The town of Port Talbot has for more than 60 years been synonymous with steel.

In its heyday in the 1960s, nearly 20,000 people worked there. The town grew up around it. Numbers may have dwindled but even with a 4,000-strong workforce, it still has an imposing presence in the Welsh economy. It is still Tata Steel's biggest UK operation and one of Wales' economic crown jewels. Another 3,000 work at Port Talbot's sister plant in Llanwern and at Shotton and Trostre.

It might be the car we drive, the tin cans for our food or the washing machine in our kitchen, but the chances are we have a piece of Port Talbot close to hand if not one of the other steel plants based in Wales. The Port Talbot steel plant has benefited from some significant investments in recent years, including £185m on rebuilding one of its blast furnaces. In total the industry has had £1.5billion invested across the UK

But Tata has faced difficulties from different directions.

Port Talbot: The problems

Steelworks use huge amounts of energy. The Port Talbot plant uses as much electricity, for example, as the whole of the city of Swansea a few miles along the motorway.

That bill when it hits the metaphorical mat is a whopping £60m a year - 50% more than other plants in Europe. No wonder, looking long term, Tata recently secured the go-ahead to build a new power plant so it can generate more of its own power to save money. This is where the Welsh government along with the UK Government could some assistance.

Then there are problems in the market. Because of overproduction, the Chinese are now exporting twice as much steel to the UK than they did in 2013 and at less than the cost price of UK steel, so desperately needs for Tariffs to be put onto not only Chinese imports but also Russia material also being imported at almost the same rates.

Tata is also unhappy about the level of business rates it pays, compared to European competitors, which is an area that needs real examination as how can investing in new equipment like the Blast Furnace end up costing over £500 million extra per year especially when more efficient and gives off less emissions than the one it replaced??!!

In all, the plant is said to be losing up to 1 million pounds a day.

Why is steel still so important?

Port Talbot steelworks is a big employer with not only direct employment but indirect not just on the sites it operates plus the businesses in the communities that are used by these employees

It puts £200m a year into the economy just in salaries.

Economist Prof Calvin Jones of Cardiff University has studied the impact of Tata and called it "the most economically important private sector company in Wales".

The economic value of Tata - including the supply chain - was estimated at £3.2bn of output and £1.6bn of value added in Wales in 2010.

But it also supports an estimated 10,000 full-time equivalent jobs off-site.

"These are important [industries] because they are high value added and important because they're iconic," he said. "If we do see continued declines in these industries in terms of employment and output then you start to wonder what Wales is for."

Fox Photos

STEEL TIMELINE

1902: The first steelworks at Port Talbot is founded

1923: A second Margam works is finished

1947-1953: The third Port Talbot plant is built and becomes part of Steel Company of Wales. The works employ around 18,000. By this period, the rolling mill at Ebb Vale has become the biggest of its kind in Europe.

1962: The Queen opens the £150m Spencer works in Newport, later known as Llanwern.

1967: British Steel is formed from 14 different firms as the industry is nationalized

1988: British Steel is privatized and becomes part of Dutch-owned Corus in 1999.

1990: More than 1,100 jobs are lost at Brymbo steelworks in Wrexham.

1980: More than 6,500 jobs are lost at Shotton Steel Works with the closure of the Steel Making Facility

It was the biggest industrial redundancy on a single day in Western Europe and the region has taken the next three decades to right itself**.**

2001: Corus announces 6,000 UK job losses - a fifth of its workforce. They include 1,340 at Llanwern in Newport, and 90 at **Bryngwyn** in Swansea. **The Shotton cold strip mill closes** with 400 redundancies.

2002: The **Ebbw Vale steelworks shuts with 850 job losses**, although 300 workers move to other plants.

2007: Corus bought by Tata Steel of India

2014: Tata blames high business rates and "uncompetitive" energy costs for **400 job losses at Port Talbot.**

2015: Tata Steel reported a "turbulent year" due to Chinese exports and high energy costs but Port Talbot produced an all-time record of 4.19m tonnes of hot metal while the hot strip mill hit speed-of-work records.

In August, it **mothballs part of its Llanwern plant** for the third time in six years, with 250 job losses.

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The Economic Impact of Tata Steel in Wales

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Introduction

In Summer 2011, the Welsh Economy Research Unit undertook an assessment of the economic and social impact of the operations of Tata Steel in Wales. Tata is the second largest steel producer in Europe and in the global top ten, and remains probably the most significant private sector employer in Wales–in terms of direct employment, indirect and supply chain impacts, and in the importance of its outputs in other UK manufactures. Despite significant employment decline since the 1970s, steel remains a key industrial sector in Wales, with the largest facility in Port Talbot, and with significant Tata facilities at Shotton on Deeside, Trostre and Llanwern (to this can be added the Celsa arc steel plant in Cardiff).

This report quantifies Tata's impact in Wales. The Input-Output Tables for Wales were used to examine the direct and 'multiplier' impacts of Tata Steel activities; that is to say the on-site employment, output and gross value-added (GVA) plus that generated across the Welsh economy as Tata buys goods and services from Welsh supply chains, and as Tata employees spend money in the region. This then is a timely update to earlier WERU work examining the economic significance of steel in Wales, using the same methodology and analytical tools[1].

Whilst steel in Wales brings many benefits, Tata plants emit significant levels of greenhouse gases. These carbon emissions are contextualised as highlighting the need for regional and national policymakers to work with Tata within an appropriate framework to continue to reduce environmental impact, and thus protect the viability of its plants in Wales.

Economic Impact Methodology & Data

The regional economic impacts of a single facility do not stop at the factory gates. The onsite employment and economic output are certainly important, typically the largest part of any regional impact, but there are important offsite benefits.

Traditional economic impact methodologies classify and measure these in two major streams. Firstly, there is the employment; output and value-added that is created in the supply chain to the facility. Here, then, there will be thousands of employees and many millions of value-added created in firms supplying Tata – including at subcontractors used during the industrial processes and in transporting final products, as well as more generally in business services. These impacts travel back along supply chains as Tata's direct contractors themselves purchase inputs from other Welsh companies. Added to the above are economic impacts related to the re-spending of wages by Tata employees *and* employees in the Tata supply chain, again comprising additional economic demand and hence employment and value added in Wales. The sum of these two impact 'avenues' then comprise total offsite effects. These can be added to the onsite impacts to provide an indicative overall estimate of economic impact in terms of full-time equivalent employment and GVA.

Wales benefits from having a longstanding and well-developed modelling system that can value the multiplier benefits detailed above. The *Input Output Tables for Wales*[2] have been published by WERU for over a decade. They have been used to examine the economic impact of many Welsh sectors and economic activities, including coal, ports and (relevant here) steel, as well as non-traditional economic activities such as tourism and stadia.

Input-Output modelling has a number of limitations and restrictions. However, their continuous publication and improvement in Wales provides a way of measuring and assessing the importance of Welsh industries and activities that is consistent between different industries, and to some extent over time.

The modelling is 'data hungry', requiring good information on the purchases, wages and other business metrics of the facility or company in question. This information was gathered from Tata over Summer 2011 during a number of face-to-face interviews and other correspondence, and relates to the entirety of Tata operations across Wales – a novel analysis for the company itself. With the exception of some data on subcontractors, necessarily limited by third-party privacy considerations, we have therefore fully up-to-date, detailed and high quality information with which to inform the economic impact estimates presented below.

The Economic Impact of Tata Steel on Wales

Direct Impacts

Table 1 shows that overall some 8,000+ people are employed by Tata in Wales. These jobs are relatively highly paid. Tata pays a minimum of £14 per hour and employees are overwhelmingly full-time: less than 3% are part-time, compared with a Welsh average of 35% in 2010[3]. The quality of employment is no doubt causally linked to an average length of service of 16 years[4].

These employees created around £2.5bn of industrial output in 2010, comprising around 8% of all industrial and extractive output in Wales and highlighting the importance of the firm in the Welsh industrial landscape.

Onsite GVA at Tata plants totals around £1.28bn[5]. This equates to roughly 3% of total Welsh GVA, almost certainly the largest direct GVA contribution of any private sector employer.

Indirect Impacts

To these above impacts can be added those in the supply chain, and through wage effects, as detailed in Section 2 above. Use of the Input-Output Tables for Wales suggests that a further £670m of economic output and £320m of GVA is created across Wales as a result of Tata activities (Table 2). Thus, the total economic impact of Tata stands at £3.2bn in Wales, with a supported GVA of £1.6bn.

Whilst these figures are significant, the extent to which Tata supports off-site employment is more significant still. The Input-Output modelling suggests that almost 10,000 full-time equivalent jobs are supported off-site in the Tata supply chain, and as those employed at Tata and in the supply chain spend their wages in Wales.

The 'employment multiplier' is thus 2.22, suggesting that every job at Tata supports another 1.22 employees throughout the Welsh economy. This employment multiplier is, along with oil refining, electricity generation and some food production, amongst the highest of all Welsh sectors, and with this number similar to those reported in earlier WERU steel reports.

The largest portion of the off-site impacts arise in private services in Wales (these including transport and

engineering). Interestingly, there are few supply links to other *manufacturers* in Wales, highlighting both the vertical integration of the company in Wales and the global nature of steel logistics operations. This position (and the overall level of economic impact) might change somewhat if the company is successful in once again sourcing its coal from Wales (rather than Australia) with the Margam Coal Development Project.

Depending on how one treats intra-company sales and intermediate products, Tata exports between 80%-95% of its output to markets outside Wales, thus earning inter-regional export revenues of between £2bn - £2.2bn for Wales.

Table 1 Tata Operations in Wales

Business	Locations	Nature of Business	Approx Direct Employees
Tata Steel Strip Products UK	Port Talbot Llanwern	Production of Hot Rolled Coil used in the construction, automotive, electrical / household appliances packaging and other industries	5,500
Tata Steel Colors	Shotton Tafarnaubach	Production of coated & organic coated products for the construction, electrical appliance and other industries. NB: Shotton hosts the Sustainable Buildings Envelope Centre (SBEC) and the Photovoltaic (PV) research project	650
Tata Steel Packaging	Trostre, Llanelli	Steel for packaging applications – cans, boxes, trays, etc. Some other specialised markets	850
Cogent – shortly Tata Steel Electrical Steels	Orb, Newport, South Wales	Specialised grain-orientated steel for electrical applications including wind turbines	450
Colorsteels	Cross Keys	Coated strip steels for manufactured goods and the construction sector	120
Tata Steel Building Systems (Catnic)	Caerphilly	Steel lintels for building construction	100
Tata Steel Building Systems	Shotton	Profiled steel composite panels for walls and floors for commercial construction	100
Tata Steel Living Solutions	Shotton	Modular steel units for construction – currently not operating	100
*SPECIFIC	*Baglan Innovation Centre*	*R&D into functional coatings for steel. A partnership project under the legal aegis of Swansea University*	*(50)*
			~8,000

** Sustainable Product Engineering Centre for Innovative Functional Industrial Coatings*

Tata and Sustainable Development

The Tata plants in Wales, particularly the integrated Port Talbot mill, occupy a complex position within Wales' wider commitment to sustainable development and climate change mitigation. It is clear that the company is one of the largest sources of climate emissions in Wales. Despite significant and successful efforts to reduce these emissions – including the £60m investment in 2010 which saves 250,000 tonnes of CO_2 per annum – this position will likely remain unchanged for as long as the *current* plant operates in Wales.

The complexity arrives, first, in the form of the regulations under which Tata operates with regard to climate emissions. As a large emitter, these are governed by the European Union Emissions Trading System, with neither Westminster or the Welsh Government having a proactive remit. The second complexity arrives in the form of Welsh Government climate policy. As an EU-ETS signatory, Tata's emissions are not considered 'devolved': That is to say they do not count towards the Welsh Government's measure of the emissions for which it is responsible (more widely, the Welsh Government and Tata collaborate regularly on sustainability matters of course, for example in the area of land remediation and treatment of wastes).

This is not to say regional or UK government does not or cannot influence Tata operations. For example Tata in Wales spends around £150m on electricity, gas and water for Welsh operations. Here, the provision of lower carbon inputs – particularly electricity – might in the long run result in lower cost, more diverse and reliable supplies for Tata, improving the viability and longevity of plants in the UK[6].

Turning to the specifically Welsh context, it is worth remembering that the Government seeks to measure and reduce our environmental 'footprint' on a consumption, rather than production basis. This means that (through the Ecological Footprint) the government strives to reduce the global impact of all the resources we use, irrespective of whether they are Welsh or imported. From this perspective, the emissions of Tata should be considered in the light of the overwhelming proportion that comprises *exports* from Wales. On a consumption basis plant emissions might be considered after discounting those related to exported commodities – but with the corollary of course that we count the manufacturing and transport related emissions of all goods consumed by the people of Wales, irrespective of origin.

Leaving aside complex measurement issues, it is clear that steel production in Wales; indeed the UK and Europe; is under increasing pressure as a result of climate regulation and electricity costs currently unique to Europe. This position may not change for a number of years. Meanwhile, the carbon content of steel is chemically determined; unalterable by policy intervention or incremental technical development. Steel makers in Europe have made huge strides with current technology to reduce emissions per tonne of product, but these improvements have largely run their course. A fundamental shift in steel technology is needed,; as recognised by the Europe-wide *Ultra Low Carbon Steel Consortium* of manufacturers (www.ulcos.org). Without losing sight of the short term, policymakers might consider how to best ensure Tata's first ultra low carbon steel mill in Europe is in the UK – indeed in Wales.

Summary

This project report has illustrated Tata's position as the most economically important private sector company in Wales. For every employee within Tata, another 1.2 jobs are supported throughout Wales, together totalling almost 18,000 full time equivalent jobs. The company supports £3.2bn of output and £1.6bn of value added in Wales, as well as contributing to the development of much needed innovation and R&D activities in the region.

Climate regulation and resource constraints bear down harder on steel makers in Europe than elsewhere. Whilst the Welsh Government does not have direct responsibility for regulating Tata in this regard, actions on sustainable development and in energy

supply (as far as is relevant) will have a potential impact – as will encouraging an appropriate, sophisticated and holistic debate on understanding climate emissions' impacts and responsibilities.

Wales has been lucky in retaining its major industrial actors through the 2007/8 Credit Crunch and subsequent recessions and volatility. As long as Tata plant and operations in Wales have the possibility of profitable use, they will remain. Encouraging a new, more sustainable generation of plants to be located here is the longer; more difficult, yet potentially far more lucrative challenge.

Notes

[1] WERU (1994) The Economic Impact of Steel Production in South Wales, Welsh Economy Research Unit.
WERU (2001) The Economic Effects of Corus Restructuring in Wales. In Fairbrother, P. and Morgan, K. (eds) Steel Communities Study (Volume II), Cardiff University.

[2] available from www.weru.org.uk

[3] http://www.wiserd.ac.uk/wp-content/uploads/2011/05/WISERD_RRS_002.pdf

[4] Tata Steel, 2011

[5] Albeit with some uncertainty in this estimate as relevant taxes cannot be estimated at Wales level.

[6] See Jones (2009) *Wales in the Energy Crunch* http://www.lulu.com/product/ebook/wales-in-the-energy-crunch/17544084

Table 2: The Regional Economic Impact of Tata Steel

	Output (£m)	GVA (£m)	Jobs (FTE)
On-site	2,520	1,280	8,000
Off-site (Supply chain & wages effects)			
Manufacturing & Energy	91.1	23	370
Construction & Maintenance	109.2	40.8	1,680
Private Services	288.6	148.8	4,160
Public & Other Services	180.1	104.7	3,520
All Off-site	669	317.3	9,730
TOTAL ECONOMIC IMPACT	3,189	1,597	17,730
Regional Multiplier	*1.27*	*1.25*	*2.22*

The Economic Impact of NHS Procurement: A Study of the Aneurin Bevan Health Board

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[1]School of City and Regional Planning and BRASS Centre.
[2]Welsh Economy Research Unit, Cardiff Business School and BRASS Centre.

Introduction
The School of City and Regional Planning at Cardiff University and the Welsh Economy Research Unit of Cardiff Business School were commissioned by Caerphilly County Borough Council and Newport City Council to undertake an analysis of the local and all-Wales procurement of the Aneurin Bevan Health Board (ABHB).

ABHB is responsible for the delivery of health care services to more than 600,000 people living in the Gwent area. Health services are delivered across the local authority areas of Blaenau Gwent, Caerphilly, Monmouthshire, Newport and Torfaen. The Health Board came into being on the 1st October 2009.

One context of the report is a paucity of evidence on the wider economic effects of Welsh public procurement, and the potential for regional firms to meet needs which are currently serviced by imports. These questions have been brought into a sharper focus with NHS budgets coming under pressure in current spending reviews.

The research objectives in summary were as follows:

- To define the term 'local' with respect to the purchasing behavior of ABHB.
- To demonstrate how far the Board had successfully implemented selected action points contained in the *NHS All Wales Procurement Strategy 2007-2010* relating to communicating opportunities to local suppliers, and assisting suppliers to improve delivery of goods and services.
- To identify whether targets had been set for local procurement by the ABHB, and the nature of actions being taken to achieve these targets.
- To analyse the amount of local spending undertaken by the Board and to analyse the benefits of local procurement for the wider local economy.
- To identify further local procurement opportunities for ABHB.

The definition of local was taken to mean the Health Board area in terms of the local authority areas of Blaenau Gwent, Caerphilly, Monmouthshire, Newport and Torfaen. Regional was taken to mean of whole of Wales.

Opportunities for local SMEs
The report reveals that progress is being made by ABHB in meeting the strategic action points outlined in the *NHS All Wales Procurement Strategy*. However, the report highlighted a series of contextual issues that must be borne in mind in this connection. First, in terms of efficiently communicating requirements and in developing local supply potential, individual health boards are unlikely to be able to act wholly independently. With large amounts of goods and services flowing through designated hubs such as NHS Supply Chain and Welsh Health Supplies it is arguably in these organisations where a lead needs to be taken in communicating and developing local supply potential. The use of supply hubs and framework style agreements, greater procurement cooperation with the other home countries, tighter procurement regulations, the use of electronic portals and the wider advertising of tender opportunities, places constraints on the amount of supplier development that can be undertaken by organisations such as the ABHB. It is also difficult to escape the conclusion that the trend in the procurement process and tighter public spending conditions could work together to make it more difficult for SMEs to compete in winning NHS business in Wales.

ABHB Spending
The report provides an analysis of the expenditure undertaken by ABHB for 2009-10. A large amount of total spending relates to the wages and salaries of staff, (nearly £406m) and with this supporting an estimated 10,754 full time equivalent (FTE) jobs. During 2009-10 non-pay operational spending was a little over £547m. Finally, there was estimated total capital spending through the year of £125m and with the vast majority of this relating to the construction of the Ysbyty Ystrad Fawr and Ysbyty Aneurin Bevan hospitals.

Table 1 shows that of total ABHB operational spend (net of depreciation) of £528.7m, around 23.5% represents payments to firms and institutions in the ABHB area. Total ABHB spending in Wales as a whole in 2009-10 was £306.5m or 58% of total operational spending. Discounting for spending within the health and social work sector leaves £25.2m of spending in other sectors of the economy. Total operational spending outside of Wales was £222.2m or 42% of overall operational spending. Of the total of non-pay operational spending (less health and social work spending) of £113.1m, around 8% is within the ABHB area, 22% is within Wales as a whole (including the ABHB area), and then with 78% of spend outside Wales.

Figure 1 shows the level of purchases outside Wales by ABHB by sector. In a number of sectors the percentage of total operational spending outside of

Table 1: Spatial distribution of ABHB (non-pay) operational spending in 2009-10

	£000s	£000s	£000s	£000s
	ABHB	**All of Wales (Incl ABHB)**	**Outside of Wales**	**Total**
Total	**124,015**	**306,519**	**222,155**	**528,674**
(Total less health spending)	*9,196*	*25,176*	*87,905*	*113,081*

Darparodd Unite Bapur Briffio o Lyfrgell Tŷ'r Cyffredin, sydd ar gael yn y ddolen a ganlyn:

http://researchbriefings.files.parliament.uk/documents/CBP-7317/CBP-7317.pdf
(Saesneg yn unig)