

# Industrial Activity

The Index of Production (and Construction) for Wales is the result of a collaboration between the Welsh Assembly Government and the Office for National Statistics (ONS). The index provides one measure of movements in Welsh industrial output, and is one of the ways in which the strength of the regional economy can be assessed. The index of production includes information on manufacturing, mining and quarrying, and electricity, gas and water supply.

The year to 2009Q2 saw sharp falls in the Welsh indices of production and manufacturing. This paralleled gloomy news in regional surveys of business confidence.

Comparing the latest available four quarters with the same period a year ago the Welsh index of production was down by 7.9% (UK, -8.8%) while the manufacturing index was down by 9.5% (UK -9.3%) over the same period (see Figure 4). More alarming have been the losses sustained in selected manufacturing sectors. Figure 5 reveals the sharp reductions in the index for the food, metals, and transport equipment sectors through the recession. During last year the index of production for Wales was trending above the UK index, but with the gap closing in the year to 2009Q2.

Manufacturing problems are working through into a poorer Welsh export performance. HMCE figures reveal that exports in 2009Q1 were 4.2% down on the same quarter in 2008 and were 14.2% down on the previous quarter. The quarterly fall represented a reduction of around £374m. Encouragingly the value of Welsh exports for the whole four quarters up to and including 2009Q1 increased by

nearly £1.5bn in comparison to the previous four quarters. Here there was an increase in exports to EU and non EU countries of 5.7% and 32.5% respectively. Part of the reason for the increase over the year was not so much an increase in physical quantities of goods going overseas, but rather reflected the value of mineral fuel exports which were impacted by the general trend in energy prices.

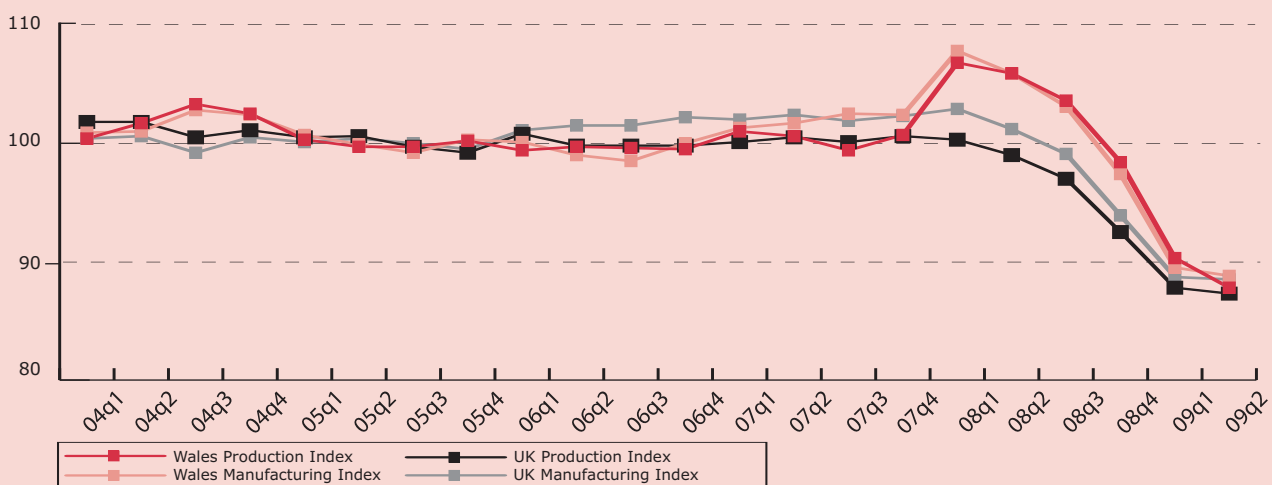
The figures from the index of manufacturing are reflected in long term trends towards a declining share of manufacturing in Welsh employment and output. This trend has been exacerbated by a series of high profile exits during the current recession. Firms announcing redundancies in the first half of this year are recorded in the Comings and Goings section this Review.

The data in the indices prefigures a rapid structural change in the manufacturing sector. Inevitably this structural change will have impacts on both industry demands for energy, and the level of environmental externalities created from Welsh production. Of particular interest is how far the structural changes and persistent losses of manufacturing output will impact the

regional profile in terms of carbon emissions, particularly given sustainable development objectives being pursued at regional, national and international levels.

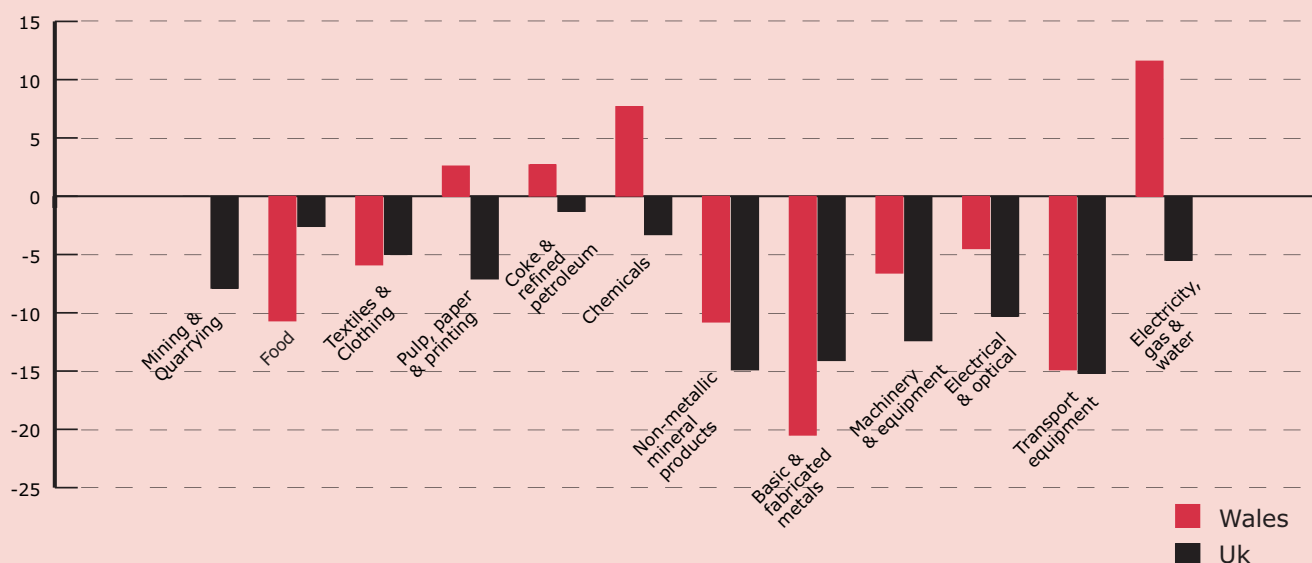
Table 12, from the pilot *Environmental Satellite Accounts for Wales*, reveals that manufacturing accounted for over 40% of carbon emissions in 2003. In direct terms this is focused in selected industries including steel production, some parts of the chemicals and non-metallic minerals sector. Current structural changes in these sectors is expected to cut the direct greenhouse gas emissions from production. However, this is not the same as the overall Welsh carbon footprint of manufacturing which is driven by the sectors importing behaviour. For example, elements of the manufacturing footprint may change little, particularly where intermediate demands for regionally manufactured goods are simply placed onto imported goods. In consequence in understanding the 'carbon' impacts of structural change in the economy (which are prefigured in the long term changes in the weighting of the index of production) it is important to reflect on both regional production and regional consumption perspectives on the problem.

**Figure 4: Recent trends in the Welsh and UK Production and Manufacturing indices.**



Source: Welsh Assembly Government

Figure 5: Index of Production: Percentage change selected sectors (latest four quarters in 2009Q2 on year earlier).



Source: Welsh Assembly Government

The index of Welsh electricity, gas and water output in 2009Q2 was 22.7% lower than it had been in the previous quarter, but the output for latest four quarters was up 11.6% compared with the same four quarters a year ago. Electricity gas and water supply accounts for around 8% of the index of production based on the sectors contribution to 2005 regional gross value added. The contribution of the sector is expected to change through the next decade with the phased closing down of the Wylfa nuclear station in North Wales (although with the Wylfa

site earmarked for future nuclear development by the UK Government) and with the prospect of a number of new energy related investments in train. The energy production portfolio is changing rapidly as a result of a dash for gas, and development of major renewables projects including the distant (but receding) possibility of a Severn Barrage. Earlier this year RWE npower gained approval for a new 2000MW gas turbine power station near Pembroke. This will use gas imported into Milford Haven through two new LNG terminals. This announcement followed

one in December 2008, where Npower Renewables was also given consent to build a 750MW offshore wind farm off the North Wales coast, and with other major onshore wind developments expected on the National Forest Estate. In this respect Forestry Commission Wales (FCW) has recently completed a procurement programme to find developers that are to go forward to gain necessary planning permissions on seven large areas of forestry land.

Table 12: Atmospheric Emissions (weight in thousand tonnes) 2003, Wales

Industry	Greenhouse gases
Agriculture	3,821
Mining and quarrying	848
Manufacturing	22,385
Electricity, gas and water supply	11,258
Construction	177
Wholesale and retail trade	636
Transport and communication	1,600
Other business services	430
Public administration	448
Education, health and social work	387
Other services	988
Domestic	7,552
<b>Total</b>	<b>50,530</b>
<i>Of which, emissions from road transport</i>	<i>1,661</i>

Source: Welsh Economy Research Unit and DTZ