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## **The Black Country Consortium**

### **COMPARISON OF FORECASTS FOR WEST MIDLANDS REGION**

**A Report by: WM Enterprise Consultants**

#### **WEST MIDLANDS REGIONAL ASSEMBLY- REGIONAL PLANNING BODY**

This report has been prepared on behalf of the West Midlands Regional Assembly, the Regional Planning Body, as **technical advice** to **inform** the Regional Spatial Strategy Phase One Revision- Black Country Study. It is one of a suite of technical reports commissioned to inform the development of spatial policy as part of the Phase One Revision on West Midlands Regional Spatial Strategy.

# **COMPARISON OF FORECASTS FOR WEST MIDLANDS REGION**

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## **INTRODUCTION**

The following provides a brief comparison of the regional forecasts for the West Midlands produced by Cambridge Econometrics with those produced by Oxford Economic Forecasting.

The paper does not attempt to draw conclusions as to which set of forecasts is likely to be the more accurate, rather it attempts to draw conclusions as to whether or not differences between the two forecasts are likely to be material in the context of the current Black Country employment land study.

## **CONTEXT**

The Black Country Consortium is currently undertaking a review of employment land requirements through to 2031.

Consultants involved in this work commissioned a set of employment forecasts for the Black Country from Oxford Economic Forecasting. These forecasts effectively allocated employment projections for the West Midlands region between the Black Country and other parts of the West Midlands region.

Other employment forecasts used in the West Midlands region have traditionally been based around the Cambridge Econometrics model, possibly because Cambridge Econometrics was the first forecasting group to produce regional forecasts and because the initial forecasts were produced for the West Midlands region.

Inevitably, there is a degree of concern that the forecasts produced for the Black Country using the Oxford Economic Forecasting model will be at odds with the forecasts for other parts of the region, based on the Cambridge Econometrics model.

As a consequence, this paper reviews forecasts from both models in order to identify the degree to which there are differences that are likely to be viewed as material in terms of their employment land implications.

## **METHODOLOGY**

Although and as stated above, bespoke forecasts were produced for the Black Country using the Oxford Economic Forecasting model, it was not considered appropriate to produce similar forecasts using the Cambridge Econometrics model. Rather, the methodology used to identify the significance of differences between the forecasts from the Oxford Economic Forecasting, (OEF), model and those from the Cambridge Econometrics, (CE), model was based on a comparison of available information. As such, the comparison is partial and by inference rather than direct. Nevertheless, the conclusions drawn can be viewed as robust.

The comparisons made were primarily at a West Midlands regional level, although some comparisons were made at a Birmingham City level, in part to check that regional differences translated into sub-regional differences. No comparisons were made at a purely Black Country level, hence the statement that the comparisons were by inference rather than direct.

Whilst the comparisons are largely based on information supplied to subscribers to the two forecasters' regional services, some additional information was obtained from CE.

The additional information was requested because OEF provides sectoral information for its regions focused on employees in employment, whereas CE's sectoral information for its regions is for total employment, i.e. employees in employment, together with self-employment. In order to aid comparison, CE was asked to split its employment between employees in employment and self-employment. CE's provision of this normally unpublished, additional information, is gratefully acknowledged.

## **FINDINGS**

The following figure, (Figure 1), provides a broad comparison between the OEF and CE forecasts for the West Midlands region in each of 2003, 2005, 2007 and 2013.

The key features from Figure 1 are that:

- There is a disagreement over the starting position, particularly in relation to self-employment. Accurate figures for self-employment are, however, notoriously difficult to obtain at a regional level.
- OEF is forecasting that the West Midlands will see overall employment growth at a lower level than is forecast by CE, (0.20% v 0.54% per annum, 2003-2013).
- Both OEF and CE are expecting self-employment to decline in both absolute and relative terms, but with CE expecting the decline to be more pronounced. Specifically, OEF is expecting self-employment to decline by 0.49% per annum, 2003-2013, as against CE's 2.8% per annum rate of decline.
- CE is expecting the number of employees in employment to grow by 0.88% per annum, 2003-2013, whereas OEF is expecting the rate of growth to be a more modest 0.28%.
- Employment growth is expected by both forecasters to be focused on the service sector.
- OEF is expecting manufacturing employment to decline at a rate of 3.49% per annum between 2003 and 2013. CE sees the rate of decline as being a more modest 1.47% per annum. The net affect of this is that OEF expects there to be 64,000 fewer manufacturing jobs in the West Midlands region by 2013 than does CE. This represents a difference of between 17.1% and 20.6%, depending on the denominator used.
- Overall, OEF is expecting there to be 144,000 fewer jobs in the West Midlands by 2013 than is CE. This is a difference of over 5%.

**Figure 1: Comparison Between OEF and CE Forecasts For West Midlands Region in Selected Years**

	2003			2005			2007			2013		
	OEF ('000)	CE ('000)	Difference ('000)	OEF ('000)	CE ('000)	Difference ('000)	OEF ('000)	CE ('000)	Difference ('000)	OEF ('000)	CE ('000)	Difference ('000)
Employees in Employment	2,295	2,319	(24)	2,307	2,368	(61)	2,318	2,412	(94)	2,359	2,532	(173)
Self-employment	248	277	(29)	235	267	(32)	236	252	(16)	236	207	29
Total Employment	2,543	2,596	(53)	2,542	2,635	(93)	2,554	2,664	(110)	2,595	2,739	(144)
Employees in Manufacturing	442	433	9	411	410	2	380	399	(19)	310	374	(64)
Employees in Services	1,715	1,742	(27)	1,757	1,806	(49)	1,798	1,862	(63)	1,911	2,007	(96)
Employees – Other	138	143	(5)	139	153	(14)	140	151	(11)	138	151	(13)
Employees in Employment			(1.0%)			(2.7%)			(4.0%)			(7.3%)
Self-employment			(11.5%)			(13.6%)			(6.8%)			12.4%
Total Employment			(2.1%)			(3.7%)			(4.3%)			(5.5%)
Employees in Manufacturing			1.9%			0.4%			(4.9%)			(20.6%)
Employment in Services			(1.6%)			(2.8%)			(3.5%)			(5.0%)
Employees - Other			(3.8%)			(9.7%)			(8.1%)			(9.6%)

Note: Difference is OEF minus CE  
 Percentages are difference expressed as a percentage of relevant OEF total.

## STRUCTURE OF EMPLOYMENT DIFFERENCES

In the absence of a sectoral breakdown of self-employment from OEF, it is only possible to look at sectoral differences through an analysis of employees in employment.

The following figure, (Figure 2), provides details of the divergence between the OEF and CE forecasts, at 2013, by industrial sector.

**Figure 2: Differences Between OEF and CE Forecasts, By Sector, 2013**

	Number *	%**
	('000)	
Agriculture	(4.4)	(33.8)
Mining & Quarrying	(0.6)	(60.0)
Food, Drink, Tobacco	(1.9)	(6.1)
Textiles, Clothing & Leather	(2.0)	(40.0)
Wood & Wood Products	(1.9)	(27.1)
Paper, Printing & Publishing	(2.8)	(14.0)
Manufactured Fuels	0.5	50.0
Chemicals & Man-made Fibres	(4.1)	(58.6)
Rubber & Plastic Products	(1.9)	(8.6)
Non-Metallic Mineral	(5.2)	(28.9)
Base Metals & Metal Products	(12.5)	(18.9)
Mechanical Engineering	(8.1)	(21.3)
Electronics, Electrical, Instrument Engineering	(10.8)	(40.0)
Motor Vehicles & Other Transport Equipment	(8.6)	(17.2)
Other Manufacturing	(4.5)	(25.0)
Electricity, Gas & Water	0.5	4.2
Construction	(8.6)	(7.7)
Retailing & Distribution	(64.3)	(15.7)
Hotels & Catering	(8.2)	(5.7)
Transport & Communication	5.8	3.9
Banking, Finance & Insurance	16.9	24.5
Other Business Services	(7.2)	(1.7)
Public Administration & Defence	(2.0)	(1.7)
Education & Health	(41.0)	(8.2)
Other Services	4.0	3.8
Total	<u>(172.9)</u>	<u>(7.3)</u>
Total Manufacturing	(63.8)	(20.6)
Total Services	(96.0)	(5.0)
Total Other	(13.1)	(9.5)

\* OEF minus CE.

\*\* Expressed as a percentage of OEF 2013 employment.

In absolute terms, the retailing and distribution sector is the one that shows the greatest difference in the number of employees in employment between the OEF and CE forecasts. In relative terms, however, it is the manufacturing and extractive sectors where the differences are generally greatest.

In general, OEF takes a more pessimistic view of the West Midlands' ability to retain its manufacturing employment. Only in the case of the relatively small manufactured fuels sector, does OEF expect employment retention to be greater than does CE.

Equally but not directly shown in Figure 2, OEF does not expect any of the manufacturing sectors to see employment growth between 2003 and 2013, whereas CE is expecting employment to grow within both the wood and wood products and the chemicals and man-made fibre sectors.

Outside of manufacturing, OEF expects employment growth to be confined to the construction sector and to the service sector, with all elements of the service sector expected to contribute to that growth.

CE's forecasts show a similar pattern, other than they expect employment to decline within the banking, finance and insurance sector, within public administration and defence and within the other services sector, albeit that there is a degree of volatility within the overall trends for the former and the latter sectors.

## **LONGER-TERM FORECASTS**

The forecasts for the West Midlands from OEF run to 2013. The standard CE regional forecasts run to 2016. As such, both fall short of the 2031 forecasts that underpin the Black Country employment land study.

In order to overcome this deficiency and gain an insight into the longer-term, forecasts for Birmingham, produced by both forecasting groups, were obtained. These forecasts run to 2031.

These forecasts, as with the regional forecasts, show a different starting point and different rates of growth, with CE again producing the more optimistic forecasts.

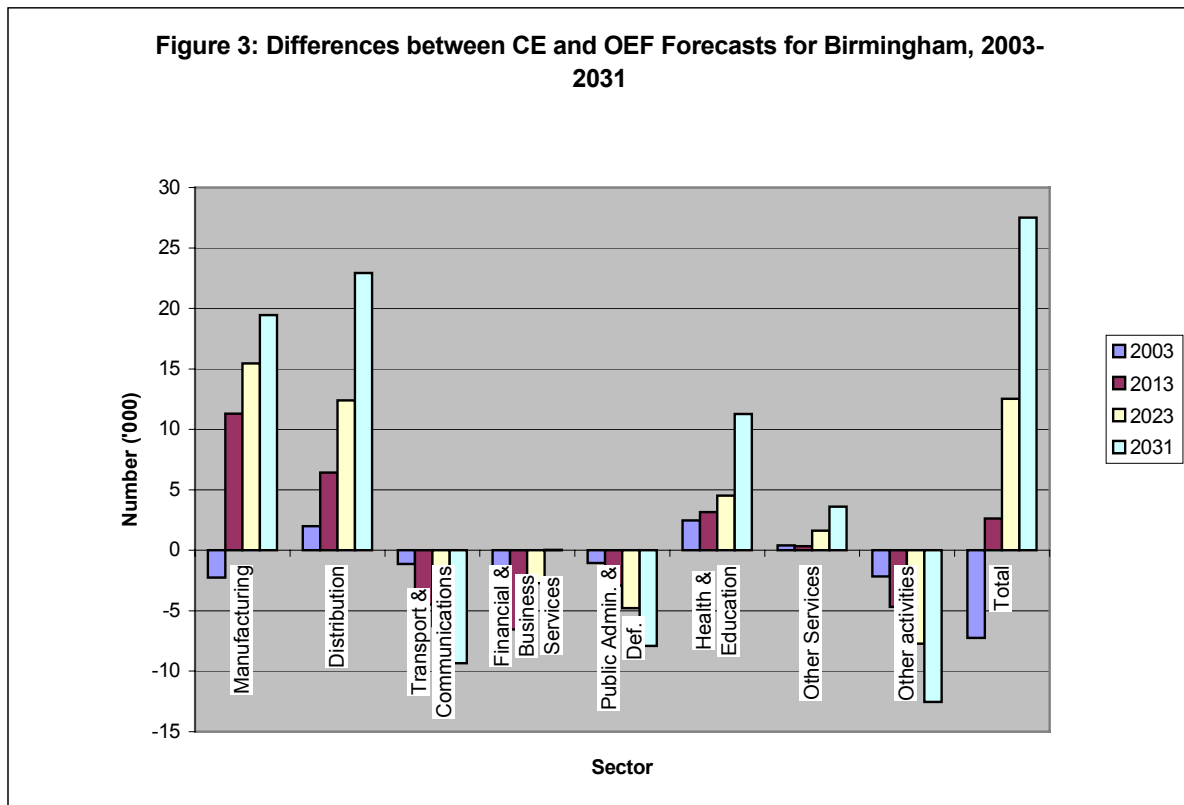
The overall position is that OEF expects employment in Birmingham to grow by 2.9% between 2003 and 2031, whilst CE expects the growth to be 8.7%.

OEF sees manufacturing employment declining by 65.4% over the period, whilst CE expects a more modest decline of 45.0%.

Within the service sector, both OEF and CE see the main driver of growth as being the financial and business services sector, with OEF seeing employment growth in the sector of 40.1% over the period 2003-2031. CE expect the growth to be higher, at 47.2%.

The only sectors where OEF and CE expect different directions of change are distribution and public administration and defence. In the case of the former, OEF expect employment to decline by 5.1% between 2003 and 2031, whereas CE expects growth of 11.6%. In contrast, OEF expects employment within public administration and defence to grow by 15.7%, whereas CE expects a 6.2% decline.

In general, there is a tendency for the differences between the two sets of forecasts to become more pronounced over time. This is shown in the following graph, Figure 3.



Note: The 2031 figures have been adjusted to cover a period of 10 years to make them directly comparable with the other figures.

The implication from the graph is that the forecasts for the West Midlands region that underpin the Birmingham forecasts will, also show an increasing level of divergence through to 2031 and beyond.

This view is supported by the fact that Birmingham's share of regional employment, both in total and within individual industries, tends not to change dramatically through to 2015, the latest year for which such information was made available.

In order to gain further understanding, the CE forecasts were rebased using the OEF forecasts' starting point and the OEF forecasts rebased using the CE forecasts' starting point. In this way, four forecasts were produced:

- original CE forecasts
- original OEF forecasts
- rebased CE forecasts
- rebased OEF forecasts.

Elements from these forecasts were then selected to produce, for each sector, a maximum growth scenario and a minimum growth scenario.

Under the maximum scenario, employment in Birmingham would grow from an estimated current maximum employment total of 519,000 to just over 584,000 between 2003 and 2031. Under the minimum scenario, employment would decline from an estimated current maximum employment total of 502,000 to just over 496,000. This gives a difference between the two forecast changes in employment of 71,000.



The key elements of this difference are distribution, which accounts for 23.1% of the difference, manufacturing, (21.7%), financial and business services, (14.7%), and construction, (10.9%). Further detail is provided in Figure 4.

**Figure 4: Comparison of Maximum and Minimum Employment Growth to 2031, Birmingham**

	Additional Employment		Difference (‘000)	Share of Difference %	Difference as % of 2003 Employment
	Maximum (‘000)	Minimum (‘000)			
Manufacturing	(37.1)	(52.4)	(15.3)	21.7	(18.9)
Construction	0.8	(7.0)	(7.7)	10.9	(32.4)
Distribution	11.4	(4.9)	(16.3)	23.1	(16.8)
Transport & Communications	7.8	1.4	(6.4)	9.0	(19.5)
Financial & Business Services	54.9	44.5	(10.4)	14.7	(9.2)
Public Administration & Defence	3.8	(1.4)	(5.3)	7.4	(22.1)
Health & Education	19.3	12.7	(6.5)	9.2	(6.3)
Other Services	5.4	3.0	(2.5)	3.5	(8.0)
Other Activities	0.0	0.0	0.0	0.0	0.0
Total	65.3	(5.5)	(70.7)	100.0	(13.9)

From the above figure, it is apparent that there are significant differences between the CE and OEF employment forecasts through to 2031. These differences exist even when basing discrepancies are removed.

## IMPLICATIONS FOR BLACK COUNTRY

Inevitably, the Black Country has a different industrial structure from that of either Birmingham or the West Midlands region as a whole. As such, it is not feasible to quantify the difference between forecasts for the Black Country using the CE model and those using the OEF model, unless detailed forecasts using both models are produced.

Despite this, it is possible using the information available to produce indicative forecasts and thereby estimate the likely differences.

This is shown in the following figure, (Figure 5), and is based on Table 2.1 of the GHK report Spatial Implications of the Proposed Economic Strategy.

**Figure 5: Indicative OEF and CE Forecasts For Black Country, 2030**

Employment	Current (‘000)	OEF Baseline (‘000)	CE (‘000)
Manufacturing	112	47	67
Logistics & Distribution	55	58	123
Retail	55	54	
Financial & Business Services	72	106	12
Public Administration	23	26	21
Personal Services	46	48	50
Total of Above Sectors*	363	337	373

\* The total excludes certain sectors, including education, health, construction and transport and is not, therefore, a Black Country total.

One of the key features from the above figure is that there are significant differences between the OEF Baseline forecasts for the Black Country and the indicative CE forecasts. This is particularly true in the areas of manufacturing and logistics, distribution and retail.

The differences between financial and business services and public administration broadly cancel each other out and it could be argued that the allocation between these sectors is mainly as a result of different assumptions regarding the privatisation of public services.

**SCENARIOS**

Table 2.1 within the GHK report also, provides employment estimates under different scenarios. None of these scenarios makes any adjustment to the manufacturing employment estimates. As such, there is a constant 20,000, (42%), difference between the OEF forecasts for manufacturing and the CE forecasts.

The logistics, distribution and retail sector shows a baseline forecast difference of 11,000 between the OEF and CE forecasts. Under the scenarios, this difference moves to a maximum 11,000 the other way, i.e. with OEF forecasting greater employment than does CE.

Further detail is provided in the following figure, (Figure 6).

**Figure 6: Comparison Between Indicative CE Forecasts and GHK Scenarios for Black Country Employment, 2030**

	CE Indicative (‘000)	GHK	
		Baseline (‘000)	Maximum (‘000)
Manufacturing	67	47	47
Logistics & Distribution, Retail	123	112	132
Public Administration	112	106	155
Personal Services	21	26	31
	50	48	56
	373	339	421

The scenarios generate higher employment in all sectors, other than manufacturing, than does the CE model. This is to be expected, given the nature of the scenarios and the fact that they are driven by aspiration and policy rather than by current economic circumstances.

**CONCLUSION**

Every indication from the above analysis is that there are material differences between the employment forecasts produced by CE and those produced by OEF. These differences appear to strengthen and widen over time, rather than narrow.

The differences are such that employment land allocations based on the OEF model could seriously understate the employment land requirement. Equally, employment land allocations based on the CE model could seriously overstate the employment land requirement.

Use of the OEF model to generate employment land requirements for the Black Country will mean that the Black Country allocation will be at odds with allocations made elsewhere in the region, based on the CE model. This is particularly true in terms of manufacturing and distribution.