



New Heartlands

Housing Consultancies – Work Package 1: Forecasting

Final Paper

May 2005

Reviewed and approved by:	
Signature(s):	<u>G. Russell</u>
Name(s):	<u>Graham Russell</u>
Job Title(s):	<u>Partner</u>
Date:	<u>May 2005</u>

AMION Consulting, Silkhouse Court, Tithebarn
Street, Liverpool L2 2LZ
Tel: 0151 227 5563 Contact: Graham Russell
This report contains 22 pages
Ref: GR. Housing Consultancies Final Paper



Contents

1	Introduction	1
2	Approach	2
3	Analysis of HMR context and hot and cold spots	4
3.1	Introduction	4
3.2	Context	4
3.3	Analysis of hot and cold spots	4
4	Growth forecast results	14
4.1	Introduction	14
4.2	Economic analyses	14
4.3	Demographic analyses	16
4.4	Household analyses	18
4.5	HMRI policy impact	20
5	Conclusion	22

Appendix A: Approach to Modelling Economic Forecasts

Appendix B: Approach to Modelling Demographic and Household Forecasts

Appendix C: Analysis of Alternative Future Growth Scenarios

Appendix D: Data Summary of Alternative Future Growth Scenarios

1 Introduction

AMION Consulting, in association with Cambridge Econometrics and Pion Economics, were appointed by New Heartlands to produce population, household and economic forecasts for the Housing Market Renewal (HMR) area and a wider reference area.

This paper sets out the results of the growth forecasts and provides an indication of the potential impact of the HMR Initiative (HMRI) on future levels of population, households and economic performance. In addition, consideration is given to where economic performance might be expected to be strong or weak within the HMR area and reference area, based on recent performance. Changes in housing type are also assessed.

The analysis has been undertaken at two spatial levels, as follows:

- HMR area – Liverpool, Sefton and Wirral; and
- Reference area – Ellesmere Port and Neston, Halton, Knowsley, St Helens, Warrington and West Lancashire.

The paper continues in four sections, as follows:

- Section 2 – sets out the approach that has been adopted to the forecasting work;
- Section 3 – describes the economic and demographic context and sets out an analysis of the economic hot and cold spots within the HMR and reference area;
- Section 4 – presents the results of the economic, demographic and household forecasts, along with housing type; and
- Section 5 – outlines a summary of the forecasting work.

2 Approach

The approach to this work package has been based upon the following:

- (i) **Hot and cold spot analysis** – to identify areas where economic performance would be expected to be strong and other areas where it would be weaker. The analysis has been undertaken at a district level and has involved a review of recent changes in population and economic indicators.
- (ii) **Economic forecast** – Cambridge Econometrics has produced economic forecasts for the HMR districts and a wider reference area. Cambridge Econometrics' Local Economy Forecasting Model (LEFM), which has been revised to reflect 2003-based ONS sub-national population projections, has been used to model a number of growth scenarios:

- Pessimistic scenario: under this scenario decelerated economic growth has been modelled. This forms a risk assessment of the prospect that the economy will perform worse than assumed under base forecasts.
- Base scenario: a base scenario has been developed in order to assess the potential net impact of each of the proposed alternative future growth scenarios. This has been based upon LEFM forecasts for the area using the latest Cambridge Econometrics' growth coefficients. Under this scenario the LEFM model has been run without any adjustments to growth rates or performance.
- Project delivery scenario: under this scenario the base forecast has been augmented by the inclusion of the projected impact that will result from key developments in the region including Liverpool Airport, bio-manufacturing industries, the Science Park and the Strategic Investment Areas (SIAs). Since the LEFM is based in part upon past trends it will already include some allowance for previous public sector spending programmes. As such, only the net additional impact of large-scale projects that would not be reflected within historic performance has been included.
- Optimistic scenario: this scenario has involved augmenting the project delivery scenario in order to reflect accelerated economic growth.

Although Cambridge Econometrics' base scenario includes some allowance for previous public sector spending programmes, it fails to take account of the impact that will result from key large scale committed and planned projects/programmes, such as the 2008 European Capital of Culture, Paradise Street Retail Development and the investment in the Strategic Investment Areas (SIAs). As such the project delivery scenario, which includes an allowance for the net additional impact of projects that would not be reflected in past performance, is considered to be the most likely outturn scenario. The pessimistic and optimistic scenarios form a sensitivity assessment of the prospect that the economy will perform worse or better than otherwise forecast.

- (iii) **Population and migration forecast** – APU's Chelmer Population and Housing Model (CPHM) has produced population and migration forecasts for the HMR districts and reference area. The CPHM projections have been created for three different migration based scenarios:

- Long-term 1993-2003 based migration trend scenario
- Zero net migration scenario
- Short-term 1998-2003 based migration trend scenario

Appendix B contains further details about each of these scenarios.

The 2003-based ONS sub-national population and migration projections for the HMR districts and the reference area have also been reviewed. These recently published projections have been used as the basis for the base scenario population, migration and household estimates. In addition, the extent to which positive economic forecasts may result in increased migration due to skills gaps has been assessed.

- (iv) **Household forecast** – The CPHM has provided household forecasts for the HMR districts and reference area. Again these have been produced for the three migration based scenarios. Household forecasts have also been produced using the 2003-based ONS sub-national population and migration projections, which are considered to reflect a base scenario within the HMR area. In addition, a further set of projects, which allow for the effects of positive economic growth, has been constructed.
- (v) **The impact of the HMRI** – in-migration and out-migration forecasts for the HMR districts have been adjusted, by assumption, in order to reflect the possible impact of HMR intervention. This has produced revised population and household forecasts for the HMR area, which have been compared to the base scenario forecasts in order to calculate the potential policy impact of the HMRI.

3 Analysis of HMR context and hot and cold spots

3.1 Introduction

This section sets out the local economic and demographic context, as well as presenting an analysis of the economic hot and cold spots within the HMR area and wider reference area.

3.2 Context

Economic growth between 1981 and 2000 within the reference area and particularly the HMR districts was weak, with GVA growing at a significantly lower rate than experienced at the regional and national level. In addition, employment fell by around 14% in the HMR districts and remained relatively constant in the reference area. This contrasted to increases in employment within the North West and the UK. However, both the reference area and HMR districts have recently experienced strong economic performance, particularly since 2000.

- Gross Value Added (GVA) is forecast¹ to have grown by some 14% in the reference area and 11% in the HMR districts between 2000 and 2004, compared to an average regional and national increase of 9%.
- GVA per capita is also forecast¹ to have risen significantly between 2000 and 2004, an increase of 14% in the reference area and 12% in the HMR districts;
- employment is forecast¹ to have increased by some 80,000 (10%) additional jobs between 2000 and 2004 within the reference area and HMR area combined, of which around half are within the HMR districts; and
- as of 2004 there are estimated¹ to be 7,000 fewer unemployed (ILO based definition) within the reference area and 11,000 fewer unemployed in the HMR districts than there were in 2000.

In addition, there are a wide range of public sector led projects and initiatives that are currently underway or proposed within the HMR and reference area, as well as some major private sector investments, which will help to support the continuation of the recent strong economic performance. However, there also continue to be very high levels of social and economic deprivation within the HMR and reference area.

There has been a steady decline in the population of the reference area and HMR districts, in particular, over the last 20 years. Between 1981 and 2000 the population of the reference area is estimated to have fallen by some 2%, with the HMR districts experiencing a significantly greater fall of some 10%. This compares to a growth in the UK population over the same period of around 4%.

With regards recent demographic trends, the population of the HMR districts is forecast to have fallen by around 1% between 2000 and 2004, whereas the population of the reference area has remained stable. This compares to a slight rise in the population of the North West region as a whole over the same four-year period and forecast growth in the UK population of almost 2% between 2000 and 2004.

3.3 Analysis of hot and cold spots

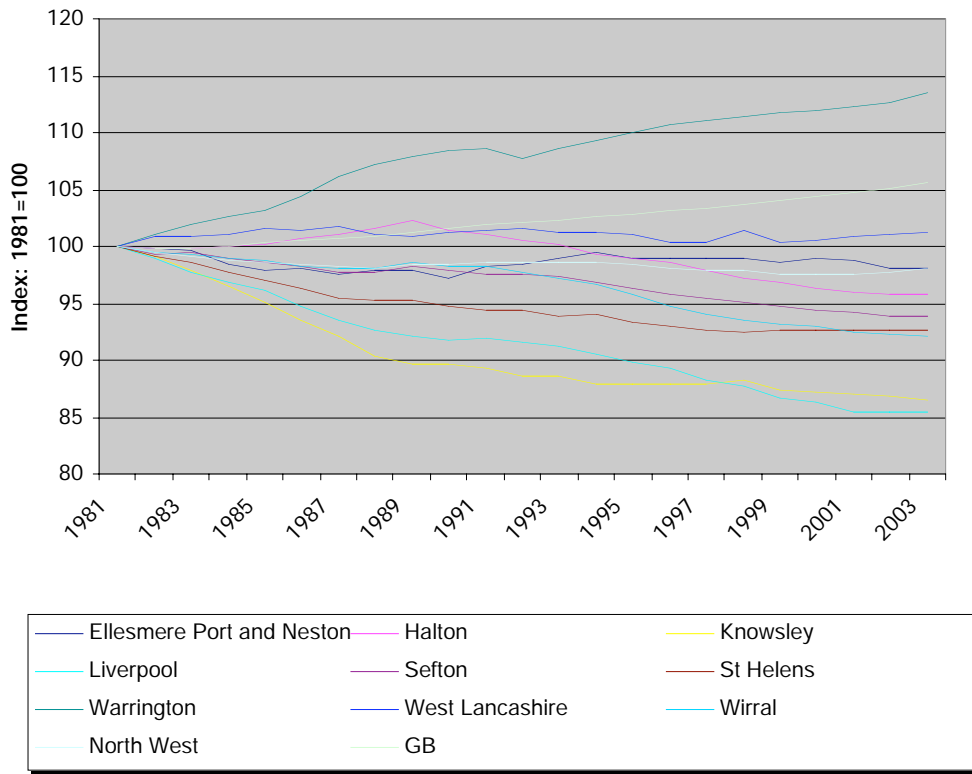
An analysis has been undertaken at a district level to identify areas where economic performance would be expected to be strong and other areas where it would be weaker. The analysis has focused upon the nine districts that make up the HMR and reference area.

¹ Based upon Cambridge Econometrics LEFM forecasts

3.3.1 Population

As previously outlined in the above context, the population of the HMR districts and reference area districts has been falling for the last 20 years. However, an analysis of the districts individually shows varying patterns of population change since 1981, as shown in Figure 3.1. For example, whereas the population in Liverpool and Knowsley has fallen significantly, the population within Warrington has risen considerably over the same period.

Figure 3.1: Indexed population change 1981-2003



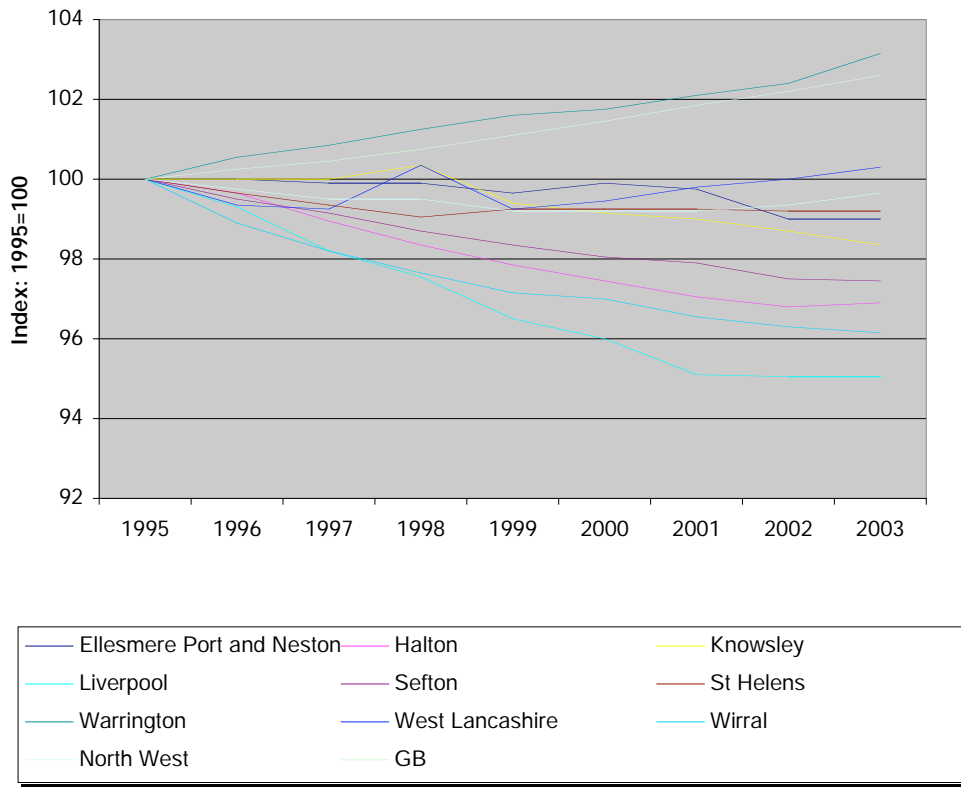
Source: Nomis

The largest proportional fall in population between 1981 and 2003 occurred within Liverpool, which experienced a fall of 15%. Knowsley also experienced a considerable decline in population of 13%. This compares to a fall of 2% at the regional level and a national increase of 6% in population over the same period. The population within St Helens and Sefton also fell significantly (by 7% and 6% respectively). In contrast, the population of Warrington increased by 14% and along with West Lancashire, whose population rose by 1%, were the only HMR/reference area districts to not experience a fall in population between 1981 and 2003. The population loss within the districts of Merseyside is principally explained by high levels of out-migration from the sub-region, as opposed to 'natural change' (levels of births and deaths).

Figure 3.2 shows the change in population within the HMR and reference area districts over a shorter timeframe (1995 to 2003). Whilst the number of people in Liverpool has continued to fall, in recent years the population has begun to stabilise. The population of Knowsley has also started to show greater stability and fell by only 2% between 1995 and 2003. This has been due to a falling level of net out-migration from Liverpool and Knowsley. Halton, Wirral and Sefton have all experienced greater decreases in

population than Knowsley (3%, 4% and 3% respectively). The population of Warrington has grown by some 3%, which is a similar rate to the average rate of growth within the country as a whole.

Figure 3.2: Indexed population change 1995-2003



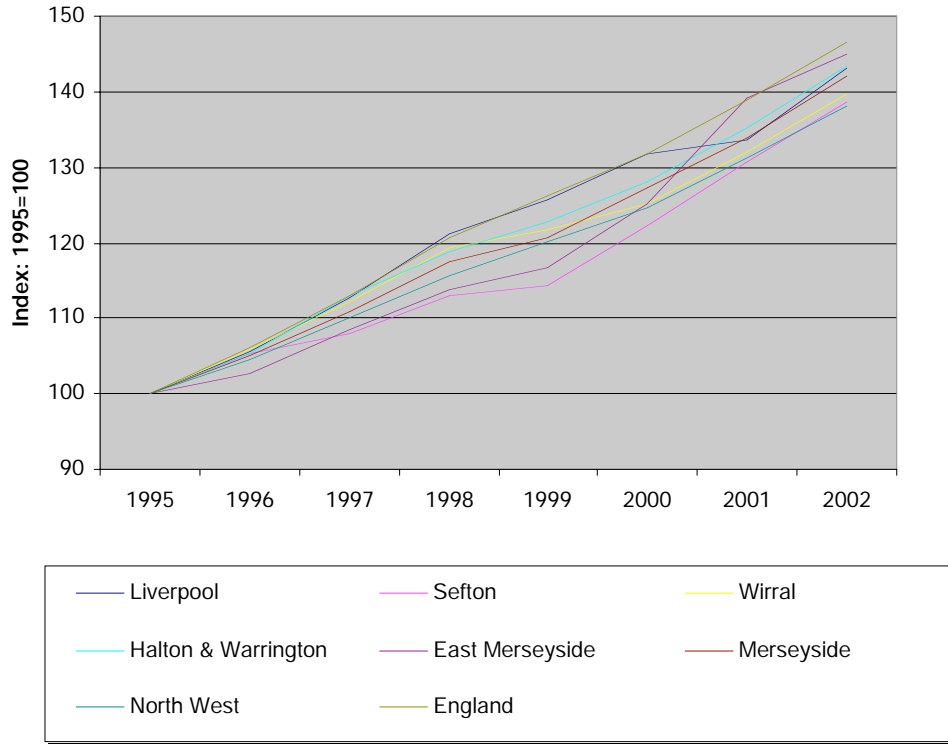
Source: Nomis

3.3.2 Gross Value Added (GVA)

A review of GVA growth between 1995 and 2002 has been undertaken for the districts where such data is available, which includes Liverpool, Sefton, Wirral and Halton and Warrington. In addition, the growth in GVA within East Merseyside, Merseyside, the North West and England as a whole has been reviewed.

Between 1995 and 2002 GVA within England as a whole grew by a greater proportion compared with GVA in Merseyside and its component districts, although the national average is skewed by strong growth in the South East and London. The growth in GVA within Merseyside has though been greater than the North West average, particularly in Liverpool and East Merseyside. GVA within the North West has increased steadily, but growth has not been as rapid compared to Merseyside since 2000. Whilst GVA has increased across all areas, there are differences in the rate of growth between each of the districts, as shown in Figure 3.3.

Figure 3.3: Indexed growth in GVA



Source: ONS

In terms of district level comparisons, between 1995 and 1998, Liverpool experienced the greatest growth in GVA, whereas Sefton and East Merseyside had a slower rate of GVA growth. However, since 1999 the GVA growth rate of East Merseyside has increased dramatically, whilst Liverpool's has been the slowest within this period. Overall the greatest growth in GVA between 1995 and 2002 was within East Merseyside, although both Halton and Warrington and Liverpool had similar levels of growth. Sefton has seen the lowest growth in GVA over the seven year period.

Table 3.1 shows GVA per capita levels within Liverpool, Sefton, Wirral and Halton and Warrington, as well as East Merseyside and Merseyside. Throughout the period 1995 to 2002, Halton and Warrington has had the highest GVA per capita, whilst Liverpool has had the second highest. Sefton, Wirral and East Merseyside have all continued to have GVA per capita levels lower than that of Merseyside as a whole.

Liverpool has experienced the greatest growth in GVA per capita between 1995 and 2002, although in the shorter-term (1999-2002) the rate of growth has been slower. In contrast, the rate growth in GVA per capita within East Merseyside has increased since 1999, as it has in Sefton – although Sefton has experienced the lowest level of overall growth in GVA per capita since 1995. All of the Merseyside areas have outperformed England and the North West in terms of GVA per capita growth since 1999 and only Sefton has not had a higher rate of growth than the national average between 1995 and 2002.

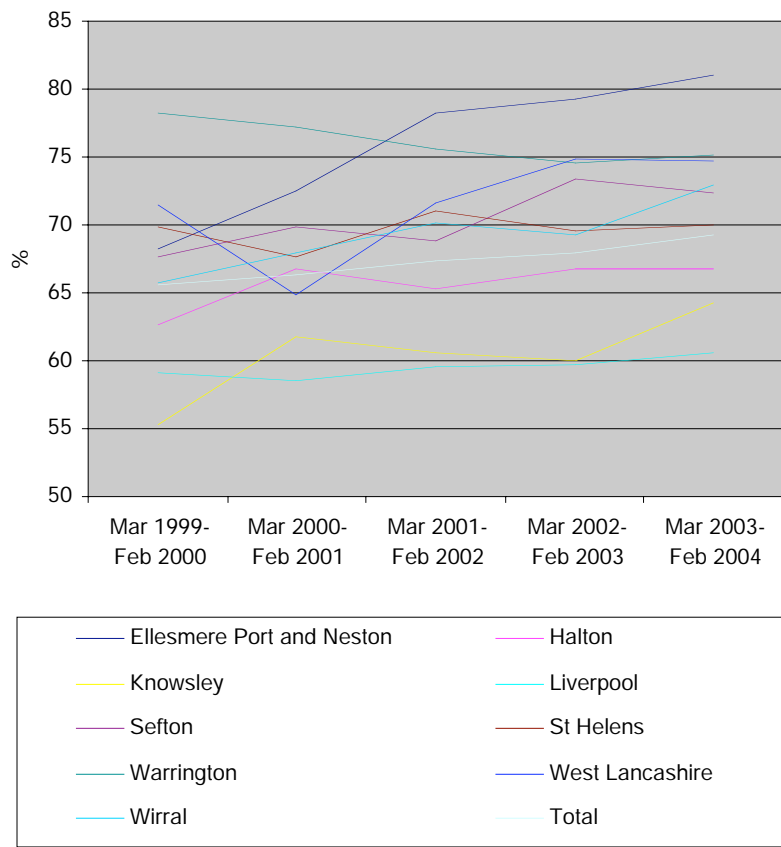
Table 3.1: GVA per capita					
	1995	1999	2002	% change 1995-2002	% change 1999-2002
Liverpool	9,150	11,912	13,776	51%	16%
Sefton	7,142	8,314	10,152	42%	22%
Wirral	6,372	7,982	9,232	45%	16%
Halton & Warrington	12,007	14,710	17,190	43%	17%
East Merseyside	7,116	8,362	10,415	46%	25%
Merseyside	7,619	9,420	11,176	47%	19%
North West	9,790	11,858	13,599	39%	15%
England	10,953	13,641	15,633	43%	15%

Source: Office of National Statistics

3.3.3 Employment

With regards to employment growth, of the nine HMR and reference area districts only Warrington has experienced an overall fall in employment rate since 1999/2000. As shown in Figure 3.4, seven of the other eight districts have seen overall growth in employment rate over the last five years, with St Helen's employment rate remaining relatively constant.

Figure 3.4: Employment rate (% of working age population)



Source: Local area Labour Force Survey

Between 1999/2000 and 2003/2004, the district of Ellesmere Port and Neston has experienced the greatest increase in employment rate (19%), with strong growth also in Knowsley (16%) and Wirral (11%). Over the same period the employment rate within Liverpool grew by 3% and in Warrington fell by 4%, compared to an overall growth across all nine districts of 6%. However, Warrington still has the second highest employment rate and, in contrast, Knowsley has the second lowest.

In addition to an analysis of resident employment, the growth in employees working within the HMR and reference area districts has been reviewed. Between 1995 and 2003 all of the nine districts have seen an increase in employees, with the largest increase in Knowsley (38%). The employee analysis for the nine districts, as well as the North West and England, is shown in Table 3.2.

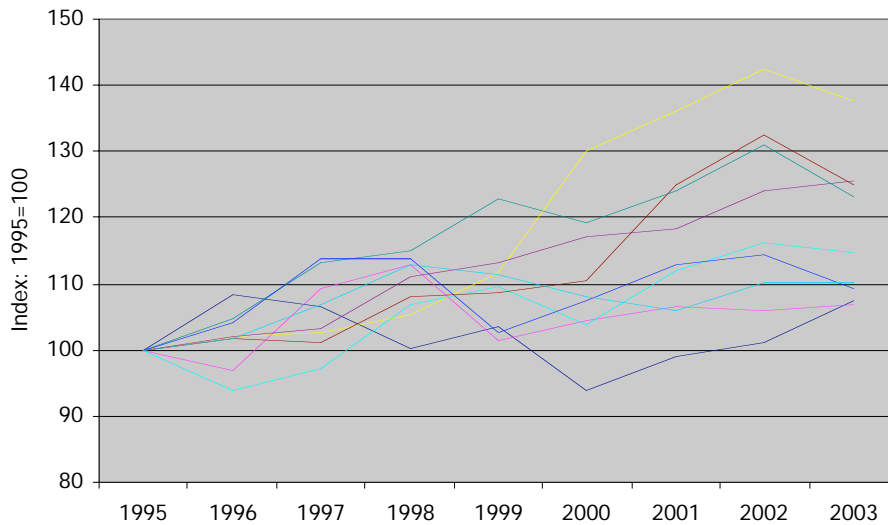
Table 3.2: Employee analysis					
	1995	1999	2003	% change 1995-2003	% change 1999-2003
Liverpool	189,400	207,400	217,200	15%	5%
Sefton	84,600	95,700	106,200	26%	11%
Wirral	92,100	102,600	101,400	10%	-1%
HMR districts	366,100	405,700	424,800	16%	5%
Ellesmere Port and Neston	32,300	33,400	34,700	7%	4%
Halton	48,600	49,300	51,900	7%	5%
Knowsley	39,500	44,000	54,300	38%	23%
St Helens	50,700	55,200	63,400	25%	15%
Warrington	88,000	108,300	108,500	23%	0%
West Lancashire	35,600	36,500	38,900	9%	7%
Reference area districts	294,800	326,700	351,700	19%	8%
Total	660,900	732,400	776,500	17%	6%
North West	2,614,700	2,841,000	2,991,300	14%	5%
England	19,625,200	21,590,800	22,302,100	14%	3%

Source: Annual Business Inquiry – employee analysis 1995-2003

Whilst the number of employees in all of the nine districts grew between 1995 and 2003, in the shorter-term some of the districts have experienced less pronounced growth. Between 1999 and 2003 the number of employees in Wirral fell by around 1% and in Warrington there were a similar number employed in 2003 than there were four years earlier. In contrast, the number of employees in Knowsley, Sefton, St Helens and West Lancashire has continued to grow significantly. It is worth noting, however, that between 2002 and 2003 the number of employees within Knowsley, St Helens and West Lancashire fell.

Overall, the proportional growth in employees has been greater in the HMR and reference area districts than within the region as a whole and England between 1995 and 2003. However, whereas a few of the districts have experienced steady employee growth over the last eight years, many of them have seen fluctuating patterns of growth, as shown in Figure 3.5. In addition, the growth in employment within Liverpool and Wirral, in particular, has been less marked than the growth in GVA within these districts. This is due to, in part, improvements in productivity and a change in industrial structure - with greater prominence of higher value added sectors.

Figure 3.5: Indexed employee growth



Source: Annual Business Inquiry – employee analysis 1995-2003

3.3.4 Business performance

In terms of business performance, there has been an increase in the stock of businesses in all nine districts and a growth of some 10% in business stock between 1995 and 2003 within the HMR and reference area districts combined, as shown in Table 3.3.

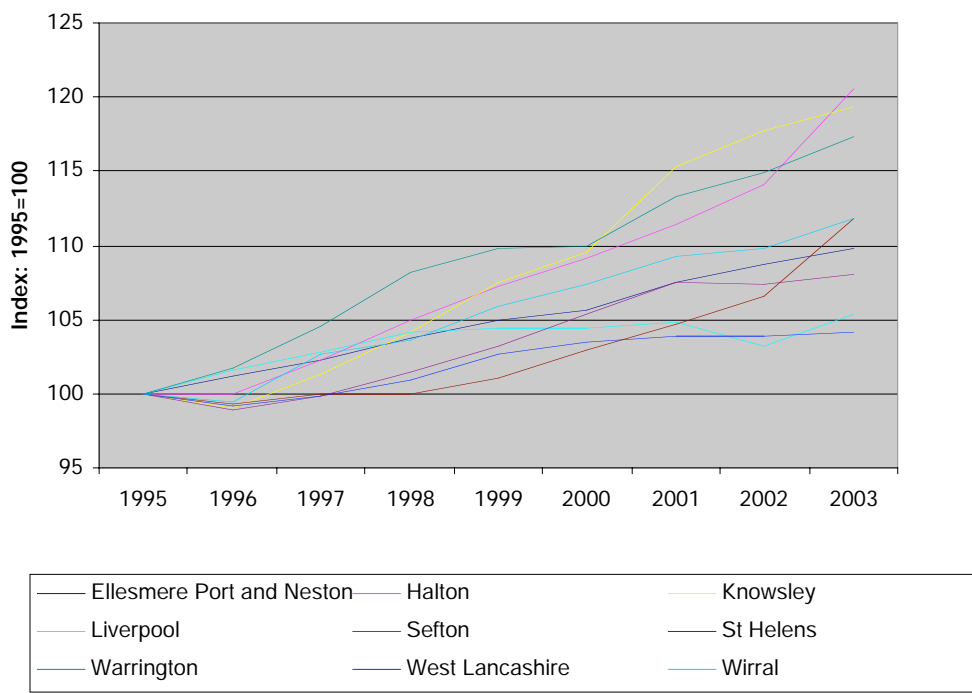
	1995	1999	2003	% change 1995-2003	% change 1999-2003
Liverpool	7,675	8,010	8,085	5%	1%
Sefton	5,075	5,235	5,485	8%	5%
Wirral	4,880	5,165	5,455	12%	6%
HMR districts	17,630	18,410	19,025	8%	3%
Ellesmere Port and Neston	1,325	1,390	1,455	10%	5%
Halton	1,800	1,930	2,170	21%	12%
Knowsley	1,470	1,580	1,755	19%	11%
St Helens	2,750	2,780	3,075	12%	11%
Warrington	4,265	4,685	5,005	17%	7%
West Lancashire	3,130	3,215	3,260	4%	1%
Reference area districts	14,740	15,580	16,720	13%	7%
Total	32,370	33,990	35,745	10%	5%
North West	160,425	166,515	172,080	7%	3%
England	1,376,040	1,485,195	1,547,210	12%	4%

Source: NOMIS – VAT business stocks

Overall, the HMR districts combined have grown at a similar rate to the region but below the rate of growth experienced within the reference area districts combined and nationally. The districts that have experienced the largest increase in business stock since 1995 are Halton (21%), Knowsley (21%) and Warrington (17%).

Whilst there has been an increase in business stock within all nine districts, Liverpool and particularly West Lancashire has experienced slow growth relative to other parts of the study area. Sefton has also seen growth in business stock below the average between 1995 and 2003, although over the last four years its rate of growth has improved. In general, however, the growth in business stock has been fairly steady between 1995 and 2003, as shown in Figure 3.6, in contrast to, for example, changes in total employees.

Figure 3.6: Indexed growth in business stock



Source: Nomis - VAT business stock

3.3.5 Sub-district HMR analysis

At the sub-district HMR level the Strategic Investment Areas (SIAs) have been and will continue to be particular foci for development and economic activity. The SIAs within the HMR area are as follows:

- Liverpool City Centre – substantial development is underway in Liverpool City Centre. For example, the Paradise Street retail scheme will create some 180,000 sq m of retail and leisure development (together with 38,000 sq m of residential accommodation), which will accommodate some 143 shops and two large department stores. It will effectively double the size of the shopping area in Liverpool City Centre. The scheme, which is under construction, is targeted for completion in 2008. Various office developments have also been completed or are underway. For example, the 13,000 sq m scheme at 101 Old Hall Street is complete and fully let.

- Atlantic Gateway (Liverpool and Sefton) – this SIA covers parts of South Sefton and North Liverpool. The programme includes support for site development, town centre (Bootle) regeneration and access and transport infrastructure improvements. However, limited development has taken place to date, although the port continues to expand in terms of volume handled.
- Approach A580 (Liverpool and Knowsley) – this SIA focuses on the A850 East Lancashire Road between Aintree and Knowsley. Key developments include those at the existing Knowsley Industrial and Business Parks, as well as the major new development at Stonebridge Business Park.
- Eastern Approaches (Liverpool) – this SIA focuses on the Edge Lane corridor. The key development is the proposed Liverpool Science Park, which may include the existing Wavetree Technology Park, the Marconi buildings and the adjacent MTL site. However, limited development has occurred thus far and Marconi has recently announced its intention to cease operations.
- Speke / Halewood (Liverpool / Knowsley) – the Speke Halewood area is a major centre for the automotive, biopharmaceutical and customer contact centre sectors. It includes Liverpool John Lennon Airport, which is one of the fastest growing airports in the UK. It is expected to continue to grow – potentially from the 3.4 million passengers in 2004 to 12 million in 2030. Major developments, including the National Bio-manufacturing Centre, are underway at the Estuary Business Park.
- Wirral Waterfront (Wirral) – the development of the Wirral Employment Corridor, including the Docklands, Birkenhead town centre, Lairdside, and the Wirral International Business Park at Bromborough. Developments are currently underway at the latter.

The key ‘hot spots’ at the sub-district HMR level are the City Centre, Speke / Halewood and the Approach A580 SIAs.

3.3.6 Summary

The analysis of hot and cold spots within the HMR and reference area districts has focused upon movements in population as well as growth in GVA, employment and businesses. In summary, the analysis has shown that:

- the majority of HMR and reference area districts, particularly Liverpool and Knowsley, have experienced a fall in population between 1981 and 2003;
- in contrast Warrington has seen a significant increase in population, although in recent years the population of Liverpool and Knowsley has shown signs of recovery;
- strong historic growth in GVA within East Merseyside, as well as Liverpool and Halton and Warrington;
- a lower rate of growth in GVA within Sefton and Wirral compared to Merseyside as a whole;
- greatest increase in employment rate between 1999/2000 and 2003/2004 occurred within Ellesmere Port and Neston, with strong growth also in Knowsley;
- largest proportional growth in employees between 1995 and 2003 was within Knowsley, although fluctuating patterns of growth over recent years;
- both Halton and Knowsley experienced the greatest proportional increase in business stock, with Warrington also seeing significant growth; and

- West Lancashire and Liverpool experienced smallest proportional increase in business stock between 1995 and 2003.

In terms of the HMR districts specifically, the analysis shows that the HMR area has experienced a large decrease in population over the last 20 years, although this seems to be levelling off. There has, though, been a marked improvement in the areas economic performance within recent years, with growth in GVA, employment and stock of businesses. In addition, there has also been significant economic growth in the reference area.

Knowsley, in particular, has performed well in terms of the economic indicators considered and could be seen as a 'hot spot' between the years 1995 to 2003. However, performance does vary over the period. At the district level, taking all of the indicators into account, there are no obvious and consistent 'cold spots'. For example, the Wirral has lost jobs over recent years, based upon the ABI, but business performance in terms of the stock of business has been strong.

The 'hot spots' at the sub-district HMR level have been and are likely to continue to be the SIAs, where significant levels of investment have been targeted.

4 Growth forecast results

4.1 Introduction

The forecasting work has included the production of economic, demographic and household forecasts for a range of future growth scenarios. This section outlines the results of the growth forecasts, as well as the potential impact of the HMRI.

4.2 Economic analyses

The economic analyses have involved the production of new, specific, economic forecasts prepared by Cambridge Econometrics. Cambridge Econometrics has developed economic forecasts using their LEFM – a forecasting model that provides a framework linking output and employment in the local economy to local spending and exports from the local area.

The latest LEFM forecasts have been used to generate GVA, GVA per capita, employment and unemployment projections to 2015 for the HMR districts and reference area.

Of the alternative future growth scenarios modelled by Cambridge Econometrics, the project delivery scenario is considered to best reflect the most likely future economic situation within the HMR and reference area. Appendix C contains details of each of the alternative economic scenarios. A summary of the results of the economic forecasts under the project delivery scenario is set out in Table 4.1.

Table 4.1: Economic forecasts – project delivery scenario			
	2005	2015	% change
GVA (£2000m)			
HMR districts	12,747	16,094	26%
<i>Liverpool</i>	6,549	8,477	29%
<i>Sefton</i>	2,976	3,720	25%
<i>Wirral</i>	2,890	3,501	21%
Reference area	11,880	14,488	22%
North West	93,774	114,909	23%
UK	916,406	1,169,578	28%
GVA per capita (£2000)			
HMR districts	12,325	15,610	27%
<i>Liverpool</i>	14,892	19,389	30%
<i>Sefton</i>	10,609	13,433	27%
<i>Wirral</i>	9,208	11,049	20%
Reference area	14,355	17,569	22%
North West	13,907	16,979	22%
UK	15,300	18,830	23%
GVA per capita % of UK average			
HMR districts	81%	83%	2 % points
<i>Liverpool</i>	97%	103%	6 % points
<i>Sefton</i>	69%	71%	2 % points
<i>Wirral</i>	60%	59%	-1 % point
Reference area	94%	93%	-1 % point
North West	91%	90%	-1 % point

Employment (000s)			
HMR districts	488	503	3%
<i>Liverpool</i>	252	261	4%
<i>Sefton</i>	121	124	3%
<i>Wirral</i>	115	118	2%
Reference area	416	431	3%
North West	3,381	3,462	2%
UK	30,493	32,107	5%
Unemployment (000s)			
HMR districts	19	11	-41%
Reference area	11	10	-12%
North West	103	111	8%
UK	880	952	8%

Source: Cambridge Econometrics

The project delivery scenario economic forecast shows that:

- GVA is forecast to increase within the HMR districts at a higher rate than at the North West level. However, with the exception of Liverpool, GVA growth is expected to be lower than within the UK as a whole;
- despite the significant growth forecast within the HMR, the GVA per capita of the area will remain below that of the North West and UK – although the gap is forecast to narrow, with Liverpool’s GVA per capita rising above the national average;
- with regard to the reference area, GVA is expected to grow but at a slower rate than in the HMR, the North West and UK. The GVA per capita of the reference area will, however, remain above the regional average;
- employment growth is forecast for the HMR districts combined and reference area to be above the regional average growth rate, although limited growth is expected relative to the previous five years and in the context of continued national growth; and
- a significant reduction in unemployment is forecast within the reference area and HMR districts particularly, in contrast to an expected increase in unemployment at the regional and national levels.

Overall, the HMR and reference area are forecast to continue to experience reasonably strong economic performance. However, the rate of economic growth in the HMR and reference area between 2005 and 2015 is expected to fall relative to the previous five years and be more in line with regional and national performance.

In addition to the headline economic forecasts summarised above, the LEFM has also produced forecasts for occupational change within the HMR and reference area. The occupational forecasts are shown in Table 4.2.

Table 4.2: Occupational forecasts: employment – project delivery scenario						
	HMR districts			Reference area	North West	UK
	Employment 2015 (000s)	Growth 2005-15 (no.)	Growth 2005-15 (%)	Growth 2005-15 (%)	Growth 2005-15 (%)	Growth 2005-15 (%)
Managers & senior officials	60.8	6.0	11%	8%	8%	15%
Professional occupations	83.6	13.5	19%	20%	16%	20%
Associate professional & technical	78.9	10.5	15%	20%	13%	18%
Administration & secretarial occupations	70.2	-7.6	-10%	3%	-7%	-12%
Skilled trades occupations	37.8	-9.1	-19%	-24%	-16%	-13%
Personal service occupations	46.5	9.2	25%	25%	28%	30%
Sales & customer service occupations	42.4	2.9	7%	15%	11%	14%
Process plant & machine operatives	36.8	-1.6	-4%	-14%	-7%	-4%
Elementary occupations	45.8	-9.4	-17%	-21%	-24%	-9%

Source: Cambridge Econometrics

The forecast occupational change within the HMR and reference area is similar to the trend expected for the North West and UK. There is expected to be strong employment growth in higher order occupations and a fall in employment within lower order occupations. Within the HMR, the highest proportional growth between 2005 and 2015 is in personal service occupations, whereas the largest absolute growth is forecast in professional occupations.

The occupational forecasts do not take account of the skills profile of the local labour force and as such there is an issue in terms of whether there is a sufficient skills base within the HMR districts and reference area to meet the forecast increased demand for higher order jobs. This issue is addressed in Section 4.3.

4.3 Demographic analyses

The demographic analyses have focused specifically on population and migration projections for the HMR districts and the wider reference area, as well as comparative projections for the North West region and England. This work has involved an assessment of forecast population growth using the ONS 2003-based sub-national population projections.

The ONS population and migration projections, as shown in Table 4.3, are unadjusted and do not take account of any potential impact as a result of the HMRI, and as such represent a base scenario. As well as the ONS based projections, population forecasts have also been created using APU's CPHM. The CPHM sets out forecasts based around three alternative migration scenarios that reflect a continuation of short-term and long-term migration trends and zero net migration. An analysis of the population forecasts for each of the alternative ONS and CPHM scenarios is set out in Appendix C.

Table 4.3: Population and migration projections – base scenario (000s)			
Population	2005	2015	% change
HMR districts	1,034	1,031	-0.3%
<i>Liverpool</i>	440	437	-0.7%
<i>Sefton</i>	281	277	-1.4%
<i>Wirral</i>	314	317	1.0%
Reference area	827	825	-0.3%
North West	6,820	6,943	1.8%
England	50,268	52,532	4.5%
Net migration	2005-10	2010-2015	Total
HMR districts	-1.6	-0.3	-1.9
<i>Liverpool</i>	-5.8	-5.5	-11.3
<i>Sefton</i>	2.0	2.1	4.1
<i>Wirral</i>	2.4	3.0	5.4
Reference area	-6.6	-4.5	-11.0
North West	27.2	32.2	59.3
England	604.6	623.0	1,227.6

Source: Office of National Statistics – 2003 based sub-national population projections

The ONS base scenario population and migration projections show:

- a slight fall in the population of the HMR districts combined as well as the wider reference area is forecast to occur between 2005 and 2015;
- in contrast to the other HMR districts, a forecast increase in the population of the Wirral of around 1% between 2005 and 2015;
- an increase in population forecast at the regional level and for England as a whole over the 10-year period;
- continuing net out-migration from the HMR overall, although this is projected to fall to zero by 2015;
- relatively significant net out-migration from Liverpool compared to the net in-migration forecast within Sefton and Wirral; and
- in comparison, both the North West and England are forecast to experience net in-migration throughout the 10-year period to 2015.

The ONS population projections suggest that, even without HMR intervention, the steady decline in population experienced over the last few decades within the HMR districts and reference area is expected to continue to slow down. This will be driven, in part, by improving levels of net migration in to the HMR area. However, the projected population change within the HMR and reference area relative to population growth at the North West and England levels is still poor.

The population projections are trend-based and do not take account of the expected positive future economic performance of the area. Regression analyses have been carried out that imply a relationship does exist between movement in population and economic indicators. However, this relationship varies significantly depending on whether changes in population are related to GVA or employment. Both did, though, show a positive correlation with population growth. It is likely therefore that trend-based demographic forecasts will not accurately reflect the relationship between population movement and economic indicators, where the latter differs from long-run trends.

A further set of population forecasts have been prepared that reflect the likelihood that positive future economic growth in the HMR area will attract new in-migrants over and above those projected in the ONS trend-based estimates. In order to estimate the potential additional level of in-migration the following methodology has been used:

- (i) the net economic and occupation projections (project delivery scenario) have been analysed to estimate future skill requirements;
- (ii) the local availability of skills within the workforce has also been projected, using 2001 Census data and Labour Force Survey information;
- (iii) a labour (skills) market balance has been estimated by combining (i) and (ii), which highlighted that a skills gap would exist
- (iv) the skills gap or deficit is assumed to be filled in three ways:
 - a. increased training / up-skilling – initiatives to increase the employability and skills of individuals currently not in employment are assumed to fill a proportion of the gap;
 - b. increased in-commuting; and
 - c. in-migration

An average household size has been applied to the new in-migrating workers required to fill the skills gap in order to establish the additional in-migrating population due to the expected positive economic performance. This has given a figure of some 8,000 additional residents from in-migration above base scenario forecasts.

- (v) the total population is then the sum of the ONS base projections and the expected additional in-migrants. The total forecast population is shown in Table 4.4.

Table 4.4: Impact of expected positive economic performance on population (000s)				
	2005	2015	Growth 2005 – 2015 (%)	Impact: % above base
Total HMR population	1,034	1,039	0.5%	0.8%

If, as thought likely, the expected positive future economic growth in the HMR area attracts additional new in-migrants then the forecast population in 2015 could be around 1,039,000. This represents over 8,000 additional residents in the HMR by 2015 above base scenario forecasts and would mean that the population of the HMR area remains stable over the 10-year forecast period. The majority of the additional in-migrant workers would belong to higher order occupations, specifically managers and senior officials, professional occupations and associate professional and technical occupations.

4.4 Household analyses

Household forecasts have been produced for the HMR districts and reference area, based upon the ONS 2003-based sub-national population and migration projections. Projections of private household population and household representative rates have been used to derive forecasts of total households within the HMR and reference area.²

The household forecasts have been derived from unadjusted ONS population and migration projections and thus reflect a base scenario, which takes no account of HMR

² These are derived from the APU modelling.

intervention. Appendix C sets out an analysis of the household projections under each of the alternative scenarios, including the three APU CPHM scenarios.

The base scenario household forecasts for the HMR districts and reference area, as well as for the North West and England, are shown in Table 4.5.

Table 4.5: Household forecasts – base scenario (000s)			
	2005	2015	% change
HMR districts	453	477	5.2%
<i>Liverpool</i>	194	203	4.7%
<i>Sefton</i>	120	126	4.8%
<i>Wirral</i>	139	148	6.5%
Reference area	348	368	5.8%
North West	2,941	3,144	6.9%
England	21,585	23,687	9.7%

The base scenario household forecasts show:

- a projected rise in the number of households within the HMR districts of 24,000 (5.2%) and within the reference area of 21,000 households (5.8%);
- in comparison, the number of households in the North West and England is projected to rise by 6.9% and 9.7% respectively, between 2005 and 2015; and
- the share of households within the HMR districts as a proportion of total households in the HMR and reference area combined is forecast to fall slightly.

In the absence of HMR intervention it is still forecast that the number of households within the HMR districts and the reference area will increase, although the rate of growth is projected to be lower than that experienced at the regional and national level. In addition, the increase in number of households within the HMR and reference area is expected to be 'driven' by changing household size rather than a net in-migration of persons.

If the potential additional in-migration to the HMR area due to the expected positive economic performance were included, then the total number of households in 2015 would rise to around 481,000 (see Table 4.6). This represents some 3,700 additional households in the HMR by 2015 above base scenario forecasts.

Table 4.6: Impact of expected positive economic performance on households (000s)				
	2005	2015	Growth 2005 – 2015 (%)	Impact: % above base
Total HMR households	453	481	6.2%	0.8%

In terms of housing by type, the future demand for new dwellings by type is difficult to predict in the absence of fully articulated and linked housing market, population and economic models. However, there are a number of trends evident that will influence the mix of housing:

- a decrease in average household size due to, amongst other things, increased life expectancy and breakdowns in relationships;
- the emergence of a city centre market; and
- the housing demands of specific groups, such as those moving in to the area to take-up high value added employment opportunities.

Table 4.7 shows the breakdown of dwellings by type in 1991 and 2001 for the HMR area, as well as for the reference area and North West.

Table 4.7: Dwellings by type, 1991 and 2001

	HMR			Reference			North West		
	1991 (%)	2001 (No, 000s.)	2001 (%)	1991 (%)	2001 (No, 000s.)	2001 (%)	1991 (%)	2001 (No, 000s.)	2001 (%)
Detached	10%	55	13%	15%	67	20%	15%	506	18%
Semi-detached	35%	167	38%	39%	139	41%	36%	1,053	37%
Terraced	37%	143	33%	36%	100	30%	36%	880	31%
Flats	18%	71	16%	10%	29	9%	14%	361	13%
Total	100%	436	100%	100%	335	100%	100%	2,800	100%

Source: NOMIS – 1991 and 2001 small area census statistics

The proportion of dwellings that are detached and semi-detached has risen in all areas over the period 1991 and 2001. Within the HMR area, Liverpool has experienced the greatest growth in such dwellings. The percentage of terraced properties has fallen significantly. However, in Liverpool in 2001 terraces still accounted for 46% of the stock. In contrast only 20% of the stock was made up of terraced properties in Sefton in 2001. The proportion accounted for by flats has also declined – albeit by a smaller amount than terraced properties.

The implications of these trends and the other forecasts for the future type of dwellings are as follows:

- Detached – continued growth expected as strong demand for detached properties remains. New in-migrants, particularly those taking up higher skilled jobs and with families, will further increase demand for this type of property.
- Semi-detached – again strong demand is expected for these often, more affordable, properties.
- Terraced – demand for this type of property is expected to remain more limited, in particular, where they lack gardens and other amenities. As such the stock of terraces in places will exceed demand. In contrast, some larger terraced properties with gardens will continue to be in demand.
- Flats – continued reduction in demand for older, poorly located flats, but with strong interest in City Centre living.

4.5 HMRI policy impact

In order to assess the potential impact of HMR intervention, in-migration and out-migration forecasts have been adjusted so that population growth within the HMR will be in line with regional growth. The adjusted in and out-migration flows have been used to derive revised population and household forecasts for the HMR districts. The impact of the HMRI is likely to occur once projects and policies begin to influence the ways in which local housing markets operate. As such there will be a time lag before it creates an impact.

It is assumed for indicative purposes that with HMR intervention the HMR districts could achieve population growth similar to that of the region. In the case of Liverpool and Sefton this would mean a growth in population rather than the decline projected under the base scenario. There would also be an increase in the net in-migration of households forecast, which along with changing household size would be expected to drive a rate of

growth in the number of households between 2005 and 2015 closer to that of national growth.

An estimate of the potential impact of the HMRI can be obtained by comparing these revised forecasts with the forecasts under the base scenario. This analysis is set out in Table 4.8.

Table 4.8: HMRI policy impact (000s)						
	Base scenario		HMR intervention		Impact (2015)	
	Change 2005-15	2015	Change 2005-15	2015	No.	%
HMR population	-3	1,031	14	1,048	17	1.7%
HMR households	24	477	32	484	8	1.7%

The potential impact of the HMRI, in addition to what is thought will happen anyway, on population and households could be:

- an additional increase in the population within the HMR districts of 17,000 people by 2015; and
- an additional increase in the number of households within the HMR districts of 8,000 by 2015.

As such, after taking into account HMR intervention, it is forecast that there would a growth in the population of the HMR area of some 14,000 people and growth in households of around 32,000 between 2005 and 2015.

The impact of the HMRI on other sub-regional housing markets will be assessed through complementary work on adjacency and displacement.

5 Conclusion

The preceding analysis has been undertaken in order to help inform and guide future public sector intervention and to ensure that limited public sector resources are invested in the most appropriate ways. The analysis has involved:

- an assessment of hot and cold spots;
- production of economic, demographic and household forecasts; and
- an analysis of the potential impact of the HMRI.

The key conclusions to emerge from this work are as follows:

- the population of the HMR and, to a lesser extent, of the reference area has fallen over the last 20 years, in contrast to an increase in population nationally – although recent demographic trends have shown population within the HMR and reference area becoming more stable;
- historically, economic growth in the reference area and particularly the HMR has been weak, with employment and GVA growing at a much slower pace than regionally or nationally. However, over recent years there has been strong economic growth within the HMR and reference area;
- whilst the fact that the HMR and reference area have experienced a considerable improvement in economic performance at the same time as greater population stability suggests there is some relationship between these two indicators, the degree of correlation is by no means certain – past trends suggests a lag in population growth from improved economic performance;
- with regard future economic performance, the HMR is forecast to experience strong economic growth throughout the next 10 years – the rate of growth, particularly in employment, though will be less marked than over the last five years;
- the population of the HMR and reference area is projected by ONS to decline, albeit marginally, between 2005 and 2015, in comparison to an increase in population at the regional and national levels. There is expected to continue to be net out-migration from the HMR and reference area, although this is projected to fall to zero by 2015;
- despite the projected fall in population, changing household size is expected to lead to an increase in the number of households within the HMR and reference area of around 24,000 and 21,000 respectively;
- the forecast positive future economic performance is expected to add a further 8,000 population and 3,700 households through in-migration in particular to take-up higher skilled jobs;
- the forecast increase in higher order occupations within the HMR districts and reference area may result in higher housing aspirations due to improved earnings; and
- a reduction in out-migration and/or increase in in-migration is required in order to achieve the same rate of population growth in the HMR between 2007 and 2015 as is forecast for the North West region as a whole. This could potentially increase the number of households within the HMR districts, above base forecasts, by around 8,000 (overall growth in households over the 10-year period would be 32,000).



Appendix A

Approach to Modelling Economic Forecasts

New Heartlands Forecasting Economic Forecasts Methodology

This Appendix explains the approach developed to modelling the economic forecasts, which has involved the production of new, specific local data and projections produced by Cambridge Econometrics.

The economic analysis has been underpinned by Cambridge Econometrics latest LEFM forecasts. The LEFM is a forecasting model that provides a framework linking output and employment in the local economy to local spending and exports from the local area.

The LEFM has been used to generate economic forecasts for the HMR area and reference area for a number of variables, including Gross Value Added (GVA), GVA per capita, employment and unemployment. In addition, comparative forecasts for the North West region and UK have been produced.

The forecasts have been modelled for a number of alternative growth scenarios, as follows:

- Scenario 1: pessimistic forecast – under this scenario decelerated economic growth has been modelled. This forms a risk assessment of the prospect that the economy will perform worse than assumed under base forecasts.
- Scenario 2: base forecast – a base scenario has been developed in order to assess the potential net impact of each of the proposed alternative future growth scenarios. This has been based upon LEFM forecasts for the area using the latest Cambridge Econometrics' growth coefficients. Under this scenario the LEFM model has been run without any adjustments to growth rates or performance.
- Scenario 3: project delivery – under this scenario the base forecast has been augmented by the inclusion of the projected impact that will result from key developments in the region including Liverpool Airport, bio-manufacturing industries, the Science Park and the Strategic Investment Areas (SIAs). Since the LEFM is based in part upon past trends it will already include some allowance for previous public sector spending programmes. As such, only the net additional impact of large-scale projects that would not be reflected within historic performance has been included.
- Scenario 4: optimistic forecast – this scenario has involved augmenting the project delivery scenario in order to reflect accelerated economic growth.



Appendix B
**Approach to Modelling Demographic
and Household Forecasts**

New Heartlands Forecasting

Demographic and Household Forecasts Methodology

This Appendix explains the approach developed to modelling demographic and household forecasts. The demographic and households forecasts have been based upon two sources - the Office of National Statistics' sub-national population projections and the Anglia Polytechnic University (APU) Chelmer Population and Housing Model (CPHM).

(i) ONS sub-national population projections

The sub-national population projections project forward the mid 2003 population estimates to provide an indication of future trends in population from 2004 to 2028. They are trend based projections incorporating assumptions for future levels of births, deaths and migration, based upon observed levels over the previous five years (1999 to 2003). As such they show what the population will be if recent trends continue. The projections do not take account of any future policy changes or local development policies that are yet to occur.

Population projections, as well as local net migration data for specific years, have been published for all local authorities across England. The projections for the three HMR districts and six additional reference area districts have been combined to provide population forecasts for the HMR and reference area. Comparative projections have also been produced for the North West region and England.

In addition, household forecasts have been derived for the HMR districts and reference area, based upon the ONS 2003-based sub-national population and migration projections. Projections of private household population and household representative rates have been applied to the population projections in order to obtain forecasts of total households within the HMR and reference area. Again, comparative forecast have been produced for the wider North West region and UK.

As well as HMR population and household forecasts based upon unadjusted ONS projections, revised forecasts have been produced in order to reflect HMR intervention. HMR intervention forecasts have been derived by adjusting in-migration and out-migration flows within the HMR, so that population growth within the HMR districts will be in line with regional growth. Comparison of the base forecasts and HMR intervention forecasts has provided an indication of the potential impact of the HMRI.

(ii) Chelmer Population and Housing Model (CPHM)

The CPHM is a demographically based population and household forecasting model developed at Anglia Polytechnic University. The model is a trend based model allowing for the projection of natural change (births and deaths) and the projection of migrants into and out of an area. The projections are produced for five yearly periods from 1996 to 2021.

The starting point population is derived from ONS 1996 population estimates, to which fertility and mortality rate projections are applied as well as projected levels of net migration in order to provide a projection of total population. Private household population is obtained by subtracting the projections of institutional population from the projected total population. Applying projected household representative rates to private household population projections can then be used to give an estimate of total projected households.

The CPHM has produced population and household projections for the HMR and reference area districts for three alternative migration-based scenarios:

- continuation of long-term 1993-2003 based migration trend;



- zero net migration; and
- continuation of short-term 1998-2003 based migration trend.

Comparative regional population and household forecasts have also been produced for the three migration-based scenarios.



Appendix C
Analysis of Alternative
Future Growth Scenarios

New Heartlands Forecasting

Analysis of Alternative Future Growth Scenarios

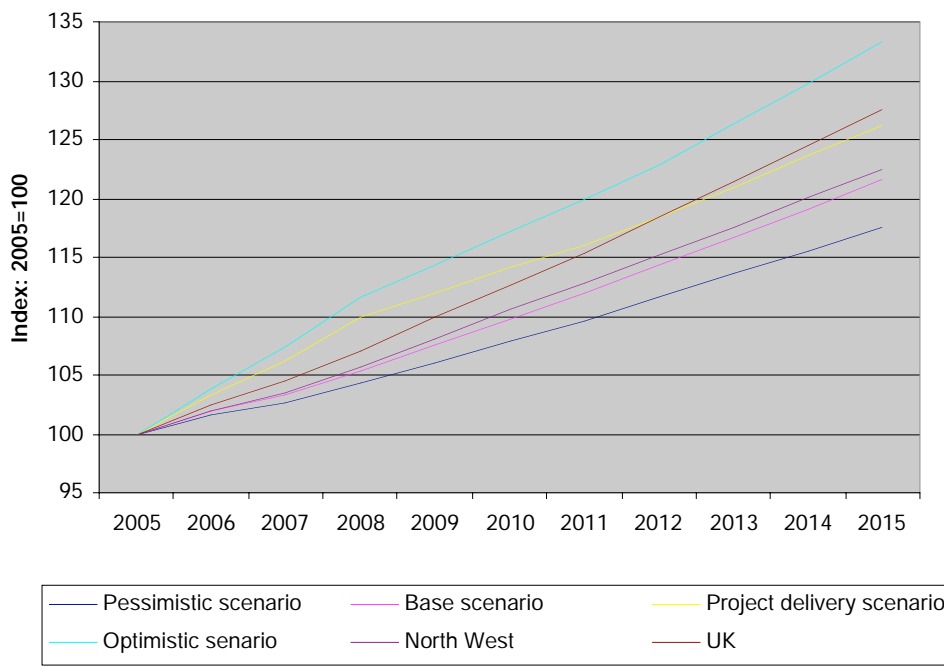
This Appendix sets out an analysis of the alternative future growth scenarios in terms of both the economic and population and household forecasts for the HMR. A full breakdown of the data by each scenario is presented in Appendix D.

1. Economic analysis

This sub-section sets out an analysis of the results from the economic forecasting work for each of the alternative economic scenarios. It includes a review of the economic forecasts produced using Cambridge Econometrics' LEFM, including comparative GVA, employment and unemployment estimates.

Under each of the alternative economic scenarios there is forecast to be growth in GVA within the HMR between 2005 and 2015, as shown in Figure C1. The greatest growth in GVA is expected under the optimistic scenario (33%), with GVA under the project delivery scenario also forecast to grow significantly (26%). In comparison, under the base scenario and pessimistic scenario GVA is forecast to grow at a slower rate (22% and 18% respectively) and below the regional average rate of growth. The GVA of the HMR districts is forecast to grow at a faster rate than the national average only under the optimistic scenario.

Figure C1: Indexed growth in GVA within HMR



In terms of GVA per capita, the HMR under all of the alternative economic scenarios is forecast to remain below the regional and national averages. However, there are significant divergences between each of the scenarios, with GVA per capita forecast to be £2,352 higher under the optimistic scenario compared to under the pessimistic scenario by 2015. In addition, whereas GVA per capita within the North West is expected to grow at a similar rate to the UK between 2005 and 2015, under the optimistic scenario and project delivery scenario GVA per capita as a percentage of the UK average is forecast to

increase. In contrast, GVA per capita growth within the HMR under the base scenario and pessimistic scenario is forecast to be at a slower rate than within the UK as a whole. A summary of GVA per capita within the HMR under each of the alternative economic scenarios is shown in Table C1.

Table C1: GVA per capita within HMR – alternative economic scenarios			
	2005	2010	2015
<i>GVA per capita (£, 2000)</i>			
Pessimistic scenario	12,066	13,074	14,222
Base scenario	12,106	13,340	14,767
Project delivery scenario	12,325	14,117	15,610
Optimistic scenario	12,392	14,577	16,574
North West	13,907	15,275	16,979
UK	15,300	16,902	18,830
<i>GVA per capita as a % of UK</i>			
Pessimistic scenario	79%	77%	76%
Base scenario	79%	79%	78%
Project delivery scenario	81%	84%	83%
Optimistic scenario	81%	86%	88%
North West	91%	90%	90%

Employment within the HMR districts is forecast to grow between 2005 and 2015 under all of the alternative economic scenarios apart from under the pessimistic scenario, as shown in Figure C2. As with GVA, the only scenario in which HMR employment is forecast to grow at a greater rate than the UK average is the optimistic scenario, under which jobs are expected to grow by 9% between 2005 and 2015. This compares to employment growth of 3% under the project delivery scenario and 1% under the base.

Figure C2: Indexed change in employment within HMR

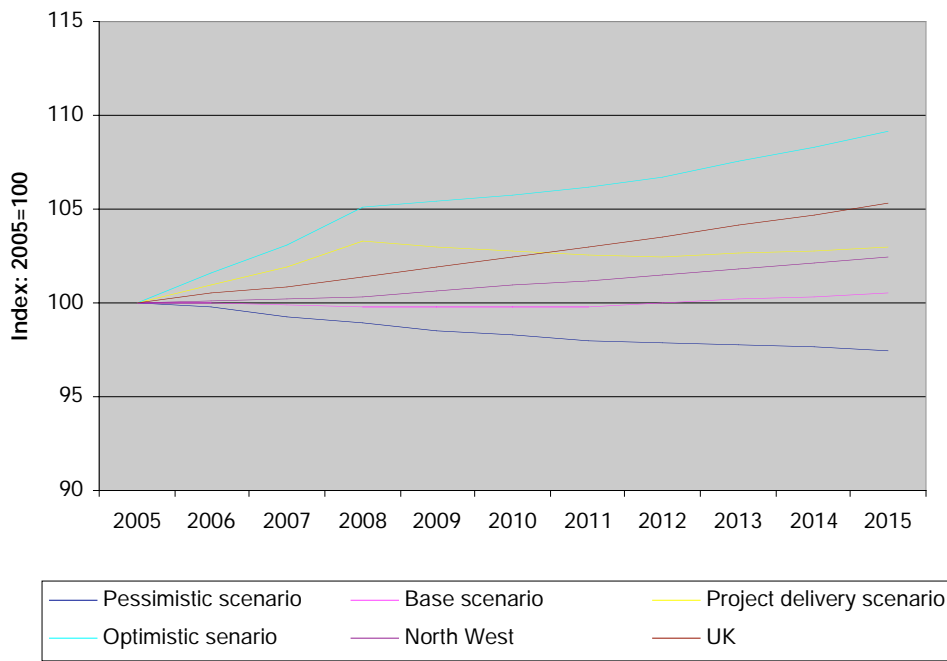
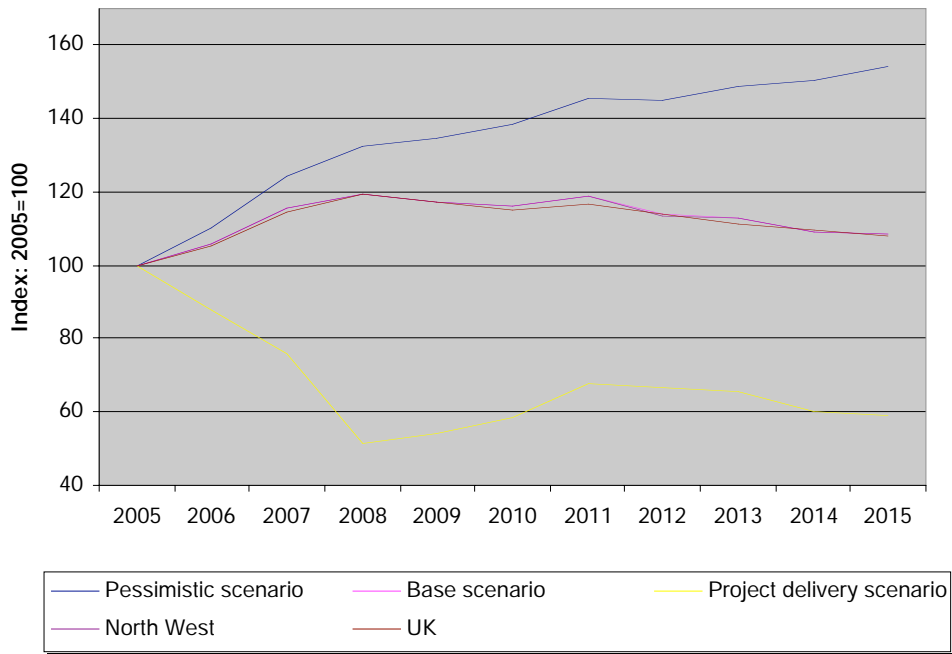


Table C2 shows the level of employment within the HMR under each of the alternative scenarios. Compared to the base scenario, forecast employment within the HMR under the pessimistic scenario would be 16,000 lower by 2015. In contrast, under the project delivery scenario there would be an additional 19,000 people employed within the HMR by 2015 as apposed to under the base scenario. Employment is forecast to be highest under the optimistic scenario, where there would be an additional 52,000 jobs compared to the base scenario.

	2005	2010	2015	Net impact above base (2015)
Pessimistic scenario	480	471	468	-3%
Base scenario	481	480	484	-
Project delivery scenario	488	502	503	4%
Optimistic scenario	491	519	536	11%

With regard to unemployment, under the base scenario the HMR would be expected to follow similar trends to those forecast for the North West region and UK, whereas under the pessimistic scenario much greater increases in unemployment are forecast. In contrast, under the project delivery scenario a substantial fall in unemployment is forecast between 2005 and 2015 within the HMR, as shown in Figure C3. The forecast reduction in unemployment would occur between 2005 and 2008, after which the number of unemployed would be expected to remain relatively stable.

Figure C3: Indexed change in unemployment within HMR



The unemployment rate under each of the alternative economic scenarios and within the North West and UK is shown in Table C3. Under the base scenario and, in particular, under the pessimistic scenario the rate of unemployment within the HMR would remain above the regional and national levels between 2005 and 2015 and the gap is forecast to increase. However, under the project delivery scenario and optimistic scenario the rate of unemployment within the HMR is forecast to fall below the average rate within the North

West and UK. By 2015 the unemployment rate forecast under the project delivery scenario would be less than half that forecast under the base scenario, and would be lower still under the optimistic scenario.

	2005	2010	2015
Pessimistic scenario	5.3%	7.4%	8.3%
Base scenario	5.0%	5.9%	5.6%
Project delivery scenario	3.8%	2.2%	2.3%
Optimistic scenario	3.3%	1.5%	1.5%
North West	2.9%	3.4%	3.1%
UK	2.8%	3.1%	2.9%

*Number unemployed as a percentage of the total labour force

Note: Optimistic scenario unemployment has been capped at 1.5% to allow for frictional unemployment

Table C4 presents a summary of the key indicators within the HMR for each of the alternative economic scenarios. By 2015 there is significant divergence between each of the scenarios with regard all of the key indicators. For example, GVA within the HMR under the pessimistic scenario is forecast to be some 4% lower compared to under the base scenario by 2015. In contrast, GVA will be 6% higher under the project delivery scenario and 12% higher under the optimistic scenario in comparison with the base scenario. GVA per capita and employment are also forecast to be significantly higher under the project delivery scenario and, in particular, the optimistic scenario compared with the base scenario by 2015.

	Pessimistic scenario		Base scenario		Project delivery scenario		Optimistic scenario	
	2005	2015	2005	2015	2005	2015	2005	2015
GVA (£m, 2000)	12,479	14,663	12,520	15,225	12,747	16,094	12,816	17,087
GVA per capita (£ 2000)	12,066	14,222	12,106	14,767	12,325	15,610	12,392	16,574
GVA per capita % of UK average	78%	76%	79%	78%	81%	83%	81%	88%
Employment (000s)	480	468	481	484	488	503	491	536
Unemployment (000s)	26	39	24	26	19	11	-	-

The preceding analysis has focused specifically upon the forecasts under each economic scenario for the HMR area. Economic forecasts have also been produced under each scenario for the reference area. The divergence in forecast growth between each scenario within the reference area is similar to that of the HMR area, although less pronounced, with significantly stronger growth projected under the optimistic scenario compared with the alternative scenarios. For example, GVA is forecast to be 8% higher under the optimistic scenario compared with the base scenario by 2015. However, GVA under the project delivery scenario will only be just above 1% higher than the base by 2015. A full breakdown of the economic forecasts under each scenario for the reference area is set out in Appendix D.

2. Population and household analysis

This sub-section sets out an analysis of the results from the population and household forecasting work for each of the alternative scenarios. It includes a review of the population and household forecasts produced using ONS sub-national population

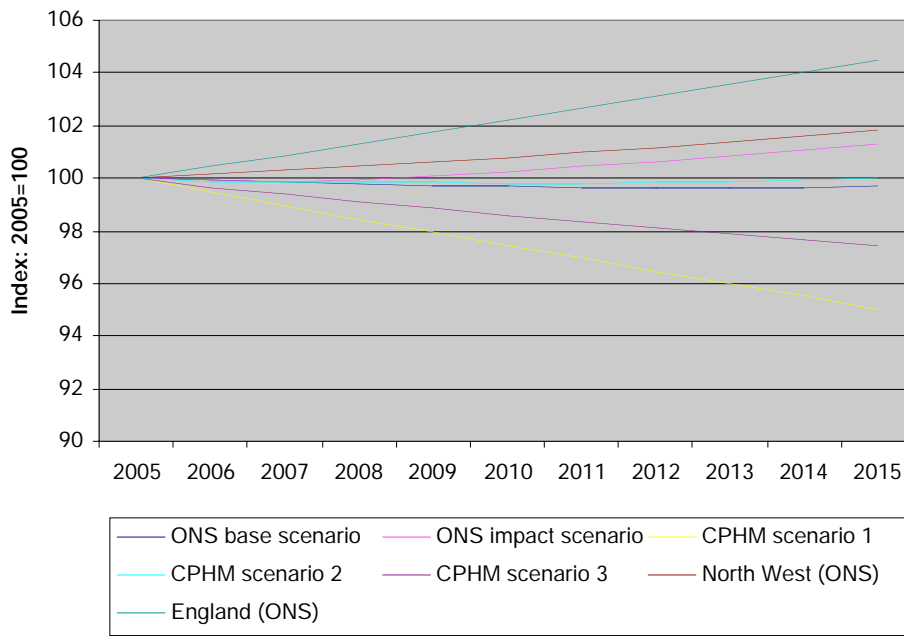
projections and APU's CPHM. The population and household scenarios modelled include:

- ONS base scenario
- ONS HMR impact scenario
- CPHM scenario 1 – long-term migration trend (1993-2003)
- CPHM scenario 2 – zero net migration
- CPHM scenario 3 – short-term migration trend (1998-2003)

As shown in Figure C4, the population of the HMR under the ONS base scenario is forecast to remain relatively stable, with a fall in population of just 0.3% projected between 2005 and 2015. The ONS base scenario is consistent with CPHM scenario 2, which assumes zero net migration over the 10-year forecast period. If, rather than zero net migration, a continuation of long-term migration trends were assumed (CPHM scenario 1) the population of the HMR would fall by 5.0% between 2005 and 2015. This compares to a smaller fall of 2.6% if short-term migration trends (CPHM scenario 3) continued throughout the 10-year forecast period to 2015.

In contrast to the other scenarios, the ONS impact scenario, which makes an allowance for the effect of HMR intervention, forecasts a growth in population within the HMR of 1.5%. The rate of population growth under the ONS impact scenario, between 2005 and 2015, is similar to that projected for the North West as a whole, although below that forecast for England.

Figure C4: Indexed change in population within HMR



With regard to projected household growth, all of the alternative scenarios forecast an increase in households within the HMR between 2005 and 2015. However, there is a noticeable variance in the degree of growth between the different scenarios, as shown in Figure C5. Whilst the number of households in the HMR under CPHM scenario 1 is forecast to remain relatively steady, both CPHM scenario 3 and CPHM scenario 2, in particular, forecast a growth in households – of 2.6% and 5.0% respectively. A similar

rate of growth in households to CPHM scenario 2 over the 10-year period is projected under the ONS base scenario.

It is worth noting, however, that the projected growth in households under the three CPHM scenarios and the ONS base scenario is driven off changes in household composition rather than improving levels of net in-migration. In contrast the growth in households forecast under the ONS impact scenario, of 7.0%, is partly due to increased in-migration and reduced out-migration from the HMR. This reflects HMR intervention aimed at improving the level of net migration into the HMR area. Even with HMR intervention, though, it is not thought that the rate of growth in HMR households will be as high as the rate of growth in England as a whole, which is projected to be almost 10% between 2005 and 2015.

Figure C5: Indexed change in households within the HMR

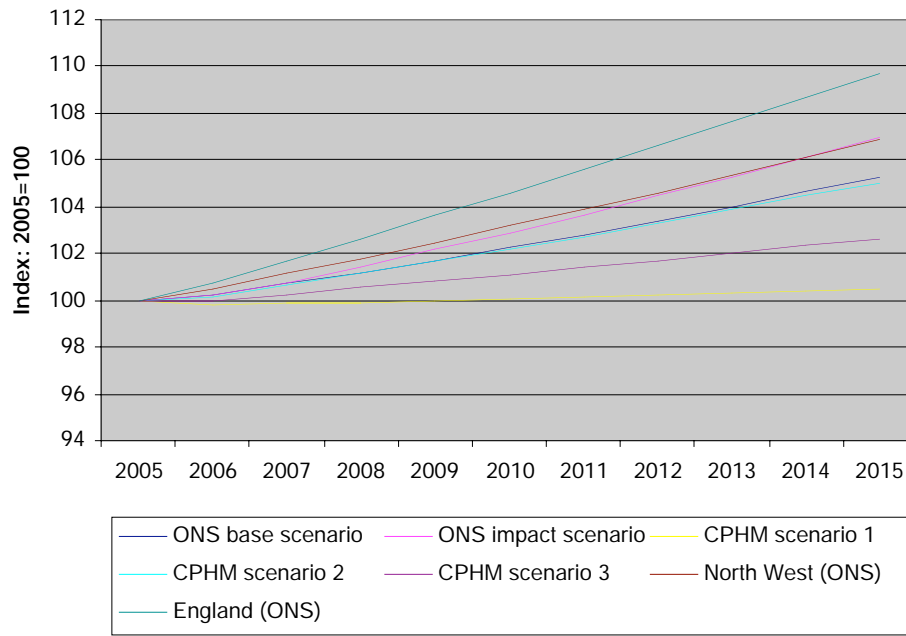


Table C5 sets out a summary of the population and household forecasts within the HMR for each of the alternative scenarios. Whereas the number of households is forecast to grow under each scenario, the ONS impact scenario is the only scenario under which a growth in population is forecast. By 2015 HMR intervention could lead to an additional 22,000 people residing within HMR districts over and above ONS base forecasts. However, an increase in population within the HMR would require a reversal of long-term trends, which if projected forward (CPHM scenario 1) would result in a decrease in population of 5% over the 10-year forecast period. The continuation of short-term trends (CPHM scenario 3) between 2005 and 2015 would also lead to a fall in population within the HMR, of 2.6%.

Under the ONS impact scenario it is forecast that there would be a growth in households of around 34,000 between 2005 and 2015, which is an additional 10,000 households over and above ONS base forecasts. This would require a substantial improvement in net in-migration of households into the HMR. Continuation of short-term (CPHM scenario 3) and long-term (CPHM scenario 1) trends would only result in relatively small increases in households, which would be due to changing household size rather than improved net migration.

Table C5: Summary of population and household forecasts within the HMR						
	Population (000s)			Households (000s)		
	2005	2015	% change	2005	2015	% change
ONS base scenario	1,034	1,031	-0.3%	453	477	5.3%
ONS impact scenario	1,034	1,048	1.5%	453	484	7.0%
CPHM scenario 1	1,018	967	-5.0%	437	439	0.5%
CPHM scenario 2	1,036	1,036	0.0%	443	466	5.0%
CPHM scenario 3	1,027	1,000	-2.6%	440	452	2.6%

As with the economic analysis, the preceding population and household analysis has focused upon forecast growth within the HMR. However, population and household projections have also been produced for the reference area under each of the CPHM scenarios and ONS scenarios. The CPHM projections do not vary as much under each of the different migration based scenarios for the reference area as they did for the HMR, although there is still some divergence. For example, CPHM scenario 1 (long-term migration trend) projects a slight fall in population within the reference area, as does CPHM scenario 3 (short-term migration trend) between 2005 and 2015. CPHM scenario 2 (zero net migration) on the other hand forecasts a small increase in population within the reference area. In comparison, the ONS scenario projects population to remain relatively steady throughout the 10-year forecast period. A detailed breakdown of the population and household projections under each of the scenarios is presented in Appendix D.



**Appendix D
Data Summary of Alternative
Future Growth Scenarios**