



Research Briefing
The steel industry: an in-depth look

Author: **Gareth Thomas**
Date: **May 2016**



National Assembly for Wales
Research Service

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Research Briefing

The steel industry: an in-depth look

The challenges facing the steel industry have been one of the most high-profile issues of 2016. This paper sets out a summary of the industry in Wales and the UK, recent developments with the Tata Steel sites and the key pressures facing the industry.



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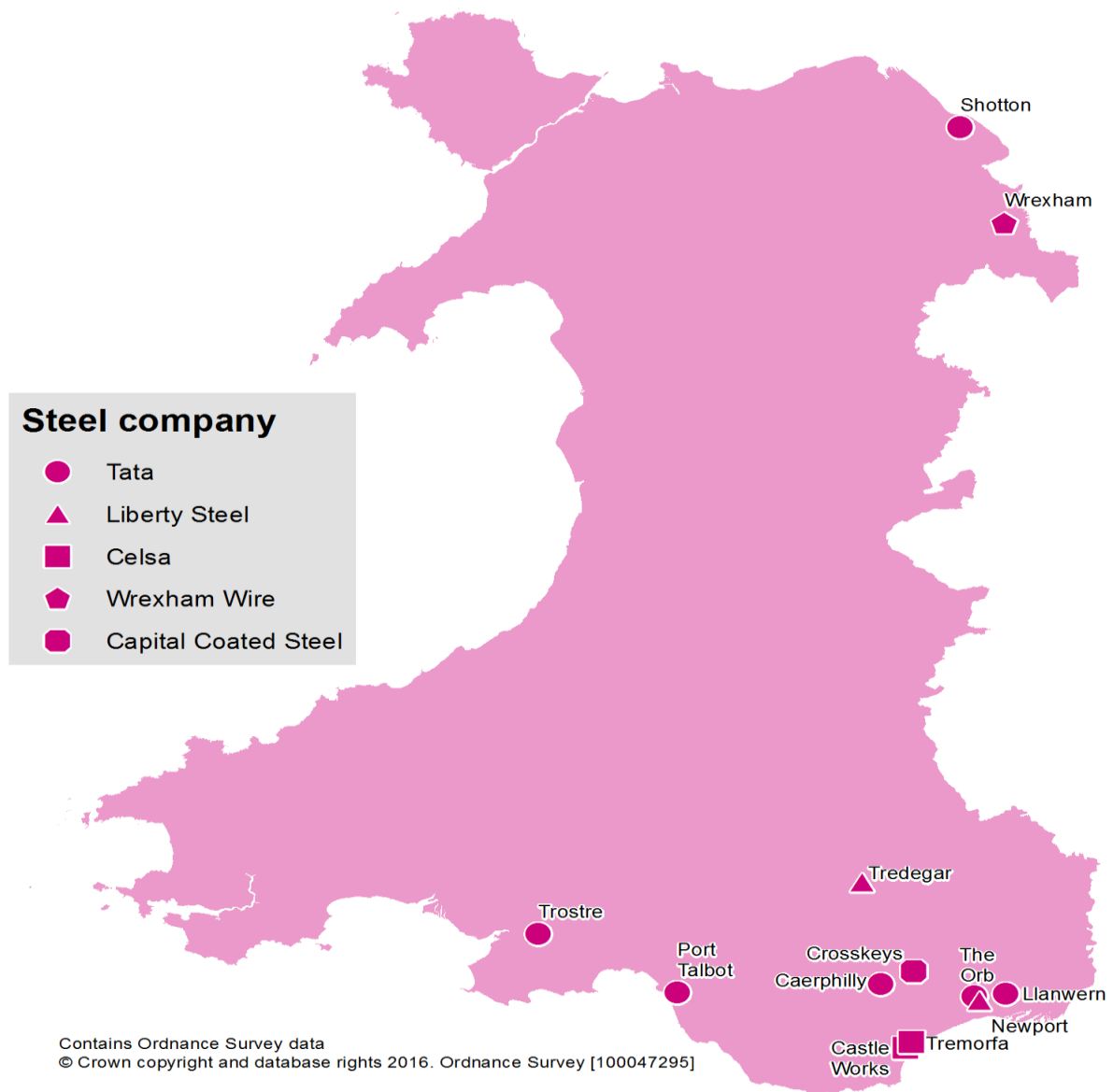
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1. Introduction to the steel industry in Wales and the UK

The decision by Tata Steel in March 2016 to put its UK assets up for sale was the latest development in a 'perfect storm' of recent challenges for the steel industry in both Wales and the UK. However, the recent challenges facing the steel industry have not just been confined to Wales or the UK. The slowing of economic growth in China over the last two years has contributed to a decline in demand for steel there and consequently a surplus of steel on the international market. This has pushed down prices significantly.

As well as the Port Talbot steelworks, Tata has a number of other operations in Wales, at Llanwern, the Orb in Newport, Shotton and Trostre near Llanelli. Other producers with Welsh operations include Celsa Steel and Liberty House Steel UK. However, it is important not to look at steel production in Wales in isolation. Not all types of steel product are made in Wales, with some other products that could be used in Welsh infrastructure projects made elsewhere across the UK.

Figure 1: Steel companies in Wales



A wide range of steel products are made in Wales (a glossary of steelmaking terms is provided in the appendix to this paper), including:

Tata Steel

- **Port Talbot** integrated steelmaking plant produces slab, hot rolled, cold rolled and galvanised coil;
- Hot and cold rolled strip and galvanised coil is made at **Llanwern**;
- Electrical steel is produced at **the Orb works in Newport**;
- Tinsplate and other packaging steels are made at **Trostre**; and
- Galvanised metallic and pre-finished steel is made at **Shotton**.
- Tata also has a subsidiary at **Caerphilly**, Catnic Plc, that makes a variety of steel and PVC products for the building industry.

Celsa Steel

- The two plants at **Cardiff** make reinforcing bar (rebar), high yield coil, wire rod, flat bars, channels and angles.

Liberty Steel

- The plant at **Newport** produces hot rolled coil, with the possibility that it will move towards producing long products such as rebar, with a longer-term strategy of installing an electric arc furnace; and
- **Media reports suggest** that the former Caparo plant at **Tredegar** is expected to re-start production shortly, having been mothballed prior to its sale to Liberty. It will make and supply steel tube and pipe components.

Wrexham Wire

- The former Caparo plant at **Wrexham** makes a variety of wire products such as spring wire for mattresses and engineering wire.

Capital Coated Steel

- Based at the former Tata site in **Crosskeys**, Capital Coated Steel **have received £1.2 million in Welsh Government support**. They process pre-finished steel that is used in electronic products and cladding.

2. Changes in the steel industry over recent years

The economic impact of Tata on steelmaking communities and Wales is considerable. The Welsh Economy Research Unit at Cardiff University found that the **total economic impact of Tata was £3.2 billion** in Wales per year, with a supported gross value added of £1.6 billion. Tata contributes £200 million in wages into the Welsh economy each year, and each job at Tata supports an additional 1.22 jobs throughout the Welsh economy.

Looking more broadly at the steel industry, in 2015 almost half of all steel made in the UK was produced in Wales, and over 40% of those working in the UK iron and steel industry were working in Wales. While these figures predate the redundancies announced by Tata in January 2016, they show the relative importance of the steel industry to Wales in comparison to other parts of the UK.

However, steel production in the UK is around half of what it was 40 years ago and employment in the industry is at its lowest point in the past 40 years. While employment in Wales is also at its lowest over this period, production levels remain relatively similar showing the productivity improvements in the industry over this period. The iron and steel industries **employed 6,420 people** across Wales in 2015, with **the primary steel industry and its supply chain** accounting for close to 20,000 jobs.

UK Steel, the trade association for the industry, has stated that UK steel production figures for 2016 are expected to be the lowest on record, with an estimated reduction in steel production of over 20% between 2015 and 2016. **Over the last four decades** steel production in the UK has fallen behind that of nations such as France, Spain and Italy, and has remained behind that of Germany. However, the main external factors behind the recent pressures facing the industry are **said by UK Steel** to be:

Deteriorating capacity utilisation and significant growth in Chinese exports. Both factors have exerted substantial downward pressure on both raw material and finished steel product prices, pushing most steel producers into operating losses.

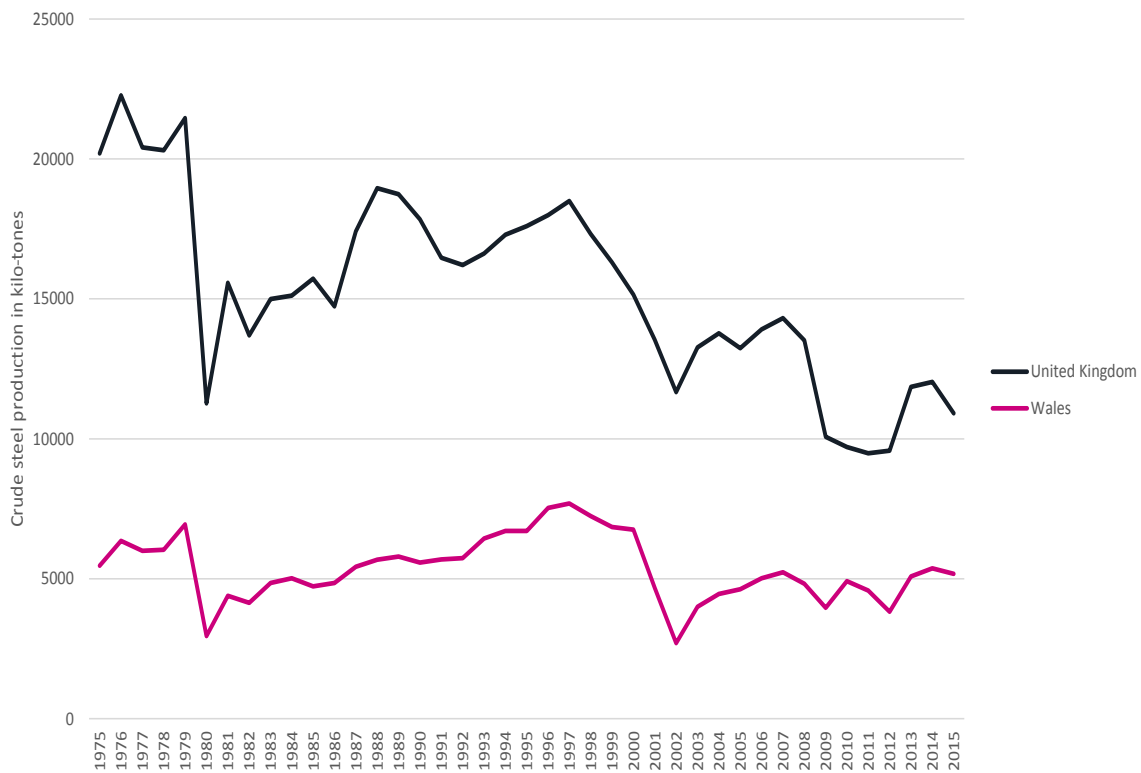
Looking more widely at foundation industries (manufacturers of core materials such as steel that supply other manufacturing and construction firms), **the Institute of Public Policy and Research (IPPR)** has found that the UK has one of the smallest sectors compared to other nations. This comprises 1.3% of UK GDP, and since 2000 the share of GDP produced has shrunk by 43% compared to 21% across other OECD countries.

The value of imports of iron and steel were greater for the UK than the value of exports in 2015. The UK exported £4.7 billion worth of iron and steel compared to imports of £5.1 billion. Both of these figures are the lowest since 2009.

However, the value of iron and steel exported from Wales is considerably higher than the value of imports. In 2015, Wales exported £1 billion worth of iron and steel compared to imports of just under £400 million. That said, the value of iron and steel exports from Wales in 2015 was the lowest since 2004. In addition, the annual value of exports in 1996 was nearly nine times higher than imports. In 2015, the annual value of exports was less than three times the value of imports.

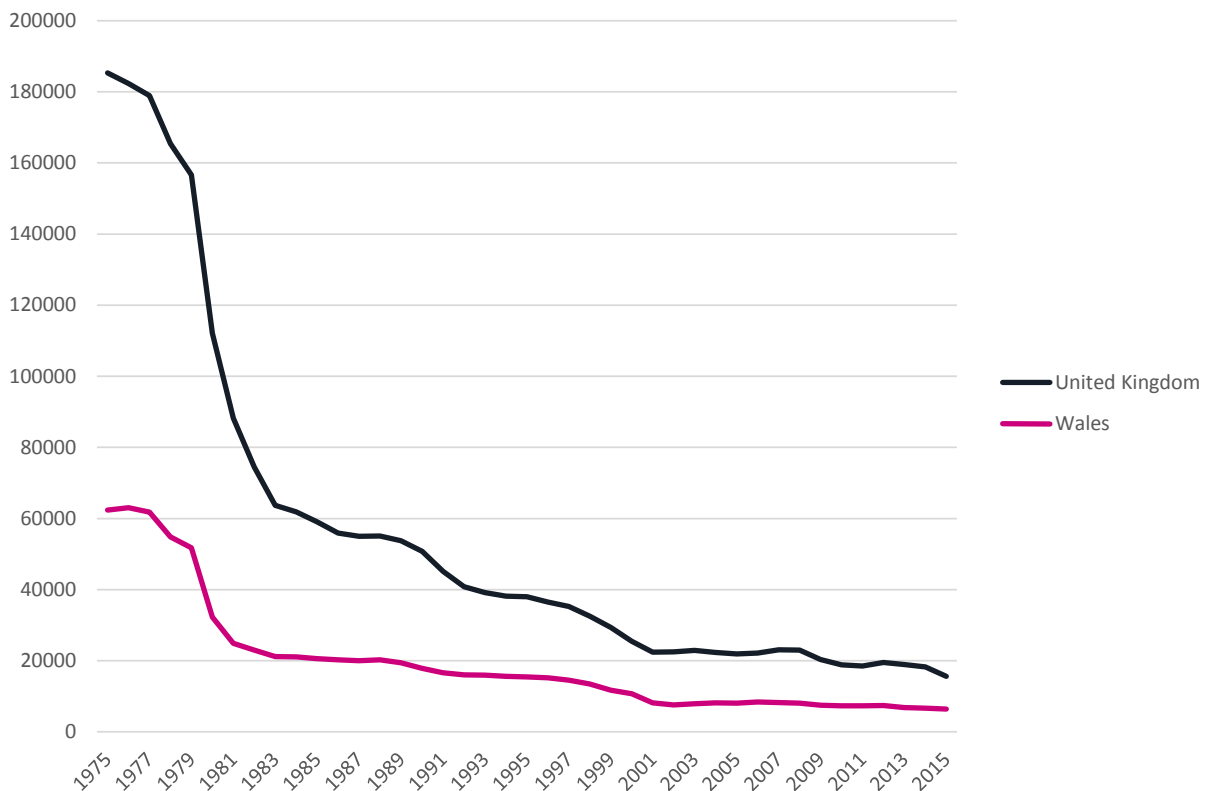
The graphs below set out trends in steel production, employment and imports and exports of iron and steel in Wales and the UK.

Figure 2: Crude steel production in Wales and the UK, 1975-2015



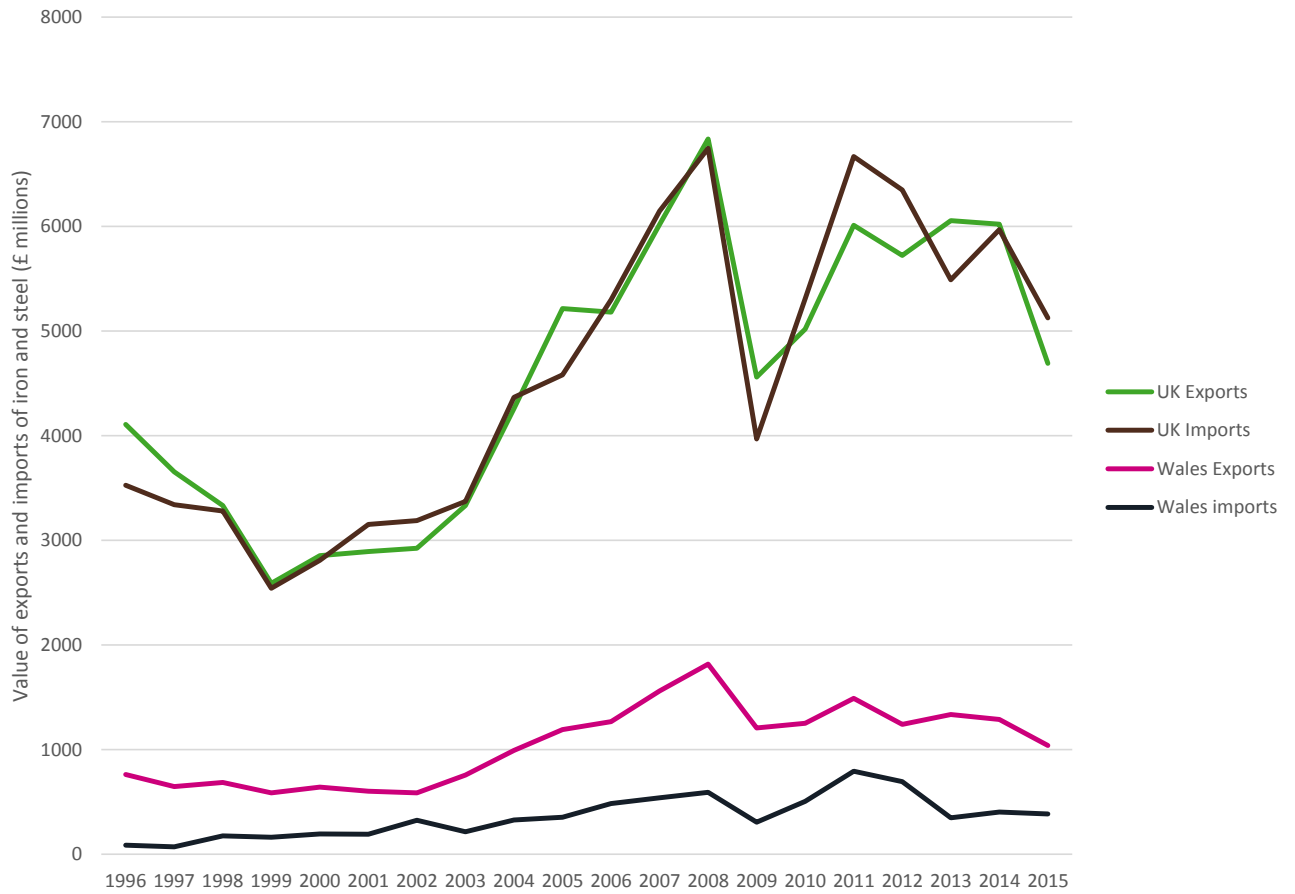
Source: Stats Wales, [Iron and steel production by year, measure and area](#)

Figure 3: Employment in the iron and steel industry in Wales and the UK, 1975-2015



Source: Stats Wales, [Iron and steel production by year, measure and area](#)

Figure 4: Value of iron and steel exports and imports in Wales and the UK, 1996-2015 (£ million)



Source: HM Revenue and Customs, [Regional Trade Statistics database](#)

3. Finding a buyer for the Tata plants and governmental support

Finding a buyer for the Tata plants

Tata has stated its intention to sell its UK assets in a 'time bound manner'. Both Welsh and UK Governments have said that Tata must allow sufficient and realistic time for interested buyers to consider the offer and that this should be months, not weeks. **In evidence to the House of Commons' Business, Innovation and Skills Select Committee** in April 2016, Tata said that there is no exact timescale for completing a sale but that it is keen to do this as quickly as possible and to be a responsible seller. However, it was unable to give a guarantee that it will keep the plants open until this is done. **There have also been media reports** that Tata has not ruled out keeping its UK businesses should the outlook for the industry improve.

Looking at other recent sales in the UK steel industry, it took nine months to reach a **conditional sale agreement** for the Tata plant in Scunthorpe in April 2016. **The UK Government's latest position** is that it will look through the detail of the agreement, and is willing to provide commercial funding if required.

In March 2016, the Scottish Government **purchased two Tata steel plants** before selling them on to Liberty Steel the same day, known as a 'back-to-back deal'. According to media reports this was done at no cost to the public as the purchase and sale price were the same. The deal is understood to have been structured to avoid the lengthy due diligence process required for a transaction between two companies.

There are a number of possible scenarios for the future of Tata Steel's operations in the UK, with potential options set out below:

- **Sale of all operations**, either as a whole or in parts. According to media reports £2 billion or more would be needed to restructure Tata Steel UK to make the plants profitable.
- **Management buy-out of all operations or certain plants**, potentially supported by government loans or loan guarantees.
- **Nationalisation, either temporary or longer term**. Public investment in companies carrying on economic activities will not be considered to be State Aid under Article 107 (1) of the Treaty on the Functioning of the European Union provided the investment is made on terms which would be acceptable to a private investor operating under normal market conditions (known as the market-economy investor principle). The purchase of a steel works by a government would need to be tested on the basis of the market-economy investor principle. This would be difficult if there were no private investor considering buying the business because of the abnormal market conditions and losses (apparently) being incurred. There may be further issues regarding the valuation of such an entity and its liabilities.
- **Co-investment by governments with a private sector buyer on commercial terms**, including potentially taking on some of the debts associated with the plants, or taking an equity stake as suggested by the Welsh and UK Governments.
- **Mothballing of plants**, supported by government funding to retain key staff to enable plants to be reopened in the future.

- **Closure**, the economic and social impact of which would be enormous in terms of the impact on the workforce and the economy in Wales.

At present it is known that Liberty Steel and Excalibur Steel UK have submitted a formal bid to buy all of Tata Steel UK, and that seven bidders have progressed to the next stage of the sale process, where they will now receive further information about the business. **Media reports suggest that** other bidders include Nucor from the USA, JSW Steel from India, Hebei Iron and Steel Group from China, the UK private equity firm Endless and Greybull Capital, a London-based investment firm. **There are also reports** that the Welsh Government is supporting the Excalibur Steel UK bid financially, although it has not placed a value on this support and this is not a formal endorsement of the bid as support is open to other bidders should they request it.

Areas where the Welsh and UK Governments could offer support

Support already offered or provided

The previous Welsh Government offered Tata a package of over £60 million prior to the announcement on the sale of its UK assets, which included £30 million funding for environmental improvements and £2 million for skills and training, and a commercial loan of £30 million to develop a galvanising line for steel coating. **The First Minister also said** that the Welsh Government would consider what additional support could be provided to a new buyer, and that the existing offer would remain in place for a new buyer.

Given the scale of the investment needed across the Tata plants, UK Government assistance will also be required. **The UK Government has indicated that it would consider co-investing with a buyer on commercial terms. The support available includes hundreds of millions of pounds in commercial loans.** This support package could take a number of forms depending on the specific needs of any buyer, including:

- It is expected that all, or the large majority, will be through the provision of **debt financing**;
- providing convertible debt (a loan that can be converted into shares) or **alternative forms of financing**; or
- **supporting a purchaser's financing by taking a minority equity stake of up to 25%** acting in support of the purchaser. However, the UK Government will not acquire a material element of control over the business.

The Welsh Government established the Port Talbot Waterfront Enterprise Zone in response to the job losses announced in January 2016. The boundary of the zone covers Baglan Energy Park, Baglan Industrial Estate and Port Talbot Harbourside and Docks and **includes the steelworks site.** The aim of the enterprise zone is to create jobs and support economic growth. The UK Government Chancellor of the Exchequer announced in March 2016 that **Enhanced Capital Allowances** have been offered subject to agreement on the boundaries of the enterprise zone. These are particularly aimed at Enterprise Zones supporting manufacturing, **and enable businesses to claim a 100% first year allowance for the capital cost of investment in plant and equipment made before 31 March 2020. This will increase to eight years from the announcement of the enterprise zone once the UK Government's Finance Bill 2016 receives royal assent.** The allowances are intended to make the zone more competitive and provide an incentive for new investment in plant and equipment.

Other potential areas for support

In addition to the support package, the UK and Welsh Governments may also be willing to consider additional grant funding support, for example to support the development of power plant infrastructure, energy efficiency and/or environmental protection measures, research and development (R&D) and training.

The development of a new power plant at the Port Talbot site has also been discussed as a possible investment that could benefit from governmental support. **In April 2016 the then Minister for Economy, Science and Transport stated** that the plant needs refurbishing or replacing, which would cost between £60 million and £110 million.

In terms of R&D, the IPPR have argued that foundation industries such as steel should be better integrated into the Catapult networks, which are designed to boost innovation in 10 key sectors across the UK. In January 2016 the UK Government announced that a catapult centre in **compound semiconductor applications** will be set up in Cardiff.

Examples of R&D projects receiving funding from the Welsh Government and other sources over recent years include **Steel Training Research and Innovation Partnership (STRIP)**, which is aimed at boosting the skills of the Welsh steel industry and its supply chain, and the **Sustainable Product Engineering Centre for Innovative Functional Industrial Coatings (SPECIFIC) project**.

In December 2015, the then Minister for Economy, Science and Transport also said that the Welsh Government is exploring opportunities to upgrade and modernise the steel sector through use of the European Investment Advisory Hub and the European Fund for Strategic Investments.

The British Steel Pension Scheme has also been discussed as a potential barrier to finding a buyer, due to the investment that would be needed by a new buyer to remove the scheme deficit. Both Tata and the UK Government Secretary of State for Business, Innovation and Skills have highlighted this as a key issue to be overcome, although it is not currently considered by the UK Government that the Pension Protection Fund will have to step in. This is a rescue fund that takes over the defined benefit pension schemes of companies that have gone bust, controlling both the investment of the pension fund and the payments to members. Although the Pension Protection Fund usually steps in when a company has gone bust, it can also take over a pension fund of a company that is in trouble, like Tata, although this does not happen regularly.

The UK Government is working with Tata Steel and the British Steel Pension Scheme's Trustees to find a solution that will help minimise its impact on a potential purchaser, and potentially separate it from the business. The scheme has 130,000 members, and funding this would be a considerable undertaking for a potential buyer.

The UK Government is reported to have proposed changes to the British Steel Pension Scheme, including making changes to the rate at which the value of pensions increase and protecting the pension fund so that neither Tata nor any potential buyer are responsible for it.

4. Key challenges facing the steel industry

In October 2015, the steel industry identified five areas where action could be taken to address the challenges it faces in the longer term. However, while the Welsh and UK Governments have taken action to address these issues, the steel industry views them as key on-going concerns, **with UK Steel saying that of these five steps, one has been actioned fully, three partially and one not at all. In contrast, the UK Government considers it has addressed four of these actions.** Further details of these 'key asks' are set out below. In evidence to the Business, Innovation and Skills Select Committee at Westminster in April 2016, Tata highlighted energy prices and business rates as UK-specific issues which contributed to the decision to place its UK assets up for sale.

Energy prices and environmental regulation

Energy prices

Energy prices for UK steel producers are higher than in other EU nations, and the disparity in electricity prices is the major reason for this. There are two main means of producing steel, both of which consume a considerable amount of electricity. Sites such as the Tata plant in Port Talbot make steel from iron ore using a blast furnace at an integrated site, and consume large amounts of coal, electricity and some natural gas. **The UNITE trade union has highlighted that** the Port Talbot steelworks uses as much electricity as the whole of Swansea, and that its annual energy bill is 50% higher than for any other plant in Europe. The other approach, taken by Celsa's Cardiff plants, is to recycle scrap steel in an electric arc furnace which requires a considerable amount of electricity and some natural gas.

The steel industry has been calling for an Energy Intensive Industries package since 2011 to mitigate high energy prices. In December 2015 the UK Government secured state aid approval to pay further compensation to energy-intensive industries, including steel, to include renewables policy costs. Tata has received its first payment under this package. However, **Liberty Steel** has expressed concern around the rules of the scheme, saying that their existing operations in Wales may not be able to benefit from it. Over the two schemes, **the UK Government has provided nearly £200 million in compensation to energy intensive industries** to mitigate against the impact of climate change policy, of which over £50 million has been paid in compensation to Tata.

While welcoming the compensation package for energy-intensive industries, the steel industry has said that it does not address the issues around creating a level playing field between UK steel producers and EU competitors. There is still a considerable difference between **electricity prices paid by UK-based steelmakers in the UK and other EU nations such as France and Germany. Anna Soubry MP, the UK Government Minister for Small Business and Enterprise commented** that this is partly down to the distribution of energy prices between businesses and households, stating that:

In Germany, the burden is on the consumer. Households in Germany typically pay an extra £10 a year, I think, rather than the burden being placed on German industry.

Germany has been cited as an example of good practice in other EU member states which have implemented compensation packages for energy-intensive industries which have benefitted the steel industry.

The Welsh Government has also stated that it has been raising concerns about the impact of energy prices on the most energy intensive businesses since 2011.

Environmental regulation

Action on the Industrial Emissions Directive was another of the steel industry's five 'key asks', and threatened further pressure on costs. In October 2015, **the UK Government announced**, subject to final approval by the European Commission, a four and a half year postponement in implementing the Industrial Emissions Directive for the steel sector.

However, UK Steel has expressed concern around the upcoming changes to the EU Emissions Trading Scheme (EUETS), and called for protection for sectors such as the steel industry whose global competitiveness may be most at risk. According to **work done for Eurofer** (which represents steel producers across the EU), the projected direct and indirect costs for the EU steel industry of the proposal for **Phase 4 of the EUETS** are estimated to be €34 billion for the post-2020 period.

Action against 'dumping' and market economy status for China

Action against unfair trade practices such as 'dumping'

Some key issues identified by the steel industry require action at EU level, including action against trading practices such as the 'dumping' of steel – where the export price is lower than the exporter's home market price, or perhaps even lower than cost price. This centres on concerns about the global competitiveness of European steel against exports from China and Russia, and more recently Belarus.

How do anti-dumping tariffs work?

With regard to anti-dumping tariffs, **the EU may choose to impose one or more of three basic forms:**

- **Ad valorem tariff** – a percentage of the net, free-at-EU frontier price. This is the most common form of tariff;
- **Specific tariff** – a fixed value for a certain amount of goods, e.g. £100 per tonne of a product; and
- **Variable tariff** – a minimum import price (MIP). Importers in the EU do not pay an anti-dumping tariff if the foreign exporter's export price to the EU is higher than the MIP.

The import tariffs imposed as anti-dumping measures are based on the amount by which the normal value exceeds the export price, unless a lower rate would remove the injury to EU steel producers. This is known as the 'lesser duty' rule.

The EU currently has 37 trade defence measures in place on imports of certain steel products, with nine investigations on-going. There have been two recent examples of anti-dumping cases that are particularly relevant to Welsh producers. In February 2016, **the European Commission announced** the imposition of provisional anti-dumping tariffs of between 13.8% and 26.2% on cold-rolled flat steel from China and Russia, particularly relevant to the Tata plant in Port Talbot. **Tata criticised the slow speed of the investigation and the low level of the tariffs. They also compared** the EU tariffs to the 266% anti-dumping tariffs set by the United States of America on cold-rolled flat steel from China. **There are media reports** that the USA has subsequently set anti-subsidy tariffs of 256% against cold-rolled flat steel from China, meaning that total import taxes have risen by 522%.

The **UK Government** and **steel industry** also expressed concern at the low level of the provisional anti-dumping tariffs on rebar, which were **set by the European Commission** at 9.2% to 13% in January 2016 and are particularly relevant to Celsa as the main UK manufacturer of rebar.

The European Commission has recently been attempting to modernise its anti-dumping arrangements, and **released a communication in March 2016** suggesting policy measures to support the European steel sector. This builds on the proposals **introduced by the European Commission in 2013**. Some of the key proposals include:

- **Completing anti-dumping investigations more quickly** – speeding up the overall process by at least a month;
- **Removing the ‘lesser duty’ rule in certain circumstances** - to allow higher anti-dumping tariffs to be imposed; and
- **Introducing a ‘prior surveillance’ system on steel products** – these are based on an automatic import licensing scheme and can be introduced when imports threaten to cause damage to EU producers.

The steel industry has called for the ‘lesser duty’ rule to be abolished, however this is the subject of political debate.

UK Steel has called for the Welsh Government to put pressure on the UK and EU to lift the ‘lesser duty’ rule in respect of the steel industry. Lifting this would remove the cap on anti-dumping and anti-subsidy duty levels, and bring EU practice into line with other economies, notably the USA.

In a written statement on 11 February 2016, Anna Soubry MP, the UK Government Minister for Small Business, Industry and Enterprise set out the UK Government’s general position on the ‘lesser duty’ rule:

The UK has long been a proponent of modernising the EU’s trade defence instruments – the rules covering protection for the EU against dumping and subsidised imports and other unfair trade practices - to make them more efficient, effective and transparent. But modernisation must also balance user and producer interests. Certain proposals brought forward by the Commission in 2012, including the proposal to abolish the lesser duty rule, did not strike this balance.

The UK Government Secretary of State for Business, Innovation and Skills (the Secretary of State), Sajid Javid MP **has also set out his view that the ‘lesser duty’ rule generally benefits British consumers**, and that scrapping it entirely would have considerable financial consequences.

In evidence to the House of Commons’ Business, Innovation and Skills Select Committee, the Secretary of State has said that **looking specifically at steel, the Steel Council has asked industry stakeholders to come forward with potential solutions.**

The First Minister has said that the UK Government should do all it can to take action against ‘dumping’ to create a level playing field for the industry, including backing higher tariffs.

Market economy status for China

Linked to the concerns around ‘dumping’ is the debate around whether China should be awarded market economy status. China considers that the World Trade Organisation (WTO) Accession Protocol contains a legal obligation to grant it market economy status by December 2016. This interpretation is highly controversial, and the EU and some other WTO members remain in doubt

over the interpretation to follow. Should agreement not be reached on this issue between the EU and China, the WTO **has a dispute settlement procedure** that can be implemented.

China is currently treated as a non-market economy in anti-dumping proceedings if Chinese firms cannot prove that they operate under market economy conditions. **In the EU**, a non-market economy applying for economy-wide market economy status must prove that it meets five criteria:

- a low degree of government influence in the allocation of resources and in decisions of enterprises;
- an absence of distortion in the operation of the privatised economy;
- the effective implementation of company law with adequate corporate governance rules;
- effective legal framework for the conduct of business and proper functioning of a free-market economy; and
- the existence of a genuine financial sector.

The key point relating to market economy status and the steel industry has been highlighted by the **European Parliament Research Service (EPRS)**. Rather than using domestic prices to calculate the dumping margin, when looking at potential dumping by non-market economies the European Commission is able to use other methodologies to determine the normal value of a good. Consequently, the EPRS concludes that using **non-market economy methodologies to calculate the normal value of a good such as steel has been proven to lead to higher anti-dumping duties**.

The steel industry does not support the EU awarding market economy status to China, as it does not consider that China is a market economy. For example, Celsa questioned how market economy status could be granted 'to a country that clearly does not have a market economy?' **The Community trade union has stated that** if China does achieve market economy status it will be disastrous for the industry and 'most likely the final nail in the coffin for UK steelmaking'.

There have been suggestions that the UK Government is supportive of China obtaining market economy status. However, **the Secretary of State has said that** this will be a collective decision for the EU, and that if a country wants market economy status it must earn it. **The UK Government Minister for Small Business, Industry and Enterprise** considers the debate to be a 'red herring', stating that Russia has market economy status but can still be subjected to anti-dumping tariffs.

Russia was awarded market economy status before joining the WTO, and conditions were applied by the EU to this, meaning that higher tariffs can be applied than for other market economies in certain circumstances. When considering potential 'dumping' by Russia, the existence of market economy conditions is evaluated on a case-by-case basis. Non-market economy treatment is generally not possible, although adjustments are possible if there is evidence of price distortions. Some sectors may be exempted from the general rule of market economy treatment. However, it is also worth being aware that **Russia has filed a complaint with the WTO about the methodology used by the EU to calculate anti-dumping tariffs for a number of products including steel. The EU and Russia are currently in consultation about this complaint.**

The decision on whether to award China market economy status is one made collectively at EU level by member states. However, on 12 May **the European Parliament passed a non-legislative and non-legally binding resolution** that, until China has fulfilled the EU's five criteria for market economy status, its exports to the EU must be treated in a non-standard way. It also called for

the European Commission to come forward with a proposal that strikes a balance between protecting EU industry and jobs, and meeting its obligations under the WTO accession protocol. This vote was passed by 546 votes to 28, with 77 abstentions.

Business rates

Business rates policy is fully devolved to Wales, and there have been calls from steel producers and trade unions to exempt plant and machinery from business rates. In relation to the steel industry, assistance in this area could mean that businesses would be exempt from paying business rates on infrastructure such as blast furnaces, coking ovens, turbines and generators. The current arrangement is seen by some as a disincentive to investment, and **UK Steel has highlighted that UK companies pay between five and 10 times more business rates than their EU competitors.**

The steel sector is considered to be a restricted industry under state aid rules. Therefore, it cannot benefit from receiving all types of state aid including rescue and restructuring aid for companies in difficulty, or regional aid for capital projects in assisted areas. **The then Minister for Economy, Science and Transport stated that,** given the state aid considerations involved in supporting a specific industry, **the Welsh Government has been looking at exempting plant and machinery from the calculation of business rates bills across all sectors rather than just for steel producers.**

However, in a **letter to the Fourth Assembly's Enterprise and Business Committee on 4 April 2016,** the then Minister for Economy, Science and Transport said that following discussion with the Valuation Office Agency, **it has not yet been possible to identify a means to do this which would avoid state aid and appeals, given the lack of data available and the technical complexities.** Responding to the Tata situation in Plenary in April 2016 **the First Minister said:**

We've also looked at ways of removing certain classes of plant and machinery—we're working with the Valuation Office Agency on this—from all ratings assessments. There is no quick or easy way to do this that would avoid state aid and appeals from others within the sector, because—. Historically, there's not a huge amount of data available. But we do estimate that, with regard to Tata, about £4.5 million to £6 million of their rates bill per annum is made up of plant and machinery.

In terms of other considerations around business rates, the Valuation Office Agency, which assess the rateable value of business premises located in Wales, will take into account the state of the steel industry when revaluing premises to determine their business rates bill from 2017 onwards.

The UK Government has not exempted plant and machinery from business rates in England. In April 2016, the UK Government Minister for Small Business, Industry and Enterprise stated that this was because it would have cost £2 billion per financial year to deliver £40 million of benefit for the steel industry.

The Scottish Government provided business rates relief on the two Tata plants that were recently sold in Scotland under the 'de-minimis' scheme, which allows €200,000 (around £150,000) in relief to be provided over a three year period. The relief will be awarded in a single year, and was offered to help attract a buyer. The then Minister for Economy, Science and Transport **stated in February 2016 that** this level of support would not address the problems facing the steel industry in Wales. The Minister also told the Enterprise and Business Committee in April 2016 **that**

Tata were not interested in this model of relief for Port Talbot as Port Talbot is much larger than the two Scottish plants.

Procurement

The steel industry would like the Welsh public sector and the Welsh and UK Governments to use procurement for major infrastructure projects to better support UK steel. The Welsh Government has a **Wales procurement policy statement**, which sets out the procurement practices and the specific actions required of every public sector organisation in Wales. It considers that its procurement policies support the principles of the **Charter for Sustainable British Steel**. **The latest statistics on procurement** show that Welsh firms receive 55% of Welsh public sector spend.

In March 2016, the then Minister for Economy, Science and Transport stated that the **Welsh Government** is reviewing model contract documents for the delivery of major transport projects to ensure that they meet the aims of the Charter for Sustainable British Steel. **The procurement work stream of the Tata Taskforce** is also looking at developing a list of key infrastructure projects that could help the steel industry, such as the Swansea Tidal Lagoon. The Taskforce is also looking at how the major capital projects in the **Wales Infrastructure Investment Plan** are setting criteria for the steel that is required.

The UK Government has also introduced a number of procurement measures. **Guidance introduced in October 2015** states that all central government departments must consider the social and economic impact of the steel they source across all major projects. More recently, from April 2016 the public sector is required to adopt these reforms for all relevant contracts. In Wales this means the non-devolved public sector. The then Minister for Economy, Science and Transport stated in November 2015 that this guidance reflects current Welsh Government practice. Public procurements that involve the supply of steel, will need to consider responsible sourcing, training, the carbon footprint, health and safety of staff and social integration of disadvantaged workers. Contractors working for the public sector will be required to advertise their requirements for steel so that UK firms can compete. The UK Government has also announced that it will establish a list of approved steel suppliers who meet the criteria outlined above.

Examples of recent infrastructure projects that have used a high percentage of UK steel include Network Rail projects, HS2, Crossrail and MoD aircraft carriers. Much of this has been from Tata plants.

Looking at specific examples of how procurement policy could be altered in Wales, the **GMB trade union** has suggested that the Welsh Government and the wider Welsh public sector should amend their procurement policy to ensure that waste-to-energy plants are built under the national agreement between employers and trade unions. The effect of this would be that it is more likely that contracts would be awarded to UK companies using local labour and offering greater support to the use of domestic steel in such projects.

While policies can be developed, a key concern going forward for the steel industry is that they are actually implemented and monitored. In terms of a level of UK procurement that would be desirable, Steve McCool from Community trade union **has stated that:**

We don't need 100 per cent market share for our steel companies in the UK; we just need it up to over 50 per cent, pushing towards 60 per cent, and we would have a thriving business. So, if any clauses in procurement policies could actually say that it uses 60 per cent, 65 per cent, or whatever other figure would be agreeable, it would actually assist the industry a great deal.

Views of the Fourth Assembly on actions that need to be taken to support the steel industry

In April 2016, the Enterprise and Business Committee in the Fourth Assembly wrote to the Prime Minister, UK Government Secretary of State for Business, Innovation and Skills, the Secretary of State for Wales, the First Minister and the Minister for Economy, Science and Transport. The key actions they wished to see taken were:

- Development of a **proactive industrial and manufacturing strategy for the UK;**
- The creation of effective monitoring and control systems to **hold public sector bodies to account on their procurement activity;**
- Clarity from the Welsh Government on the progress of any proposals to **exempt plant and machinery from business rates;**
- The UK Government to **take the lead in Europe in strengthening actions on anti-dumping measures;**
- The Welsh and UK Governments should resist calls for market economy status to be granted to China by the EU;
- **The scope and membership of the Welsh Government's Tata Steel Taskforce to be widened** to consider the long-term viability of the industry and include Ministerial representation from the UK Government at each meeting;
- The UK and Welsh Governments should set out what efforts they are making to **reduce the cost of energy to steel manufacturers** and outline what support will be made available for the environmental sustainability of the UK steel industry; and
- **Tata to be a responsible seller,** and to share the McKinsey report with the UK and Welsh Governments in order to allow sufficient preparation to support prospective buyers.

Appendix – Glossary of key steelmaking terms

UK Steel's website provides **an overview of the steelmaking process**, which sets out visual representations of how steel is made along with a more detailed step-by-step guide. Some of the key terms are set out below.

Basic Oxygen Steelmaking (BOS) - this is one of the two processes used to make steel in the UK today, for example at the Port Talbot steelworks. Scrap steel and molten iron are tipped into the basic oxygen vessel, then a water-filled lance is lowered into the vessel through which very pure oxygen is blown at high pressure. The oxygen, through a process known as oxidation, combines with the carbon, and with other unwanted elements, separating them from the metal, leaving steel.

After a sample has been taken to check that the chemical content of the steel is correct, the vessel is again tilted to allow the molten steel to flow out. This is known as tapping. The steel is tapped into a ladle, in which secondary steelmaking frequently takes place. Finally the vessel is turned upside down and the slag tipped out into a container.

Basic oxygen vessel - this is a large pear-shaped unit used to convert iron and scrap steel into molten steel. The modern BOS vessel makes up to 350 tonnes of steel at a time, and the whole process takes about 40 minutes.

Blast furnace - a blast furnace such as the ones at Port Talbot creates molten iron to allow the basic oxygen steelmaking process to begin. A detailed guide to how a blast furnace works is **published by UK Steel**. UK Steel note that the iron ore and coal used in the UK is imported (primarily from the USA, Canada, Brazil, Australia and Scandinavia), because the UK's resources of good quality coking coal and ore are limited and not economically viable.

Coating - Most steels will gradually rust once they have been exposed to air, and consequently require protection. Steel's corrosion resistance can be improved by coating it in the factory prior to delivery. A wide range of different coatings is available, including zinc coating, organic coatings and tinplate.

Coke oven - A coke oven is a similar structure to a blast furnace, which is used to produce coke. As part of the ironmaking process, blended coal is first heated in coke ovens to produce coke. This process is known as carbonisation. Once carbonised, the coke is pushed out of the ovens and allowed to cool. It then is carried, along with iron ore and sinter to the blast furnace.

Cold rolled steel - After hot rolling, many steel products undergo a further processing in the cold state. This stage of processing does not necessarily alter the shape of the steel product, but reduces its thickness and significantly improves its performance characteristics.

Electric arc furnace - In the UK, electric arc furnaces such as the one used by Celsa in Cardiff are used to produce steels. Unlike the basic oxygen route, the arc furnace does not use hot metal. This uses cold steel scrap, which is tipped into the furnace from an overhead crane. A lid is then swung into position over the furnace. This lid contains electrodes which are lowered into the furnace. An electric current is passed through the electrodes to form an arc. The heat generated by this arc melts the scrap. The electricity needed for this process is enough to power a town with a population of 100,000. The modern electric arc furnace typically makes 150 tonnes in each melt, which takes around 90 minutes.

Flat products – these are steel products such as plate and hot-rolled coil that are rolled by slabs. After the steelmaking and casting process, products are first heated in a re-heat furnace until they are red hot. On all types of mill the semi-finished products go first to a roughing stand. They then can either be passed through a finishing stand to make plate or a series of finishing stands to make coil.

Hot rolled steel –After the steelmaking and casting process, products are first heated in a re-heat furnace until they are red hot. The semi-finished products go first to a roughing stand, and arranged so as to form the steel into the required shape. The roughing stand is the first part of the rolling mill. The product is often passed backwards and forwards through it several times. Each pass gradually changes the shape and dimension of the steel closer to that of the required finished product. They then can either be passed through a plate mill to make plate, a strip mill to make coil or a long product mill to make long bars of steel.

Long products – these are steel products rolled using blooms or billets. Long products are so called because they come off the mill as long bars of steel. They are however produced in a vast range of different shapes and sizes. Bars can have cross-sections the shape of squares, rectangles, circles, hexagons, angles. These bars can also be used for construction, but many types of bar are also used for engineering purposes. Rod is coiled up after use and is used for drawing into wire or for fabricating into products used to reinforce concrete buildings, as are some types of bar.

Long product mills - After leaving the roughing stand, on a long product mill the piece of steel passes through a succession of stands which reduce the size and change the shape of the steel.

Plate - Plate is a large, flat piece of steel perhaps 10mm or 20mm thick (although it can be up to 50mm thick) and up to 5 metres wide. It is used for example to make the hulls and decks of ships or to make large tanks and boilers. It can also be rolled up and welded to form a large steel tube, used for oil and gas pipelines.

Plate mills - Slabs are used to make plate. Typically, after leaving the plate mill's roughing stand, they are passed through a finishing stand. This is a reversing mill where the steel is passed backwards and forwards through the mill. It is also turned 90 degrees and rolled sideways during the process.

Reinforcing bar (rebar) - Rebar is a steel bar or mesh of steel wires used to strengthen and hold the concrete in tension in reinforced concrete structures. The surface is often patterned to form a better bond with the concrete. Celsa is the main producer of rebar in the UK.

Secondary steelmaking – After steels have been poured from the furnace, they may undergo a further stage of processing called secondary steelmaking before the steel is cast. The objective is to improve the chemical composition of the steel and remove impurities.

Sinter plant - Sinter plants agglomerate iron ore dust with other fine materials at high temperature, to create a product that can be used in a blast furnace. The final product, a sinter, is a small, irregular nodule of iron mixed with small amounts of other minerals. The process, called sintering, causes the constituent materials to fuse to make a single porous mass with little change in the chemical properties of the ingredients. The purpose of sinter is to be used converting iron into steel.

Slabs - A slab is a length of metal that is rectangular in cross-section. It is created directly by continuous casting or indirectly by rolling an ingot on a slabbing mill. Slabs are usually further processed via flat rolling, skelping, and pipe rolling. They can be used to make plate and steel strip (normally called hot rolled coil).

Strip mills - After leaving the roughing stand, the slab passes continuously through a series of finishing stands in a strip mill which progressively squeeze the steel to make it thinner. As the steel becomes thinner, it becomes longer and starts moving faster. As the single piece of steel will be a whole range of different thicknesses along its length as each section of it passes through a different stand, different parts of the same piece of steel are travelling at different speeds. This requires very close control of the speeds at which each individual stand rolls; and the entire process is controlled by computer. By the time it reaches the end of the mill, the steel is travelling at about 40 miles per hour. Finally the long strip of steel is coiled and allowed to cool.