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The Structure of the West Midlands Economy: West Midlands in the UK context

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Summary

- There are different geographical definitions of the West Midlands Economy (WME). In this policy brief we use the NUTS 2 (UKG3) definition which includes Birmingham, Solihull, Coventry, Dudley, Sandwell, Walsall and Wolverhampton.
- The largest WME sectors in terms of their overall contribution to the economy are not the sectors in which the WME is relatively specialised. The WME is specialised in sectors such as manufacturing, transportation storage and education.
- In terms of household income, the WME is relatively low with a consumption profile similar to a region such as Tees Valley and Durham and very different to somewhere such as Inner London.
- The WME has a relatively high public expenditure on employment policies.
- The WME is the tenth largest UK region in terms of total investment.

Introduction

This research is part of the Socio Economic Impact Model of the UK (SEIM-UK) (<https://www.birmingham.ac.uk/schools/business/research/research-projects/city-redi/socio-economic-impact-model-for-the-uk.aspx>). In this policy briefing we are going to use the information contained in the interregional Input-Output database developed as part of the wider SEIM-UK project to show the main features of the structure of the West Midlands economy.

The Structure of the West Midlands Economy

A regional economy, like the West Midlands (WME) (see figure 1 and 2 to understand differences between WME at NUTS1 and at NUTS2 areas) can be compared to its national counterpart along many dimensions. In this policy briefing, the WME is evaluated in terms of four criteria: **Production** (the value of goods and services produced), **Consumption** (expenditures by resident households on goods and services); **Public Consumption**; and **Investment**.



Figure 1: Regional GVA per head NUTS1 2013
Source: ONS Statistical bulletin 10 December 2014

WME NUTS1 (Includes UKG1 - Herefordshire, Worcestershire and Warwickshire, UKG2 - Shropshire and Staffordshire, and UKG3 – West Midlands)

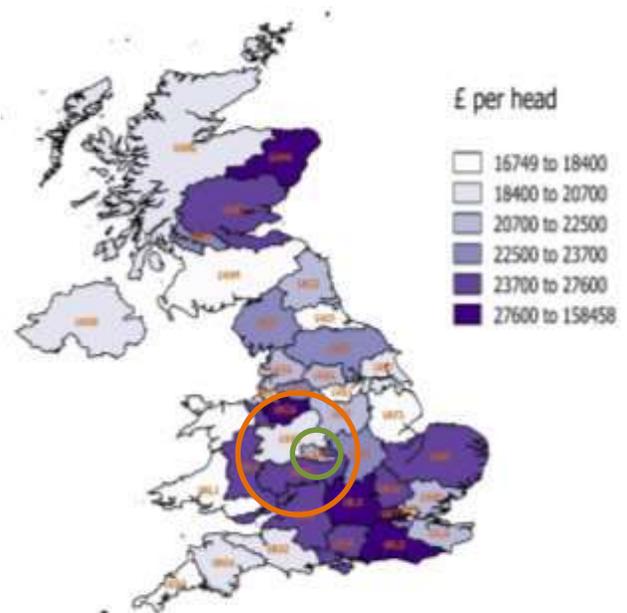


Figure 2: Regional GVA per head NUTS2 2016
Source: Own elaboration

WME NUTS2 (Includes UKG3 – Birmingham, Solihull, Coventry, Dudley, Sandwell, Walsall and Wolverhampton)

Production or Value Added

Gross Value Added can be defined as **gross income** generated from domestic production in an industry or sector, i.e. output (production) less intermediate consumption.

Figure 3 shows the breakdown of total value added by sector in the WME (NUTS2). The three largest sectors are **Real Estate; Wholesale and Retail;** and **Human Health and Social Work**. However, in order to understand the distinct nature of the WME we need to compare it to the national UK economy by calculating an employment location quotient for each sector. A value greater than 1 implies the region is relatively specialised in the sector and a value less than 1 implies that it is not specialised in the sector.

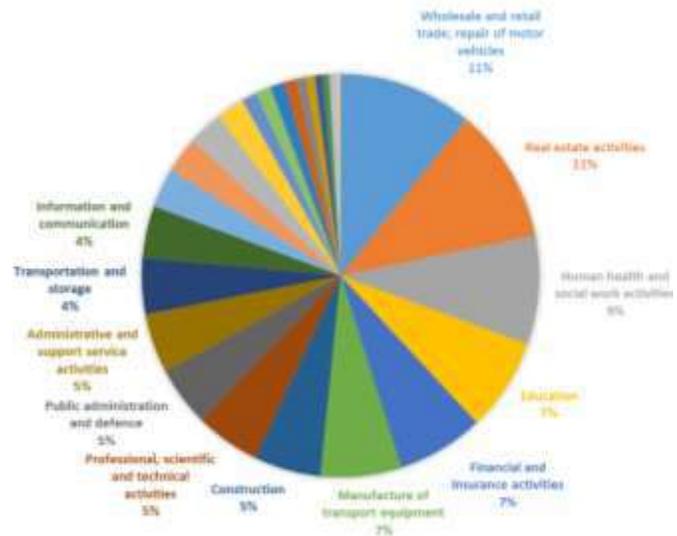


Figure 3: Value Added by industry for WME NUTS2.

We see in Figure 4, that the top five activities with a higher Employment Location Quotient in West Midlands (UKG3) are Manufacture of motor vehicles, Manufacture of basic metals, Manufacture of fabricated metal products, Remediation activities and other waste management services, and Water collection, treatment and supply. **These are the sectors in which the WME is specialised.**

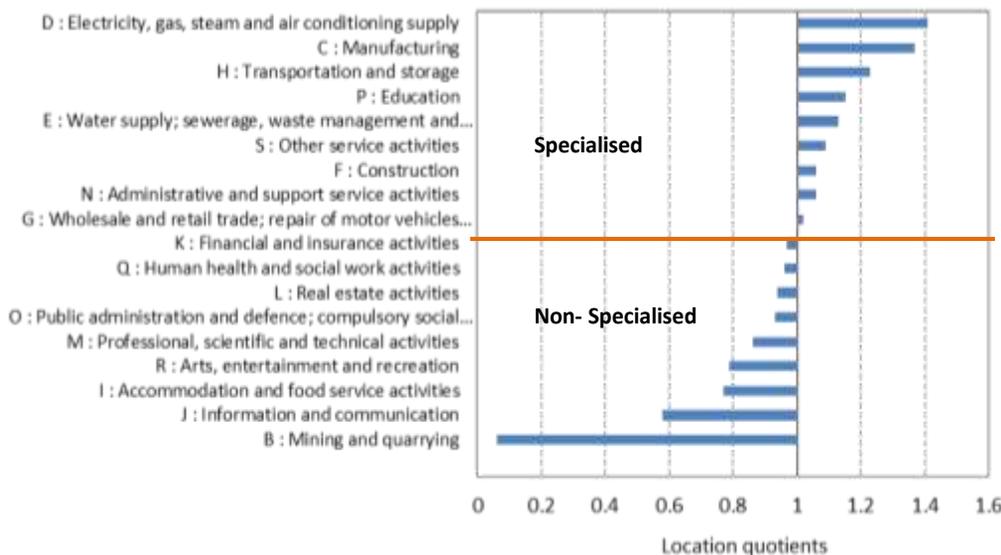
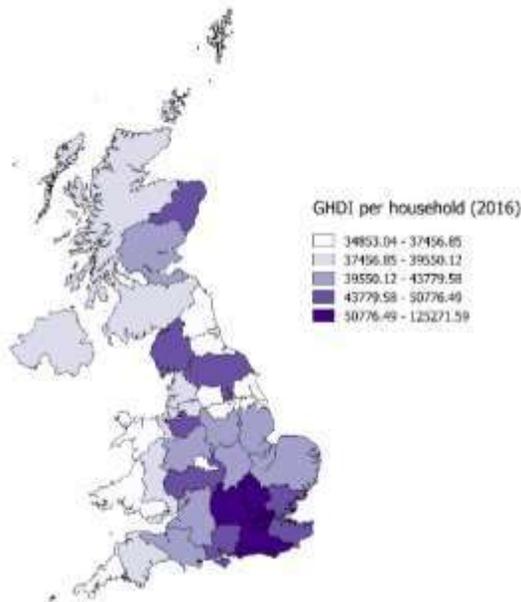


Figure 4: Location Quotients by Sector for West Midlands NUTS2, 2015

Location quotients calculated with $LQ = (E_{i,r} / E_i) / (E_r / E)$ as employee jobs in a specific industries.

Private Consumption and Disposable Income

Before examining differences in consumption, Figure 5 shows Gross Disposable Income by Household (GHDl) (revenues of the households after paying current taxes and other expenditures) for the year 2016 from the Regional Accounts (ONS). As can be seen, there are some **important differences across regions**; while there is a pronounced south-north gradient, there are some regions in the north and in Scotland with higher GHDl than some southern regions.



The WME (UKG3-NUTS2) appears as one of the regions with a **lower GHDl** together with West Wales, Cornwall, the North East, East Riding, and South and West Yorkshire (areas in white). According to the ONS, one of the main reasons behind this is that Birmingham had the **lowest employment rate for women** across the UK. 50.2% of women aged 16 to 64 were in work (2013 data). It means that Birmingham has a higher than average proportion of its women that do not work, staying at home looking after their family. This may be linked to the diverse ethnic population within the area (ONS, Women in the labour market – 25th September 2013).

Figure 5: Gross Disposable Income per Household

Do households in the WME spend money on different goods and services than those in the rest of the UK? Figure 4 compares WM private expenditures with the UK and shows a comparison with three other regions: Tees Valley and Durham, Inner London West and Northern Ireland. As can be easily seen **the patterns of consumption differ between regions**. With respect to the UK average, the main difference from the expenditures of the households in the WM economy is their **lower expenditure share on education (P) and a little bit more in real estate activities (L)**.

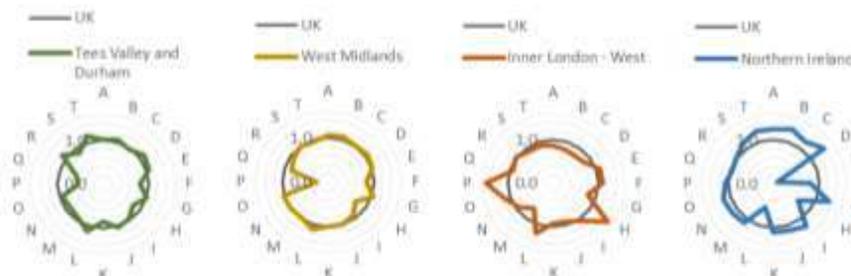


Figure 4: Consumption profiles of the households in selected regions in 2016

Public Expenditure

Figure 6 shows public consumption (central and local) by NUTS1 regions weighted by their population size. With the exception of **expenditures on employment policies**, the WM region (UKG) is at or slightly below the UK average on all other categories. Note the above average expenditures for transport in Greater London (UKI); for environmental protection in the North West (UKD); and for economic development, in Wales (WL), Scotland (SCT) and Northern Ireland (NI). The latter three regions are also receiving above average expenditures for employment policies, for agriculture, fish and forestry, and for housing.

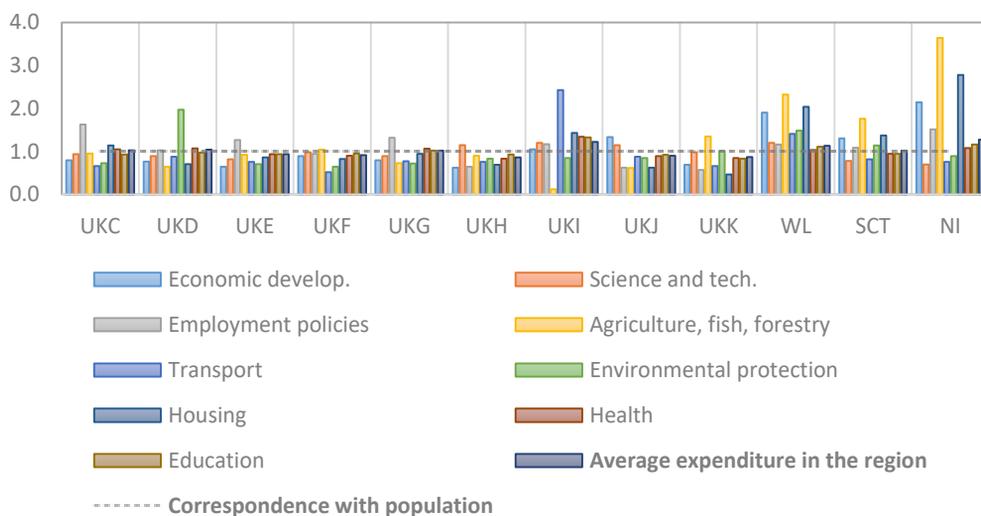


Figure 6: Public Expenditure by NUTS1 regions relative to their size in population.

Gross Fixed Capital Formation

Figure 7 presents the allocation of regional expenditures on gross fixed capital formation at the NUTS2 region level. WME (UKG3) appears in the **top 10 regions in terms of total investment** in the UK together with three regions from London, another 3 from the South East, East Anglia, Eastern Scotland, and the Gloucestershire, Wiltshire and Bristol/Bath area.

Figure 7: Distribution of the UK investment between the different NUTS2 regions.



Regions code:
 (Red – Greater London regions; Gold – South East; Grey – South West; Yellow – East of England; Purple – Scotland; Light Green – West Midlands; Blue – North West; Green – East Midlands; Light Blue – Yorkshire and the Humber; Dark Green – Wales; Dark Blue – North East; Light Grey – Northern Ireland).

Discussion

This is the first of a series of policy briefings linked to [the Socio Economic Impact Model for the UK \(SEIM-UK\) project](#). In this first policy briefing, we analyse the structure of the West Midlands Economy (WME) in terms of production and value added; private consumption and disposable income; public infrastructure and gross fixed capital formation. This analysis is constructed by the use of Interregional Input-Output tables for the UK case.

WME shows a concentrated industrial structure in terms of value added and production distributions. WME is mainly specialized in manufacturing sectors and also certain supply services (such as transportation, education, waste management services or water collection, treatment and supply). These sectors drive the region's exports. Overall, including locally-oriented activities, the major contributors to the WME in terms of value added are Real Estate; Wholesale and Retail; and Human Health and Social Work.

The patterns of private and public consumption in the WME are close to the UK average. WME private consumption is very similar to the UK average, except for the shares on education and real estate activities.

In terms of local public expenditure, local employment policies are a major focus of WME, and our analysis shows that overall WME is in the top 10 of UK regions in terms of total investment.

Finally, an important point which comes out of our analysis is that the WME is a complex and diverse economy which can only really be understood by looking at all of its components and their interconnections. The SEIM-UK model allows us to do this.

Glossary

GVA – Gross Value Added

GHDI – Gross Household Disposable Income

NUTS – Nomenclature of Territorial Units for Statistics

ONS – Office for National Statistics

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