the largest economy and major driver of growth for the Heart of Essex sub-region. Its economy is broad based with strength in private services including professional services and business administration as well as being an important centre for education.

Reflecting this base, Chelmsford's future growth is also set to come from the service sectors with a significant number of jobs created within the professional services, administrative and support services under the dwelling constrained scenario (800 dwellings p.a.). Over the next two decades job creation is also forecast within the public sector, namely education, although this will be more subdued over the short term given the impact of the Government's austerity measures.

The key barriers to achieving this private sector growth will be in terms of competition from other areas for investment, in particular emerging locations such as Stratford City where a significant stock of office accommodation now exists. Targeted business support and the creation of a positive planning framework to support inward investment will be critical to help deliver growth in Chelmsford.

There are ambitions within the local authority to achieve growth above the dwelling constrained scenario within private services, namely financial services / real estate and professional services. To achieve this there will need to be a significant focus on driving inward investment to the local area: effectively marketing the strengths of Chelmsford, creating incentives for location in area and capitalising fully on the city status to place Chelmsford firmly on the map. Supporting higher levels of job growth may also require increased levels of housing provision to meet labour force needs.

There is also a policy aspiration to build upon the local authority's strong manufacturing legacy to maximise the growth of higher value manufacturing sub-sectors. Under the dwelling constrained scenario manufacturing is set to decline further and therefore direct investment in innovation and technology

enhancements will be critical to achieving the growth potential outlined in the sector derived scenario.

Officers have also identified further potential for growth above the dwelling constrained scenario within the retail sector on account of the local initiatives such as the redevelopment of key city centre sites. Any uplift will be dependent on the delivery of these initiatives and focus on the wider commitment to develop Chelmsford a leading regional centre for shopping and leisure.

Maldon

Under the dwelling constrained scenario (200 dwellings p.a. – an increase over the target of 115 dwellings p.a. set in the Regional Strategy), total employment in Maldon District is set to marginally decline over the next two decades and growth will shift towards the service sectors diminishing the local authority's strength within manufacturing. As is the case in many locations, there is downward pressure on labour supply due to demographic changes. Whilst employment is set to decline by nearly 400 jobs, the District's GVA contribution will grow year on year by 1.7 per cent between 2012 and 2031 to £1.3 billion by 2031. This is however behind the UK average of 2.2 per cent and Essex and East of England growth rates of 2.5 per cent year on year

In order to offset any potential decline in total employment, it will be necessary for the Council to consider the potential outcomes of this scenario, including measures to maximise the local labour supply and enhance productivity (e.g. increasing economic activity rates, raising skill levels), as well as options to boost in-commuting in order to achieve growth.

Local aspirations to maintain the manufacturing sector, through a focus on niche manufacturing sectors such as plastics, computers and electronics in which the UK has a competitive advantage could challenge the decline in employment anticipated in the dwelling constrained scenario. Positive growth of these sectors has been assumed within the sector derived scenario, however the appropriate support structures will need to be in place to both attract new businesses with sufficient appropriate employment land and that the local workforce has the appropriate skills base.

There are also aspirations to achieve a higher level of growth than anticipated within the agricultural and accommodation and food services sector, and these have been modelled in the sector derived scenario. Given the rural location, provision of broadband and support for rural workspace hubs will be vital to unlocking this additional potential, as well as adequate provision of employment land to help modernise the local authority's stock of employment space.

Finally, the sector derived scenario takes into account the potential for Bradwell Nuclear Power Station which could boost construction in the short term and fuel refining sectors over the longer term. However, clearly this is reliant on the proposed new nuclear reactor at Bradwell proceeding.

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- Appendix 2 Forecasting Assumptions Note

1.0 Introduction

1.1 The Heart of Essex Partnership authorities comprising Brentwood Borough Council, Chelmsford City Council and Maldon District Council, commissioned Nathaniel Lichfield & Partners (NLP) and Experian to prepare an Economic Futures Study for the Heart of Essex sub-region.

1.2 The Heart of Essex sub-region is one of four Essex sub-regions, which sits alongside the Thames Gateway (South Essex), Haven Gateway and West Essex. The future economic growth of Essex is being influenced through the Essex Integrated County Strategy which sets out a series of economic priorities for the county to maximise economic growth.¹

Figure 1.1 Heart of Essex Sub-Region in Context



Source: Heart of Essex Partnership

1.3 The purpose of this study is to:

- carry out a detailed economic audit of the Heart of Essex area with up-to-date information on the economic conditions of the sub-region in the light of the current economic climate and national policy changes;

¹ The Greater Essex Integrated County Strategy, December 2010

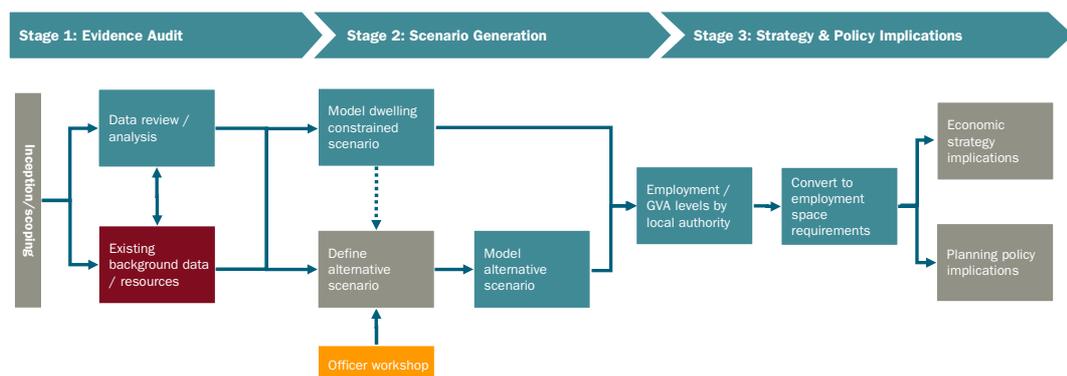
- paint an up-to-date picture of the nature and make-up of the local economy in the sub-region;
- provide an assessment into future economic prospects in the sub-region in the light of the global and national recession to consider strengths, weaknesses, opportunities for growth and possible policy responses;
- provide an assessment of the most recent economic forecasts relevant to the sub-region, together with an assessment of their current relevance;
- provide the Heart of Essex authorities with up to date employment forecasts for the period to 2031 and the generation of robust employment growth scenarios for each local authority and the Heart of Essex as a whole; and
- highlight areas and trends where key planning policy decisions may be required by the three authorities.

1.4 The study will help inform the emerging Local Plans for Brentwood and Maldon, and potentially any future review of the Chelmsford Core Strategy, and support the development of a Heart of Essex partnership approach to joint working across a range of planning policy and economic development issues. It is not a policy or strategy document per se, but instead provides analysis of some of the key economic growth issues across the Heart of Essex prior to specific planning or economic development policies being developed.

Approach and Methodology

1.5 The overall approach for the study is illustrated in Figure 1.2 below.

Figure 1.2 Outline study methodology



Source: NLP

1.6 In responding to the brief, the methodology for the study has specifically included:

- 1 An audit of existing economic evidence, with selected updating and additional analysis to provide an up-to-date picture of economic conditions and performance across the sub-region.

- 2 A review of strategic factors including planned infrastructure and other major investment, opportunities for sector enhancement and expansion, and significant development proposals within each of the authority areas as far as they may be relevant to the future economic potential and prospects of the sub-region.
 - 3 Preparation of new economic scenarios for the Heart of Essex as a whole and the individual local authority areas, taking account of the preferred housing options proposed for each authority.
 - 4 Recommendations on key planning policy and economic strategy measures to maximise opportunities for delivery of future growth.
 - 5 A workshop session with planning policy and economic development officers from each local authority.
 - 6 Engagement with members of the Heart of Essex Partnership.
- 1.7 The study draws upon a range of existing evidence base and other published studies prepared for each of the local authorities and Essex more widely which are referenced where appropriate.
- 1.8 It should be noted that the study represents a point-in-time assessment and some of the issues both generally and in terms of individual authorities and local factors may change and evolve. The latest data and other evidence available has been incorporated to inform key assumptions, but these may be subject to change and future updating.

Defining Local Employment Requirements

- 1.9 At present, indicative job targets and the economic strategy for the Heart of Essex authorities are contained within Policies E1, E2 and E3 of the East of England Plan – the Regional Strategy – adopted in 2008. For Brentwood, Chelmsford and Maldon, this equates to a share of the 56,000 jobs set out for the ‘rest of Essex’ area (additionally comprising Harlow, Braintree, Uttlesford and Epping Forest) for the period 2001-2021. The impending revocation of Regional Strategies means that local authorities will be shortly required to determine their own locally-derived employment targets.
- 1.10 In this context, two potential future scenarios have been developed through this study to provide a framework for considering economic futures in the Heart of Essex. These scenarios have been prepared by Experian using the latest national and regional projections profiled to take account of past trend growth and representation of economic sectors at a local level. The two scenarios are as follows:
- **Dwelling constrained scenario:** In light of the impending revocation of the East of England Plan, the three Heart of Essex authorities are currently reviewing the level of housing growth for which to plan through their respective Local Plans. This “policy on” scenario models the forecast economic implications of the emerging ‘preferred’ dwelling growth scenario for each authority as follows:

- i Brentwood: 170 dwellings p.a.
- ii Chelmsford: 800 dwellings p.a.
- iii Maldon: 200 dwellings p.a.

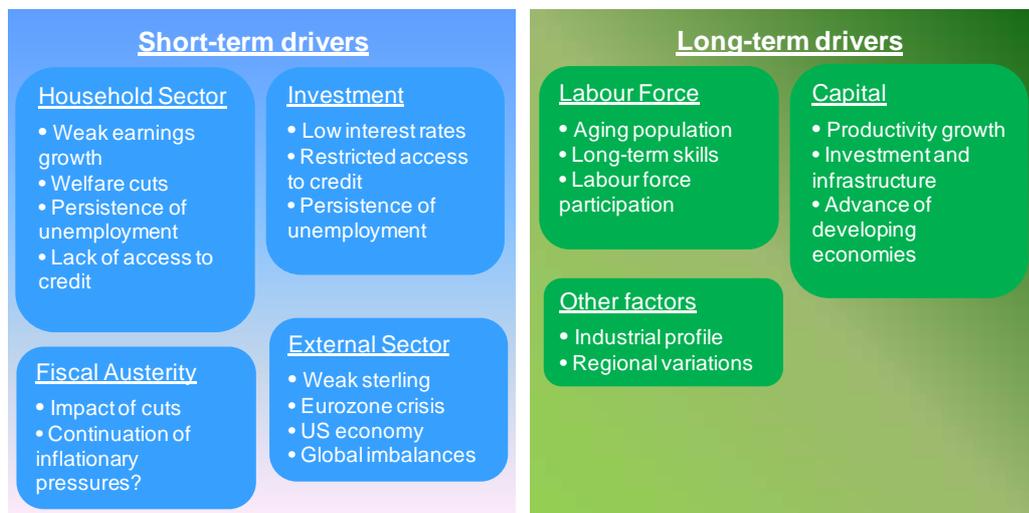
- **Sector derived scenario:** An alternative scenario has been considered which takes account of planned investment or intelligence about future sector potential as the basis for modelling an uplift factor applied to the growth rates for individual sectors by 2031. These factors have been identified by each local authority and provide an indication of future economic potential building on the overall growth trajectory implied by the dwelling constrained scenario. The assumptions for each local authority are set out later in this report.

1.11 The outputs of each scenario are expressed in terms of total employment (including self-employed) and Gross Value Added (GVA) which provides a measure of economic output. Detailed results for each local authority are presented in Appendix 1, with a supported technical note on assumptions included at Appendix 2.

1.12 The outputs of each scenario are used to assess the implications for the Heart of Essex local authorities of different levels of economic growth, and the broad types of policy and planning issues that arise from these.

1.13 The scenarios are built using Experian’s UK Regional Planning Service (RPS). This is a comprehensive economic forecasting service that provides coverage of the UK economy and its regions and counties. The RPS provides forecasts down to local area level covering 38 sectors and providing detailed employment and GVA estimates up to 2031. A range of assumptions about the way in which the national and regional economy is likely to perform are built into the forecasts and these are refreshed regularly. Both short and long term drivers are incorporated to reflect the changing economic climate (Figure 1.3).

Figure 1.3 RPS Assumptions



Source: Experian

At a UK level, it is anticipated that growth will stagnate in 2012, picking up from 2013 onwards. The unemployment rate will exceed 9 per cent in 2012 and incomes will largely remain flat. Crisis in the Eurozone remains a key risk for 2012.

1.14 At East of England level, it is forecast that growth will outpace UK growth and much of this is as a result of higher levels of in-migration to the region resulting in a growing working age population. There will be greater reliance on private services and growth in employment in 2013, despite public sector job losses.

1.15 The current assumptions around the UK and East of England performance are built into the Heart of Essex forecasts, together with an understanding of the local industry structure which includes high growth knowledge sectors, manufacturing and education and the highly skilled labour market.

Structure of Report

1.16 The report is structured as follows:

- An overview of the Heart of Essex sub-region, including comparative economic performance and the relative strengths, weaknesses, opportunities and threats which exist across the sub-region (Section 2.0);
- A detailed assessment of existing economic conditions, future growth drivers and potential economic futures for Brentwood, Chelmsford and Maldon respectively (Sections 3.0 - 5.0); and
- Conclusions and policy implications, including an assessment of the key economic drivers for each local authority (Section 6.0).

1.17 The appendices set out the relevant assumptions used for the economic modelling, providing a guide to the inputs and approach adopted, and also present the outputs of the modelling for each scenario.

2.0 Heart of Essex

2.1 This section provides an overview of economic conditions across the Heart of Essex sub-region benchmarked against the rest of Essex and East of England region where appropriate. It provides the basis for the more detailed assessment of the individual local authorities contained in the subsequent sections of this report.

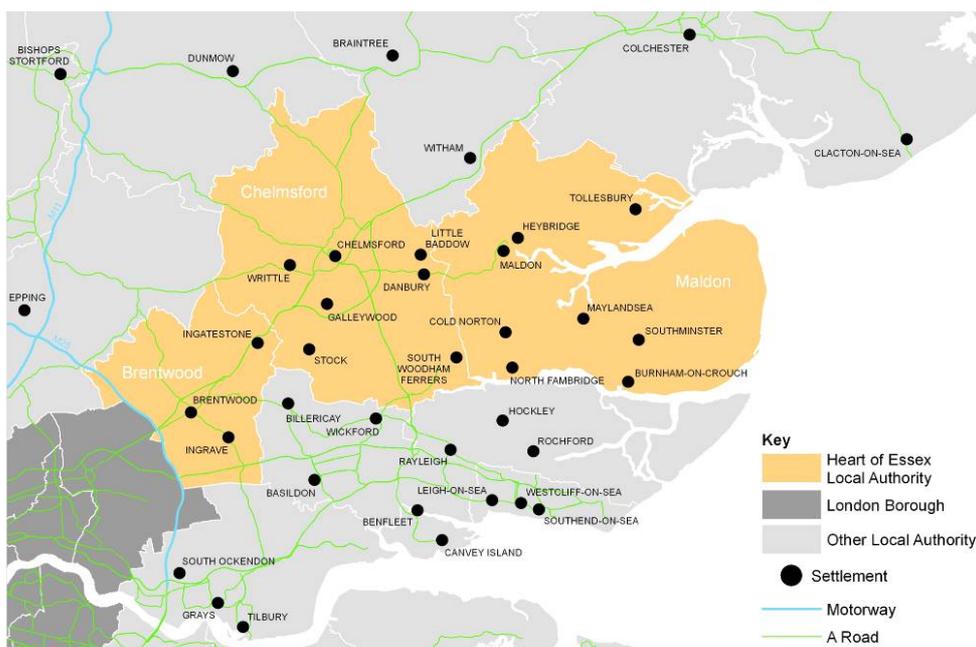
Geography

2.2 The Heart of Essex sub-region lies at the centre of Essex and comprises the three local authorities of Brentwood, Chelmsford, and Maldon. Together they form a functional economic area sharing a number of common characteristics but also with important linkages with other sub-regions, not least in terms of commuting and transport connectivity (Figure 2.1).

2.3 As the largest regional centre, the recently designated city of Chelmsford serves the sub region by providing a range of employment and education opportunities, retailing, cultural and leisure activities as well as key civic and administrative functions. Chelmsford is linked functionally to, and surrounded by, a pattern of attractive market towns including Brentwood and Maldon.

2.4 The A12 route and Great Eastern rail services provide the sub-region with shared lines of strategic communications. The Heart of Essex is within the London commuter belt and therefore has strong economic linkages with the capital and its employment market. The scale of out-commuting declines steadily with distance from London, and Maldon exports a lower proportion of workers than Brentwood and Chelmsford to the capital.

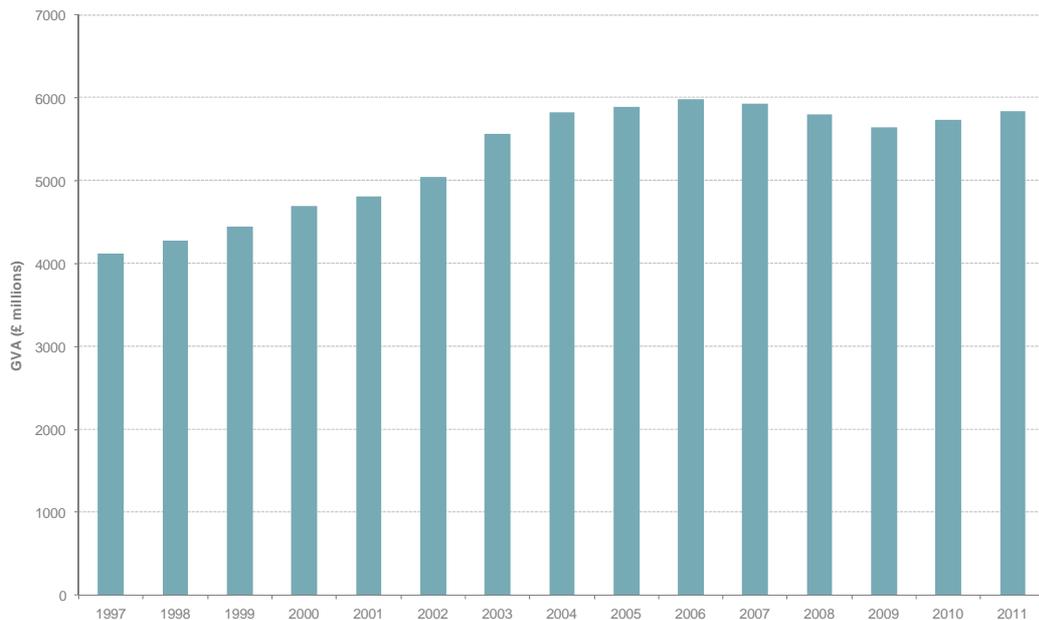
Figure 2.1 Heart of Essex Context Map



Economic Output

- 2.5 The sub-region contributed £5.8 billion to the UK economy in 2011 and there has been a general upward trend in output over the last decade (Figure 2.2) buoyed by growth in Chelmsford in particular. Declining output particularly in 2008 and 2009 as a result of the global recession has been followed by relatively strong growth in output for 2010 and 2011 - growth in output of £90 million and £100 million respectively was added to the total contribution in each year.

Figure 2.2 Heart of Essex GVA Growth 1997-2011



Source: Experian 2012

- 2.6 Productivity in the sub-region is in line with UK average. Brentwood firms appear most productive, followed by Chelmsford and then Maldon. However the differences between the three Council areas are not significant.² The latest ASHE data on wages supports these findings and suggests that the historic trends remain with the Heart of Essex performing just above the UK average of £500 gross weekly pay.

Employment

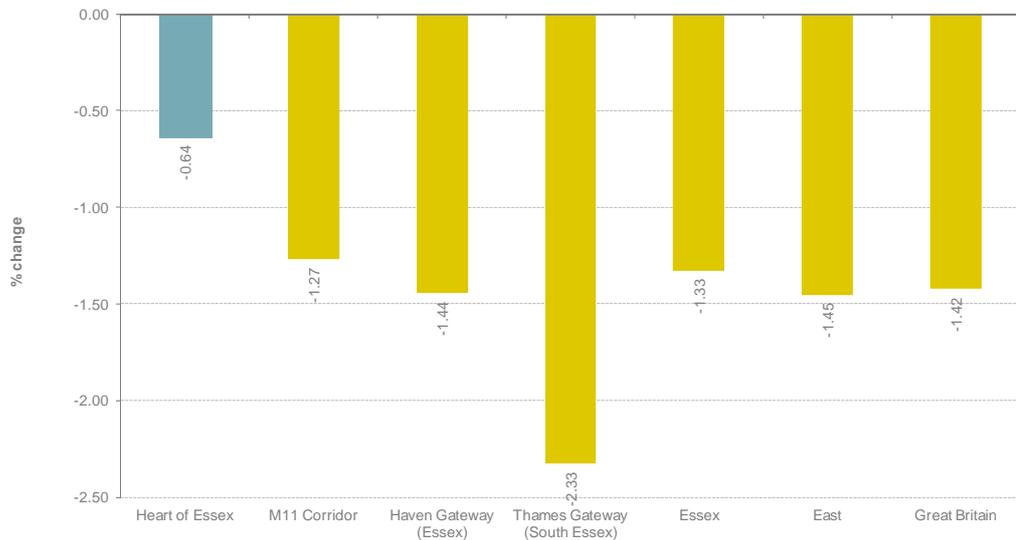
- 2.7 Total employment in the Heart of Essex was around 157,000 in 2011.³ Between 2008 and 2010 employment in Great Britain (GB) as a whole declined year on year by around 1.4 per cent, a similar pattern was experienced across the East of England. The Heart of Essex, albeit also experiencing a decline,

² UWE Bristol (2006) Mid Essex Economic Futures

³ Experian 2012

witnessed the smallest of any of the four Essex sub-regions - year on year 0.6 per cent - suggesting a more resilient economy (Figure 2.3). This was certainly buoyed by Chelmsford, which was only one of three local authorities within Essex that experienced annual (albeit modest) growth in employment during this period (the others being Castle Point and Epping Forest).

Figure 2.3 Heart of Essex Employment Change 2008-10

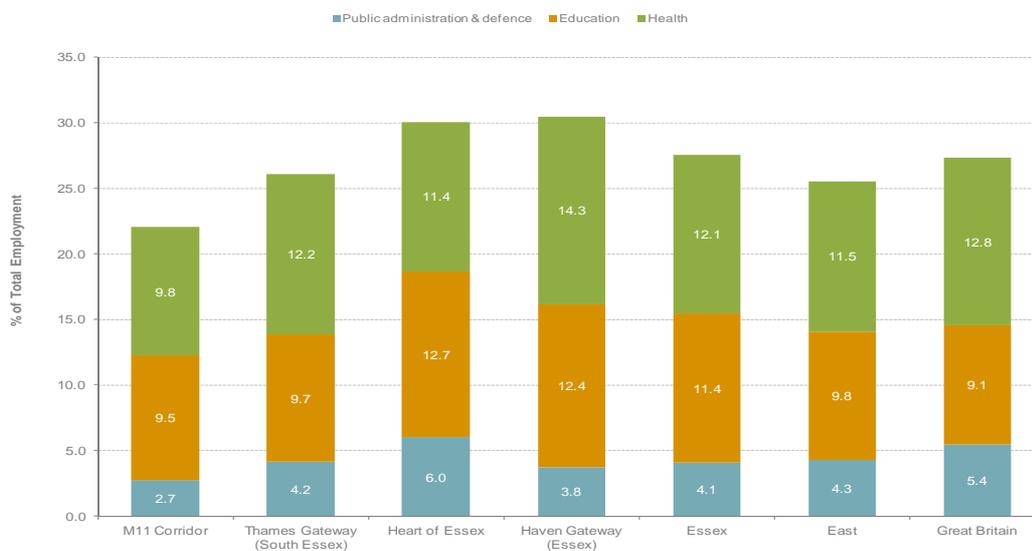


Source: BRES, 2010

2.8

Sectorally, the Heart of Essex does have a high proportion of employment within the public sector. It comprises almost a third of the workforce at 30.1 per cent (Figure 2.4). Of the Essex sub-regions, only Haven Gateway compares with 30.5 per cent and this is above the East and Great Britain as a whole at 25.6 per cent and 27.3 per cent. Within this total, the Heart of Essex ranks particularly highly for education, significantly higher than other Essex sub-regions. The presence of Anglia Ruskin University and other academic institutions within the sub-region contribute to these figures. The sub-region also has highest representation in public administration and defence. Given the spending cuts within the public sector, this could present potential vulnerability for the sub-region, particularly in the first part of the study period, and it will be important to understand the other sectoral strengths which the area can build upon in order to support a balanced economy. Of course, looking beyond the period of austerity, demand for public services (and employment within them) will be shaped by factors beyond current period of austerity, and growth can be anticipated within some sectors.

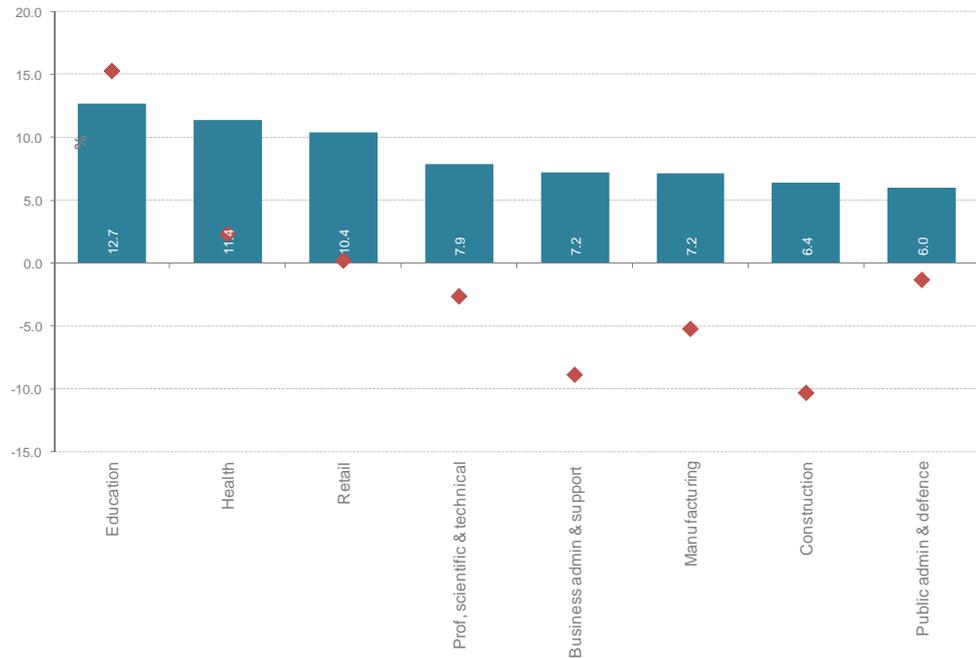
Figure 2.4 Comparison of Public Sector Employment by Sub-Region



Source: BRES, 2010

- 2.9 Retail comprises the next largest sector in the Heart of Essex accounting for 10.4 per cent of total employment (Figure 2.5) . This sector has experienced modest growth in employment between 2008 and 2010 at 0.2 per cent. The retail sector across Essex is above the GB average (10 per cent) and is particularly high in Thames Gateway South Essex accounting for 15.8 per cent of total employment. The Heart of Essex ranks in joint third place alongside the M11 corridor in terms of its overall proportion of retail jobs.
- 2.10 Professional scientific and technical sectors comprise the fourth largest sector at 7.9 per cent - and support evidence from Experian's business database (pH Megafire) that there are an above average proportion of businesses in high growth knowledge-intensive sectors. It must be noted however that this sector has experienced a year on year decline of 2.7 per cent between 2008 and 2010.
- 2.11 Other important sectors for employment within the Heart of Essex include business administration and support (7.2 per cent). There are a number of back-office operations across the sub-region and as a result Heart of Essex ranks in second place within Essex behind the M11 corridor (12.6 per cent), it is also behind the national average 7.8 per cent. Manufacturing and construction are also relatively large sectors for employment and account for over 6 per cent of total employment. All three sectors have however been hit relatively severely by the recession and as a result declined year on year by over 5 per cent. Construction declined by 10.3 per cent between 2008 and 2010. Essex does however maintain a higher than average proportion of employment in construction at 6.5 per cent (GB 4.9 per cent) with Heart of Essex in second place behind the M11 corridor.

Figure 2.5 Heart of Essex Employment Structure and Growth by Sector



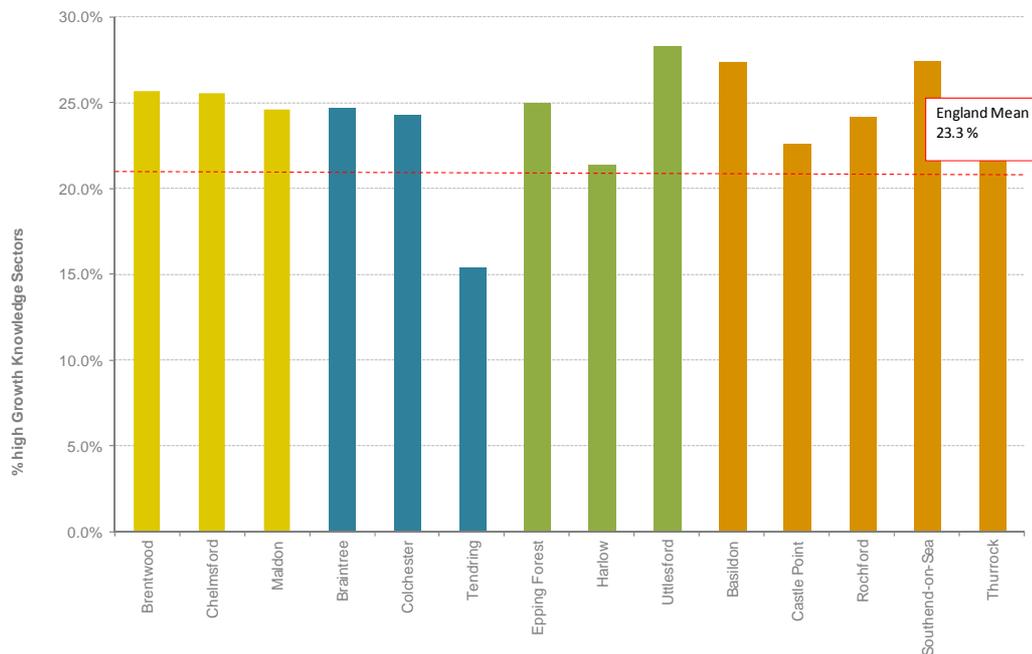
Source: BRES, 2010

Business base

- 2.12 Experian's pH Megafire identifies just over 21,000 businesses across the Heart of Essex sub-region. The total number of businesses has experienced a modest year on year decline between 2010 and 2012 although this is in line with England as a whole which also declined during this period.
- 2.13 Knowledge intensive sectors, particularly high tech manufacturing and high tech services, are both well represented within the sub-region. The Mid Essex Economic Futures study identified Maldon as relatively strong in high tech manufacturing and Chelmsford and Brentwood are relatively strong in high tech services.⁴ Experian's business data supports these findings as all local authorities within the Heart of Essex sub-region are above the England average of 23.3 per cent (Figure 2.6). Chelmsford and Brentwood in particular are behind only Uttlesford, Basildon and Southend on Sea in Essex with respect to their proportion of knowledge intensive businesses.

⁴ UWE Bristol (2006) Mid Essex Economic Futures

Figure 2.6 Knowledge intensive businesses within Essex



Source: Experian 2012

- 2.14 The business structure across the Heart of Essex is skewed towards micro-businesses (0-4 employees) particularly in Maldon which ranks in second place within Essex for its proportion of the smallest firms, and also Brentwood. In both Chelmsford and Brentwood, there has been a growth of the micro businesses; 2 per cent year on year in Chelmsford and 0.4 per cent year on year in Brentwood between 2009 and 2011.⁵
- 2.15 A high proportion of these small businesses are home based businesses. A recent study by Ancer Spa estimated that there were some 8,600 home based businesses in the sub-region generating £340m in GVA at the beginning of 2011. By 2020, they projected that an additional 3,000 home based businesses could be created and as a result there is demand for flexible use of workspace and business support for this type of work in the sub-region.⁶
- 2.16 Businesses within the Heart of Essex more broadly are focussed upon serving their local area. The results of the Essex Business Survey found the market reach of more than half of businesses in the Heart of Essex sub-region was local, through to just four percent who exported globally.⁷ This is a historic trend and was identified also in the Mid Essex Economic Futures Study which indicated that London was not a major source of business for local firms and

⁵ ONS Business Data 2011

⁶ Ancer Spa (2010) Investigation into Home working in the Heart of Essex

⁷ Bmg Research (April 2010) Essex Business Survey – Heart of Essex Sub-region

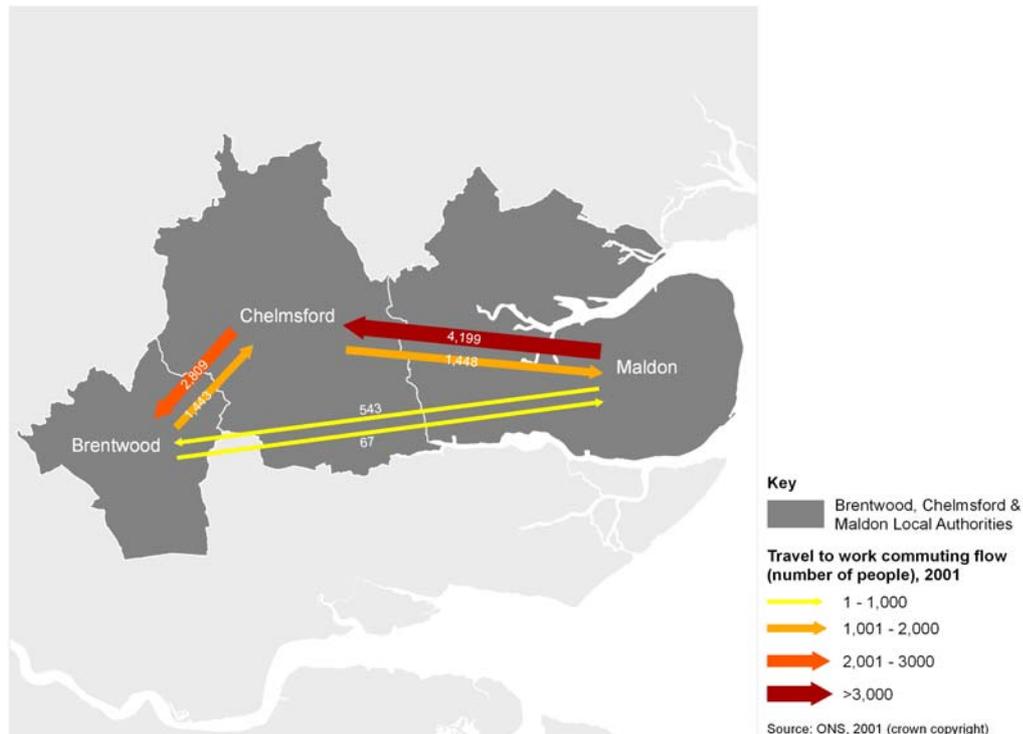
stated that export markets were an insignificant source of direct sales. The Business Survey does however suggest that 14 per cent of businesses would consider exporting if they received suitable advice.

Labour market

- 2.17 Given its strategic central location and significant share of population, the Heart of Essex shares labour market characteristics and inter-relationships with surrounding areas.
- 2.18 Situated within the London commuter belt, the sub region has strong commuting links with the capital's employment market. The scale of out-commuting declines steadily with distance from London with Maldon residents with the lowest propensity to commute to the capital for employment.
- 2.19 All three local authorities within the Heart of Essex are dependent on each other for employment to a greater or lesser extent (Figure 2.7).⁸ As a county town (and now city), Chelmsford attracts significant daily commuting from neighbouring authorities of Brentwood and Maldon, although in net terms Brentwood accommodates a higher number of in commuters from Chelmsford.

⁸ Analysis based on 2001 Census commuting data (the latest available). Cross-referencing with survey-based Annual Population Survey (2008) data confirms the direction and relative magnitude of commuting flows across the Heart of Essex has remained broadly unchanged. New analysis will be required following release of the 2011 Census data in due course.

Figure 2.7 Commuting flows within Heart of Essex



Source: ONS / NLP analysis

- 2.20 With a relatively strong labour market, the Heart of Essex benefits from relatively high rates of employment and low unemployment (Figure 2.8). Despite the recession and associated pressures on the labour market, few residents claim out-of-work benefits and economic participation remains high.
- 2.21 While the workforce is generally highly skilled and engaged in high skilled occupations, this varies spatially across the sub region with for example parts of Maldon characterised by low skills levels and education, skills and training deprivation. Figure 2.8 identifies Chelmsford as the only local authority within Heart of Essex with higher level skills exceeding the East of England regional average (measured by per cent of working age population with NVQ4 or above). Earnings across the Heart of Essex significantly exceed regional and national averages, with resident earnings 20 per cent higher than workplace earnings. This largely reflects significant out-commuting to higher paid jobs in London.
- 2.22 This in turn impacts upon house prices across the sub region, registering at 38 per cent higher than the regional and 16 per cent higher than the national average. Highest house prices are recorded in Brentwood, leading to a growing income/housing affordability differentiation between some residents and workers, leading to longer-distance commuting and congestion . This represents a key challenge for future labour market sustainability across the Heart of Essex.

Figure 2.8 Heart of Essex Key Labour Market Indicators

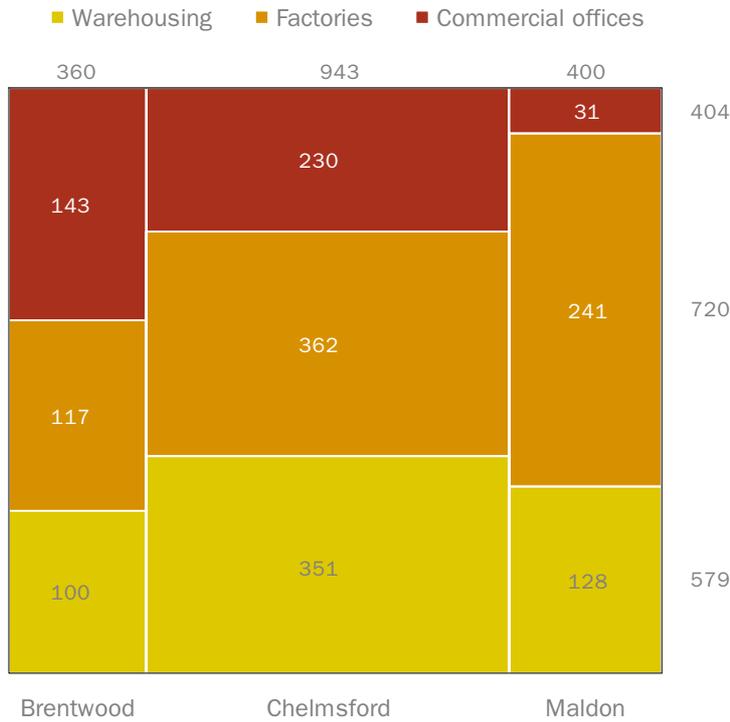


Source: NOMIS/Land Registry/NLP analysis

Employment space

- 2.23 Analysis of Valuation Office Agency (VOA) data (Figure 2.9) indicates that the total stock of employment floorspace across the Heart of Essex sub-region in 2008 amounted to 1,703,000 sq.m of commercial office, factory and warehousing space. Over half of this space (55 per cent) was located within Chelmsford, with smaller proportions in Maldon (23 per cent) and Brentwood (21 per cent).
- 2.24 Just over 40 per cent of the total stock comprised factory space, with a disproportionately large concentration in Maldon (accounting for 60 per cent of the local authority's total employment space), with about 34 per cent warehousing and 24 per cent commercial offices. Brentwood has the largest proportion of office space (some 40 per cent of the borough's stock) but Chelmsford has the largest amount in absolute terms. Office space accounts for just 7 per cent of the total stock in Maldon.

Figure 2.9 Heart of Essex Employment Space by Type

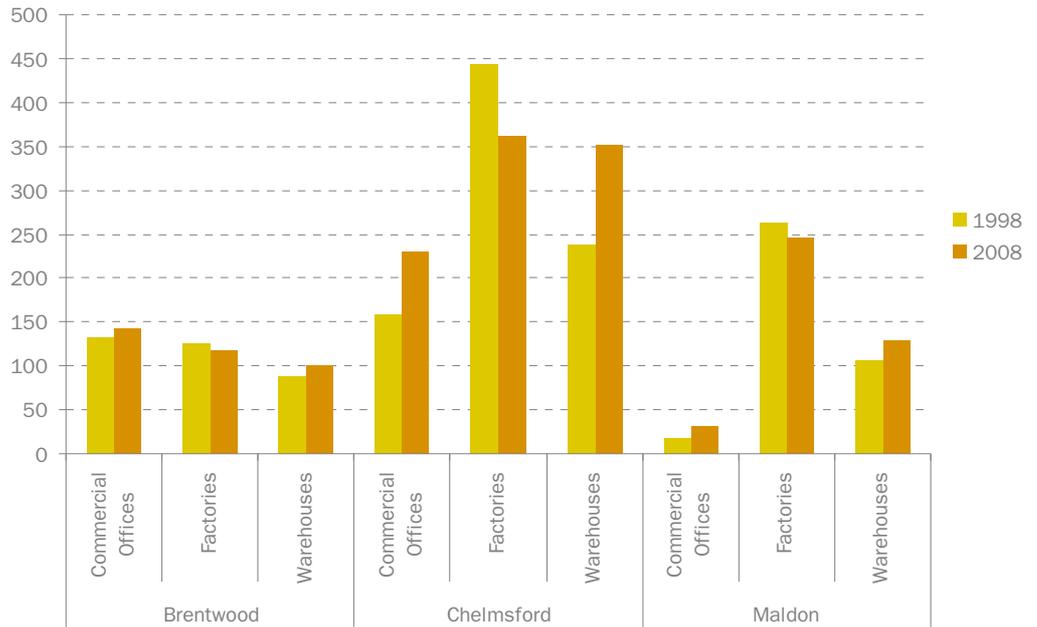


Source: VOA/NLP analysis

2.25

Examining net change in employment space over the period 1998-2008, it is evident (Figure 2.10) that all three local authorities lost factory space during this decade; the most significant decline was in Chelmsford where space declines 18 per cent. However, Maldon experienced the largest increase in office space (+72.0 per cent) but from a low base, alongside an increase in warehousing (+20.7 per cent) and a slight decline in factory space (-6.4 per cent). Chelmsford experienced significant increases in office (+44.1 per cent) and warehousing space (+47.0 per cent). In Brentwood, office space increased by 8.3 per cent and warehousing by 14.9 per cent.

Figure 2.10 Heart of Essex Net Change in Employment Space, 1998-2008



Source: VOA/NLP analysis

Summary SWOT analysis

2.26

Drawing on the above analysis and wider review of existing evidence, Table 2.1 summarises the performance and prospects of the Heart of Essex economy.

Table 2.1 SWOT analysis of the Heart of Essex economy

Strengths	Weaknesses
<ul style="list-style-type: none"> • Strong presence of high value sectors (such as professional, scientific, technical services) • Role as business administration and support service centre, providing cost effective alternative to London • Generally strong labour market - low unemployment, high economic activity and high level skills • Resilient business base and strong levels of entrepreneurship 	<ul style="list-style-type: none"> • Pockets of low skills in parts of the sub region (e.g. Maldon) • Significant gap between residence and workplace earnings • Strain on local housing supply, increasing property prices and excluding local people • Lower than average economic activity rates in parts of the sub region, suggesting inadequate/unsuitable employment opportunities
Opportunities	Threats
<ul style="list-style-type: none"> • Strategic infrastructure and investment (e.g. through Crossrail) enhancing connectivity with London and wider South East • Opportunity to benefit from London's prosperity, as commuters bring wealth to circulate in the HoE economy • Opportunity to attract businesses out of London and service the Capital e.g. conference facilities • This inward investment could bring higher skill requirements, encouraging retention of working residents 	<ul style="list-style-type: none"> • Reliance on public sector (particularly health and education) may prove unsustainable as budget cuts kick in • Significant out-commuting to London may result in 'brain drain' effect • Failure to build more houses may undermine Heart of Essex's ability to attract and sustain its population. However, the recession has affected the viability of new housing development • Constraints exist within the District that may limit future development opportunities.

Source: NLP/Experian analysis

3.0 Brentwood

Geography

3.1 Situated in south-west Essex and adjacent to east London, the Borough of Brentwood is located entirely within the Metropolitan Green Belt. Covering an area of approximately 15.3 hectares, the Borough has a resident population of approximately 74,800.⁹ Brentwood town is the largest settlement, which is surrounded by outlying villages and hamlets in the rural area.

3.2 Brentwood benefits from excellent transport links; the M25, A12 and A127 provide good road accessibility while the towns of Brentwood, Shenfield, Ingatestone and West Horndon provide fast rail links to the City of London and East Anglia. These linkages will be significantly expanded by the introduction of Crossrail, which will service Brentwood and Shenfield from 2018. Stansted, London City and Southend airports, and port facilities at Tilbury, Harwich and Felixstowe, are also nearby.

Output

3.3 Brentwood contributed £1.5 billion to the UK economy in 2011. Overall, there has been an upward trend in GVA with particularly strong growth experienced between 2003 and 2006 (Figure 3.1). The impact of the global downturn has been evident - between 2007 and 2008 the economy shrank by 4.6 per cent and a further 3.1 per cent the following year. Output has not yet reached the peak achieved in 2006 and is not expected to do so until 2014.¹⁰

3.4 As evidenced in the Mid Essex Economic Futures Study, Brentwood has the highest levels of productivity in the sub-region although it must be noted that there is not a significant difference between all three Heart of Essex local authorities.¹¹ A recent Local Futures report, forming part of the evidence base for the Integrated County Strategy, concurs with this finding and ranks Brentwood at 100 out of 408 on their economic productivity score. This is the highest within the sub-region and places the district within the top 40 per cent nationally. Despite having an economy which is below the national average in size, the gross average weekly wages are significantly above the national average and GVA per head is high.¹²

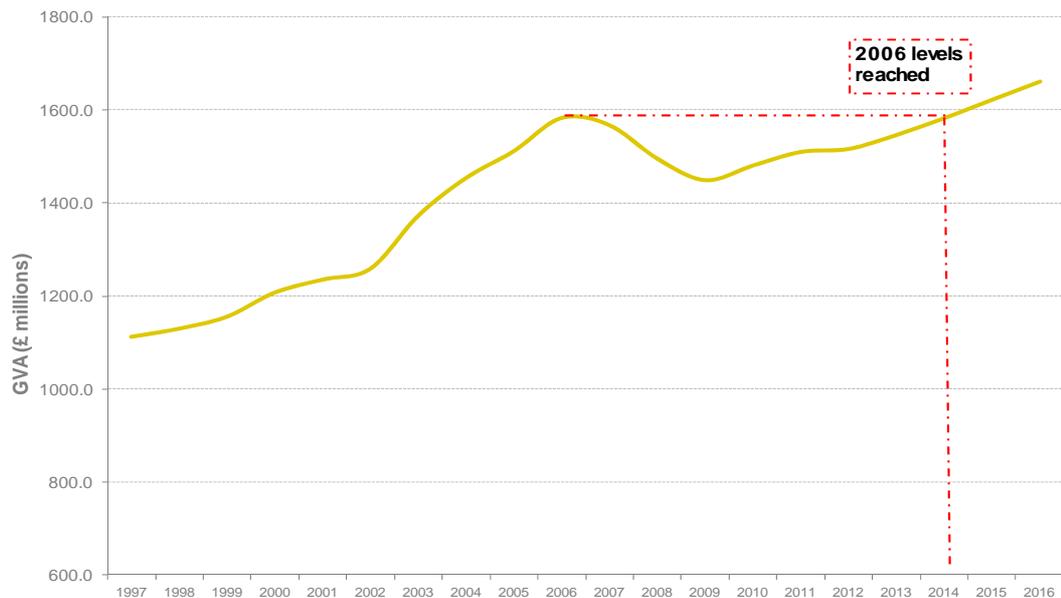
⁹ 2010 ONS mid-year population estimates

¹⁰ Experian 2012

¹¹ UWE Bristol (2006) Mid Essex Economic Futures Study

¹² Local Futures (2010) District Profile: A summary profile of Brentwood

Figure 3.1 GVA contribution in Brentwood



Source: Experian 2012

Employment

- 3.5 Total employment within Brentwood was 38,500 in 2011. Growth was more rapid in the first half of the decade – year on year 1.4 per cent between 1998 and 2004, between 2005 and 2011 it has declined to -0.5 per cent. This trend is however mirrored across the sub-region and is reflective of the challenging economic climate experienced from 2008 onwards.
- 3.6 Although Brentwood’s economy is smaller than the UK median, there is an over-representation of knowledge sectors locally enabling the economy to enjoy greater influence than its size might suggest. Employment in knowledge driven services (R&D, finance, business services) make up the greatest part of this contribution, whilst knowledge based production is below the national median.¹³
- 3.7 Location quotient analysis (Figure 3.2) further confirms this trend - finance and professional services both have above the UK average share of employment, with location quotients of 1.8 and 1.5 (1.0 is UK average).¹⁴ Professional services in particular has enjoyed year on year growth of 4 per cent over the last decade.
- 3.8 Construction is also a significant sector for Brentwood with proportionally more people employed in construction sectors than elsewhere in the UK. The

¹³ Local Futures (2010) District Profile: A summary profile of Brentwood

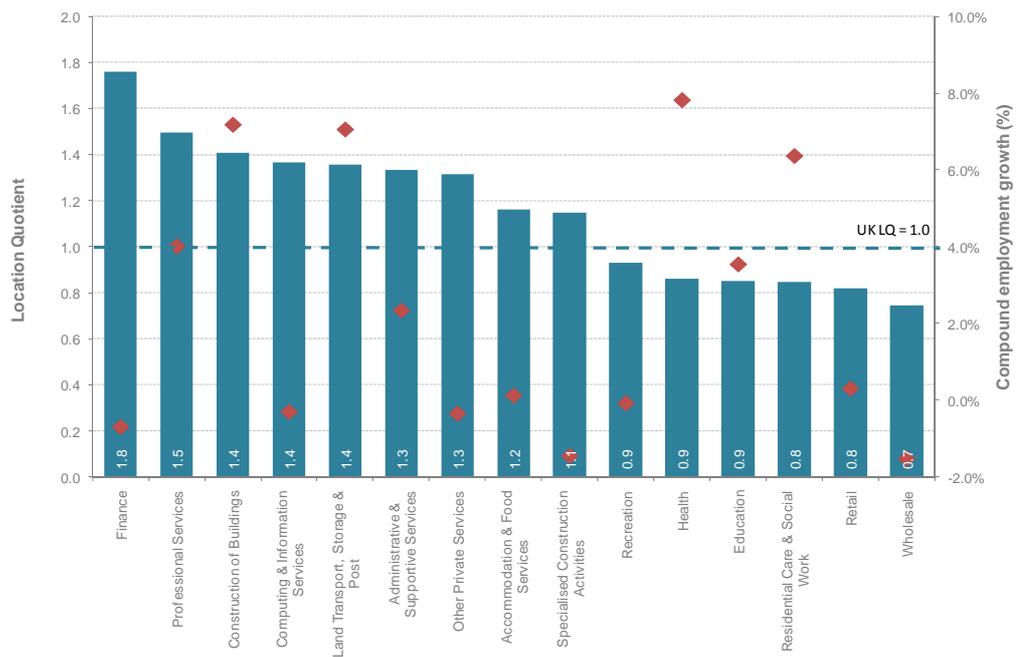
¹⁴ A location quotient measures the relative importance of a sector to employment relative to Great Britain. A location quotient of 1.0 shows that the sector accounts for an equal share of total employment and one of greater than one shows that the sector accounts for a greater share of total employment than in Great Britain

recession has impacted on the industry, construction of buildings has however been buoyed by earlier demand in the decade and a recent rise in optimism.

3.9 Accommodation and food services are a significant sector for Brentwood with a location quotient of 1.2, although there has only been limited growth over the last decade. The Brentwood Borough Hotel and Visitor Accommodation survey has however identified prospects for growth based upon growing corporate demand as well as demand from the leisure break and functions market.¹⁵ Likewise retail – the third largest employer has grown by just 0.3 per cent year on year in the last decade no doubt impacted by tightened consumer spending over the last four years.

3.10 Land transport storage and post is only a relatively small sector comprising 6 per cent of total employment in 2012, however it is significant with an LQ of 1.4 and has enjoyed healthy growth rates over the last decade. Health and residential care have also seen strong growth rates over the last decade of above 6 per cent year on year and this is likely to be reflective of increasing demands for care particularly given the ageing population

Figure 3.2 Brentwood Employment Growth & Location Quotient, 2001-11



Source: Experian 2012

Business base

3.11 Brentwood has just over 5,000 businesses according to Experian's pH Megafile (data summarised in Table 3.1). This is significantly higher than the 3,800

¹⁵ Hotel Solutions (2008) Brentwood Borough Hotel and Visitor Accommodation Futures

recorded by ONS business data and is likely to relate to the fact that Experian's data includes of non-limited businesses, sole-traders and partnerships, many of whom fall below the minimum VAT threshold (£73,000 taxable turnover per year) and therefore are excluded from official registers.

- 3.12 There are a higher proportion of small businesses within Brentwood – 73 per cent of businesses have between 0 and 4 employees – than both the UK average (68 per cent) and East of England average (70 per cent)¹⁶ and it is likely that this figure is an under-estimate given the total number of businesses identified above.
- 3.13 In addition the number of businesses with 0-4 employees has been growing in Brentwood by 0.4 per cent year on year between 2009 and 2011 whilst in the rest of the sub-region it has declined, and at a UK level by -1.7 per cent year on year. There has also been a 2.8 per cent growth year on year in the proportion of businesses with 11-19 employees in Brentwood - whilst Chelmsford experienced a decline and Maldon remained largely the same.
- 3.14 Business base growth analysis looks at average annual change in the business base (i.e. overall churn in total numbers of businesses taking into account insolvencies, dissolutions, relocations and in the case of sole traders/partnerships those that appear to cease trading and this has been explored over the last three years in order to examine the resilience of the local authority's businesses within the context of ongoing economic uncertainty. Brentwood's business base has experienced a 0.5 per cent average growth during this period and this is above the UK average which remained largely stable during this period. It is however behind the overall year on year increase in the East of England of 1.2 per cent.

Table 3.1 Brentwood Business Base Growth

Business base growth	2010	2011	2012	Percentage average annual change
Brentwood	5,040	4,970	5,080	0.5%
Heart of Essex	21,440	20,890	21,280	-0.3%
East of England	334,800	330,500	342,500	1.2%
UK	3,207,400	3,115,500	3,201,800	-0.05%

Source: Experian pH Megafire, 2012

- 3.15 The latest pH data (Table 3.2) on business start ups and insolvencies suggests that whilst Brentwood has had marginally fewer start-ups than Chelmsford, the area is in line with the England average. Brentwood has also benefited from fewer insolvencies than the other Heart of Essex authorities and is below the

¹⁶ ONS UK Business, Activity, Size and Location 2011

England average, which certainly supports the growth that has been witnessed in the business base. It must however be noted that Brentwood has lower levels of adaptive capacity (the ability to withstand shocks and maintain resilience) some ten percentage points below the England average of 57.1 per cent at 47.8 per cent and the average number of days (past terms) which it takes firms to pay their suppliers and this is highest in Brentwood at 18 days – it is above the England average of 15 days.

Table 3.2 Brentwood Business Health

	Brentwood	Chelmsford	Maldon	England
Business start-ups since 2010	19.8%	20.5%	17.9%	19.8%
Business insolvencies since 2010	0.8%	1.1%	0.9%	1.1%
% of businesses with adaptive capacity	47.8%	51.6%	55.7%	57.1%
Average number of days beyond terms	18	16	11	15

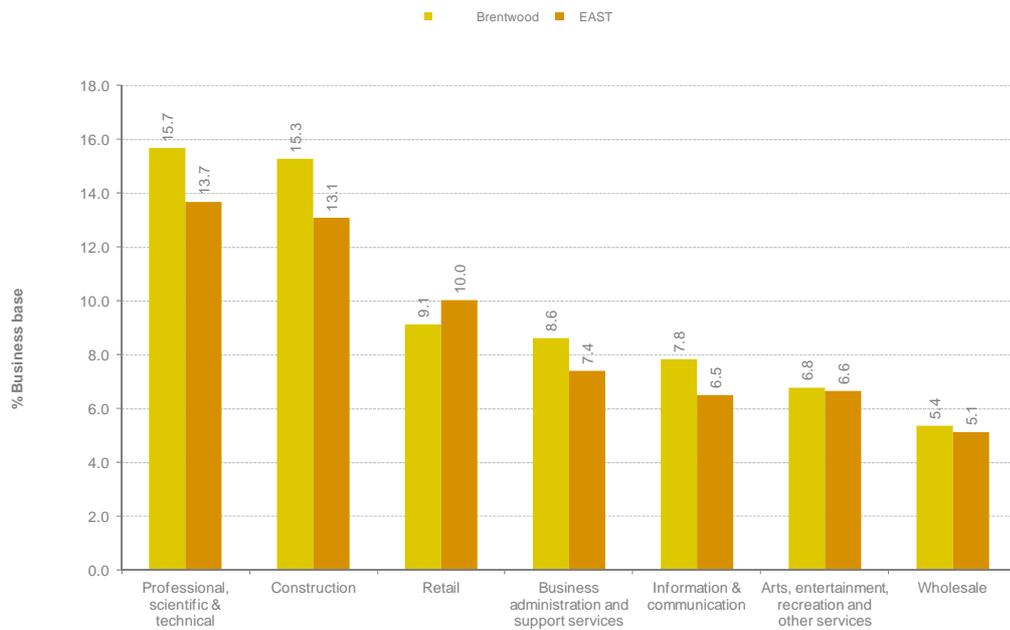
Source: Experian pH Megafire, 2012

- 3.16 The resilience of the business base is further evidenced through the recent Heart of Essex Business Survey. Of 216 businesses interviewed in Brentwood, some 36 per cent had been located within the area for at least 20 years (the highest proportion across the County).¹⁷
- 3.17 Figure 3.3 shows that just under a third of Brentwood businesses are in professional, scientific and technical and the construction sectors (they comprise 31 per cent of the total business base). Both sectors are marginally larger than Chelmsford and above the East of England average. However whilst the professional, scientific and technical sectors have grown year on year by around 5 per cent (2009-2011), the construction sector has declined by 1 per cent year on year during this period.
- 3.18 Retail is the third largest sector, accounting for 9 per cent of the total business base. However, it is below the East of England average at 10 per cent. The recent Brentwood Borough Retail and Commercial Leisure Study undertook a health check of Brentwood town centre and scored it well in terms of convenience and comparison goods (although to a lesser extent). The report outlined that Brentwood town centre should look to build on its existing strengths and expand its retail and commercial leisure offer further.¹⁸
- 3.19 Both business administration and support services and information and communication make up a significant proportion of total businesses (16 per cent) and are above the East of England average.

¹⁷ Bmg Research (April 2010) Essex Business Survey – Heart of Essex Sub-region

¹⁸ Chase and Partners LLP (October 2011) Brentwood Borough Retail and Commercial Leisure Study

Figure 3.3 Brentwood Business Composition



Source: ONS Business Activity, Size and Location (2011)

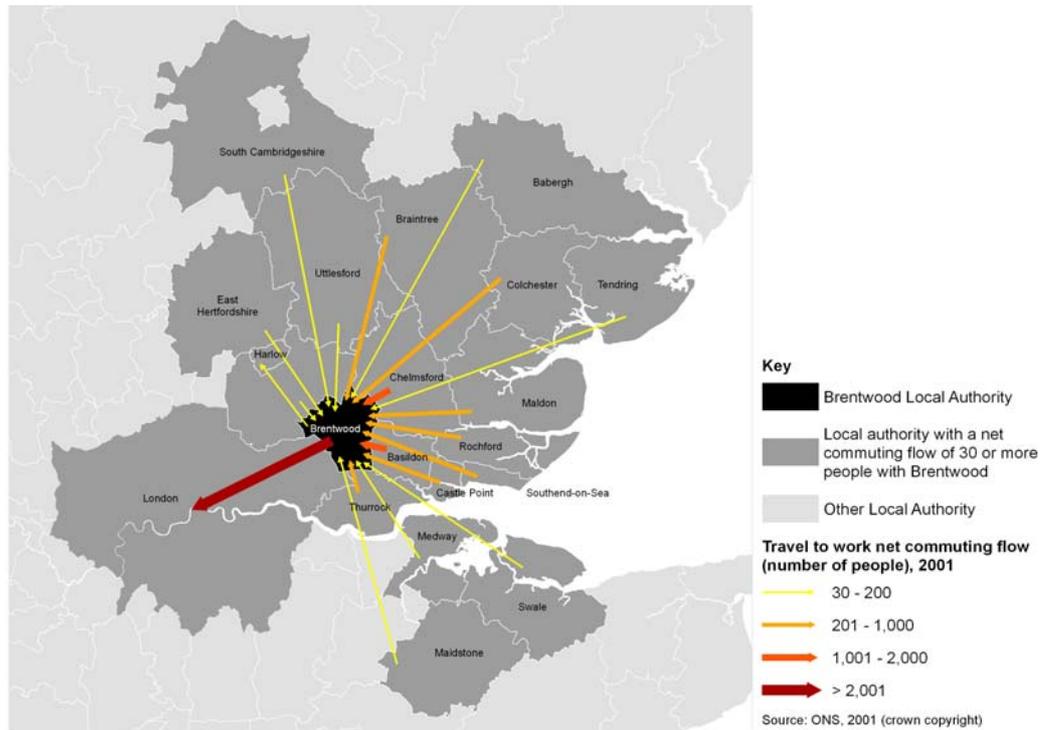
Labour market

- 3.20 Unemployment within the Borough has traditionally remained low, and despite rising to 4.6 per cent in June 2011, remains below the regional (6.7 per cent) and national (7.7 per cent) averages. The Essex Local Economic Assessment¹⁹ indicates that the Borough also has low levels of worklessness, with 8.4 per cent of working age population claiming benefits (just over half the national average and 72 per cent of the regional average).
- 3.21 Reflecting its proximity to London, Brentwood has a high level of out commuting making up 55 per cent of the Borough's resident workforce. This trend is underlined as a key feature of the local economy by Brentwood's Economic Development Strategy²⁰; almost two fifths of those who commute out of the Borough travel to Greater London. As illustrated in Figure 3.4, Brentwood also attracts commuters from neighbouring Local Authorities, particularly those to the East of the Borough such as Chelmsford, Basildon, Colchester, Rochford and Maldon.

¹⁹ Essex County Council and Partners, Essex Local Economic Assessment, 2010

²⁰ Brentwood Borough Council, Economic Development Strategy 2004/2006

Figure 3.4 Net commuting flows to/from Brentwood



Source: ONS/NLP analysis

- 3.22 Analysis of labour market indicators in Figure 3.5 shows that average wages received by Brentwood Borough residents are significantly above regional and national averages, at £708 per week (this compares with £529 across the East of England and £503 across Great Britain). This implies significant levels of out-commuting from Brentwood to high skilled, high paid jobs. By contrast, the average weekly wage of those who work in Brentwood is £564, 20 per cent lower than that earned by residents.
- 3.23 At £321,750, the average house price in Brentwood is the highest within Essex (with the exception of Epping Forest).²¹ While this reflects high resident earnings, it is also likely to make housing unaffordable to other lower skilled, lower paid residents.
- 3.24 The workforce is reasonably well skilled, with an average proportion of higher level skills (26.3 per cent NVQ level 4 and above) and relatively few working age residents with no qualifications (10.8 per cent). This skills profile is reflected by the types of occupations held by local residents; just under half (48.4 per cent) of all employees in the Borough are employed in the three highest occupation groups (1 to 3), a higher proportion than across the East of England and Great Britain as a whole.

²¹ Land Registry, Jan-Mar 2012

Figure 3.5 Brentwood Key Labour Market Indicators



Source: NOMIS/Land Registry/NLP analysis

Employment sites and premises

3.25 The Brentwood Annual Monitoring Report 2011 indicates just 2.87 ha of vacant employment land allocations, comprising land adjacent to Council Highways Depot, Warley (0.65 ha), Hallsford Bridge Industrial Estate, Stondon Massey (0.58 ha), West Horndon Industrial Estate (1.05 ha) and Childerditch Industrial Park (0.59 ha). When combined with 0.63 ha from extant planning permissions this provides a total of 3.5 ha of land available for employment development.

3.26 An Employment Land Review prepared for Brentwood in 2010 concluded²²:

- The study surveyed 48 employment sites in Brentwood, of which the majority were assessed to be of 'average' quality. Vacant and opportunity land together provided a theoretical capacity of 20,000 sq.m.
- Sectoral forecasts prepared for the study indicated net growth of 4,100 jobs in the Borough to 2031. The future requirement would be for an additional 47,500 sq.m B1a office space, equivalent to 6.3 ha.
- A local business survey identified a high level of satisfaction with current business premises. In order to expand, 50 per cent of businesses surveyed stated they would require additional space and the majority were unable to accommodate their additional floorspace needs at their existing premises.

²² Epping Forest District and Brentwood Borough Employment Land Review, Atkins, 2010

- Taking account of a 50 per cent safety margin, the study recommended provision should be made for a net additional increase of 71,000 sq.m B-class floorspace in Brentwood to 2031. Given the tightness of identified future supply relative to demand, it was recommended the Council consider allocating potential new employment sites.

Summary SWOT analysis

3.27 Drawing on the above analysis and wider review of existing evidence, Table 3.3 summarises the performance and prospects of the Brentwood economy.

Table 3.3 SWOT analysis of the Brentwood economy

Strengths	Weaknesses
<ul style="list-style-type: none"> • Strong presence of high value professional, scientific, technical and financial sectors • Concentration of business administration and support services, providing jobs across all skill levels • Low level of insolvencies, reflective of a strong and resilient business base • Business base growth in recent years 	<ul style="list-style-type: none"> • Low adaptive capacity within business base • High number of DBT for businesses in Brentwood • Very high average house prices, making housing unaffordable for lower paid residents
Opportunities	Threats
<ul style="list-style-type: none"> • Opening of Crossrail in 2018 - potential for improved links to London and local investment/improvements • Opportunity to boost to arts and entertainment sector • Broadband initiative recently agreed will see investment in local broadband and wi-fi hotspots across Borough supporting businesses and consumers. • Above average proportion of micro businesses with significant growth potential 	<ul style="list-style-type: none"> • Construction sector is of national significance but has experienced steep declines during the recession • Correlation between high house prices and out-commuting to London may push lower skilled/paid residents and jobs out of the Borough

Source: NLP/Experian analysis

Potential Scale of Future Growth

Dwelling constrained scenario

3.28 A dwelling constrained scenario for Brentwood has been developed based upon both current assumptions at a regional and UK level as to how the economy will perform, constrained to the emerging preferred housing figure for Brentwood of 170 dwellings per annum. The scenario also takes in to account the strengths

and historical trends within the local economy.

- 3.29 The scenario suggests that total employment will grow year on year by 0.6 per cent between 2012 and 2031 to just less than 43,200 in Brentwood. This equates to an additional 4,800 jobs over the next two decades and is in line with the County and UK average. It is however behind the East of England average of 0.8 per cent growth year on year.
- 3.30 The summary in Table 3.4 shows that employment growth will be within the private sector driven by professional services and land, transport, storage and post as well as growth in education. The greatest declines are forecast for manufacturing, with a decline of -3.4 per cent year on year above the UK average decline of 1.6 per cent. This follows historic trends within the area as well as the broader UK patterns of growth. , The most significant declines are forecast within metal products and chemicals, although it should be noted that modest GVA output growth is forecast in the sector as a whole. By comparison, manufacturing declines in both Maldon and Chelmsford are forecast to be greater.
- 3.31 Other sectors that are anticipated to broadly remain the same size or experience a small decline are information and communication and construction (construction of buildings a sub-sector of the broad construction sector will grow 1.1 per cent year on year).

Table 3.4 Employment: Significant sectors growing at or above the UK average growth rate in Brentwood

Sector	Proportion of total employment	Total Employment		Compound average annual growth rate
		2012	2031	
Land Transport, Storage & Post	5.8%	2,200	3,100	1.6%
Professional Services	11.3%	4,300	5,700	1.5%
Education	7.4%	2,800	3,700	1.4%
Agriculture, Forestry & Fishing	1.4%	500	700	1.1%
Construction of Buildings	3.1%	1,200	1,400	1.1%
Administrative & Supportive Services	10.6%	4,100	5,000	1.1%
Residential Care & Social Work	4.5%	1,700	2,100	1.0%
Accommodation & Food Services	7.3%	2,800	3,200	0.8%
Utilities	0.5%	200	200	0.7%
Health	6.1%	2,400	2,800	0.7%

Source: Experian 2012

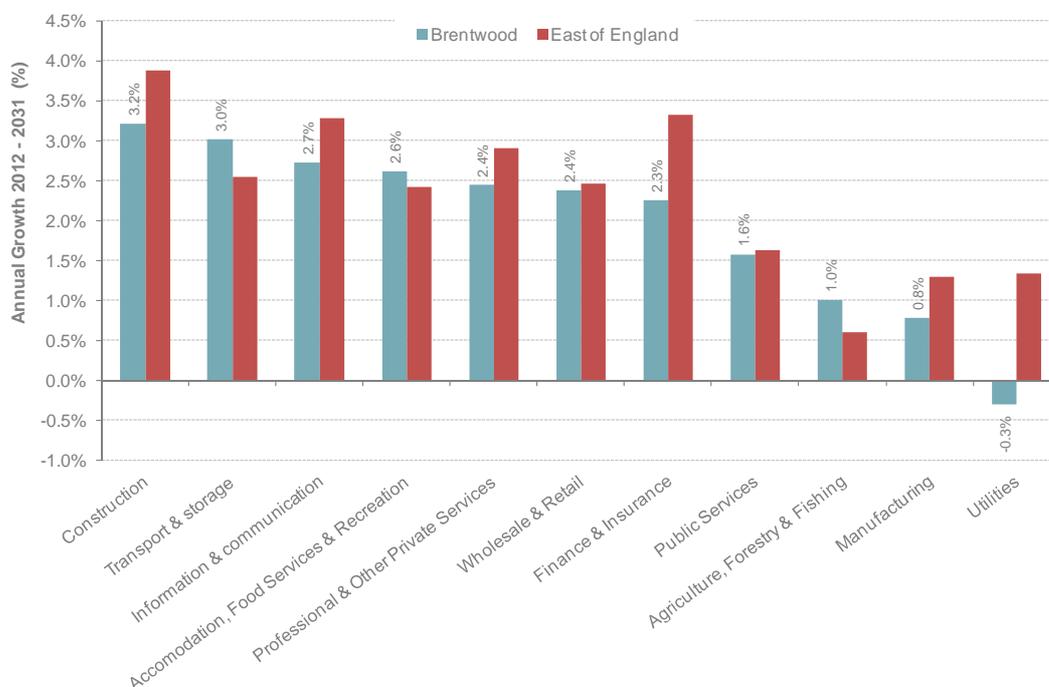
- 3.32 GVA contribution will grow year on year by 2.3 per cent between 2012 and 2031 to £2.4 billion by 2031. This is ahead of the UK average but behind both the Essex and East of England average of 2.5 per cent year on year.
- 3.33 Growth is anticipated in all broad sectors except for utilities (which will grow in East of England as a whole). Analysis summarised in Figure 3.6 shows that between 2012 and 2031, a number of sectors are set to grow at rates at or above the UK average: wholesale and retail, transport and storage, public services, agriculture, forestry and fishing and accommodation food services and recreation.
- 3.34 Transport and Storage is set to grow strongly year on year 3 per cent compared to 2.5 per cent across UK and the region it is land transport storage and post that is set to grow at the fastest pace contributing an additional £50 million

between 2012 and 2031, doubling its total contribution to just over £100 million. From an employment perspective growth will be more modest at 1.6 per cent year on year suggesting that much of the added value will come from enhanced productivity.

3.35 Professional and other private services is set to contribute an additional £260 million over the next two decades with a healthy year on year growth of 2.4 per cent albeit behind the national average of 2.6 per cent.

3.36 Construction is forecast to grow year on year by 3.2 per cent and although this also remains behind the County, regional and UK averages. Given the position and current size of the sector within the local authority area, it still represents significant growth, contributing an additional £130 million between 2012 and 2031, equivalent to growth of 84 per cent.

Figure 3.6 Compound average Annual GVA Growth Rate 2012-2031



Source: Experian, 2012

Sector derived scenario

3.37 An alternative 'sector derived' scenario has been developed based upon both the strengths and identified opportunities within the evidence audit and the aspirations of the local area articulated at a workshop with local authority officers held on 18 April 2012 and subsequent engagement.

3.38 A number of sectors listed in Table 3.5 have been identified by officers as having the potential to over and under-perform the dwelling constrained scenario. Targets have been set for each of these sectors based upon regional or county performance and we have assessed the impact of these on the wider economy to capture the associated supply chain and income multiplier effects.

Table 3.5 Identified Sectors

Sector	Rationale for change
Construction (benefits also for niche manufacturing and service sectors)	<ul style="list-style-type: none"> • Construction sector is significant at national level • Opportunities identified for growth in productivity through improved facilities and infrastructure
Retail	<ul style="list-style-type: none"> • Third largest sector in terms of number of businesses within the local authority. • Identified opportunities for growth in recent Brentwood Borough Retail and Commercial Leisure Study particularly for Brentwood town centre. Call to focus on distinguishing offer – specialist retailers as well as further developments to grow size of retail sector • William Hunter Way redevelopment has permission to provide for 40,000 sq ft food store, three retail units and cinema complex. Opportunities for town centre redevelopment to encourage improved retail offer • Affluent demographic within the local authority with higher level of disposable income and willingness to spend given the right mix of shops
Accommodation & Food Services	<ul style="list-style-type: none"> • Existing strength within the sector with potential for growth • Identification of demand for short stay accommodation in Brentwood Borough Hotel and Visitor Accommodation survey based upon growing corporate demand as well as potential demand from the tourist and weddings and functions market • Several hotel operators have expressed interest recently in coming to Brentwood - night time economy driven • Demand could be further supported by Crossrail – Brentwood and Shenfield Stations – this will offer a faster service and improved links to London
Land Transport Storage & Post	<ul style="list-style-type: none"> • The baseline scenario identified strong growth year on year at 0.5 per cent above the UK average • Local land use constraints with respect to Green Belt were felt to limit this potential, particularly given the space requirements of the sector. • Officers were however keen to look at other opportunities of meeting this demand utilising existing sites and supporting initiatives to drive growth in this sector elsewhere in the Heart of Essex

3.39 Overall, growth will continue to be led by the service industries in this scenario and in particular the professional services and real estate will further benefit from positive multiplier effects of growth proposed in other sectors.

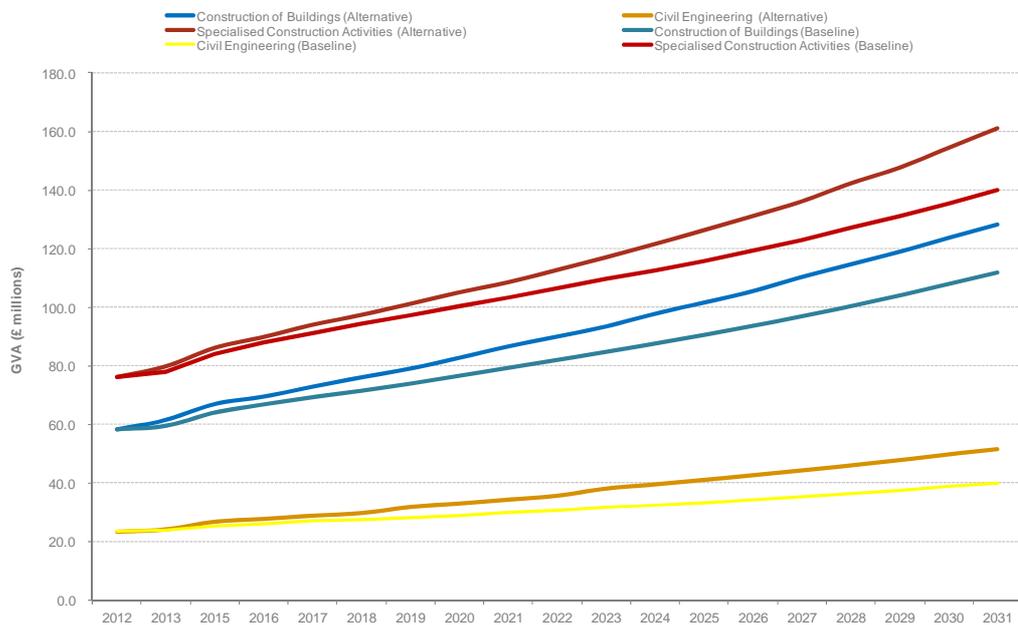
3.40 GVA is estimated to grow by a further 0.3 per cent (2.6 per cent year on year) between 2012 and 2031, whilst employment will grow by a further 0.1 per cent (0.7 per cent year on year) and this is reflective of local aspirations to enhance productivity as well as space constraints.

3.41 Brentwood has been identified as having the highest productivity levels (albeit marginally) within the Heart of Essex according to the Mid Essex Economic

Futures Study and there is a further aspiration to drive growth by the council through business support with high tech hubs and improved facilities particularly within the advanced manufacturing and construction sectors. The outcome also reflects the policy constraints upon use of land in the local authority which are anticipated to impact land transport and storage most highly given its space requirements.

- 3.42 In employment terms this equates to an additional 640 jobs above the dwelling constrained scenario by 2031 (total of 43,800 by 2031) and an uplift in GVA of £140 million resulting in total GVA contribution of £2.5 billion by 2031.
- 3.43 If the construction sector, which is already significant within the local authority, is able to meet the challenge of raising productivity levels then we anticipate that they could comprise one third of the total uplift in GVA - (additional GVA of £50 million above the dwelling constrained scenario). This growth assumes that output will be in line with the County average (4 per cent year on year between 2012 and 2031). The construction sector has relatively strong backwards linkages and therefore growth in the sector will indirectly impact the service sector namely: real estate, professional services, finance and business services, retailing and wholesaling sectors (Figure 3.7).

Figure 3.7 Potential uplift in GVA within construction sector as a result of local investment



Source: Experian 2012

- 3.44 The proposed development in infrastructure and facilities is also likely to unlock opportunities in other sectors. Niche manufacturing sectors such as pharmaceuticals could benefit given their strong performance within the local authority over the last decade (20 per cent year on year employment growth between 2001 and 2011 albeit from a very small base) and proportionally high

concentration of employment (Location Quotient 3.4). As a result our forecast anticipates a year on year uplift in GVA of 0.5 per cent equating to an additional £5 million contribution to GVA above the dwelling constrained scenario. Table 3.6 summarises the growth in output in sectors between the two scenarios.

- 3.45 The retail sector could see an uplift of £8 million in output above the dwelling constrained scenario if the opportunities identified are realised and an additional 220 jobs created between 2012 and 2031 taking the total employment to 3,200. Likewise accommodation and food services could add a further 130 jobs over the next two decades above the dwelling constrained scenario and a further £5 million in output. Growth in both sectors will boost the service sector within the local economy in particular within business services and banking and insurance sectors as well as real estate particularly for the accommodation sector.
- 3.46 Given the planning policy constraints (Green Belt) cited by officers within the local authority the growth anticipated within the transport, storage and post sector has been revised down to 1 per cent year on year, falling from 1.6 per cent in the dwelling constrained scenario. This lower growth rate is in line with the county average but equates to 320 fewer jobs within the sector as well as a forecast decline in GVA of £18 million compared to the dwelling constrained scenario. However, the sector is still set to grow by £34 million during the period.

Table 3.6 Sectors with greatest absolute uplift in GVA between the two scenarios

Sector	Additional GVA contribution 2012-2031 (£ million)		Compound annual growth 2012-2031	
	Dwelling Constrained	Sector Derived	Dwelling constrained	Sector Derived
Real Estate	42	76	2%	3%
Specialised Construction Activities	64	85	3%	4%
Professional Services	119	138	3%	3%
Construction of Buildings	53	70	3%	4%
Civil Engineering	16	28	3%	4%
Media Activities	5	14	1%	3%
Retail	41	49	2%	3%
Computing & Information Services	39	45	3%	3%
Telecoms	44	49	3%	3%
Administrative & Supportive Services	81	86	3%	3%
Accommodation & Food Services	49	54	3%	3%
Pharmaceuticals	27	31	4%	4%

Source: Experian 2012

Employment Space Requirements

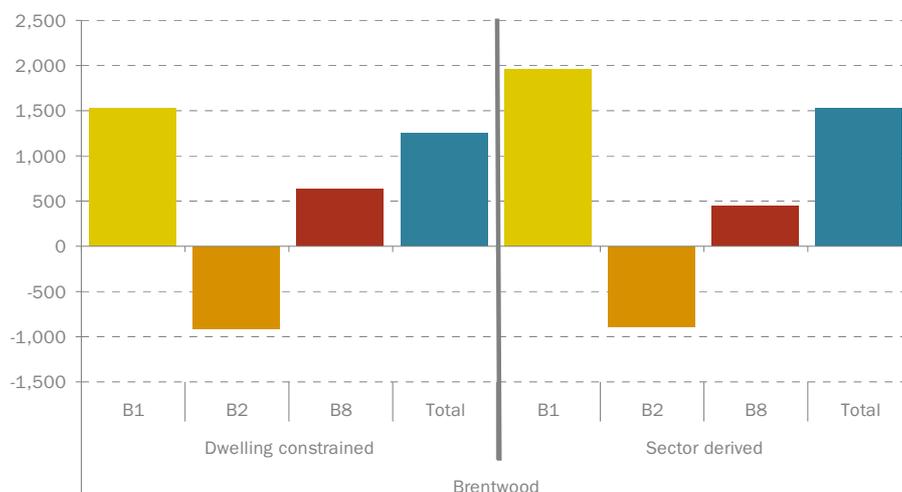
- 3.47 The relevant sectors have been extracted from the two scenarios above to indicate the future scale of change in each sector falling within the B1, B2 and B8 use classes. This is summarised in Table 3.7 and Figure 3.8 below.
- 3.48 This indicates growth of 1,250 B-class jobs in the dwelling constrained scenario, mainly reflecting growth in office-based and warehousing sectors which more than offset losses of manufacturing jobs. In line with the analysis outlined above, the sector derived scenario results in an uplift to 1,525 B-class jobs by 2031. This is as a result of increased growth of office-based sectors and a reduction in manufacturing losses, whilst warehousing sectors have been further constrained.

Table 3.7 Brentwood B-class employment change, 2012-2031

	2012	2031	Change
Dwelling constrained scenario employment			
B1	8,617	10,140	+1,523
B2	2,895	1,982	-913
B8	2,832	3,466	+633
Total B-class	14,344	15,588	+1,244
Sector derived scenario employment			
B1	8,617	10,575	+1,959
B2	2,895	2,011	-884
B8	2,832	3,281	+449
Total B-class	14,344	15,867	+1,524

Source: NLP analysis

Figure 3.8 Brentwood B-class employment change, 2012-2031



Source: NLP analysis

- 3.49 These B-class job forecasts have been converted to future employment space requirements by applying the latest published density figures for employment space which take account of recent trends in occupancy for the different B class uses. An average ratio of 1 job per 43 m² of gross floorspace is assumed for manufacturing space. For distribution, 1 job per 65 m² is assumed for general, smaller scale warehousing, and 1 job per 74 m² for large scale, lower density strategic units. Business and financial services jobs are taken to be the main requirements for B1 office space, at a general office ratio of 1 job per 10.5 m².²³ An allowance of 10 per cent is added to all floorspace requirements to reflect a normal level of market vacancy in employment space. Floorspace requirements have been translated into land requirements using a plot ratio of 0.4 for industrial, whilst for offices it is assumed that 50 per cent would be built at a higher density in urban locations at a plot ratio of 2.0 and 50 per cent at a lower density of 0.4 (e.g. small business park).
- 3.50 This results in a net B-class requirement of 44,400 sq.m or 9.4 ha by 2031 under the dwelling constrained scenario, as office and warehousing growth is partly offset by manufacturing losses. Under the sector derived scenario, the overall requirement is reduced: office requirements are slightly higher, and manufacturing losses are lower, but the main change is a reduced requirement for warehousing land because a lower growth rate has been assumed. This brings the total net requirement to 6.8 ha by 2031.

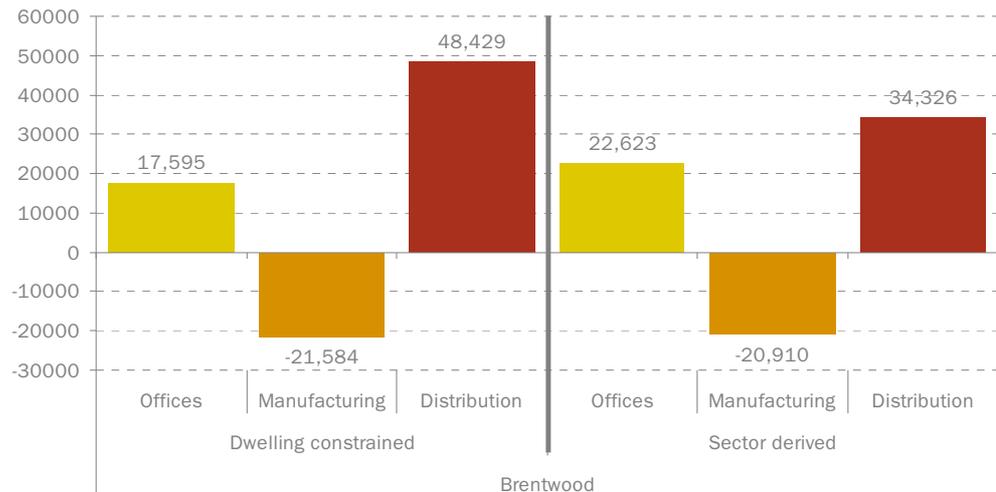
Table 3.8 Net B-class employment space and land requirements, 2012-2031

	Floorspace (sq.m)	Land (ha)
Dwelling constrained scenario		
B1	17,595	+2.6
B2	-21,584	-5.4
B8	48,429	+12.1
Total B-class	44,440	+9.4
Sector derived scenario		
B1	22,623	+3.4
B2	-20,910	-5.2
B8	34,326	+8.6
Total B-class	36,038	+6.8

Source: NLP analysis

Figure 3.9 Net B-class employment space requirements, 2012-2031

²³ Job/floorspace ratios are based on the average amount of gross external floorspace in a building that is required per worker; gross floorspace is measured to include external walls, corridors and enclosed plant; the ratios used are based on HCA/Offpat Employment Densities Guide (2010) but adjusted to reflect gross external floorspace in all cases.



Source: NLP analysis

- 3.51 It should be noted that these are **net** requirements, which make an allowance for normal market vacancy rates, but do not allow for future replacement of losses or apply a safety margin - i.e. the “gross” requirement used for planning purposes. This will necessitate further analysis as it requires a detailed assessment of supply-side deliverability factors and current trends in the market in Brentwood. For example, not all losses of employment space need to be replaced as some will reflect restructuring as less of certain types of employment floorspace are needed in the future.
- 3.52 However, for both scenarios, the employment land requirement is significantly greater than the 3.5 ha of land currently identified as available for employment development in Brentwood. The 6.3 ha requirement arising by the sector derived scenario is of similar magnitude to the requirement identified by the 2010 Brentwood Employment Land Review, but the dwelling constrained scenario is somewhat higher at 9.4 ha. However, the potential total B-class floorspace requirement identified through this study, 36,000 – 44,500 sq.m, is lower than the 2010 ELR reflecting the different underlying assumptions about which sectors growth will occur within, as well as generally more up to date forecasts that reflect the long term impact of the recession to a greater extent than the 2009 East of England Forecasting Model results which underpinned the 2010 ELR analysis.
- 3.53 Notwithstanding, the ELR recommended the allocation of potential new employment sites in view of the tightness of future supply relative to demand, including taking account of business survey findings that indicated many new businesses would need to relocate to new sites in order to expand. In broad quantitative terms, this conclusion is not inconsistent with the results of the scenarios considered above.
- 3.54 There has been some suggestion that future capacity can be realised through the intensification and redevelopment of existing sites, thereby reducing the net requirement for new land. Some redevelopment, subdivision and refurbishment on existing sites should be facilitated to allow for the upgrading and renewal of

older space so that that it better meets modern requirements, and this could usefully be supported by Local Plan policies, the introduction of Local Development Orders (LDOs) for specific areas or other initiatives. This will be important to allow for business investment and other measures that can directly support the productivity enhancements factored in as part of the sector derived scenario. However, even to facilitate existing older employment sites being upgraded or redeveloped without forcing existing businesses out of the Borough (unless the site is already vacant), it seems likely that some new sites could be required to accommodate the relocation of firms.

4.0

Chelmsford

Geography

- 4.1 Chelmsford Borough is situated in the centre of Essex, covering an area of 133 sq miles (344 sq km) and supporting a population of circa 169,500.²⁴ The Borough's two main settlements are Chelmsford, the county town of Essex (recently granted City status) and the new town of South Woodham Ferrers in the south east of the Borough. Beyond these centres the area is characterised by a number of villages surrounded by open countryside.
- 4.2 The Borough is connected by a number of rail links, with frequent services operating between Chelmsford, London Liverpool Street, Ipswich and Norwich. The Dutch Flyer, a rail/sea/rail international service also stops at Chelmsford, allowing connections to The Netherlands. There are several primary road routes within the Borough including the A12 linking the Borough with London and the M25.

Output

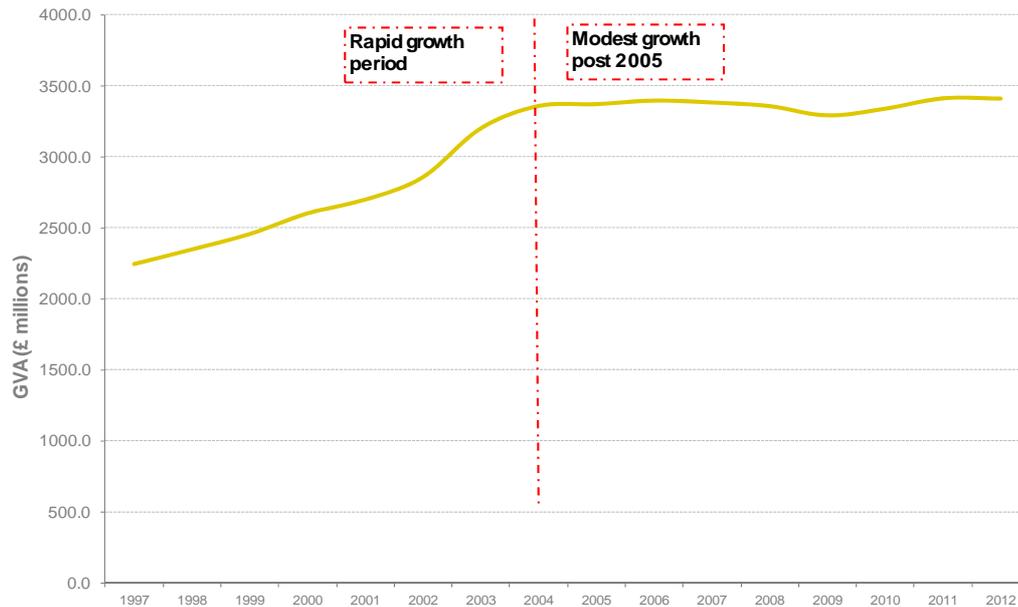
- 4.3 Chelmsford has been a major driver of growth within the Heart of Essex sub-region and this has been recognised in the Integrated County Strategy which views the local authority area as the focus of the majority of future growth given its function as an administrative and retail hub. As a result the strategy for the sub-region is largely focused around Chelmsford.²⁵
- 4.4 The bid for city status outlined 10 key credentials of the Borough including its role as the administrative capital of Essex and being home to the busiest railway station in the East of England with some 7.5 million passenger trips per year. Although the title does not equate to any specific additional funding or powers, it has certainly raised the local authority's profile further and could provide a further boost to inward investment in the area.²⁶
- 4.5 The Borough has the largest economy and contributed £3.4 billion to the UK economy in 2011 (around 60 per cent of the total Heart of Essex contribution). Figure 4.1 shows that between 1998 and 2004 the economy grew year on year by 5.4 per cent, this was well above the growth rate in both Brentwood and Maldon (around 4 per cent year on year). Growth slowed to a more modest 0.2 per cent year on year during the latter part of the decade.

²⁴ 2010 ONS mid-year population estimates

²⁵ Essex County Council and partners (2011) The Greater Essex Integrated County Strategy

²⁶ Chelmsford Borough Council (2011) Chelmsford Application for Grant of City Status

Figure 4.1 GVA growth in Chelmsford



Source: Experian 2012

- 4.6 Economic productivity in Chelmsford is in line with the UK average. Local Futures have ranked the Borough 204 out of 408 local authorities. Relative to other local authorities the economy of Chelmsford is larger than the national median and the employment base is large. However GVA per head is average and gross weekly earnings are also in line with the UK average.²⁷

Employment

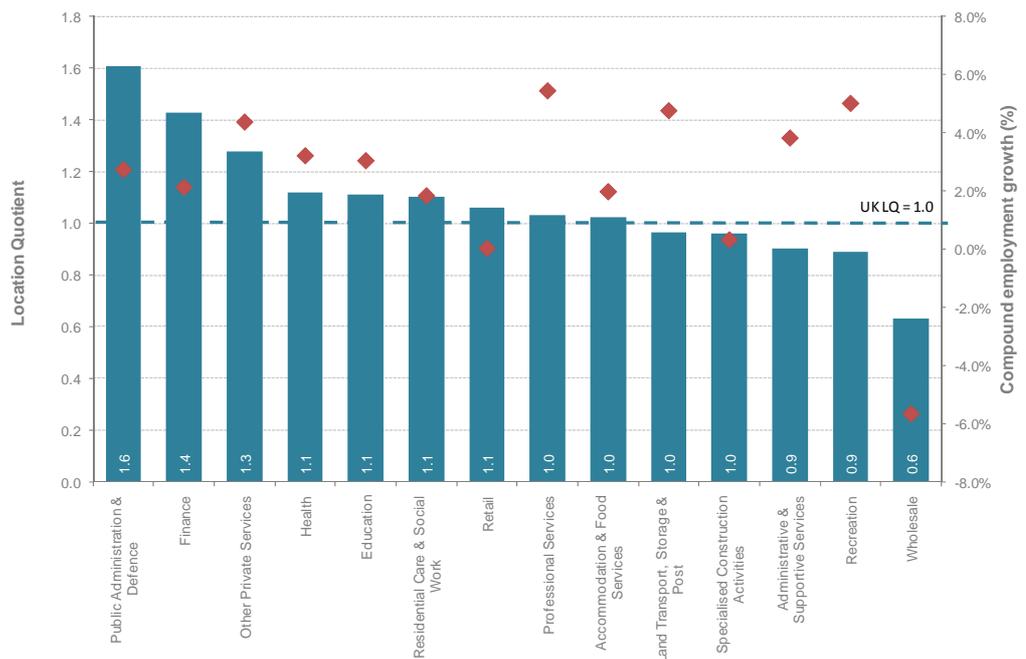
- 4.7 Total employment within Chelmsford was just over 94,000 in 2011 (60 per cent of total employment for the Heart of Essex) and has been relatively stable from 2003 growing at 0.7 per cent year on year. Prior to 2003, employment grew year on year by 3.4 per cent (1998-2003).
- 4.8 The strength of Chelmsford's economy lies in its breadth of sectors, it is not over-dependent on one or two major employers or sectors, but rather supports a balanced economy across a variety of sectors and job types.
- 4.9 The Heart of Essex as a whole has above average employment within the public sector and Chelmsford in particular has 30 per cent of employment within education, health and public administration and defence. This figure is well above Brentwood and Maldon. Education is particularly high in terms of its overall contribution - 10 per cent of total employment and is above the UK average (location quotient 1.1). The Anglia Ruskin University alongside other academic institutions is a major employer. Both education and health sector

²⁷ Local Futures (2010) District Profile: A summary profile of Chelmsford

saw relatively strong year on year increases in employment of 3 per cent or more between 2001 and 2011.

- 4.10 The service sector and particularly private services, finance and professional services are key sectors within Chelmsford (Figure 4.2). Finance in particular has a location quotient of 1.4 – demonstrating its significance within the UK and has experienced growth of 2.1 per cent year on year over the last decade. The Essex Local Economic Assessment identified a notable cluster of businesses and employment in the financial services sector within Chelmsford.²⁸
- 4.11 Retail is also a significant sector – proportionally more people are employed in retail in Chelmsford than elsewhere in the UK (the sector accounts for 10 per cent of total employment in Chelmsford) however growth has been largely flat over the last decade
- 4.12 The construction sector although experiencing sharp declines between 2008 and 2010 remains significant in Chelmsford and employment is proportionally higher in Chelmsford than elsewhere in UK.

Figure 4.2 Chelmsford Employment Growth & Location Quotient, 2001-11



Source: Experian 2012

²⁸ Essex County Council and Partners (2010) Essex Local Economic Assessment

Business base

- 4.13 Chelmsford has the largest business base within the Heart of Essex (Table 4.1). There are 11,870 businesses according to Experian's pH Megafire. This is significantly higher than the 7,690 recorded by the Office for National Statistics (ONS) business data and is likely to relate to the fact that Experian's data has a more in-depth view of non-limited businesses, sole-traders and partnerships, many of whom fall below the minimum VAT threshold (£73,000 taxable turnover per year) and as such don't appear on official registers.
- 4.14 In line with the East and UK average, over two thirds of these firms have between 0 and 4 employees²⁹ and it is likely that this figure is an under-estimation given the total number of businesses identified above. Furthermore with the exception of Brentwood, only Chelmsford has experienced growth within this type of business.³⁰ Ancer Spa in their recent report on home working have identified the largest proportion of home based businesses are within Chelmsford in the sub-region.³¹
- 4.15 Business base growth analysis looks at average annual change in the business base (i.e. overall churn in total numbers of businesses taking into account insolvencies, dissolutions, relocations and in the case of sole traders/partnerships those that appear to cease trading. This has been explored over the last three years in order to examine the resilience of the local authority's businesses within the context of ongoing economic uncertainty.
- 4.16 Chelmsford's business base has experienced a 1.2 per cent average annual decline during this period and this is above the UK average which largely remained stable. It is also well behind the overall year on year increase in the East of England of 1.2 per cent.

Table 4.1 Chelmsford Business Base Growth

Business base growth	2010	2011	2012	Percentage average annual change
Chelmsford	12,170	11,670	11,870	-1.2%
Heart of Essex	21,440	20,890	21,280	-0.3%
East of England	334,800	330,500	342,500	1.2%
UK	3,207,400	3,115,000	3,201,800	-0.05%

Source: Experian pH Megafire, 2012

²⁹ ONS UK Business, Activity, Size and Location 2011

³⁰ ONS UK Business, Activity, Size and Location 2011

³¹ Ancer Spa (2010) Investigation into Home working in the Heart of Essex

- 4.17 Assessing the health of the business base (Table 4.2) in Chelmsford it is evident that whilst it has the highest business start up rate in the Heart of Essex that the number of businesses that have become insolvent is above the level of both Brentwood and Maldon (it is however in line with the England average). The adaptive capacity of businesses (their ability to withstand shocks and maintain resilience) is also below the England average of 57.1 per cent which may provide some indication as to the recent decline in the business base.

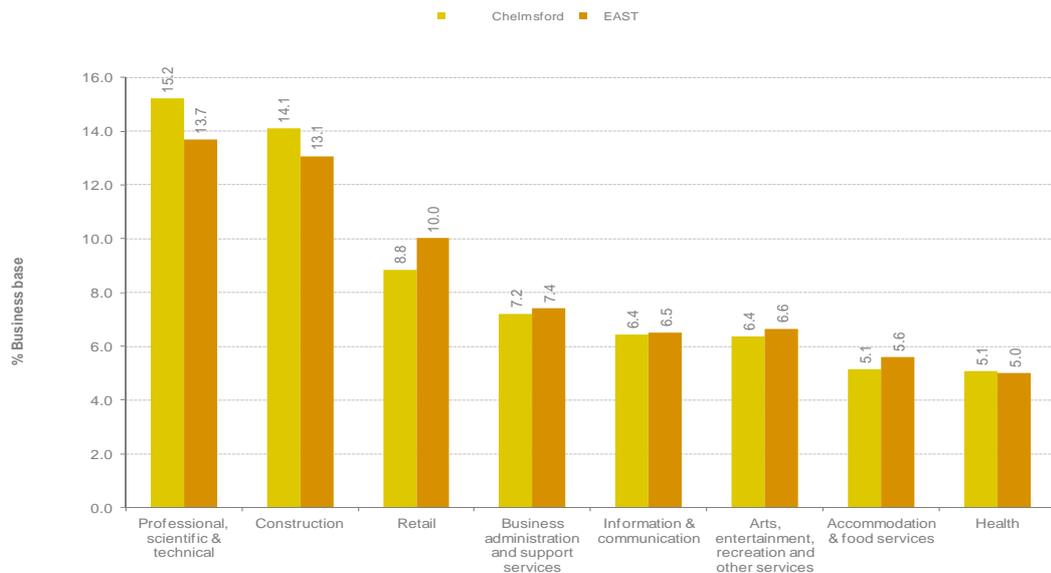
Table 4.2 Chelmsford Business Health

	Brentwood	Chelmsford	Maldon	England
Business start-ups since 2010	19.8%	20.5%	17.9%	19.8%
Business insolvencies since 2010	0.8%	1.1%	0.9%	1.1%
% of businesses with adaptive capacity	47.8%	51.6%	55.7%	57.1%
Average number of days beyond terms	18	16	11	15

Source: Experian pH Megafire, 2012

- 4.18 The largest two sectors - professional scientific and technical followed closely by the construction sector comprise almost 30 per cent of the total business base in Chelmsford (Figure 4.3). Both sectors make up a larger proportion of the business base than they do across the East of England. The number of businesses in both sectors has however declined year on year by up to 0.5 per cent and particularly for professional scientific and technical sector this is a bigger decline than seen elsewhere in the Heart of Essex and the region (growth of 0.7 per cent East England).
- 4.19 Other key sectors include retail, business administration and support services and information and communication and arts entertainment and recreation services - together these industries comprise a further 30 per cent of the total business base. All have however experienced declines between 2009 and 2011, with the most significant in business administration and support services -2.2 per cent year on year.
- 4.20 A number of high profile manufacturing businesses are also located within the area including e2v, BAE systems and Visteon building on the Marconi legacy.
- 4.21 Health is also a relatively large sector at 5.1 per cent of total business base but has seen a year on year growth of 10.4 per cent between 2009 and 2011.

Figure 4.3 Chelmsford Business Composition



Source: ONS Business Activity, Size and Location (2011)

- 4.22 Businesses within Chelmsford perceive their area as a good location for investment. The Essex Business Survey interviewed 244 businesses within the local authority and 77 per cent of respondents highlighted that they were satisfied with their businesses location as a place for investment (this was the highest within Essex). In contrast Brentwood was well below the County average (67 per cent) at 64 per cent. Mobile phone coverage, high speed broadband and the road network were identified as key issues for business operation.³²

Labour market

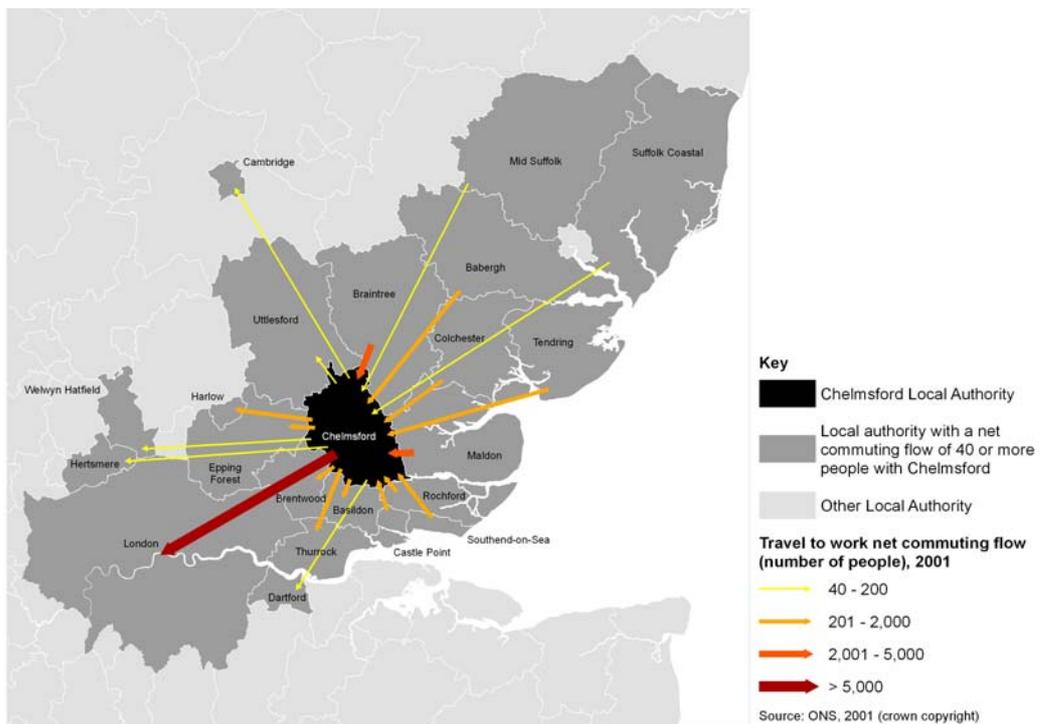
- 4.23 Chelmsford's resident population is well educated and highly skilled. As detailed in the Essex Local Economic Assessment, almost a third of the working age population are qualified to degree level (NVQ 4) or above, higher than both Essex and the region and increasing faster than the national rate. This translates into a high proportion (46.5 per cent) of the workforce engaged in higher skilled professional occupations.
- 4.24 Conversely, the Borough has a relatively low proportion of unskilled workers at 7.6 per cent compared to a national average of 11.3 per cent. Whilst on the surface this indicator appears positive, baseline research undertaken to inform Chelmsford's LDF warns that this skills profile could lead to a deficiency in people prepared to perform unskilled jobs. Just over 9 per cent of Chelmsford's working age population claim benefits; while this is below both regional (11.7 per cent) and national (14.8 per cent) averages it also suggests a need to (re)engage disadvantaged groups in the local labour market.

³² Bmg Research (April 2010) Essex Business Survey - Heart of Essex Sub-region

4.25

Whilst average resident earnings in Chelmsford exceed the regional and national average by 14 per cent and 20 per cent respectively, evidence presented within the Council's LDF Topic Paper on Economy and Employment³³ suggests that approximately 40 per cent of its resident workforce – many with high skills – commute out of the borough (largely to London) for employment better suited to their skills. Chelmsford also experiences net out-commuting to employment centres to the west of the Borough such as Harlow, Epping Forest, Brentwood and Basildon, at the same time as attracting commuters from elsewhere in East Essex and Suffolk (Figure 4.4).

Figure 4.4 Net commuting flows to/from Chelmsford



Source: ONS/NLP analysis

4.26

Meanwhile, employees who work in the Borough earn on average 15 per cent less per week, at £510. The evidence suggests there is a lack of higher-level jobs available in Chelmsford and this is exacerbating the wage gap between Chelmsford Residents and the Chelmsford Workforce.

4.27

Analysis in Figure 4.5 presents a series of labour market indicators. At £248,440, the average house price in Chelmsford (March 2012) is higher than both the Essex (£234,370) and UK (£226,890) averages. While house prices generally correlate with high resident earnings, above average cost of housing could lead to affordability issues amongst lower skilled, lower earning

³³ Chelmsford Borough Council, Chelmsford LDF Background Topic Paper: Economy/Employment, July 2007

residents; for example the Council's SPD on Affordable Housing³⁴ identifies a net annual need for just under 870 affordable housing units in the Borough.

Figure 4.5 Chelmsford Key Labour Market Indicators



Source: NOMIS/Land Registry/NLP analysis

Employment sites and premises

4.28 The Chelmsford Annual Monitoring Report 2010 identifies a total of 27.68 ha of allocated employment sites available for development. This includes:

- Remaining development land at Springfield Business Park (3.6 ha) and Chelmsford Business Park (1.6 ha).
- Three allocated strategic employment areas at Temple Farm (70,000 sq.m B1/B2/B8), the former Mid Essex Gravel Pit (24,000 sq.m B2/B8) and Greater Beaulieu Park/North East Chelmsford (40,000 sq.m B1a).
- A number of city centre sites with planning permission for office space, including Marconi New Street (23,000 sq.m) and the former ARU Central Campus (8,500 sq.m).

4.29 An Employment Land Review prepared for Chelmsford in 2009 concluded³⁵:

- Chelmsford has relatively limited office stock relative to comparator towns a similar distance from London such as Reading and Bracknell Forest. Agents reported a shortage of 'Grade A' office space split across both town centre and out-of-town markets.

³⁴ Chelmsford Borough Council, Affordable Housing Supplementary Planning Document, June 2008

³⁵ Chelmsford employment land demand and supply, SQW, June 2009

- Based on forecasts prepared for the study, it concluded that there was adequate space available to meet forecast office needs (between 56-75,000 sq.m) assuming that both town centre sites and the North Chelmsford development come forward.
- While not regarded as a prominent industrial and distribution location, generally strong levels of demand were reported with limited new space available.
- The ability to meet future industrial space needs was less clear, with the main requirement for warehousing against the backdrop of continuing declines in manufacturing jobs. North Chelmsford and Temple Farm would be required to satisfy likely future needs in this sector.

Summary SWOT analysis

4.30 Drawing on the above analysis and wider review of existing evidence, Table 4.3 summarises the performance and prospects of the Chelmsford economy.

Table 4.3 SWOT analysis of the Chelmsford economy

Strengths	Weaknesses
<ul style="list-style-type: none"> • Concentration of high value scientific, professional and technical sector with links to Higher Education Institutions • Strong education sector, attracting a talented pool of labour • Status as business administration and support service centre, offering cheaper alternative to central London 	<ul style="list-style-type: none"> • Business insolvencies / adaptive capacity of business base • Reliance on public sector for employment may leave Chelmsford particularly vulnerable to public sector cuts • Image as a commuter town • Lack of higher skilled/paid jobs in the Borough
Opportunities	Threats
<ul style="list-style-type: none"> • Opportunity to maximise benefits of City Status (2012) • Future inward investment - opportunity to attract relocations from London • Opportunity to support and grow construction sector • Presence of Anglia Ruskin University - opportunity to retain talent within local businesses and up-skill employees • Allocation of 3 new strategic employment areas, providing space to accommodate economic growth • Further develop and support arts/entertainment and accommodation/food sectors. 	<ul style="list-style-type: none"> • Challenging economic climate, threatening prospects for future growth • Availability of affordable office space in Stratford - such close proximity could leave Chelmsford's employment space uncompetitive • Development of a number of key employment sites has stalled (particularly city centre) threatening future availability • Significant out-commuting to London resulting in a 'brain drain' effect.

Source: NLP/Experian analysis

Potential Scale of Future Economic Growth

Dwelling constrained scenario

- 4.31 A dwelling constrained scenario for Chelmsford has been developed, based upon both current assumptions at a regional and UK level as to how the economy will perform, as well as the agreed housing target projections for the local area. The scenario also takes into account the strengths and historical trends within the local economy.
- 4.32 The scenario suggests that total employment will grow year on year by 0.4 per cent between 2012 and 2031 to 102,600 in Chelmsford. This equates to an additional 9,000 jobs over the next two decades although the growth rate is below the County, Regional and UK average of 0.6 per cent and above.
- 4.33 The growth will be within the service sectors driven by professional services and public services and education, as well as in parts of the construction sector (Table 4.4).³⁶ The greatest declines are estimated to be experienced in manufacturing – a decline of -5.5 per cent year on year – clearly above the UK average decline of 1.6 per cent.
- 4.34 Other sectors that are forecast to decline, albeit at a much slower pace, are utilities, information and communication.

Table 4.4 Employment: Significant sectors growing at or above the UK average growth rate in Chelmsford

Sector	Proportion of total employment	Total Employment		Compound average annual growth rate 2012-2031
		2012	2031	
Education	9.9%	9,300	12,400	1.5%
Professional Services	7.7%	7,200	9,100	1.3%
Construction of Buildings	2.2%	2,100	2,500	1.2%
Residential Care & Social Work	6.1%	5,700	7,000	1.2%
Administrative & Supportive Services	7.2%	6,700	8,100	1.0%
Health	8.2%	7,600	9,400	0.8%
Finance	4.5%	4,200	4,700	0.7%
Agriculture, Forestry & Fishing	1.2%	1,100	1,200	0.7%
Land Transport, Storage & Post	4.2%	3,900	4,500	0.6%

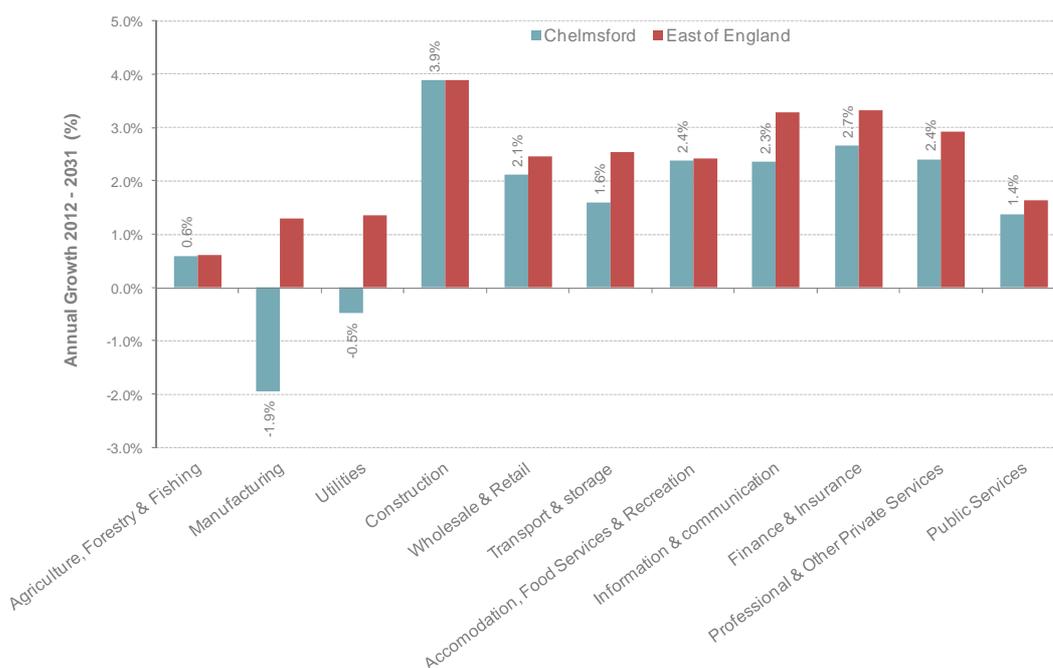
Source: Experian 2012

- 4.35 GVA contribution will grow year on year by 2 per cent between 2012 and 2031 to £5 billion by 2031. This is however behind the UK average of 2.2 per cent and Essex and East of England growth rates of 2.5 per cent year on year. It is also behind Brentwood at 2.3 per cent.

³⁶ Includes an allowance for ARU MedTech campus initiative launched in May 2012 to establish Essex as a global hub for medical technology innovation and development. This will include a business sector network and private sector-led site developments based over three sites in Chelmsford, Harlow and Southend-on-Sea with the infrastructure necessary to support innovation.

- 4.36 Growth is anticipated in all broad sectors except for manufacturing and utilities (both of which will grow within the East of England as a whole). Although all other sectors will grow between 2012 and 2031, only construction and agriculture, forestry and fishing will do so at rates in line with the regional average.
- 4.37 Within public services, over the forecast period, health and residential care and social work are set to grow strongly year on year at 2.6 and 2.1 per cent respectively adding an additional £190 million to total GVA contribution. This takes into account the impact of austerity in the short term, but recognises the structural drivers of growth in those sectors in the longer term, including demographic trends.
- 4.38 Relatively strong GVA year on year growth of 2 per cent or more is forecast in a number of service sectors including finance, admin and supportive services, professional services (Figure 4.6). Computing and information and telecoms. In greatest uplift in GVA contribution is anticipated in finance with an additional £215 million between 2012 and 2031 and in professional services at £200 million.

Figure 4.6 Compound average Annual GVA Growth Rate 2012-2031



Source: Experian 2012

Sector derived scenario

- 4.39 An alternative 'sector derived' scenario has been developed based upon both the strengths and identified opportunities within the evidence audit and the aspirations of the local area articulated at a local authority officer workshop held on 18 April 2012 and subsequent engagement.
- 4.40 A number of sectors have been identified by officers as having the potential to over perform the dwelling constrained scenario. Targets have been set for each

of these sectors based upon regional or county performance and we have assessed the impact of these on the wider economy to capture the associated supply chain and income multiplier effects.

Table 4.5 Identified Growth Sectors

Sector	Rationale for growth
Professional, financial and business services	<ul style="list-style-type: none"> Chelmsford has already demonstrated its importance in terms of finance with a notable cluster of businesses and employment in the sector. City status will raise the profile of the local authority further and attract further inward investment The financial services, real estate and insurance services as well as professional services are anticipated to grow above the dwelling constrained scenario as Chelmsford continues to attract back-office functions from London
Manufacturing	<ul style="list-style-type: none"> Chelmsford is home to a number high profile companies including BAE systems and there is real potential to build on the local authority's high tech manufacturing base. Officers have identified potential for growth above the baseline within manufacturing as a result of investment in research and development building on Marconi legacy. There are plans from Chelmsford Council to directly support innovation and technology enhancements in the sector which will drive growth
Construction	<ul style="list-style-type: none"> The construction sector is of national significance and given the development plans in the pipeline there is real potential for further growth in this sector A number of sites have been earmarked for development including city centre regeneration sites e.g. ARU former central campus as well as three new strategic employment areas allocated including Temple Farm. Infrastructure development planned: flood alleviation scheme and new railway station Residential housing growth anticipated
Retail	<ul style="list-style-type: none"> Retail remains an important sector in the local authority despite recent declines in the challenging consumer market. Further growth is anticipated over the next two decades given the development John Lewis at Home store, Waitrose and significant retail floor space in Chelmsford city centre which is likely to open in 2013/14

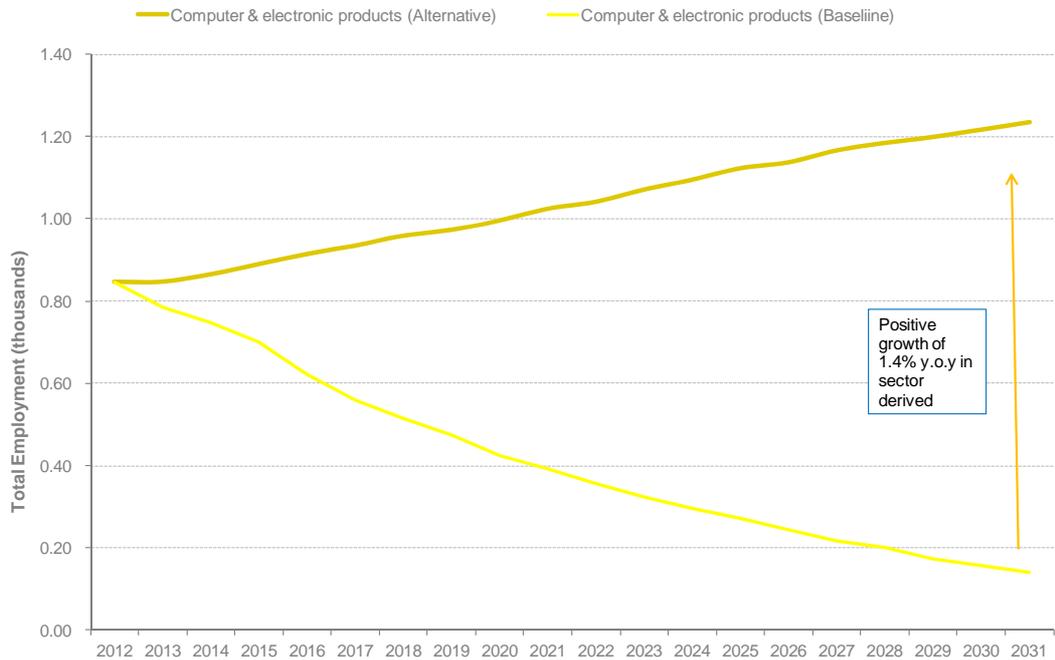
4.41

Under the sector derived scenario, employment is now estimated to grow by 0.8 per cent year on year, growth of 0.4 per cent year on year on the dwelling constrained scenario. Around 18,000 jobs are expected to be created by 2031 (8,800 above the dwelling constrained scenario) and these jobs will come from both the sectors directly boosted, as well as the wider multiplier effects of

growth in these sectors. GVA is estimated at £5.8 billion (an additional £700 million above the dwelling constrained scenario).

- 4.42 Strong growth was already predicted within the services sector as a whole - however given the local business sentiment and aspiration to attract inward investment, under this scenario it is set to grow at a faster pace. If professional services and administrative and support services sector in particular are able to capitalise on their links with London and further develop their offer, we anticipate that they could create a further 800 jobs and boost output by £40 million above the dwelling constrained scenario. Real estate, insurance and pensions and finance, given the high value add nature of their operations, could also contribute to uplift in output of £120 million if they can realise their potential.
- 4.43 In the dwelling constrained scenario, the manufacturing sector declines at a rate faster than the County, regional and UK average. However, given Chelmsford's manufacturing legacy and the planned investment identified there is clearly potential within the sector and a rationale for boosting it further. Realising this potential could result in growth in a number of high value add manufacturing sectors - particularly computer and electronic products - which under the dwelling constrained scenario was set to shed 700 jobs over the next two decades. This sector could now look to create and protect an additional 1,000 jobs over this period under this scenario taking the total employment in the sector to 1,230 by 2031.
- 4.44 Given the high value add nature of the work the computer and electronic products sector, GVA is forecast to grow by 7.4 per cent annually, rather than decline by -3.6 per cent under the dwelling constrained scenario, taking the total GVA contribution to 230 million by 2031 (Figure 4.7). The indirect effect of growth in this niche manufacturing sector will be felt in banking and insurance, business services and other manufacturing sectors. Other manufacturing sectors with strong growth potential for growth include food drink and tobacco, and metal products.

Figure 4.7 Employment growth in niche manufacturing sectors boosted by local investment



Source: Experian 2012

- 4.45 Table 4.6 summarises the difference in growth rates between the two scenarios. The retail sector under the dwelling constrained scenario is anticipated to largely remain the same size, however given the ambitions and developments in the pipeline it is anticipated that the sector could add some 600 additional jobs over the next two decades and provide uplift in GVA of £22 million above the dwelling constrained scenario. This growth will have a positive impact on the local economy given the wide range of backward linkages which exist particularly with finance and business services, food and drink, transport, hotels and catering, and wholesaling sectors.
- 4.46 Construction is an important sector within Chelmsford and the planned investments outlined will generate a significant number of jobs. However it is anticipated that some of the proposed development can be delivered by existing capacity, as well as the potential for external firms and contractors to undertake a proportion of the planned works. Across all areas of construction it is anticipated that there will be 450 jobs created between 2012 and 2031 and a potential uplift in GVA on the dwelling constraint scenario of £40 million.

Table 4.6 Sectors with greatest absolute uplift in total employment between the two scenarios

Sector	Total employment created between 2012-2031		Compound annual growth 2012-2031	
	Dwelling Constrained	Sector Derived	Dwelling constrained	Sector Derived
Computer & Electronic Products	-710	390	-9.1%	1.4%
Food, Drink & Tobacco	-330	600	-2.6%	2.9%
Metal Products	-380	240	-4.9%	1.5%
Retail	50	670	0.0%	0.3%
Other Manufacturing	-250	290	-5.2%	2.0%
Professional Services	1,960	2,440	1.3%	1.6%
Non-Metallic Products	-160	300	-5.3%	4.0%
Wholesale	-120	300	-0.4%	0.2%
Wood & Paper	-370	20	-12.7%	0.6%
Administrative & Supportive Services	1,390	1,730	1.0%	1.2%

Source: Experian 2012

Employment Space Requirements

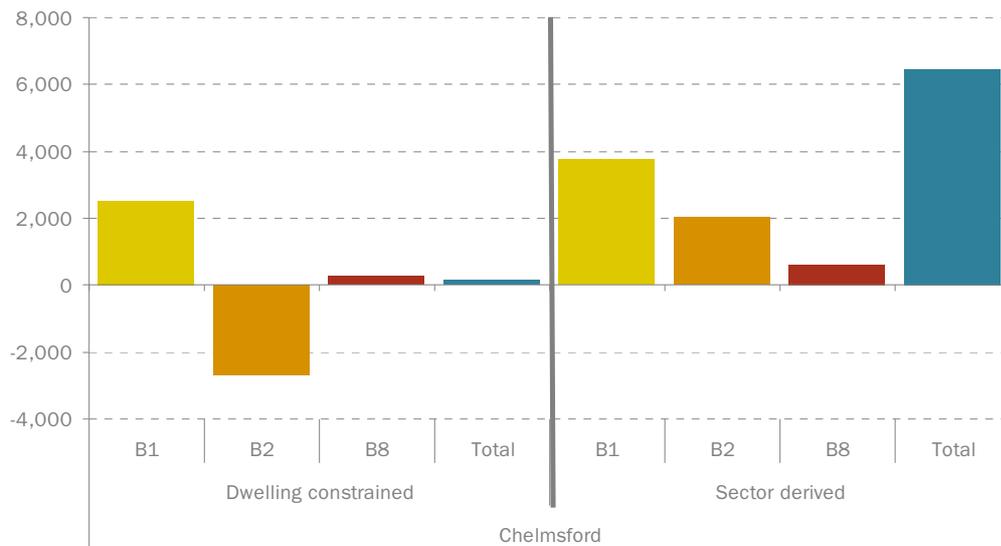
- 4.47 The relevant sectors have been extracted from the two scenarios above to indicate the future scale of change in each sector falling within the B1, B2 and B8 use classes. This is summarised in Table 4.7 and Figure 4.8 below.
- 4.48 This indicates growth of 144 B-class jobs in the dwelling constrained scenario, mainly reflecting growth in office-based and warehousing sectors which just offset significant losses of manufacturing jobs. In line with the analysis outlined above, the sector derived scenario results in a substantial uplift to 6,462 B-class jobs by 2031. This is as a result of increases across all B-class sectors, but most significantly a reversal of manufacturing job losses under the dwelling constrained scenario to positive growth of some 2,000 jobs.

Table 4.7 Chelmsford B-class employment change, 2012-2031

	2012	2031	Change
Dwelling constrained scenario			
B1	15,955	18,493	+2,538
B2	6,616	3,913	-2,685
B8	5,259	5,551	+291
Total B-class	27,831	27,975	+144
Sector derived scenario			
B1	15,955	19,724	+3,768
B2	6,616	8,653	+2,037
B8	5,259	5,916	+616
Total B-class	27,831	34,392	+6,462

Source: NLP analysis

Figure 4.8 Chelmsford B-class employment change, 2012-2031



Source: NLP analysis

4.49

These B-class job forecasts have been converted to future employment space requirements by applying the latest published density figures for employment space which take account of recent trends in occupancy for the different B class uses. An average ratio of 1 job per 43 m² of gross floorspace is assumed for manufacturing space. For distribution, 1 job per 65 m² is assumed for general, smaller scale warehousing, and 1 job per 74 m² for large scale, lower density strategic units. Business and financial services jobs are taken to be

the main requirements for B1 office space, at a general office ratio of 1 job per 10.5 m².³⁷ An allowance of 10 per cent is added to all floorspace requirements to reflect a normal level of market vacancy in employment space. Floorspace requirements have been translated into land requirements using a plot ratio of 0.4 for industrial, whilst for offices it is assumed that 50 per cent would be built at a higher density in urban locations at a plot ratio of 2.0 and 50 per cent at a lower density of 0.4 (e.g. small business park).

4.50

This results (Table 4.8 and Figure 4.9) in a modest net B-class requirement of 11,900 sq.m or -5.9 ha by 2031 under the dwelling constrained scenario, as office and warehousing growth is more than offset by manufacturing losses. Under the sector derived scenario, the overall requirement is significantly increased: office and warehousing requirements are higher, and manufacturing losses are reversed to generate a significant additional positive land requirement. This brings the total net requirement to 43.2 ha by 2031.

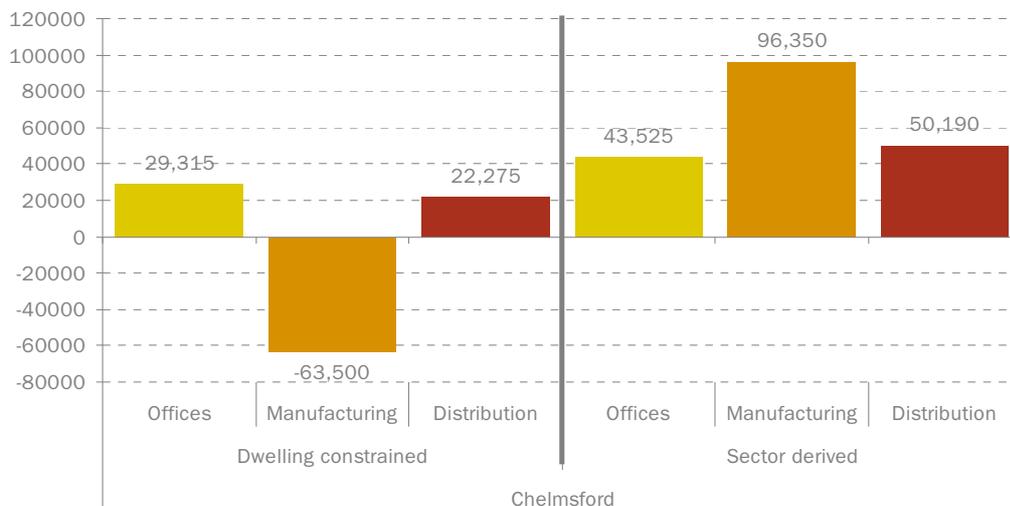
Table 4.8 Net B-class employment space and land requirements, 2012-2031

	Floorspace (sq.m)	Land (ha)
Dwelling constrained scenario		
B1	29,315	4.4
B2	-63,500	-15.8
B8	22,275	5.6
Total B-class	11,915	-5.9
Sector derived scenario		
B1	43,525	6.5
B2	96,350	24.1
B8	50,190	12.6
Total B-class	96,350	43.2

Source: NLP analysis

³⁷ Job/floorspace ratios are based on the average amount of gross external floorspace in a building that is required per worker; gross floorspace is measured to include external walls, corridors and enclosed plant; the ratios used are based on HCA/Offpat Employment Densities Guide (2010) but adjusted to reflect gross external floorspace in all cases.

Figure 4.9 Net B-class employment space requirements, 2012-2031



Source: NLP analysis

- 4.51 It should be noted that these are **net** requirements, which make an allowance for normal market vacancy rates, but do not allow for future replacement of losses or apply a safety margin - i.e. the “gross” requirement used for planning purposes. This will necessitate further analysis as it requires a detailed assessment of supply-side deliverability factors and current trends in the market in Chelmsford. For example, not all losses of employment space need to be replaced as some will reflect restructuring as less of certain types of employment floorspace are needed in the future.
- 4.52 However, it is apparent that the employment space requirements vary significantly depending on the scenario. The range of potential requirements identified for office space, 29,000 – 43,500 sq.m, are lower than estimates contained in the 2009 Employment Land Review (56,000 – 75,000 sq.m). This reflects the different underlying assumptions as well as the use of more up to date forecasts that reflect the long term impact of the recession to a greater extent than the 2009 Oxford Economics results which underpinned the ELR analysis. Across identified city centre office capacity (80,000 sq.m) and remaining/allocated land on other sites, there would appear to be more than sufficient capacity to meet future office requirements. Accordingly, future delivery of office space will focus on qualitative factors, for example how to address reported shortages of ‘Grade A’ space and how to maintain a balance across out-of-town and town centre markets in the context of policy aspirations to attract inward investment.
- 4.53 In terms of industrial space, the trends arising from the dwelling constrained scenario are consistent with the earlier ELR, i.e. positive requirement for warehousing/distribution space alongside ongoing manufacturing losses. The most significant variation arises under the sector derived scenario in which, as a function of the adjustments made, manufacturing moves from a position of decline to positive growth based on the sectoral strengths that exist in

Chelmsford. This generates a significant additional quantitative employment space requirement (96,000 sq.m / 24 ha), although in reality it is likely that some of these needs would be met through the expansion of existing firms and so potentially could be accommodated within existing sites. Given the specialist and higher-value nature of the industrial sectors where additional growth has been incorporated, they may also be less land intensive than the average employment densities/plot ratios for manufacturing space assumed here.

4.54

However, the 2009 ELR concluded that the ability to meet future industrial space needs was less clear, and that land at North Chelmsford and Temple Farm would be required to satisfy likely future needs in this sector. This conclusion remains valid, and appears even more important, if Chelmsford is to realise the latent growth potential that has been identified within specialist manufacturing sectors.

5.0

Maldon

Geography

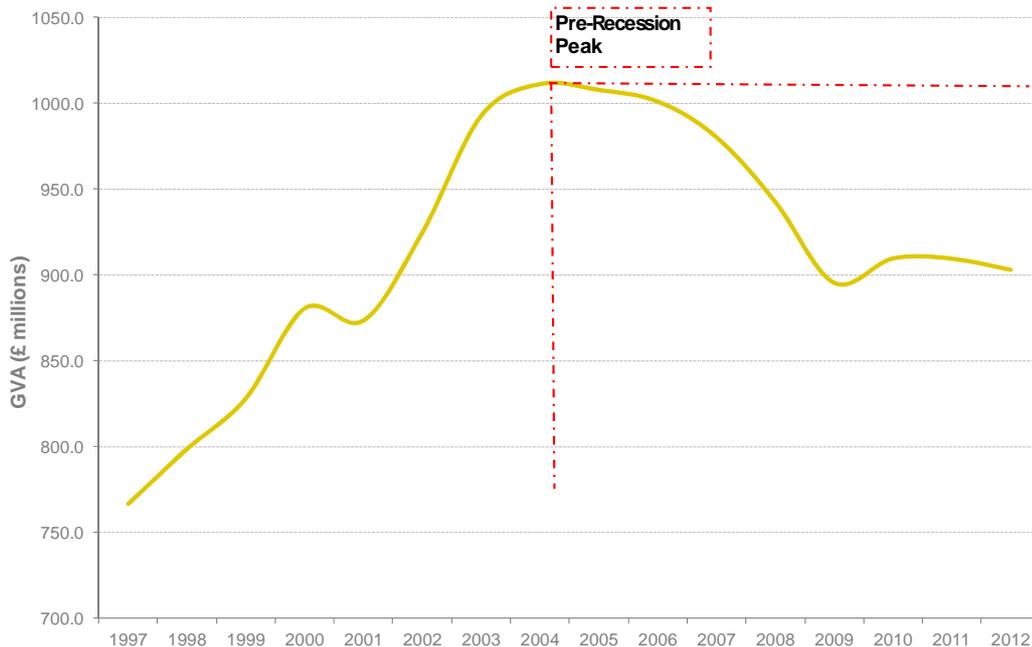
- 5.1 Maldon District is a predominately rural area of approximately 56 square miles (36,000 hectares) in East Essex. The District has over 60 miles of coastline that includes the estuaries of the Rivers Blackwater and Crouch,
- 5.2 The District comprises the three areas of Maldon and Heybridge, the Dengie peninsular and the rural North, with a population of about 63,200.³⁸ Much of the population is concentrated in the main towns of Maldon, Burnham-on-Crouch and Heybridge.
- 5.3 While much of Essex and the wider South East (such as Thames Gateway, the Haven Gateway) have been designated as significant growth areas targeting new homes, jobs and significant investment in new infrastructure, Maldon District itself is not part of this growth agenda. One of the area's main attractions is its natural and built environment, recognised by planning policy which controls major development in the area. However, Maldon is impacted by investment and growth occurring in neighbouring areas.
- 5.4 Although Maldon District is linked directly to the A12 by the A414 and the B1019, most of the local authority area is connected by a network of country lanes. Despite modest rail and road links, Maldon is an attractive base for commuting to Chelmsford or to London.

Output

- 5.5 The predominantly rural economy of Maldon District contributed over £900 million to UK economy in 2011. Overall it has remained relatively stable over the last decade when compared particularly to Chelmsford, although an upward trend was experienced between 1997 through to 2004 with year on year growth of 4 per cent (Figure 5.1). Declining output in Maldon over the latter part of the decade was more severe than felt elsewhere in the Heart of Essex - Chelmsford and Brentwood both continued to grow, albeit modestly, this is likely due to the sector mix in the District.

³⁸ 2010 ONS mid-year population estimates

Figure 5.1 GVA in Maldon District



Source: Experian 2012

- 5.6 The Mid Essex Economic Futures study identified Maldon District as the least productive local authority within the sub-region although it must be noted that the difference between the three areas was not significant. Furthermore the overall findings of the econometric analysis found that productivity of firms in the sub-region (including Braintree) was in line with the UK average.³⁹ Maldon District has a high proportion of part time and self employed workers which is likely to have impacted on these results.⁴⁰
- 5.7 The local authority profile for Maldon District by Local Futures aligns with this, ranking Maldon 174 out of 408 local authorities for economic productivity and placing it in the middle 20 per cent of local authorities nationally. Maldon District has a smaller economy than the national median and a small sized employment base yet its GVA per head is average.⁴¹
- 5.8 Recent ASHE data on wages provides a good proxy for productivity and further suggests that all local authorities in the sub-region track the UK closely with Maldon District marginally behind Chelmsford and Brentwood at £464 gross weekly pay compared to £510 and £564 per week respectively.

³⁹ This analysis looked at a range of factors including capital stock per worker, the size and quality of the labour force, industrial factors and spatial analysis

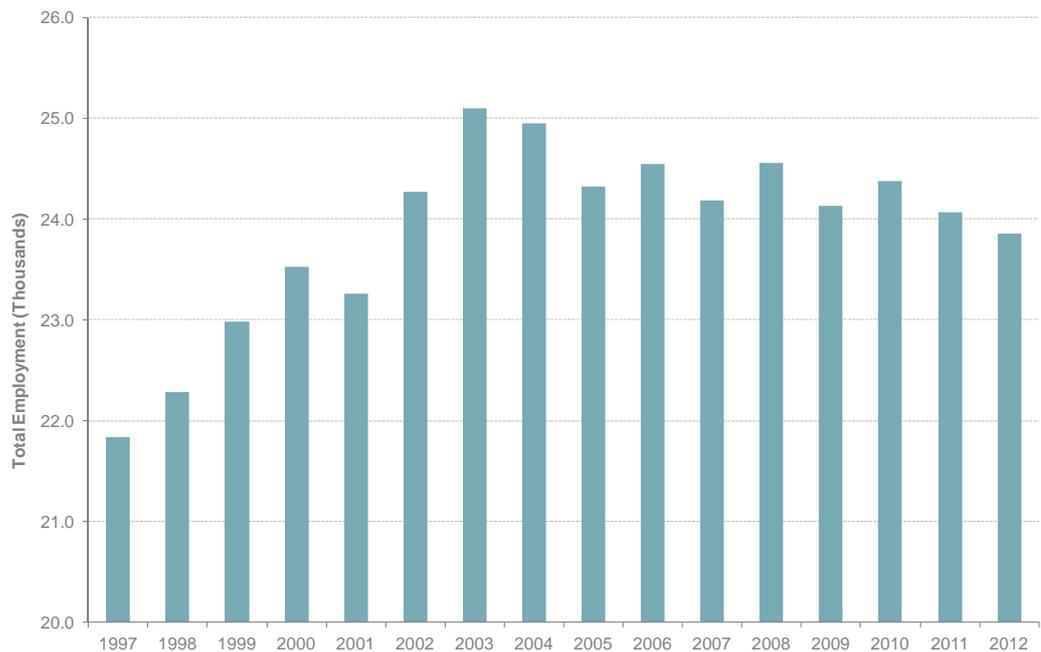
⁴⁰ UWE Bristol (2006) Mid Essex Economic Futures Study

⁴¹ Local Futures (2010) District Profile: A summary Profile of Maldon

Employment

- 5.9 Total employment in Maldon District was just over 24,000 in 2011 and has remained relatively stable over the last decade (Figure 5.2). The local authority experienced year on year growth in line with Chelmsford between 1998 and 2004 (1.9 per cent) reaching a peak in 2003. However over the second half of the decade (2005-2011), unlike the rest of the sub-region, the area experienced a year on year decline in employment of 0.5 per cent. In Chelmsford and Brentwood it was growth of 0.5 per cent and 0.2 per cent respectively.

Figure 5.2 Total Employment in Maldon



Source: Experian 2012

- 5.10 Maldon District has a high proportion of employment within the knowledge economy – particularly knowledge production - performing above Chelmsford and well above the UK average. The Local Futures Place Profile ranks Maldon at 96 out of 408 local authorities and its share of knowledge-driven production (manufacture, electrical machinery, chemicals) is within the top 20 per cent of local authorities. Employment in knowledge driven services is also above the national median ranking the district in the top 40 per cent of local authorities.⁴²
- 5.11 The manufacturing sector is a significant employer within Maldon District accounting for 14 per cent of total employment. This is double the proportion

⁴² Local Futures (2010) District Profile: A summary profile of Maldon

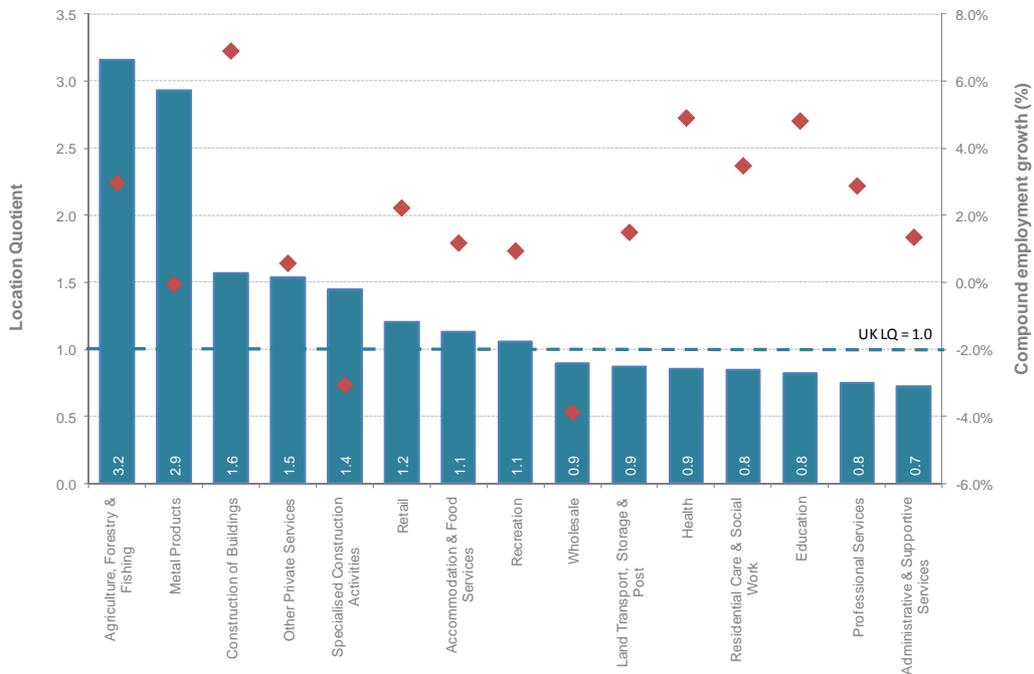
seen elsewhere in the Heart of Essex sub-region and is above the UK average of just 8.5 per cent. The sector has however declined over the last decade.

5.12 Figure 5.3 shows employment growth and location quotient analysis for Maldon District. It highlights that metal products is the most significant sub-sector of manufacturing, accounting for 4 per cent of employment. Proportionally more are employed in metal products than elsewhere in the UK (LQ of 2.9), however in line with UK trends, sectoral employment has been declining. Computer and electronic products are another key sector and are nationally significant.

5.13 The service sector is becoming increasingly important to the District – retail is a major employer accounting for 11 per cent of total employment and is nationally significant with a location quotient of 1.2. The Maldon Rural District Gap Analysis Report refers to the quaintness of Maldon which distinguishes it from other towns in Essex.⁴³ Other important sectors include accommodation and food and other private services – both have location quotients above 1.0 the national average.

5.14 As evidenced in the Essex Local Economic Assessment,⁴⁴ and given its rural location, agriculture remains a strong sector for the District. It is nationally significant with a location quotient of 3.2. The sector has also grown by 3 per cent year on year over the last decade.

Figure 5.3 Maldon Employment Growth & Location Quotient, 2001-11



Source: Experian 2012

⁴³ Writtle College (2010) Maldon Rural District Gap Analysis

⁴⁴ Essex Local Economic Assessment

Business base

- 5.15 Maldon District has 4,330 businesses according to Experian's pH Megafile. This is significantly higher than the 3,185 recorded by ONS business data and is likely to relate to the fact that Experian's includes non-limited businesses, sole-traders and partnerships, many of whom fall below the minimum VAT threshold (£73,000 taxable turnover per year) and therefore are excluded from official registers.
- 5.16 Maldon District has the highest proportion of small businesses within the Heart of Essex - 75.4 per cent of businesses have between 0 and 4 employees than both the UK average (68 per cent) and East of England average (70 per cent).⁴⁵ Within Essex, only Epping Forest has more at 75.7. It is likely that this figure is an under-estimation given the total number of businesses identified above.
- 5.17 Just over half of businesses within 1-4 employees tend to be home-based and although in Maldon District the home-working market is less concentrated than it is in Chelmsford and Brentwood, a recent report by Ancer Spa finds that there this is still sufficient demand for a home working support centre and this is strongly supported by the local community. Many of the home based businesses operating within Maldon are in rural areas but offering high value services with client bases in London and given their rural location there is a greater need to work from home.⁴⁶
- 5.18 Business base growth analysis (Table 5.1) looks at average annual change in the business base i.e. overall churn in total numbers of businesses taking into account insolvencies, dissolutions, relocations and in the case of sole traders/partnerships those that appear to cease trading. This has been explored over the last three years in order to examine the resilience of the local authority's businesses within the context of ongoing economic uncertainty. Maldon District's business base has experienced the largest growth over the last two years within the Heart of Essex, a 1.1 per cent average growth during this period and this is above the UK average which remained largely stable during this period and is in line with the East of England as a whole.

⁴⁵ ONS UK Business, Activity, Size and Location 2011

⁴⁶ Ancer Spa (2010) Investigation into Home working in the Heart of Essex

Table 5.1 Maldon Business Base Growth

Business base growth	2010	2011	2012	Percentage average annual change
Maldon	4,230	4,250	4,330	1.1%
Heart of Essex	21,440	20,890	21,280	-0.3%
East of England	334,800	330,500	342,500	1.1%
UK	3,207,400	3,115,000	3,201,800	-0.05%

Source: Experian pH Megafire 2012

- 5.19 Start up and insolvency data for Maldon District (Table 5.2) reveals that whilst there have been fewer start ups overall than within Brentwood and Chelmsford, the insolvency rate is relatively low - below the England average suggesting that if businesses do start up that they are more likely to survive.
- 5.20 The adaptive capacity (the ability to withstand shocks and maintain resilience) of businesses in Maldon District is also the highest of the local authorities within the Heart of Essex sub-region again supporting its resilience and likewise the average number of Days beyond Terms (the average number of days (past terms) which it takes firms to pay their suppliers) is well below the England average of 15 days at 11 days.

Table 5.2 Maldon Business Health

	Brentwood	Chelmsford	Maldon	England
Business start-ups since 2010	19.8%	20.5%	17.9%	19.8%
Business insolvencies since 2010	0.8%	1.1%	0.9%	1.1%
% of businesses with adaptive capacity	47.8%	51.6%	55.7%	57.1%
Average number of days beyond terms	18	16	11	15

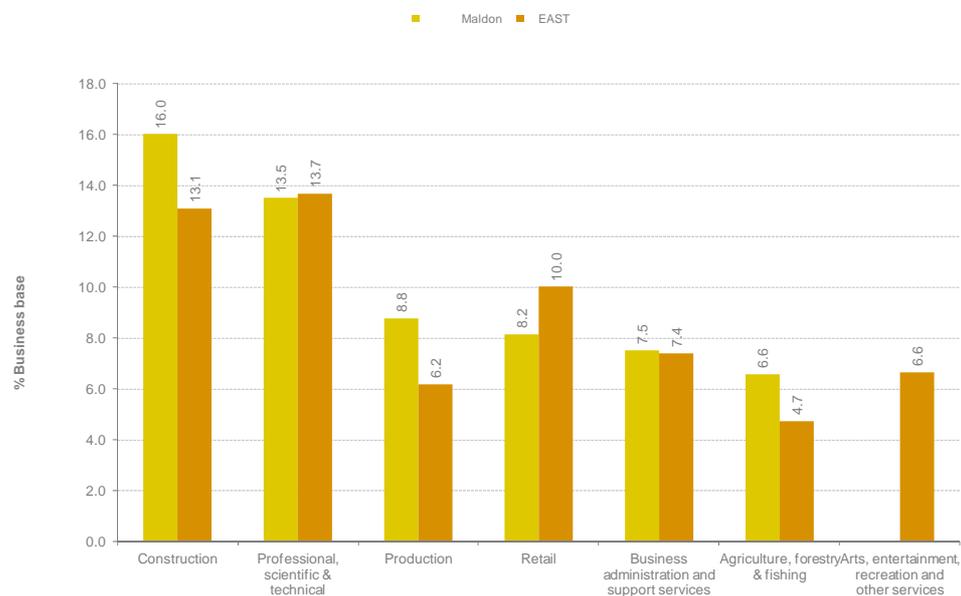
Source: Experian pH Megafire 2012

- 5.21 Figure 5.4 shows that the highest proportion of businesses is within the construction sector (16 per cent). This is above the UK average of 11 per cent and larger than both Chelmsford and Brentwood – both of which have relatively large construction sectors. As with the rest of the sub-region this sector has however declined year on year between 2009 and 2011; it has been most severe within Maldon at 5.8 per cent year on year - likely due to the large size of the sector.
- 5.22 The second largest sector is professional, scientific and technical comprising 13.5 per cent of the total business base although this is in line with the East of

England average and lags behind both Brentwood and Chelmsford in terms of size.

- 5.23 Another key sector for Maldon District is in production with some 9 per cent of businesses within the sector - this is well above the other local authorities within the Heart of Essex and above the East of England and England average.
- 5.24 Given its rural economy, a further important sector is agriculture, forestry and fishing - comprising some 7 per cent of the total business population double the size of the sector in either Chelmsford or Brentwood and above the East of England and UK average. Arable farming is by far the most important farming practiced in Maldon District and this is reflected across Essex with 52 per cent of farm holdings growing cereals (Defra, 2008).⁴⁷

Figure 5.4 Maldon Business Composition



Source: ONS (2011) Business Activity, Size and location 2011

- 5.25 The Essex Business Survey interviewed 253 businesses within Maldon District and results found availability of high speed broadband was a key issue for business operations (identified by 71 per cent of Maldon businesses interviewed).⁴⁸ This has been recognised as key to unlocking growth particularly given the rural location within the Maldon District Rural Gap Analysis Report conducted by Writtle College.⁴⁹ Businesses in Maldon are also more likely than other local authorities in Essex to express an interest in sustainable energy sources, in wind energy and in tidal energy sources and in local wood fuel or straw.⁵⁰

⁴⁷ Writtle College (2010) Maldon District Rural Gap Analysis Report

⁴⁸ Bmg Research (April 2010) Essex Business Survey - Heart of Essex Sub-region

⁴⁹ Writtle College (2010) Maldon District Rural Gap Analysis Report

⁵⁰ Bmg Research (April 2010) Essex Business Survey - Heart of Essex Sub-region

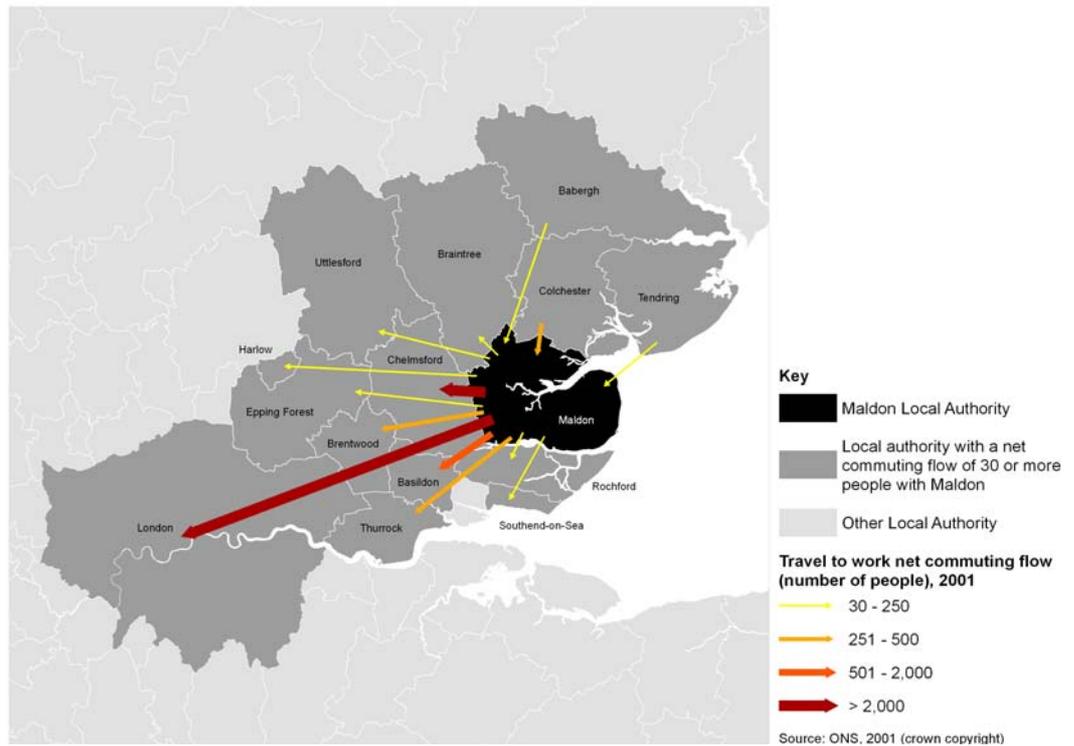
Labour market

- 5.26 The Essex Local Economic Assessment summarises Maldon District's labour market as being characterised by relatively high levels of employment, low unemployment and fewer working age residents claiming benefits (such as JSA) than regional and national averages. In addition, the Sustainable Community Strategy underlines that while the proportion of young people not in education, employment or training (NEET) is similar to the national average at just under 8 per cent of 16-18 year old population, it is one of the higher rates in Essex.
- 5.27 Whilst the area is generally prosperous, it suffers from a shortage of high level skills. This key labour market challenge is emphasised by the Community Strategy and more recently by the Greater Essex Integrated County Strategy⁵¹ and analysis undertaken by Local Futures⁵². Some 13.7 per cent of the working population have no qualifications compared to 10.4 per cent regionally and 11.3 per cent nationally. Maldon District also has one of the lowest proportions of adults with an NVQ4 or above level of qualification in Essex at just 20 per cent. The 2007 Indices of Deprivation demonstrates that education, skills and training deprivation are concentrated in particular areas, including the wards of Maldon East, Heybridge West and Southminster.
- 5.28 Conversely, analysis undertaken by Local Futures suggests that the proportion of knowledge workers in Maldon District is very high by national standards, with 50.97 per cent of the working population classified as professional, managerial or technical workers. By comparison, the equivalent figure for Essex is 44.1 per cent, 45.1 per cent for the East of England and 44.0 per cent nationally. Average earnings are also relatively high, 15 per cent and 21 per cent higher than the regional and national averages respectively.

⁵¹ The Greater Essex Integrated County Strategy, December 2010

⁵² Local Futures, District Profile: A Summary Profile of Maldon

Figure 5.5 Net commuting flows to/from Maldon



Source: ONS / NLP analysis

- 5.29 As with other parts of the sub region, Maldon District acts as a base for commuting to Chelmsford and London (Figure 5.5), increasing the income gap between local workers and those who commute to higher skilled, higher paid jobs. For example while average weekly workplace earnings in Maldon District total £464, average resident earning are 14 per cent higher at £609 per week. This growing income differential is highlighted by Maldon's Sustainable Community Strategy⁵³ and reflected in the housing market: at £218,130, the average house price is affordable in comparison to some other parts of the county but still prices many local workers out of the market.
- 5.30 Furthermore, research undertaken for the Maldon SHMA⁵⁴ found that 85 per cent of existing households in housing need cannot afford to buy and 73 per cent cannot afford to rent in the market. According to the Sustainable Community Strategy, local employers have identified that high house prices are leading to labour shortages as local workers are forced out of the housing market.
- 5.31 Figure 5.6 summarises Maldon District's key labour market indicators.

⁵³ Maldon District Local Strategic Partnership, Facing the Future: Maldon District's Sustainable Community Strategy

⁵⁴ Maldon Strategic Housing Market Assessment: Final Report, 2009

Figure 5.6 Maldon Key Labour Market Indicators



Source: NOMIS/Land Registry/NLP analysis

Employment sites and premises

5.32 The 2010 Annual Monitoring Report identifies 11.14 ha of vacant employment land available for development across 14 sites, with the majority for industrial and warehouse uses.

5.33 An Employment Land Review prepared for Maldon District in 2009 concluded⁵⁵:

- Maldon has a legacy of larger (but low specification) commercial premises associated with historic port-related and agricultural uses, which have gradually been reused by larger industrial manufacturers. There has been some recent growth in high-technology industrial businesses within the District;
- Employment levels in manufacturing are low relative to the size of 1930-1960s industrial property, implying under-occupation of industrial premises (reflecting less efficient use of older space), low density manufacturing employment or some service-type activities being undertaken in industrial premises;
- The office stock was identified as being of very small scale and servicing a localised market.

⁵⁵ Maldon Employment Land Review, Roger Tym & Partners, March 2009

- A qualitative review of the existing sites concluded many are of poor quality compared to competing provision in the wider regional market, but were generally well occupied and fulfilling a function.
- Based on economic forecasts prepared for the study, it concluded that there was a quantitative surplus of allocated employment land and the Council should look to rationalise allocations. It was recommended a 0.5 ha sites close to Maldon Town Centre for small office / enterprise centre uses could be identified to diversify the portfolio of sites.
- A need to improve the quality of existing sites was identified through a range of positive planning measures, including mixed-use redevelopment, use of s106 funds and estate management.

Summary SWOT analysis

5.34

Drawing on the above analysis and wider review of existing evidence, Table 5.3 summarises the performance and prospects of the Maldon District economy.

Table 5.3 SWOT analysis of the Maldon economy

Strengths	Weaknesses
<ul style="list-style-type: none"> • Significant growth in professional, scientific and technical sectors • Retail hub sustaining significant levels of local employment • Strong presence of education and health sectors, identified as having significant growth potential • Resilience of business base, with low level of insolvencies, highest adaptive capacity within Heart of Essex, low number of DBT • Self employment levels suggest strong local entrepreneurialism 	<ul style="list-style-type: none"> • Reliance on public sector for employment (accounting for a fifth of all employment) leaves Maldon vulnerable to further public sector cuts • Relatively high proportion of young people NEET • Shortage of high level skills in parts of the local authority area • Growing income gap between commuters and local workers • Accessibility and infrastructure • Availability of high quality/flexible employment space
Opportunities	Threats
<ul style="list-style-type: none"> • High proportion of small businesses - opportunity to flourish and generate employment provided appropriate support • High levels of entrepreneurialism and self employment providing opportunities for sustainable future growth • Opportunities within the rural economy, capitalising on existing strengths within this sector • Potential to boost sustainable, nature based and historic tourism given the quality of the environment 	<ul style="list-style-type: none"> • Production and manufacturing represent key sectors in Maldon – but have shown strong recent decline • The construction sector has experienced decline in employment and output during the economic downturn • Relatively high proportion of businesses in agriculture sector – but this sector has experienced rapid recent declines • Prevalence of small businesses which face challenges to survive and grow • Lack of high speed broadband

Source: NLP/Experian analysis

Potential Scale of Future Employment Growth

5.35 As part of the Economic Futures study, Experian has modelled two potential future economic scenarios as set out below.

Dwelling constrained scenario

5.36 A dwelling constrained scenario for Maldon District has been developed based upon both current macroeconomic assumptions at a regional and UK level as to how the economy will perform, constrained to the emerging preferred housing target for Maldon District of 200 dwellings per annum. This exceeds the target of 115 dwellings per annum identified for Maldon District by the Regional Strategy (2001-2021).

5.37 The scenario suggests that total employment will decline year on year by 0.1 per cent over the period 2012-2031 to just under 23,500 jobs in Maldon by 2031, a net loss of just under 400 jobs.

5.38 Under this scenario manufacturing is set to comprise just 6.4 per cent of total employment by 2031 declining from 13.5 per cent in 2012. This equates to a decline year on year of -3.9 per cent. This decline is in line with historic trends for Maldon District and also set in the context of a year on year decline of -1.6 per cent for the UK as a whole. Other sectors that are anticipated to decline, albeit at a much slower pace, are wholesale and retail, finance and insurance and utilities.

5.39 Table 5.4 shows that those sectors which are anticipated to grow at rates at or above the UK average are agriculture, forestry and fishing, public services and professional and other private services.

5.40 Professional services currently accounts for 6.2 per cent of total employment and is anticipated to grow under this scenario at 1.2 per cent year on year adding an additional 400 jobs over the next two decades.

5.41 Within public services it is education in particular which already comprises 7 per cent of total employment and is anticipated to grow most rapidly at 1.2 per cent year on year.

Table 5.4 Employment: Significant sectors growing at or above the UK average growth rate in Maldon

Sector	Proportion of total employment	Total employment		Compound average annual growth rate
		2012	2031	
Professional Services	6.2%	1,480	1,880	1.2%
Education	7.0%	1,660	2,110	1.2%
Construction of Buildings	3.4%	820	970	1.1%
Media Activities	1.6%	390	490	1.0%
Agriculture, Forestry & Fishing	3.5%	830	950	0.7%
Administrative & Supportive Services	6.0%	1,420	1,610	0.6%
Residential Care & Social Work	4.3%	1,030	1,150	0.6%

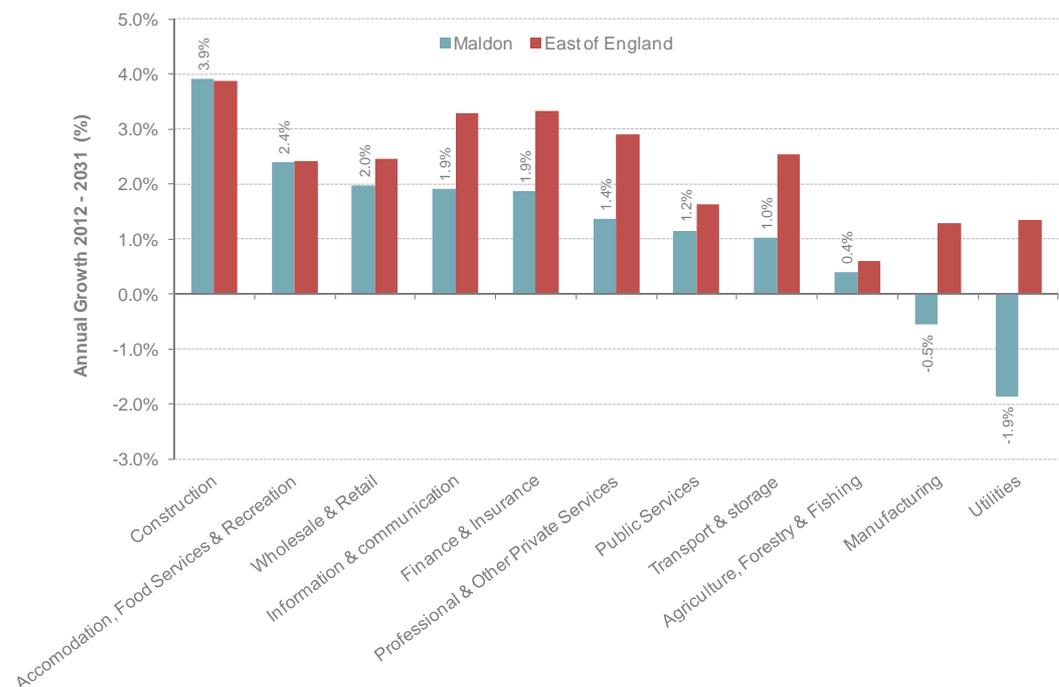
Source: Experian 2012

5.42 Whilst employment is set to decline by nearly 400 jobs over the next two decades, GVA contribution will grow year on year by 1.7 per cent between 2012 and 2031 to £1.3 billion by 2031. This is however behind the UK average of 2.2 per cent and Essex and East of England growth rates of 2.5 per cent year on year.

5.43 Figure 5.7 shows GVA growth rates 2012-2031. Growth is anticipated in all broad sectors except for manufacturing and utilities (both of which will grow in the East of England as a whole). Only construction will grow at rates above the UK average, 3.9 per cent year on year between 2012 and 2031.

5.44 Whilst manufacturing as a broad sector is set to decline in output terms, it is important to note that some sub-sectors (notably pharmaceuticals and chemicals) are both forecast strong year on year output growth. However, this is not matched by growth in employment suggesting that there will be productivity gains with these sectors as a result of advancing technology and techniques to facilitate enhanced output.

Figure 5.7 Compound average Annual GVA Growth Rate 2012-2031



Source: Experian, 2012

Sector derived scenario

5.45 An alternative, sector derived scenario has been developed based upon both the strengths and identified opportunities within the evidence audit and the aspirations of the local area articulated at a local authority officer workshop held on 18 April 2012 and subsequent engagement.

5.46 A number of sectors have been identified by officers as having the potential to over and under-perform the dwelling constrained scenario. Targets have been

set for each of these sectors based upon regional or county performance and we have assessed the impact of these on the wider economy to capture the associated supply chain and income multiplier effects.

Table 5.5 Identified Growth Sectors for Sector Derived Scenario

Sector	Rationale for growth
Agriculture	<ul style="list-style-type: none"> • Agriculture remains a core sector for the Maldon economy and is significant at a UK level • Further potential for expansion has been identified as a result of the climate which is attracting vineyard investment and boosting optimism in the sector
Computer & electronics products	<ul style="list-style-type: none"> • Whilst manufacturing as a whole is estimated to decline in line with UK trends, Maldon remains of national significance for manufacturing, and a number of sub-sectors including chemicals & pharmaceuticals have been identified as having GVA growth potential. • Under this scenario computer and electronic products is anticipated to grow based upon optimistic business sentiment and the identification of niche prototypes for further development
Non metallic products	<ul style="list-style-type: none"> • Optimistic business sentiment particularly within specialist plastics • Aligns with Maldon's continued strength and significance in manufacturing
Civil engineering & fuel refining	<ul style="list-style-type: none"> • This is based upon the potential development of a nuclear power station to replace the decommissioned Bradwell Nuclear Power Station. • Construction opportunities would be short term/medium term for the construction phase only followed by longer term opportunities in fuel refining
Health and Social work	<ul style="list-style-type: none"> • Ageing population and increased demand for care in the community. • Both sectors have grown strongly over the past decade.

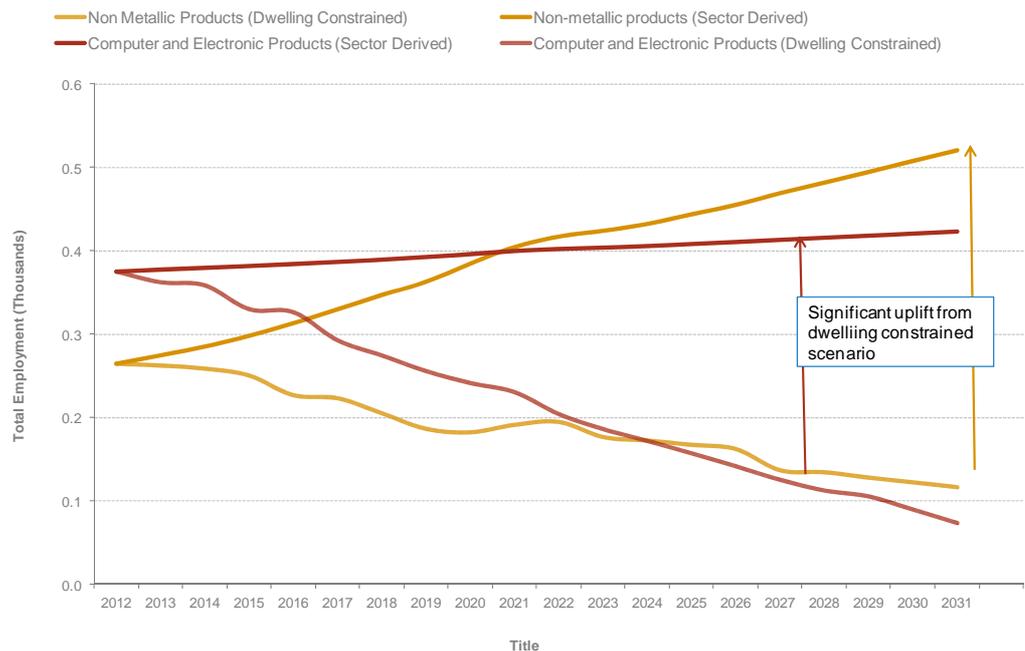
5.47 Under this scenario employment in Maldon District is projected to grow by 0.5 per cent year on year as opposed to declining by -0.1 per cent in the dwelling constrained scenario. Around 2,800 jobs are expected to be created in this scenario by 2031 (an additional 3,200 above the dwelling constrained scenario) and these jobs will come from both the sectors directly boosted, as well as the wider multiplier effects of growth in these sectors. GVA is estimated at £1.5 billion (an additional £220 million above the baseline).

5.48 Manufacturing remains a significant employer for Maldon District despite declining in the local authority over the last decade. Opportunities within the computer and electronic products and (non-metallic) namely plastics sectors have been identified and under the sector derived scenario these opportunities are anticipated to generate an additional 750 jobs combined over the next two decades above the dwelling constrained scenario and an additional £80 million GVA.

5.49

Both sectors within the dwelling constrained scenario were forecast to decline over the next two decades but with the opportunities identified and business optimism, the sector derived scenario identifies the potential for modest growth in the computer and electronic products sector (0.3 per cent year on year) and relatively strong growth in the non-metallic products sector at 3.4 per cent year on year 2012-2031 (Figure 5.8). Both sectors have backward linkages with wholesaling and metals which would be boosted as result of the growth in these sectors as well as paper, printing and publishing for the non-metallic sector, and plastics and rubber for computers and electronic products.

Figure 5.8 Comparison of growth rates in niche manufacturing sectors by scenario

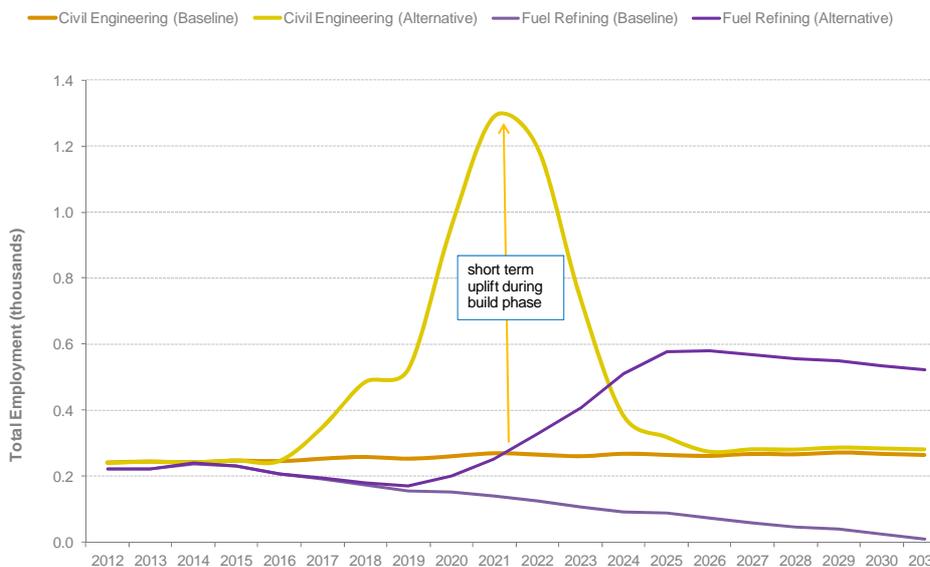


Source: Experian analysis, 2012

5.50

Under the sector derived scenario, employment within the fuel refining sector has been significantly boosted and is anticipated to grow by 4 per cent year on year between 2012 and 2031 (Figure 5.9). This is assuming that the proposed nuclear new build at Bradwell goes ahead.

Figure 5.9 Impact of Nuclear New Build on Maldon employment



Source: Experian analysis, 2012

- 5.51 The development phase of the nuclear plant build will result in a short term boost to the construction sector as well as indirectly on a number of manufacturing sectors including: metal products, wood and wood products and the service sector namely: business services and other finance and business services. The induced effect will result in an overall boost to the retail sector, wholesaling and other finance and business services.⁵⁶
- 5.52 Under the sector derived scenario there are projected to be an additional 500 jobs within the fuel refining sector over the next two decades above the dwelling constrained scenario. This represents a significant boost to the sector and will directly add an additional £20 million to the local economy above the dwelling constrained scenario. It must be noted however that the sector has relatively few local backwards linkages and therefore the wider impact on the Maldon District economy will be more limited than growth in other sectors.
- 5.53 The agricultural sector is already significant within Maldon District and employment is anticipated to grow above the UK and East of England average within the dwelling constrained scenario at 0.7 per cent year on year (UK & East of England - 0.5 per cent). Identified opportunities for growth, as well as local optimism within the sector, suggests that a greater uplift in employment may occur over the next two decades. As a result the employment growth has been enhanced to 1.1 per cent year on year, slightly above the Essex average of 0.9 per cent. This equates to an additional 80 jobs over the next decade above the dwelling constrained scenario and an additional contribution of £7 million GVA to the local economy. Growth in the agricultural sector will indirectly

⁵⁶ Analysis based on research into the number of jobs supported by the construction and operation of one reactor.

boost food, drink and tobacco sectors and the wholesaling sectors within the Maldon economy.

- 5.54 The final sector with identified potential for growth is the health and social care sector on account of increased demand for care both in the community and within hospitals and care homes as a result of the ageing population within Maldon District and the UK as a whole. This long term trend has already been captured within the dwelling constrained scenario. However, local stakeholders have indicated a greater concentration of this effect in Maldon District.
- 5.55 Under the sector derived scenario, the health sector is forecast to expand at 1.3 per cent year on year between 2012 and 2031 rather than 0.3 per cent resulting in an additional 340 jobs created within the sector during this period and £13 million GVA. This brings the growth within the health sector at just above Essex and East of England growth within public services of 1.1 per cent per year during the period. Residential care and social work is also forecast to grow year on year by 1.2 per cent, an uplift of 0.6 per cent and resulting in an additional 150 jobs.
- 5.56 Table 5.6 summarises the difference in growth levels in sectors between the two scenarios.

Table 5.6 Sectors with greatest absolute uplift in total employment between the two scenarios

Sector	Total employment created between 2012-2031		Compound annual growth 2012-2031	
	Dwelling Constrained	Sector Derived	Dwelling constrained	Sector Derived
Fuel Refining	-210	300	-14.9%	3.8%
Non-Metallic Products	-150	260	-4.0%	3.4%
Computer & Electronic Products	-300	50	-8.1%	0.3%
Health	170	520	0.3%	1.3%
Retail	-100	100	-0.3%	0.1%
Computing & Information Services	-60	120	-1.0%	0.9%
Other Private Services	-150	30	-0.2%	0.6%
Residential Care & Social Work	120	270	0.6%	1.2%

Source: Experian, 2012

Employment Space Requirements

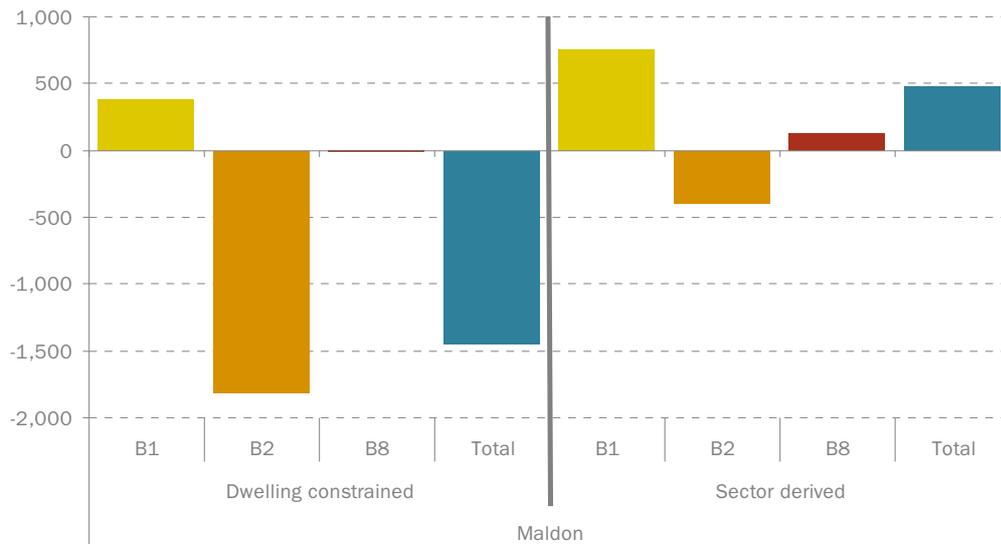
- 5.57 The relevant sectors have been extracted from the two scenarios above to indicate the future scale of change in each sector falling within the B1, B2 and B8 use classes. This is summarised in Table 5.7 and Figure 5.10 below.
- 5.58 This indicates a net loss of 1,445 B-class jobs in the dwelling constrained scenario, mainly reflecting losses of manufacturing jobs which are only partly offset by growth in office-based sectors. In line with the analysis outlined above, by contrast the sector derived scenario implies a modest gain of about 480 B-class jobs by 2031. Manufacturing sector losses are significantly reduced to about 400, while there are also gains in both office and warehousing sectors.

Table 5.7 Maldon B-class employment change, 2012-2031

	2012	2031	Change
Dwelling constrained scenario			
B1	2,830	3,213	+383
B2	4,290	2,474	-1,815
B8	1,682	1,668	-14
Total B-class	8,801	7,356	-1,445
Sector derived scenario			
B1	2,830	3,586	+756
B2	4,290	3,890	-400
B8	1,682	1,805	+124
Total B-class	8,801	9,280	+479

Source: NLP analysis

Figure 5.10 Maldon B-class employment change, 2012-2031



Source: NLP analysis

5.59

These B-class job forecasts have been converted to future employment space requirements by applying the latest published density figures for employment space which take account of recent trends in occupancy for the different B class uses. An average ratio of 1 job per 43 m² of gross floorspace is assumed for manufacturing space. For distribution, 1 job per 65 m² is assumed for general, smaller scale warehousing, and 1 job per 74 m² for large scale, lower density strategic units. Business and financial services jobs are taken to be the main requirements for B1 office space, at a general office ratio of 1 job per

10.5 m².⁵⁷ An allowance of 10 per cent is added to all floorspace requirements to reflect a normal level of market vacancy in employment space. Floorspace requirements have been translated into land requirements using a plot ratio of 0.4 for industrial, whilst for offices it is assumed that 50 per cent would be built at a higher density in urban locations at a plot ratio of 2.0 and 50 per cent at a lower density of 0.4 (e.g. small business park).

5.60 This results in a net B-class requirement of -39,000 sq.m or 10.2 ha by 2031 under the dwelling constrained scenario, reflecting significant levels of manufacturing losses. Under the sector derived scenario, there is a positive requirement for 8,700 sq.m or 1.3 ha, as smaller assumed manufacturing losses are offset by a need for modest amounts of additional office and warehousing space.

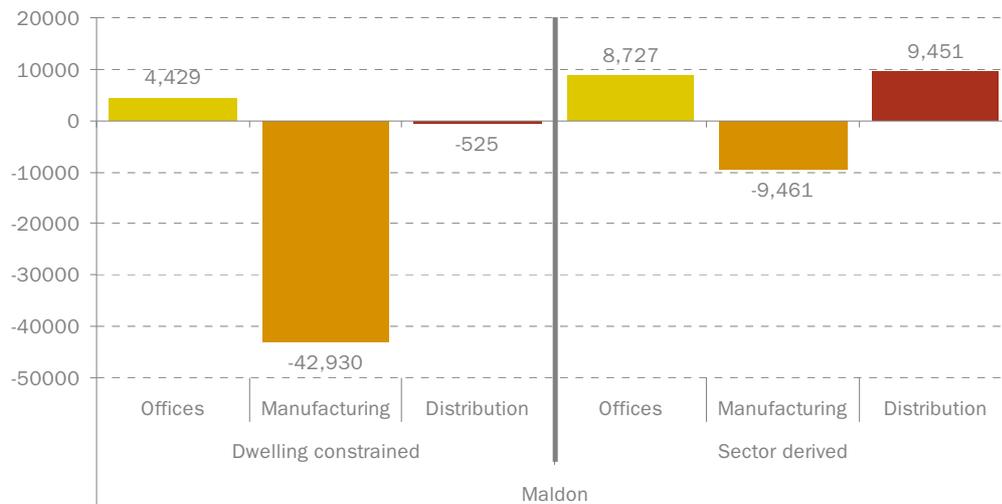
Table 5.8 Net B-class employment space and land requirements, 2012-2031

	Floorspace (sq.m)	Land (ha)
Dwelling constrained scenario		
B1	4,429	0.7
B2	-42,930	-10.7
B8	-525	-0.1
Total B-class	-39,026	-10.2
Sector derived scenario		
B1	8,727	1.3
B2	-9,461	-2.4
B8	9,451	2.4
Total B-class	8,717	1.3

Source: NLP analysis

⁵⁷ Job/floorspace ratios are based on the average amount of gross external floorspace in a building that is required per worker; gross floorspace is measured to include external walls, corridors and enclosed plant; the ratios used are based on HCA/Offpat Employment Densities Guide (2010) but adjusted to reflect gross external floorspace in all cases.

Figure 5.11 Net B-class employment space requirements, 2012-2031



Source: NLP analysis

- 5.61 It should be noted that these are **net** requirements, which make an allowance for normal market vacancy rates, but do not allow for future replacement of losses or apply a safety margin - i.e. the “gross” requirement used for planning purposes. This will necessitate further analysis as it requires a detailed assessment of supply-side deliverability factors and current trends in the market in Maldon District. For example, not all losses of employment space need to be replaced as some will reflect restructuring as less of certain types of employment floorspace are needed in the future.
- 5.62 However, it is clear that under either scenario, there is no significant quantitative requirement for additional employment land and potentially some scope to reduce allocations. This conclusion is consistent with the findings of the 2009 Maldon Employment Land Review. However, this does not necessarily obviate the need for additional land to meet qualitative needs or where there is a history of allocated sites failing to come forward for development. All of the current available sites are relatively small, with the largest just under 3 ha, and comprise undeveloped plots on existing sites. These may be suitable to meet modest business expansion requirements, but less able to accommodate larger development needs.
- 5.63 In particular, it is apparent that a significant structural adjustment is required to allow the gradual renewal and replacement of Maldon District’s substantial stock of older manufacturing stock to provide for modern manufacturing needs. This is particularly evident in terms of the specialist sub-sector requirements identified within the sector derived scenario, but may also apply to accommodate the general productivity enhancements that are projected within the dwelling constrained scenario.

6.0 Conclusions & Policy Implications

6.1 The purpose of this study has been to provide an assessment of the economic performance of the Heart of Essex sub-region and its constituent authorities. This has provided the basis for considering a number of potential economic futures for each authority. Drawing on the preceding analysis, this section considers the implications of the range of potential economic futures in terms of economic strategy and planning policy implications.

Summary of scenario outputs

6.2 Table 6.1 below summarises the overall levels of employment growth and GVA for each authority arising from the two scenarios that have been developed through this study.

6.3 Under the dwelling constrained scenario, total growth of 13,400 jobs is projected across the Heart of Essex by 2031. Some 67 per cent of this growth (equivalent to 9,000 jobs) will arise in Chelmsford, alongside growth of 4,800 jobs in Brentwood and a decline of 900 jobs in Maldon.

6.4 For all three local authorities, the sector-derived scenario generates higher overall level of employment growth by 2031 than is implied by the dwelling constrained scenario. Total growth across the Heart of Essex increases to 26,000 jobs, an increase of 12,600 jobs (94 per cent). In absolute terms, the greatest increase arises in Chelmsford, and in Maldon District this shifts to positive employment growth.

Table 6.1 Headline scenario outputs by local authority, 2012-2031

Scenario		Heart of Essex	Brentwood	Chelmsford	Maldon
Dwelling constrained scenario	Total employment	13,400	4,800	9,000	-400
	Jobs per year *	705	250	475	-20
	GVA (£m)	£2,916	£871	£1,676	£369
Sector derived scenario	Total employment	26,000	5,400	17,800	2,800
	Jobs per year *	1,370	285	935	250
	GVA (£m)	£3,991	£1,010	£2,391	£590

Source: NLP/Experian analysis * Note: totals rounded

Key drivers of economic change

6.5 Within this context, the following section examines key areas and trends which underpin the economic futures of each local authority, and where planning policy and wider economic strategy decisions may be required. This includes

identification of potential risks and opportunities to achieve future economic growth.

- 6.6 For each local authority, this analysis is structured in terms of the following questions:
- 1 What are the **key drivers** that will shape the future of the local economy?
 - 2 What do they mean in **economic terms**?
 - 3 What are the potential **opportunities and barriers** for growth?
 - 4 What are the **planning and policy implications**?

- 6.7 The analysis is summarised below and set out in more detail in the following tables.

Brentwood

- 6.8 Brentwood's future growth is forecast to occur within service sectors taking account of the area's existing strengths, skills base and productivity levels. Under the dwelling constrained scenario, growth will be particularly strong within land transport, storage and post, and professional services. A significant number of jobs will also be created within administrative and support services and education.
- 6.9 Supporting local businesses and attracting inward investment by creating the right conditions for growth will be critical to achieving the service-led growth that is forecast. Infrastructure improvements, including broadband, Crossrail, and removing the barriers to obtaining access to finance and supporting businesses to identify routes to market (both domestic and export) are also key.
- 6.10 Local authority officers have identified that Green Belt constraints on employment land supply could restrict the Borough's ability to accommodate land intensive sectors such as transport and storage. Consequently, the sector-derived scenario incorporates assumptions about achieving economic growth through enhanced productivity and more efficient use of existing space. Clearly, a challenge to achieving greater than average increases in productivity-led growth is around businesses having the capacity and resources to invest in more efficient means of production. Business support to encourage innovation and further skills development will also be critical.
- 6.11 Some potential to attract inward investment within the service sector has also been identified as a result of enhanced connectivity arising from Crossrail, as well as potential to expand accommodation and food sectors building on existing strengths and opportunities in the market. Marketing the Borough's offer to potential investors; bringing forward strategic developments and ensuring that there is sufficient capacity to accommodate further development (either through redevelopment of existing sites or provision of new land) will be essential to realising this higher level of growth.

Chelmsford

- 6.12 Chelmsford is by far the largest economy and major driver of growth for the Heart of Essex sub-region. Its economy is broad based with strength in private services including professional services and business administration as well as being an important centre for education. The recently launched ARU MedTech campus provides a significant opportunity to build on these strengths to support growth and innovation in niche manufacturing SME's within the health market.
- 6.13 Reflecting this base, Chelmsford's future growth is also set to come from the service sectors with a significant number of jobs created within the professional services, administrative and support services under the dwelling constrained scenario. Over the next two decades job creation is also forecast within the public sector, namely education, although this will be more subdued over the short term given the impact of the Government's austerity measures.
- 6.14 The key barriers to achieving this private sector growth will be in terms of competition from other areas for investment, in particular emerging locations such as Stratford City where a significant stock of office accommodation now exists. Targeted business support and the creation of a positive planning framework to support inward investment will be critical to help deliver growth in Chelmsford.
- 6.15 There are ambitions within the local authority to achieve growth above the dwelling constrained scenario within private services, namely financial services / real estate and professional services. To achieve this there will need to be a significant focus on driving inward investment to the local area: effectively marketing the strengths of Chelmsford, creating incentives for location in area and capitalising fully on the city status to place Chelmsford firmly on the map.
- 6.16 There is also a policy aspiration to build upon the local authority's strong manufacturing legacy to maximise the growth of higher value manufacturing sub-sectors. Under the dwelling constrained scenario manufacturing is set to decline further and therefore direct investment in innovation and technology enhancements will be critical to achieving the growth potential outlined in the sector derived scenario.
- 6.17 Officers have also identified further potential for growth above the dwelling constrained scenario within the retail sector on account of the local initiatives such as the redevelopment of key city centre sites. Any uplift will be dependent on the delivery of these initiatives and focus on the wider commitment to develop Chelmsford a leading regional centre for shopping and leisure.

Maldon

- 6.18 Under the dwelling constrained scenario, total employment in Maldon District is set to marginally decline over the next two decades and growth will shift towards the service sectors diminishing the local authority's strength within manufacturing. It will be necessary for the Council to consider the potential outcomes of this scenario, including measures to maximise the local labour

supply and enhance productivity (e.g. increasing economic activity rates, raising skill levels), as well as options to boost in-commuting in order to achieve growth.

- 6.19 Local aspirations to maintain the manufacturing sector, through a focus on niche manufacturing sectors such as plastics, computers and electronics in which the UK has a competitive advantage could challenge the decline in employment anticipated in the dwelling constrained scenario. Positive growth of these sectors has been assumed within the sector derived scenario, however the appropriate support structures will need to be in place to both attract new businesses with sufficient appropriate employment land and that the local workforce has the appropriate skills base.
- 6.20 There are also aspirations to achieve a higher level of growth than anticipated within the agricultural and accommodation and food services sector, and these have been modelled in the sector derived scenario. Given the rural location, provision of broadband and support for rural workspace hubs will be vital to unlocking this additional potential, as well as adequate provision of employment land to help modernise the local authority's stock of employment space.
- 6.21 Finally, the sector derived scenario takes into account the potential for Bradwell Nuclear Power Station which could boost construction in the short term and fuel refining sectors over the longer term. However, clearly this is reliant on the proposed new nuclear reactor at Bradwell proceeding.

Sub-regional inter-relationships

- 6.22 The growth potential of the Heart of Essex sub-region outlined above should position the sub-region as a key player within the wider Essex County. The Integrated County Strategy (ICS) has set a strategic focus upon:
- 1 Promoting opportunities for economic growth, redevelopment and regeneration in key urban centres including Chelmsford.
 - 2 Supporting the growth of renewable and low carbon energy.
 - 3 Achieving transformational growth and change throughout the Thames Gateway South East.
- 6.23 Based on forecasts prepared as part of this study, Chelmsford looks set to grow particularly within the service sectors and through the aspirations outlined in the sector derived scenario there is potential for a further uplift in growth above that already anticipated within a number of sectors including retail and business administration / financial and professional services, aligning with the first strategic focus.
- 6.24 City centre regeneration and redevelopment will be key to significant retail growth in Chelmsford. The location quotient analysis demonstrates that Chelmsford currently has a location quotient of 1.0⁵⁸ (i.e. the local authority has

⁵⁸ A location quotient measures the relative importance of a sector to employment relative to the national picture. A location quotient of 1 shows that the sector accounts for an equal share of total employment and

a similar retail employment profile to that of the UK as a whole). Further growth within Chelmsford will strengthen the Essex wide retail offer. Likewise the proposed retail growth in both Brentwood and Maldon, capitalising on local produce and unique offer, will further enhance and promote the Heart of Essex sub-region as a destination for visitors.

- 6.25 Although not specifically included in the ICS, development of a new reactor at Bradwell Nuclear Power Station development would support the low carbon energy strategic focus and potentially complement the drive to grow wind port and related industries around Harwich and Essex University.
- 6.26 The ICS identifies key growth sectors for Essex which will enable it to achieve its ambitions. These include renewable energy, ports and logistics, creative industries, R&D, Healthcare, and advanced manufacturing. The Heart of Essex sub-region in particular has strength in R&D and advanced manufacturing sectors as well as healthcare.
- 6.27 The sub-region is significant for manufacturing, and consultation with local authority officers as part of this study highlighted the business optimism which exists within the sector and drive to build on the specialist manufacturing activities that are represented locally, challenging the economic trends that suggest manufacturing will decline further over the next two decades.
- 6.28 Maldon District is particularly significant for manufacturing and has an aspiration to focus further on niche sectors in which the UK has a competitive advantage. The location quotient analysis demonstrates that Maldon is significant within the UK (with a LQ of 1.7). Proportionally, more residents are employed in manufacturing in Maldon District than they are in any other local authority in Essex. This places more emphasis on the need to support the manufacturing sector within Maldon.
- 6.29 The ICS also refers to the need to “ensure that housing is matched with jobs and services with appropriate transport provision to create prosperous places”.⁵⁹ It is beyond the remit of this study to specifically consider the housing and infrastructure implications of the scenarios that have been prepared, but some initial issues are highlighted. For example, if the growth ambitions of Chelmsford (an additional 17,800 jobs) in the sector derived scenario are to be met then there is likely to be a need for additional housing unless significant reduction in out-commuting and/or growth in in-commuting supplements the local labour force. Likewise, the extent to which Maldon District follows a trajectory towards overall employment decline (albeit limited decline) as projected within the dwelling constrained scenario will need to be considered in the context of local debates about planning for business needs and the wider growth ambitions for the Heart of Essex. A number of the opportunities identified for Maldon District in the sector derived scenario particularly around protecting the manufacturing

one of greater than one shows that the sector accounts for a greater share of total employment than in the Great Britain (note Great Britain is the comparator not UK as BRES data has been used)

⁵⁹ Strategic Focus 8.1: Key Towns – sustainable growth, p.45-46

legacy and growing agriculture / food and accommodations services warrant further investigation. Taken overall, the Heart of Essex authorities will collectively need to consider the extent to which future housing levels in one authority impacts either positively or negatively on the ability of the other authorities to meet their growth aspirations.

- 6.30 In terms of external influences, the sub-region already has strong linkages with London, particularly in terms of commuting flows, and the opening of Crossrail will increase connectivity further. This presents an opportunity in terms of increasing scope for inward investment in the Heart of Essex (particularly Chelmsford) if sites and premises of sufficient quality can be provided, supported by an enhanced retail and leisure offer and retaining a skilled workforce. The converse impact is that already high out-commuting levels increase further, eroding the ability to sustain a local workforce and meet business needs. This would be likely to create significant downside risks to achieving the higher sector derived estimates of future growth in each authority that have been considered through this study.

Brentwood

Table 6.2 Brentwood Summary of economic drivers, opportunities, barriers and implications

Identified driver	What does it mean in economic terms?	Potential opportunities for growth	Potential barriers to growth	Policy and planning implications
Policy constraints to growth	<ul style="list-style-type: none"> More limited growth in total employment Limited land for new employment floorspace with existing sites constrained Reduced ability to accommodate land intensive sectors 	<ul style="list-style-type: none"> Ability to meet growth needs through smart growth, intensification and more efficient use of land Productivity enhancements across key sectors 	<ul style="list-style-type: none"> Productivity levels already relatively high Barriers to businesses achieving further productivity gains Limited potential for redevelopment and intensification of sites (e.g. existing occupiers, viability) 	<ul style="list-style-type: none"> Flexible planning approach to support more efficient use of sites Provision of additional employment land Putting measures in place to support productivity growth (e.g. business support, innovation and investment)
Introduction of Crossrail post 2018/increased transport capacity	<ul style="list-style-type: none"> Closer functional and labour market linkages with London 	<ul style="list-style-type: none"> Greater scope to attract inward investment (e.g. back office relocations) 	<ul style="list-style-type: none"> Potential for out-commuting rates to increase with additional capacity and faster rail linkages out of the borough 	<ul style="list-style-type: none"> Maximise availability of town centre space/sites to accommodate inward investment Greater marketing of inward investment proposition/bringing forward strategic development opportunities
Capturing growth potential of retail, leisure and tourism sectors	<ul style="list-style-type: none"> Continuation of strong recent growth rates in accommodation & food sectors Uplift in modest levels of existing retail employment 	<ul style="list-style-type: none"> Expansion opportunities in new markets as identified by Hotel and Visitor Accommodation survey Extant permission for retail/leisure development at William Hunter Way Crossrail provides additional access for visitors and day trips 	<ul style="list-style-type: none"> More subdued retail sector growth and consumer spending in short term 	<ul style="list-style-type: none"> Provision of new retail and leisure floorspace to meet forecast requirements Supporting development of tourism market through promotion/marketing and extended tourism infrastructure

Identified driver	What does it mean in economic terms?	Potential opportunities for growth	Potential barriers to growth	Policy and planning implications
<p>Aspiration to achieve productivity enhancements in key sectors</p>	<ul style="list-style-type: none"> • Building on existing (above average) productivity levels • Trade off between higher productivity levels and lower total employment 	<ul style="list-style-type: none"> • Provides businesses with the potential to enhance productivity (and competitiveness) • Contributing to the ICS ambitions to create a highly performing and competitive economy that makes a significant contribution to UK economic growth and recovery growth 	<ul style="list-style-type: none"> • Assumes businesses have capacity and resources to improve productivity (e.g. capital investment) 	<ul style="list-style-type: none"> • Supporting business investment and innovation (e.g. innovation centres) • Positive planning framework to support business investment • Secure high speed broadband and hubs for rural-based businesses

Source: NLP & Experian analysis

Chelmsford

Table 6.3 Chelmsford Summary of economic drivers, opportunities, barriers and implications

Identified driver	What does it mean in economic terms?	Potential opportunities for growth	Potential barriers to growth	Policy and planning implications
Maximising growth potential of higher value manufacturing sectors	<ul style="list-style-type: none"> Building on Borough's strong manufacturing legacy Growth of existing business base of specialist manufacturing firms 	<ul style="list-style-type: none"> Existing specialist skills base Concentration of high-profile existing businesses creates expansion opportunities and scope to attract related investment 	<ul style="list-style-type: none"> Competitive pressures associated with globalisation and general outlook for manufacturing 	<ul style="list-style-type: none"> Proposed direct Council support for innovation and technology Positive planning framework to support business investment and expansion needs
Maximising growth potential of health and education assets	<ul style="list-style-type: none"> Significant forecast employment growth in health and education employment Expansion and development of cluster of education and health facilities (e.g. ARU) 	<ul style="list-style-type: none"> Expansion potential of ARU Proposed MedTech campus to be located within Chelmsford 	<ul style="list-style-type: none"> Wider funding environment for health and education sectors/student finance MedTech locates outside of Chelmsford 	<ul style="list-style-type: none"> Positive planning framework to support investment Making strong case for MedTech campus to locate in Chelmsford
Attracting inward investment from London	<ul style="list-style-type: none"> Mainly service-sector growth building on existing strengths in professional services and financial cluster 	<ul style="list-style-type: none"> New 'City' status raises profile Proposed new railway station at NE Chelmsford 	<ul style="list-style-type: none"> Competition from other locations (e.g. Stratford) 	<ul style="list-style-type: none"> Supporting wider city centre enhancements and additional facilities Positive planning framework to support business investment Planning flexibility where schemes are delayed or viability barriers exist.

Identified driver	What does it mean in economic terms?	Potential opportunities for growth	Potential barriers to growth	Policy and planning implications
<p>Capturing growth potential of retail, leisure and tourism sectors</p>	<ul style="list-style-type: none"> Retail remains an important sector within Chelmsford and a number of developments to the city centre are proposed which could generate employment opportunities within retail and the leisure and tourism sectors 	<ul style="list-style-type: none"> Redevelopment of the city centre in Chelmsford forms a key element of the ICS with the ambition of making Chelmsford a leading regional centre Key retailers locating in the area e.g. John Lewis 	<ul style="list-style-type: none"> Redevelopment plans are stalled Competition from other locations e.g. Westfield Stratford 	<ul style="list-style-type: none"> Continued support for city centre redevelopment plans Positive planning framework to support business investment

Source: NLP & Experian analysis

Maldon

Table 6.4 Maldon Summary of economic drivers, opportunities, barriers and implications

Identified driver	What does it mean in economic terms?	Potential opportunities for growth	Potential barriers to growth	Policy and planning implications
<p>Policy constraints to growth</p>	<ul style="list-style-type: none"> Potential labour supply shortages constrain future employment growth Lower employment growth in population-related sectors 	<ul style="list-style-type: none"> Alternative means of meeting growth needs (e.g. reduced out-commuting, increased in-commuting) Increase economic activity rates and skill levels to maximise local labour force 	<ul style="list-style-type: none"> Barrier to realising economic potential 	<ul style="list-style-type: none"> Impact of alternative means of meeting employment growth needs: increased in-commuting, reduced out-commuting Seek opportunities to increase economic activity and skills levels to increase local access to jobs
<p>Growth potential of the low carbon economy (including nuclear new build)</p>	<ul style="list-style-type: none"> Significant temporary economic boost to construction sector Longer term opportunities in related sectors (e.g. fuel refining) Potential to develop specialisms in low carbon technologies 	<ul style="list-style-type: none"> Bradwell identified as location for new reactor Aligns with Integrated County Strategy in supporting basis for energy hub Evidence of local business interest in alternative energy sources Retention of existing employment/skills base 	<ul style="list-style-type: none"> Bradwell not identified as location for new reactor Aligns with ICS in supporting basis for energy hub 	<ul style="list-style-type: none"> National policy regarding nuclear new build and potential locations

Identified driver	What does it mean in economic terms?	Potential opportunities for growth	Potential barriers to growth	Policy and planning implications
Growth of niche manufacturing sectors	<ul style="list-style-type: none"> Focus on higher value specialist sectors which build on existing strengths (e.g. plastics, computers, electronics) 	<ul style="list-style-type: none"> Potential to attract inward investment in specialist sectors Specialisation in areas of competitive advantage to retain employment and skills 	<ul style="list-style-type: none"> Insufficient skills base to meet sector demands Lack of modern employment space/available land to accommodate growth needs 	<ul style="list-style-type: none"> Address skills deficit through vocational college and HEI links Provision of additional employment land Greater marketing of inward investment proposition
Meeting the skills needs of knowledge-based sectors	<ul style="list-style-type: none"> Service sectors forecast to comprise a growing proportion of total employment growth Leading growth sectors include professional services and specialist manufacturing (as above) 	<ul style="list-style-type: none"> Specialisation in areas of competitive advantage to retain employment and skills 	<ul style="list-style-type: none"> Insufficient skills base to meet sector demands Lack of modern employment space/available land to accommodate growth needs 	<ul style="list-style-type: none"> Provision of additional employment land
Growth of the rural economy	<ul style="list-style-type: none"> Existing agricultural employment base with potential for growth Supports high proportion of micro businesses in Maldon District 	<ul style="list-style-type: none"> Opportunities for expansion into new markets (e.g. vineyards) Spin-off benefits in terms of boosting tourism and day visitor appeal of area (e.g. retail and leisure spending) 	<ul style="list-style-type: none"> Lack of availability of high speed broadband 	<ul style="list-style-type: none"> Fostering stronger skills base in specialist sectors (e.g. links with Writtle College) Supportive planning framework for development of rural workspace hubs Secure high speed broadband Additional promotion of tourism sector and additional tourism infrastructure (e.g. hotels)

Source: NLP & Experian analysis

Appendix 1 Detailed Forecasts

Dwelling constrained scenario

Total Employment (Thousands)

LAD	Industry	2012	2021	2031
Brentwood	Agriculture, Forestry & Fishing (Thousands)	0.5	0.6	0.7
Brentwood	Extraction & Mining (Thousands)	0.0	0.0	0.0
Brentwood	Food, Drink & Tobacco (Thousands)	0.1	0.1	0.1
Brentwood	Textiles & Clothing (Thousands)	0.0	0.0	0.0
Brentwood	Wood & Paper (Thousands)	0.2	0.1	0.1
Brentwood	Printing and Recorded Media (Thousands)	0.1	0.1	0.0
Brentwood	Fuel Refining (Thousands)	0.0	0.0	0.0
Brentwood	Chemicals (Thousands)	0.3	0.2	0.1
Brentwood	Pharmaceuticals (Thousands)	0.1	0.1	0.1
Brentwood	Non-Metallic Products (Thousands)	0.0	0.0	0.0
Brentwood	Metal Products (Thousands)	0.3	0.2	0.1
Brentwood	Computer & Electronic Products (Thousands)	0.0	0.0	0.0
Brentwood	Machinery & Equipment (Thousands)	0.0	0.0	0.0
Brentwood	Transport Equipment (Thousands)	0.4	0.4	0.3
Brentwood	Other Manufacturing (Thousands)	0.1	0.1	0.1
Brentwood	Utilities (Thousands)	0.2	0.2	0.2
Brentwood	Construction of Buildings (Thousands)	1.2	1.3	1.4
Brentwood	Civil Engineering (Thousands)	0.3	0.3	0.3
Brentwood	Specialised Construction Activities (Thousands)	1.9	1.8	1.7
Brentwood	Wholesale (Thousands)	1.5	1.5	1.5
Brentwood	Retail (Thousands)	2.9	3.0	3.0
Brentwood	Land Transport, Storage & Post (Thousands)	2.2	2.8	3.1
Brentwood	Air & Water Transport (Thousands)	0.0	0.0	0.0
Brentwood	Accommodation & Food Services (Thousands)	2.8	3.0	3.2
Brentwood	Recreation (Thousands)	1.1	1.2	1.2
Brentwood	Media Activities (Thousands)	0.3	0.3	0.3
Brentwood	Telecoms (Thousands)	0.4	0.4	0.4
Brentwood	Computing & Information Services (Thousands)	1.1	1.2	1.2
Brentwood	Finance (Thousands)	2.1	2.3	2.3
Brentwood	Insurance & Pensions (Thousands)	0.2	0.2	0.1
Brentwood	Real Estate (Thousands)	0.5	0.5	0.5
Brentwood	Professional Services (Thousands)	4.3	5.1	5.7
Brentwood	Administrative & Supportive Services (Thousands)	4.1	4.7	5.0
Brentwood	Other Private Services (Thousands)	1.5	1.4	1.3
Brentwood	Public Administration & Defence (Thousands)	0.5	0.5	0.5
Brentwood	Education (Thousands)	2.8	3.2	3.7
Brentwood	Health (Thousands)	2.4	2.6	2.8
Brentwood	Residential Care & Social Work (Thousands)	1.7	1.9	2.1
Brentwood	Total (Thousands)	38.4	41.5	43.2

Dwelling constrained scenario

Total Employment (Thousands)

LAD	Industry	2012	2021	2031
Chelmsford	Agriculture, Forestry & Fishing (Thousands)	1.1	1.2	1.2
Chelmsford	Extraction & Mining (Thousands)	0.0	0.0	0.0
Chelmsford	Food, Drink & Tobacco (Thousands)	0.8	0.6	0.5
Chelmsford	Textiles & Clothing (Thousands)	0.1	0.0	0.0
Chelmsford	Wood & Paper (Thousands)	0.4	0.2	0.0
Chelmsford	Printing and Recorded Media (Thousands)	0.2	0.2	0.1
Chelmsford	Fuel Refining (Thousands)	0.0	0.0	0.0
Chelmsford	Chemicals (Thousands)	0.0	0.0	0.0
Chelmsford	Pharmaceuticals (Thousands)	0.0	0.0	0.0
Chelmsford	Non-Metallic Products (Thousands)	0.2	0.2	0.1
Chelmsford	Metal Products (Thousands)	0.6	0.4	0.2
Chelmsford	Computer & Electronic Products (Thousands)	0.8	0.4	0.1
Chelmsford	Machinery & Equipment (Thousands)	0.2	0.2	0.1
Chelmsford	Transport Equipment (Thousands)	0.1	0.0	0.0
Chelmsford	Other Manufacturing (Thousands)	0.4	0.3	0.2
Chelmsford	Utilities (Thousands)	0.8	0.7	0.8
Chelmsford	Construction of Buildings (Thousands)	2.1	2.4	2.5
Chelmsford	Civil Engineering (Thousands)	0.7	0.8	0.8
Chelmsford	Specialised Construction Activities (Thousands)	3.9	4.1	3.9
Chelmsford	Wholesale (Thousands)	3.2	3.2	3.1
Chelmsford	Retail (Thousands)	9.4	9.4	9.5
Chelmsford	Land Transport, Storage & Post (Thousands)	3.9	4.2	4.5
Chelmsford	Air & Water Transport (Thousands)	0.1	0.0	0.0
Chelmsford	Accommodation & Food Services (Thousands)	6.1	6.5	6.7
Chelmsford	Recreation (Thousands)	2.6	2.7	2.7
Chelmsford	Media Activities (Thousands)	0.7	0.7	0.8
Chelmsford	Telecoms (Thousands)	0.7	0.7	0.5
Chelmsford	Computing & Information Services (Thousands)	2.1	2.2	2.2
Chelmsford	Finance (Thousands)	4.2	4.6	4.7
Chelmsford	Insurance & Pensions (Thousands)	0.5	0.5	0.4
Chelmsford	Real Estate (Thousands)	0.6	0.7	0.6
Chelmsford	Professional Services (Thousands)	7.2	8.2	9.1
Chelmsford	Administrative & Supportive Services (Thousands)	6.7	7.6	8.1
Chelmsford	Other Private Services (Thousands)	3.5	3.3	3.1
Chelmsford	Public Administration & Defence (Thousands)	6.8	6.8	7.1
Chelmsford	Education (Thousands)	9.3	10.5	12.4
Chelmsford	Health (Thousands)	7.6	8.6	9.4
Chelmsford	Residential Care & Social Work (Thousands)	5.7	6.4	7.0
Chelmsford	Total (Thousands)	93.6	98.5	102.6

Dwelling constrained scenario

Total Employment (Thousands)

LAD	Industry	2012	2021	2031
Maldon	Agriculture, Forestry & Fishing (Thousands)	0.8	0.9	0.9
Maldon	Extraction & Mining (Thousands)	0.0	0.0	0.0
Maldon	Food, Drink & Tobacco (Thousands)	0.3	0.2	0.1
Maldon	Textiles & Clothing (Thousands)	0.0	0.0	0.0
Maldon	Wood & Paper (Thousands)	0.2	0.1	0.1
Maldon	Printing and Recorded Media (Thousands)	0.3	0.3	0.3
Maldon	Fuel Refining (Thousands)	0.2	0.1	0.0
Maldon	Chemicals (Thousands)	0.0	0.0	0.0
Maldon	Pharmaceuticals (Thousands)	0.0	0.0	0.0
Maldon	Non-Metallic Products (Thousands)	0.3	0.2	0.1
Maldon	Metal Products (Thousands)	0.9	0.7	0.5
Maldon	Computer & Electronic Products (Thousands)	0.4	0.2	0.1
Maldon	Machinery & Equipment (Thousands)	0.2	0.2	0.1
Maldon	Transport Equipment (Thousands)	0.1	0.1	0.1
Maldon	Other Manufacturing (Thousands)	0.4	0.3	0.2
Maldon	Utilities (Thousands)	0.2	0.2	0.2
Maldon	Construction of Buildings (Thousands)	0.8	0.9	1.0
Maldon	Civil Engineering (Thousands)	0.2	0.3	0.3
Maldon	Specialised Construction Activities (Thousands)	1.7	1.7	1.6
Maldon	Wholesale (Thousands)	1.1	1.1	1.0
Maldon	Retail (Thousands)	2.5	2.5	2.4
Maldon	Land Transport, Storage & Post (Thousands)	0.9	0.9	1.0
Maldon	Air & Water Transport (Thousands)	0.0	0.0	0.0
Maldon	Accommodation & Food Services (Thousands)	1.6	1.7	1.7
Maldon	Recreation (Thousands)	0.8	0.9	0.9
Maldon	Media Activities (Thousands)	0.4	0.5	0.5
Maldon	Telecoms (Thousands)	0.0	0.0	0.0
Maldon	Computing & Information Services (Thousands)	0.4	0.4	0.4
Maldon	Finance (Thousands)	0.3	0.3	0.2
Maldon	Insurance & Pensions (Thousands)	0.0	0.0	0.0
Maldon	Real Estate (Thousands)	0.2	0.2	0.2
Maldon	Professional Services (Thousands)	1.5	1.7	1.9
Maldon	Administrative & Supportive Services (Thousands)	1.4	1.5	1.6
Maldon	Other Private Services (Thousands)	1.2	1.1	1.0
Maldon	Public Administration & Defence (Thousands)	0.4	0.4	0.4
Maldon	Education (Thousands)	1.7	1.8	2.1
Maldon	Health (Thousands)	1.4	1.5	1.6
Maldon	Residential Care & Social Work (Thousands)	1.0	1.1	1.2
Maldon	Total (Thousands)	23.9	24.0	23.5

Dwelling constrained scenario

Output and GVA (£mn, 2008 prices)

LAD	Industry	2012	2021	2031
Brentwood	Agriculture, Forestry & Fishing (£mn, 2008 prices)	16.3	18.3	19.7
Brentwood	Extraction & Mining (£mn, 2008 prices)	0.0	0.0	0.0
Brentwood	Food, Drink & Tobacco (£mn, 2008 prices)	7.1	6.3	4.6
Brentwood	Textiles & Clothing (£mn, 2008 prices)	0.9	1.0	0.9
Brentwood	Wood & Paper (£mn, 2008 prices)	5.3	4.4	3.2
Brentwood	Printing and Recorded Media (£mn, 2008 prices)	4.0	3.2	2.1
Brentwood	Fuel Refining (£mn, 2008 prices)	0.0	0.0	0.0
Brentwood	Chemicals (£mn, 2008 prices)	18.2	19.7	16.5
Brentwood	Pharmaceuticals (£mn, 2008 prices)	28.9	38.3	55.6
Brentwood	Non-Metallic Products (£mn, 2008 prices)	1.3	1.7	1.8
Brentwood	Metal Products (£mn, 2008 prices)	14.9	12.9	8.2
Brentwood	Computer & Electronic Products (£mn, 2008 prices)	2.8	4.1	6.0
Brentwood	Machinery & Equipment (£mn, 2008 prices)	0.6	0.7	0.9
Brentwood	Transport Equipment (£mn, 2008 prices)	19.5	22.7	23.6
Brentwood	Other Manufacturing (£mn, 2008 prices)	7.1	5.8	3.2
Brentwood	Utilities (£mn, 2008 prices)	10.0	9.6	10.3
Brentwood	Construction of Buildings (£mn, 2008 prices)	58.3	79.2	111.8
Brentwood	Civil Engineering (£mn, 2008 prices)	23.5	29.9	39.8
Brentwood	Specialised Construction Activities (£mn, 2008 prices)	76.3	103.2	140.0
Brentwood	Wholesale (£mn, 2008 prices)	65.3	81.8	105.7
Brentwood	Retail (£mn, 2008 prices)	70.3	88.2	111.6
Brentwood	Land Transport, Storage & Post (£mn, 2008 prices)	53.1	74.9	104.5
Brentwood	Air & Water Transport (£mn, 2008 prices)	6.9	7.1	5.7
Brentwood	Accommodation & Food Services (£mn, 2008 prices)	75.4	97.8	124.1
Brentwood	Recreation (£mn, 2008 prices)	23.1	28.8	38.4
Brentwood	Media Activities (£mn, 2008 prices)	17.8	19.3	22.7
Brentwood	Telecoms (£mn, 2008 prices)	53.6	73.6	97.4
Brentwood	Computing & Information Services (£mn, 2008 prices)	51.8	66.7	90.5
Brentwood	Finance (£mn, 2008 prices)	150.5	192.4	253.2
Brentwood	Insurance & Pensions (£mn, 2008 prices)	26.7	28.0	29.3
Brentwood	Real Estate (£mn, 2008 prices)	106.3	123.7	148.2
Brentwood	Professional Services (£mn, 2008 prices)	166.7	209.9	286.0
Brentwood	Administrative & Supportive Services (£mn, 2008 prices)	119.4	152.6	200.7
Brentwood	Other Private Services (£mn, 2008 prices)	34.1	38.4	47.2
Brentwood	Public Administration & Defence (£mn, 2008 prices)	23.0	22.5	23.3
Brentwood	Education (£mn, 2008 prices)	78.1	83.4	94.9
Brentwood	Health (£mn, 2008 prices)	67.7	80.2	109.2
Brentwood	Residential Care & Social Work (£mn, 2008 prices)	30.6	34.3	45.6
Brentwood	Total GVA (£mn, 2008 prices)	1515.7	1864.9	2386.6

Dwelling constrained scenario

Output and GVA (£mn, 2008 prices)

LAD	Industry	2012	2021	2031
Chelmsford	Agriculture, Forestry & Fishing (£mn, 2008 prices)	31.6	33.6	35.2
Chelmsford	Extraction & Mining (£mn, 2008 prices)	3.2	1.2	0.2
Chelmsford	Food, Drink & Tobacco (£mn, 2008 prices)	46.2	42.7	37.1
Chelmsford	Textiles & Clothing (£mn, 2008 prices)	10.9	12.0	11.0
Chelmsford	Wood & Paper (£mn, 2008 prices)	11.2	6.8	1.0
Chelmsford	Printing and Recorded Media (£mn, 2008 prices)	8.2	6.6	3.6
Chelmsford	Fuel Refining (£mn, 2008 prices)	0.2	0.3	0.4
Chelmsford	Chemicals (£mn, 2008 prices)	5.6	6.7	6.8
Chelmsford	Pharmaceuticals (£mn, 2008 prices)	8.5	10.4	13.3
Chelmsford	Non-Metallic Products (£mn, 2008 prices)	9.9	9.9	5.1
Chelmsford	Metal Products (£mn, 2008 prices)	31.6	32.0	24.6
Chelmsford	Computer & Electronic Products (£mn, 2008 prices)	49.2	36.5	25.9
Chelmsford	Machinery & Equipment (£mn, 2008 prices)	11.9	11.4	12.1
Chelmsford	Transport Equipment (£mn, 2008 prices)	3.1	1.5	1.3
Chelmsford	Other Manufacturing (£mn, 2008 prices)	15.2	11.2	7.0
Chelmsford	Utilities (£mn, 2008 prices)	70.0	65.3	70.7
Chelmsford	Construction of Buildings (£mn, 2008 prices)	112.7	166.0	241.5
Chelmsford	Civil Engineering (£mn, 2008 prices)	48.4	68.5	95.7
Chelmsford	Specialised Construction Activities (£mn, 2008 prices)	158.5	236.1	331.3
Chelmsford	Wholesale (£mn, 2008 prices)	140.6	170.7	219.2
Chelmsford	Retail (£mn, 2008 prices)	221.1	266.2	335.7
Chelmsford	Land Transport, Storage & Post (£mn, 2008 prices)	92.2	110.3	144.9
Chelmsford	Air & Water Transport (£mn, 2008 prices)	11.6	7.1	-0.8
Chelmsford	Accommodation & Food Services (£mn, 2008 prices)	160.9	203.5	253.1
Chelmsford	Recreation (£mn, 2008 prices)	54.5	65.5	86.3
Chelmsford	Media Activities (£mn, 2008 prices)	39.9	44.3	54.0
Chelmsford	Telecoms (£mn, 2008 prices)	92.5	113.0	144.9
Chelmsford	Computing & Information Services (£mn, 2008 prices)	88.6	113.0	155.3
Chelmsford	Finance (£mn, 2008 prices)	294.2	379.5	510.2
Chelmsford	Insurance & Pensions (£mn, 2008 prices)	53.1	59.7	71.4
Chelmsford	Real Estate (£mn, 2008 prices)	111.9	126.6	147.3
Chelmsford	Professional Services (£mn, 2008 prices)	275.2	343.8	474.2
Chelmsford	Administrative & Supportive Services (£mn, 2008 prices)	190.4	239.0	316.9
Chelmsford	Other Private Services (£mn, 2008 prices)	80.8	88.6	108.3
Chelmsford	Public Administration & Defence (£mn, 2008 prices)	287.7	288.3	305.3
Chelmsford	Education (£mn, 2008 prices)	265.2	286.7	328.1
Chelmsford	Health (£mn, 2008 prices)	216.5	260.6	358.3
Chelmsford	Residential Care & Social Work (£mn, 2008 prices)	97.9	111.9	150.2
Chelmsford	Total GVA (£mn, 2008 prices)	3411.2	4037.3	5086.8

Dwelling constrained scenario

Output and GVA (£mn, 2008 prices)

LAD	Industry	2012	2021	2031
Maldon	Agriculture, Forestry & Fishing (£mn, 2008 prices)	29.1	30.4	31.4
Maldon	Extraction & Mining (£mn, 2008 prices)	0.6	0.2	0.0
Maldon	Food, Drink & Tobacco (£mn, 2008 prices)	14.5	11.5	7.0
Maldon	Textiles & Clothing (£mn, 2008 prices)	3.9	4.2	3.8
Maldon	Wood & Paper (£mn, 2008 prices)	6.7	6.1	4.8
Maldon	Printing and Recorded Media (£mn, 2008 prices)	10.1	12.8	15.6
Maldon	Fuel Refining (£mn, 2008 prices)	0.0	0.0	0.0
Maldon	Chemicals (£mn, 2008 prices)	1.6	2.3	2.8
Maldon	Pharmaceuticals (£mn, 2008 prices)	2.4	3.6	5.4
Maldon	Non-Metallic Products (£mn, 2008 prices)	7.3	7.7	5.2
Maldon	Metal Products (£mn, 2008 prices)	32.4	39.0	36.6
Maldon	Computer & Electronic Products (£mn, 2008 prices)	21.2	20.7	13.4
Maldon	Machinery & Equipment (£mn, 2008 prices)	11.0	12.1	13.5
Maldon	Transport Equipment (£mn, 2008 prices)	4.7	4.8	5.0
Maldon	Other Manufacturing (£mn, 2008 prices)	13.8	9.7	6.0
Maldon	Utilities (£mn, 2008 prices)	8.2	7.1	6.3
Maldon	Construction of Buildings (£mn, 2008 prices)	45.5	68.5	99.6
Maldon	Civil Engineering (£mn, 2008 prices)	20.2	28.4	38.1
Maldon	Specialised Construction Activities (£mn, 2008 prices)	68.3	103.4	144.6
Maldon	Wholesale (£mn, 2008 prices)	47.1	57.0	71.0
Maldon	Retail (£mn, 2008 prices)	61.5	73.8	91.2
Maldon	Land Transport, Storage & Post (£mn, 2008 prices)	28.1	32.2	40.8
Maldon	Air & Water Transport (£mn, 2008 prices)	5.5	3.5	0.6
Maldon	Accommodation & Food Services (£mn, 2008 prices)	43.4	54.6	67.6
Maldon	Recreation (£mn, 2008 prices)	17.3	21.7	28.7
Maldon	Media Activities (£mn, 2008 prices)	24.7	30.7	37.0
Maldon	Telecoms (£mn, 2008 prices)	3.9	5.0	7.1
Maldon	Computing & Information Services (£mn, 2008 prices)	17.5	19.9	25.4
Maldon	Finance (£mn, 2008 prices)	17.3	20.0	24.5
Maldon	Insurance & Pensions (£mn, 2008 prices)	3.3	4.1	5.5
Maldon	Real Estate (£mn, 2008 prices)	91.5	97.5	102.7
Maldon	Professional Services (£mn, 2008 prices)	52.9	60.6	81.5
Maldon	Administrative & Supportive Services (£mn, 2008 prices)	42.8	49.9	63.3
Maldon	Other Private Services (£mn, 2008 prices)	25.8	29.5	35.8
Maldon	Public Administration & Defence (£mn, 2008 prices)	16.0	15.5	15.7
Maldon	Education (£mn, 2008 prices)	45.8	46.6	51.6
Maldon	Health (£mn, 2008 prices)	39.3	44.4	58.7
Maldon	Residential Care & Social Work (£mn, 2008 prices)	17.8	19.0	24.4
Maldon	Total GVA (£mn, 2008 prices)	903.1	1058.2	1272.2

Dwelling constrained scenario

Population and households (Thousands)

LAD	Variable	2011	2021	2031
Brentwood	Total population (thousands)	74.9	75.8	77.8
Chelmsford	Total population (thousands)	170.5	180.2	189.9
Maldon	Total population (thousands)	63.3	64.7	66.1
Brentwood	Working age population (thousands)	44.7	47.5	47.4
Chelmsford	Working age population (thousands)	105.7	115.0	118.1
Maldon	Working age population (thousands)	36.6	38.6	37.6
Brentwood	Total households (thousands)	31.0	32.6	34.3
Chelmsford	Total households (thousands)	70.5	78.3	86.2
Maldon	Total households (thousands)	25.9	27.8	29.8

Source: CLG, ONS and Experian 2012

Sector Derived Scenario

Total Employment (Thousands)

LAD	Industry	2012	2021	2031
Brentwood	Agriculture, Forestry & Fishing (Thousands)	0.5	0.6	0.7
Brentwood	Extraction & Mining (Thousands)	0.0	0.0	0.0
Brentwood	Food, Drink & Tobacco (Thousands)	0.1	0.1	0.1
Brentwood	Textiles & Clothing (Thousands)	0.0	0.0	0.0
Brentwood	Wood & Paper (Thousands)	0.2	0.1	0.1
Brentwood	Printing and Recorded Media (Thousands)	0.1	0.1	0.0
Brentwood	Fuel Refining (Thousands)	0.0	0.0	0.0
Brentwood	Chemicals (Thousands)	0.3	0.2	0.1
Brentwood	Pharmaceuticals (Thousands)	0.1	0.1	0.1
Brentwood	Non-Metallic Products (Thousands)	0.0	0.0	0.0
Brentwood	Metal Products (Thousands)	0.3	0.2	0.1
Brentwood	Computer & Electronic Products (Thousands)	0.0	0.0	0.0
Brentwood	Machinery & Equipment (Thousands)	0.0	0.0	0.0
Brentwood	Transport Equipment (Thousands)	0.4	0.4	0.3
Brentwood	Other Manufacturing (Thousands)	0.1	0.1	0.1
Brentwood	Utilities (Thousands)	0.2	0.2	0.2
Brentwood	Construction of Buildings (Thousands)	1.2	1.3	1.4
Brentwood	Civil Engineering (Thousands)	0.3	0.3	0.3
Brentwood	Specialised Construction Activities (Thousands)	1.9	1.8	1.7
Brentwood	Wholesale (Thousands)	1.5	1.6	1.6
Brentwood	Retail (Thousands)	2.9	3.1	3.2
Brentwood	Land Transport, Storage & Post (Thousands)	2.2	2.5	2.8
Brentwood	Air & Water Transport (Thousands)	0.0	0.0	0.0
Brentwood	Accommodation & Food Services (Thousands)	2.8	3.1	3.3
Brentwood	Recreation (Thousands)	1.1	1.2	1.2
Brentwood	Media Activities (Thousands)	0.3	0.4	0.4
Brentwood	Telecoms (Thousands)	0.4	0.4	0.4
Brentwood	Computing & Information Services (Thousands)	1.1	1.3	1.3
Brentwood	Finance (Thousands)	2.1	2.3	2.3
Brentwood	Insurance & Pensions (Thousands)	0.2	0.2	0.2
Brentwood	Real Estate (Thousands)	0.5	0.6	0.6
Brentwood	Professional Services (Thousands)	4.3	5.2	5.8
Brentwood	Administrative & Supportive Services (Thousands)	4.1	4.7	5.0
Brentwood	Other Private Services (Thousands)	1.5	1.4	1.4
Brentwood	Public Administration & Defence (Thousands)	0.5	0.5	0.5
Brentwood	Education (Thousands)	2.8	3.2	3.7
Brentwood	Health (Thousands)	2.4	2.6	2.8
Brentwood	Residential Care & Social Work (Thousands)	1.7	1.9	2.1
Brentwood	Total (Thousands)	38.4	41.8	43.8

Sector Derived Scenario

Total Employment (Thousands)

LAD	Industry	2012	2021	2031
Chelmsford	Agriculture, Forestry & Fishing (Thousands)	1.1	1.2	1.2
Chelmsford	Extraction & Mining (Thousands)	0.0	0.0	0.0
Chelmsford	Food, Drink & Tobacco (Thousands)	0.8	1.1	1.4
Chelmsford	Textiles & Clothing (Thousands)	0.1	0.0	0.0
Chelmsford	Wood & Paper (Thousands)	0.4	0.4	0.4
Chelmsford	Printing and Recorded Media (Thousands)	0.2	0.2	0.2
Chelmsford	Fuel Refining (Thousands)	0.0	0.0	0.0
Chelmsford	Chemicals (Thousands)	0.0	0.1	0.1
Chelmsford	Pharmaceuticals (Thousands)	0.0	0.0	0.0
Chelmsford	Non-Metallic Products (Thousands)	0.2	0.4	0.5
Chelmsford	Metal Products (Thousands)	0.6	0.8	0.9
Chelmsford	Computer & Electronic Products (Thousands)	0.8	1.0	1.2
Chelmsford	Machinery & Equipment (Thousands)	0.2	0.2	0.2
Chelmsford	Transport Equipment (Thousands)	0.1	0.0	0.1
Chelmsford	Other Manufacturing (Thousands)	0.4	0.6	0.7
Chelmsford	Utilities (Thousands)	0.8	0.9	1.0
Chelmsford	Construction of Buildings (Thousands)	2.1	2.5	2.7
Chelmsford	Civil Engineering (Thousands)	0.7	0.9	0.9
Chelmsford	Specialised Construction Activities (Thousands)	3.9	4.2	4.1
Chelmsford	Wholesale (Thousands)	3.2	3.4	3.5
Chelmsford	Retail (Thousands)	9.4	9.8	10.1
Chelmsford	Land Transport, Storage & Post (Thousands)	3.9	4.3	4.5
Chelmsford	Air & Water Transport (Thousands)	0.1	0.0	0.0
Chelmsford	Accommodation & Food Services (Thousands)	6.1	6.6	6.8
Chelmsford	Recreation (Thousands)	2.6	2.7	2.8
Chelmsford	Media Activities (Thousands)	0.7	0.8	0.8
Chelmsford	Telecoms (Thousands)	0.7	0.7	0.8
Chelmsford	Computing & Information Services (Thousands)	2.1	2.2	2.2
Chelmsford	Finance (Thousands)	4.2	4.7	5.0
Chelmsford	Insurance & Pensions (Thousands)	0.5	0.6	0.6
Chelmsford	Real Estate (Thousands)	0.6	0.8	0.9
Chelmsford	Professional Services (Thousands)	7.2	8.5	9.6
Chelmsford	Administrative & Supportive Services (Thousands)	6.7	7.8	8.5
Chelmsford	Other Private Services (Thousands)	3.5	3.5	3.4
Chelmsford	Public Administration & Defence (Thousands)	6.8	6.8	7.1
Chelmsford	Education (Thousands)	9.3	10.5	12.5
Chelmsford	Health (Thousands)	7.6	8.6	9.4
Chelmsford	Residential Care & Social Work (Thousands)	5.7	6.5	7.2
Chelmsford	Total (Thousands)	93.6	103.3	111.3

Sector Derived Scenario *

Total Employment (Thousands)

LAD	Industry	2012	2021	2031
Maldon	Agriculture, Forestry & Fishing (Thousands)	0.8	0.9	1.0
Maldon	Extraction & Mining (Thousands)	0.0	0.0	0.0
Maldon	Food, Drink & Tobacco (Thousands)	0.3	0.2	0.2
Maldon	Textiles & Clothing (Thousands)	0.0	0.0	0.0
Maldon	Wood & Paper (Thousands)	0.2	0.2	0.1
Maldon	Printing and Recorded Media (Thousands)	0.3	0.3	0.3
Maldon	Fuel Refining (Thousands)	0.2	0.3	0.5
Maldon	Chemicals (Thousands)	0.0	0.0	0.0
Maldon	Pharmaceuticals (Thousands)	0.0	0.0	0.0
Maldon	Non-Metallic Products (Thousands)	0.3	0.4	0.5
Maldon	Metal Products (Thousands)	0.9	0.7	0.5
Maldon	Computer & Electronic Products (Thousands)	0.4	0.4	0.4
Maldon	Machinery & Equipment (Thousands)	0.2	0.2	0.1
Maldon	Transport Equipment (Thousands)	0.1	0.1	0.1
Maldon	Other Manufacturing (Thousands)	0.4	0.3	0.2
Maldon	Utilities (Thousands)	0.2	0.2	0.2
Maldon	Construction of Buildings (Thousands)	0.8	1.0	1.0
Maldon	Civil Engineering (Thousands)	0.2	1.3	0.3
Maldon	Specialised Construction Activities (Thousands)	1.7	1.8	1.6
Maldon	Wholesale (Thousands)	1.1	1.2	1.2
Maldon	Retail (Thousands)	2.5	2.7	2.6
Maldon	Land Transport, Storage & Post (Thousands)	0.9	0.9	1.0
Maldon	Air & Water Transport (Thousands)	0.0	0.1	0.1
Maldon	Accommodation & Food Services (Thousands)	1.6	1.8	1.8
Maldon	Recreation (Thousands)	0.8	1.0	1.0
Maldon	Media Activities (Thousands)	0.4	0.5	0.6
Maldon	Telecoms (Thousands)	0.0	0.0	0.0
Maldon	Computing & Information Services (Thousands)	0.4	0.5	0.6
Maldon	Finance (Thousands)	0.3	0.3	0.3
Maldon	Insurance & Pensions (Thousands)	0.0	0.1	0.0
Maldon	Real Estate (Thousands)	0.2	0.2	0.2
Maldon	Professional Services (Thousands)	1.5	1.8	1.9
Maldon	Administrative & Supportive Services (Thousands)	1.4	1.6	1.6
Maldon	Other Private Services (Thousands)	1.2	1.2	1.2
Maldon	Public Administration & Defence (Thousands)	0.4	0.4	0.4
Maldon	Education (Thousands)	1.7	1.8	2.1
Maldon	Health (Thousands)	1.4	1.7	1.9
Maldon	Residential Care & Social Work (Thousands)	1.0	1.2	1.3
Maldon	Total (Thousands)	23.9	27.3	26.7

* Scenario for Maldon includes Bradwell Nuclear New Build

Sector Derived Scenario

GVA (£mn, 2008 prices)

LAD	Industry	2012	2021	2031
Brentwood	Agriculture, Forestry & Fishing (Thousands)	16.3	18.3	19.7
Brentwood	Extraction & Mining (Thousands)	0.0	0.0	0.0
Brentwood	Food, Drink & Tobacco (Thousands)	7.1	6.7	5.3
Brentwood	Textiles & Clothing (Thousands)	0.9	1.0	0.9
Brentwood	Wood & Paper (Thousands)	5.3	4.4	3.2
Brentwood	Printing and Recorded Media (Thousands)	4.0	3.2	2.1
Brentwood	Fuel Refining (Thousands)	0.0	0.0	0.0
Brentwood	Chemicals (Thousands)	18.2	19.7	16.5
Brentwood	Pharmaceuticals (Thousands)	28.9	39.7	60.3
Brentwood	Non-Metallic Products (Thousands)	1.3	1.7	1.8
Brentwood	Metal Products (Thousands)	14.9	12.9	8.3
Brentwood	Computer & Electronic Products (Thousands)	2.8	4.6	6.1
Brentwood	Machinery & Equipment (Thousands)	0.6	0.7	0.9
Brentwood	Transport Equipment (Thousands)	19.5	22.7	23.7
Brentwood	Other Manufacturing (Thousands)	7.1	5.8	3.3
Brentwood	Utilities (Thousands)	10.0	9.7	10.5
Brentwood	Construction of Buildings (Thousands)	58.3	86.6	128.2
Brentwood	Civil Engineering (Thousands)	23.5	34.3	51.4
Brentwood	Specialised Construction Activities (Thousands)	76.3	108.6	160.9
Brentwood	Wholesale (Thousands)	65.3	83.6	109.7
Brentwood	Retail (Thousands)	70.3	92.1	119.7
Brentwood	Land Transport, Storage & Post (Thousands)	53.1	66.9	86.9
Brentwood	Air & Water Transport (Thousands)	6.9	7.1	5.7
Brentwood	Accommodation & Food Services (Thousands)	75.4	100.3	129.0
Brentwood	Recreation (Thousands)	23.1	29.0	38.8
Brentwood	Media Activities (Thousands)	17.8	24.2	32.1
Brentwood	Telecoms (Thousands)	53.6	75.7	102.7
Brentwood	Computing & Information Services (Thousands)	51.8	69.6	97.0
Brentwood	Finance (Thousands)	150.5	193.1	254.8
Brentwood	Insurance & Pensions (Thousands)	26.7	28.7	31.2
Brentwood	Real Estate (Thousands)	106.3	148.8	181.9
Brentwood	Professional Services (Thousands)	166.7	231.1	305.1
Brentwood	Administrative & Supportive Services (Thousands)	119.4	156.8	205.8
Brentwood	Other Private Services (Thousands)	34.1	39.2	48.7
Brentwood	Public Administration & Defence (Thousands)	23.0	22.5	23.3
Brentwood	Education (Thousands)	78.1	83.6	95.2
Brentwood	Health (Thousands)	67.7	80.3	109.4
Brentwood	Residential Care & Social Work (Thousands)	30.6	34.5	45.8
Brentwood	Total (Thousands)	1515.7	1948.0	2526.0

Sector Derived Scenario

GVA (£mn, 2008 prices)

LAD	Industry	2012	2021	2031
Chelmsford	Agriculture, Forestry & Fishing (Thousands)	31.6	33.6	35.3
Chelmsford	Extraction & Mining (Thousands)	3.2	1.2	0.2
Chelmsford	Food, Drink & Tobacco (Thousands)	46.2	72.5	110.5
Chelmsford	Textiles & Clothing (Thousands)	10.9	4.3	5.1
Chelmsford	Wood & Paper (Thousands)	11.2	14.6	16.5
Chelmsford	Printing and Recorded Media (Thousands)	8.2	9.2	10.7
Chelmsford	Fuel Refining (Thousands)	0.1	0.1	0.2
Chelmsford	Chemicals (Thousands)	5.6	8.2	21.7
Chelmsford	Pharmaceuticals (Thousands)	2.0	3.4	6.3
Chelmsford	Non-Metallic Products (Thousands)	9.9	22.2	32.9
Chelmsford	Metal Products (Thousands)	31.6	56.4	89.9
Chelmsford	Computer & Electronic Products (Thousands)	49.2	95.2	227.2
Chelmsford	Machinery & Equipment (Thousands)	11.9	16.0	25.4
Chelmsford	Transport Equipment (Thousands)	3.1	2.1	2.8
Chelmsford	Other Manufacturing (Thousands)	15.2	21.4	30.3
Chelmsford	Utilities (Thousands)	70.0	78.9	95.0
Chelmsford	Construction of Buildings (Thousands)	112.7	172.5	256.2
Chelmsford	Civil Engineering (Thousands)	48.4	75.3	110.9
Chelmsford	Specialised Construction Activities (Thousands)	158.5	242.0	345.0
Chelmsford	Wholesale (Thousands)	140.6	184.0	248.6
Chelmsford	Retail (Thousands)	221.1	276.4	357.5
Chelmsford	Land Transport, Storage & Post (Thousands)	92.2	110.7	145.9
Chelmsford	Air & Water Transport (Thousands)	11.6	7.1	0.0
Chelmsford	Accommodation & Food Services (Thousands)	160.9	205.8	258.2
Chelmsford	Recreation (Thousands)	54.5	65.9	87.3
Chelmsford	Media Activities (Thousands)	39.9	46.6	58.7
Chelmsford	Telecoms (Thousands)	92.5	105.3	120.1
Chelmsford	Computing & Information Services (Thousands)	88.6	113.3	156.0
Chelmsford	Finance (Thousands)	294.2	392.4	538.1
Chelmsford	Insurance & Pensions (Thousands)	53.1	75.1	106.8
Chelmsford	Real Estate (Thousands)	111.9	152.7	199.7
Chelmsford	Professional Services (Thousands)	275.2	355.5	499.2
Chelmsford	Administrative & Supportive Services (Thousands)	190.4	245.4	330.1
Chelmsford	Other Private Services (Thousands)	80.8	93.1	118.0
Chelmsford	Public Administration & Defence (Thousands)	287.7	288.5	305.6
Chelmsford	Education (Thousands)	265.2	287.3	329.2
Chelmsford	Health (Thousands)	216.5	261.5	360.4
Chelmsford	Residential Care & Social Work (Thousands)	97.9	113.3	153.4
Chelmsford	Total (Thousands)	3404.6	4309.4	5795.1

Sector Derived Scenario *

GVA (£mn, 2008 prices)

LAD	Industry	2012	2021	2031
Maldon	Agriculture, Forestry & Fishing (Thousands)	29.1	33.7	38.0
Maldon	Extraction & Mining (Thousands)	0.6	0.2	0.0
Maldon	Food, Drink & Tobacco (Thousands)	14.5	16.0	12.1
Maldon	Textiles & Clothing (Thousands)	3.9	1.1	1.0
Maldon	Wood & Paper (Thousands)	6.7	6.6	4.9
Maldon	Printing and Recorded Media (Thousands)	10.1	13.2	16.4
Maldon	Fuel Refining (Thousands)	16.3	18.6	38.6
Maldon	Chemicals (Thousands)	1.6	2.6	2.2
Maldon	Pharmaceuticals (Thousands)	0.8	0.7	0.7
Maldon	Non-Metallic Products (Thousands)	7.3	16.2	23.3
Maldon	Metal Products (Thousands)	32.4	40.3	38.2
Maldon	Computer & Electronic Products (Thousands)	21.2	35.8	76.6
Maldon	Machinery & Equipment (Thousands)	11.0	12.5	13.9
Maldon	Transport Equipment (Thousands)	4.7	4.8	5.0
Maldon	Other Manufacturing (Thousands)	13.8	9.8	6.1
Maldon	Utilities (Thousands)	8.2	7.6	6.8
Maldon	Construction of Buildings (Thousands)	45.5	72.0	102.7
Maldon	Civil Engineering (Thousands)	20.2	135.7	40.8
Maldon	Specialised Construction Activities (Thousands)	68.3	109.1	145.7
Maldon	Wholesale (Thousands)	47.1	65.7	81.3
Maldon	Retail (Thousands)	61.5	80.6	98.7
Maldon	Land Transport, Storage & Post (Thousands)	28.1	32.5	41.3
Maldon	Air & Water Transport (Thousands)	5.5	12.7	11.6
Maldon	Accommodation & Food Services (Thousands)	43.4	58.3	71.5
Maldon	Recreation (Thousands)	17.3	24.3	31.6
Maldon	Media Activities (Thousands)	24.7	35.5	42.7
Maldon	Telecoms (Thousands)	3.9	6.9	10.8
Maldon	Computing & Information Services (Thousands)	17.5	25.3	37.5
Maldon	Finance (Thousands)	17.3	22.5	29.2
Maldon	Insurance & Pensions (Thousands)	3.3	6.1	8.5
Maldon	Real Estate (Thousands)	91.5	111.5	114.0
Maldon	Professional Services (Thousands)	52.9	66.8	83.1
Maldon	Administrative & Supportive Services (Thousands)	42.8	51.8	63.8
Maldon	Other Private Services (Thousands)	25.8	31.3	41.9
Maldon	Public Administration & Defence (Thousands)	16.0	15.5	15.8
Maldon	Education (Thousands)	45.8	47.3	52.2
Maldon	Health (Thousands)	39.3	49.4	71.5
Maldon	Residential Care & Social Work (Thousands)	17.8	20.0	27.6
Maldon	Total (Thousands)	917.7	1300.8	1507.7

* Scenario for Maldon includes Bradwell Nuclear New Build

Appendix 2 Forecasting Assumptions Note

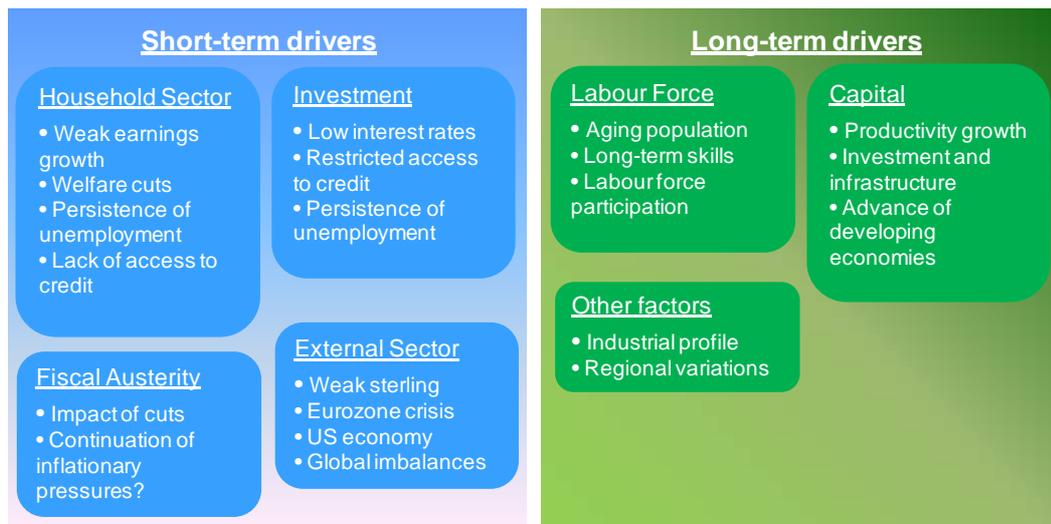
This appendix sets out the approach used to derive the economic scenarios for the Heart of Essex.

The scenarios have been compiled using Experian's UK Regional Planning Service (RPS). This is a comprehensive economic forecasting service that provides coverage of the UK economy and its regions and counties. Launched in 1988, the RPS has since supported government organisations, local authorities and a wide range of private businesses in decision-making by providing them with high-quality forecasts and analysis of regions and local areas for a wide range of economic and demographic indicators. The RPS provides forecasts down to local area level covering 38 sectors and providing detailed employment and GVA estimates up to 2031.

Macroeconomic assumptions

A range of assumptions about the way in which the national and regional economy is likely to perform are built into the forecasts and these are refreshed regularly. Both short and long term drivers are incorporated to reflect the changing economic climate (see Figure A1).

Figure A1 RPS Assumptions



At a UK level, it is anticipated that growth will stagnate in 2012, picking up from 2013 onwards. The unemployment rate will exceed 9 per cent in 2012 and incomes will largely remain flat. The Eurozone remains a key risk for 2012.

At East of England regional level, it is projected that growth will outpace UK growth and much of this is as a result of higher levels of in-migration to the region resulting in a growing working age population. There will be greater reliance private services and growth in employment in 2013 despite public sector job losses.

These current assumptions around the UK and East of England performance are built into the Heart of Essex forecasts, together with an understanding of

the local industry structure which includes high growth knowledge sectors, manufacturing and education, as well as the highly skilled labour market.

The scenarios

Two scenarios have been prepared for each local authority as follows:

- 1 dwelling constrained scenario; and
- 2 sector derived scenario

The detailed outputs are provided within Appendix 1.

Dwelling constrained scenario

A dwelling constrained scenario has been developed based upon both current assumptions at a regional and UK level as to how the economy will perform, constrained to the emerging preferred housing target for each district. The scenario takes in to account the strengths and historical trends, and how the local economy has performed relative to other areas.

The scenario uses Experian's baseline local authority forecasts as a starting point, however, Experian's population forecasts are based on ONS trend based projections with some additional adjustments for migration. The Experian population forecasts are stronger than the population projections resulting from the preferred housing target for each district and as a result demand is over-estimated for the local area in the Experian economic forecasts. The local model has been re-calibrated to take account of the lower population growth and new sectoral forecasts have been produced as a result.

Sector derived scenario

An alternative 'sector derived' scenario has been developed based upon both the strengths and identified opportunities within the evidence audit and the aspirations of the local area articulated at a local authority officer workshop held on 18th April 2012 and subsequent engagement.

A number of sectors have been identified as having the potential to over and under-perform the dwelling constrained scenario, and these are detailed within the corresponding sections of the report. Targets have been set for each of these sectors based upon regional or county performance and we have assessed the impact of these on the wider economy to capture the associated supply chain and income multiplier effects.

The multiplier effects have been calculated using Experian's local level impact model. The model takes the UK input-output tables which explain the supply linkages between different industries in the economy and the linkages between industries and households. The model uses assumptions about the local economy (employment by industry, wages by industry, shopping patterns, and output by industry) to adjust the UK input-output tables to the local level. The adjusted tables have then been used to estimate the multiplier effects of additional jobs in given sectors on the wider local economy.



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