



The manufacturers' organisation

UK Steel

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Dear Sir Nicholas

**Stern Review on the Economics of Climate Change
Submission on behalf of the UK steel industry**

Introduction

This letter supplements the submission made by EEF by providing views specific to the UK steel sector.

UK Steel is the trade association for the UK steel industry. It represents all the UK's steelmakers and companies in other downstream steel processing sectors.

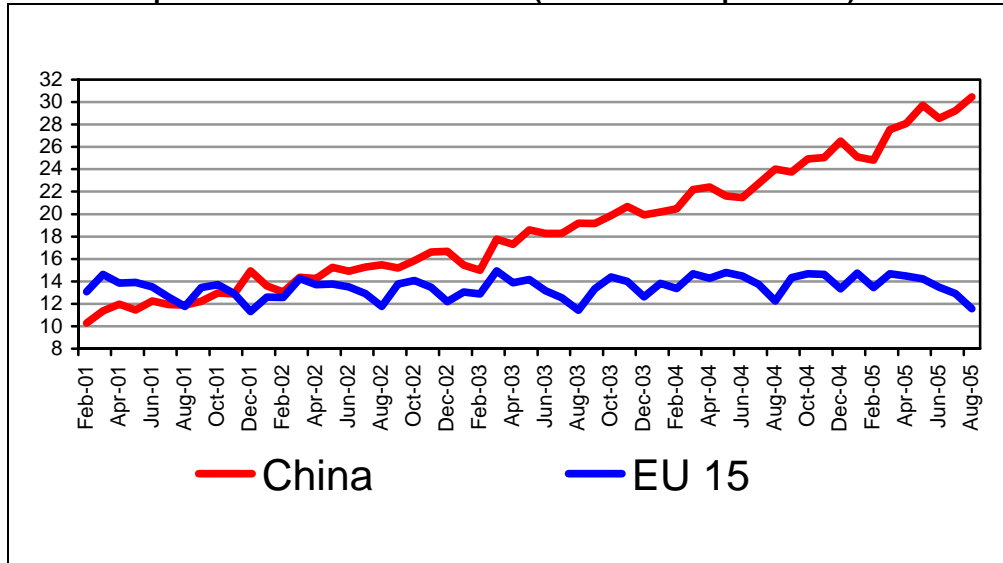
UK Steel welcomes the opportunity to provide evidence to the Stern Review and welcomes further opportunity to be engaged in the process over the coming months.

The implications for energy demand and emissions of the prospects for economic growth over the coming decades, including the composition and energy intensity of growth in developed and developing countries

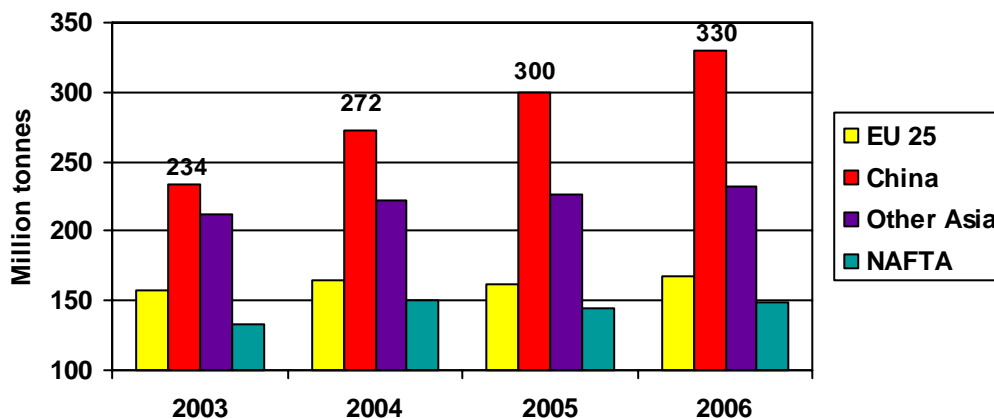
In the manufacturing sector energy and process emissions from steelmaking are the dominant source. Steelmaking in Europe accounts for some 6% of total anthropogenic emissions. Recent developments in developing economies suggest that energy demand to feed the steel industry will intensify over the coming years in countries like China, Brazil and India, economies that are unconstrained by targets to reduce their CO₂.

Production in China, for example has been increasing this year by 27% year-on-year, while EU 15 production decreased by 6%.



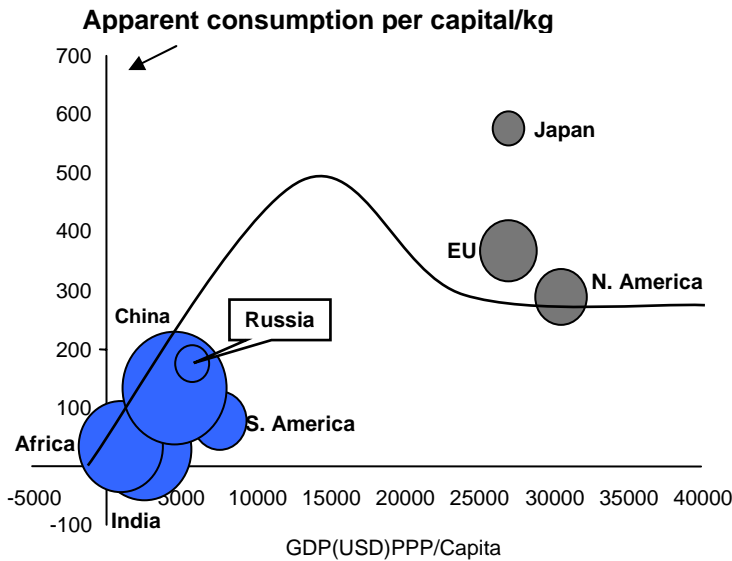
Crude steel production in China and EU 15 (million tonnes per month)

Chinese demand for steel is predicted to continue to grow at a rapid rate, as the country's infrastructure, industrial output and consumer consumption all expand. Production of steel in China reached 50 million tonnes in 1986 - after 37 years of development. It took only two years (2002-2003) to add another 50m tonnes, and in 2005 steel production is at 300m tonnes. According to the International Iron and Steel Institute consumption in China could reach 780mt by 2025. Furthermore, steel production is rising faster than domestic demand, with China now a net exporter onto world markets.



Chinese steel consumption could reach 780mt in 2025 - compared to 300mt in 2005
Source: IISI (October 2005)

This outline of China's steel production and demand patterns can be extrapolated to other developing countries where GDP/capita is increasing and driving the demand for improved housing and transport. Steel consumption is driven by population and GDP, and as the following demonstrates half of the world's population lives in high growth areas.



Note: Size of bubble represents population

New World Order

By mid-century, the top six economies could well be:

- China
- India
- USA
- Japan
- Brazil
- Russia

This will have a significant impact on growth in steel consumption as these economies grow and develop

53% of overall steel consumption is expected to be in Asia by 2007, of which China represents approximately 30%. However in Western Europe growth is expected to be only 1-2%.

For the steel industry the implications for energy demand and emissions are quite clear: Over the coming decades developing countries will increase the intensity of both their production and consumption of steel. When the review considers the composition and energy intensity of this growth it needs to take into account the difference between process and energy emissions, because the cost to reduce these emissions, the progress in technological solutions and future costs are subject to different drivers in each case. We would welcome the opportunity to discuss this further.

The UK and European steel industries can have a vital role to play in driving forward improvements in process and energy efficiency. In Europe for example, steelmaking now emits an average 1.7 tonnes of CO₂ per tonne of steel, half of what it emitted 50 years ago. This is the result of systematic progress and investment in R&D over the last few decades. But national and regional schemes to reduce CO₂ emissions are driving companies to find reductions which are becoming increasingly costly and in a global market are not economically viable. This result will affect future investment decisions driving production to unconstrained carbon economies with an inevitable increase in **unmitigated** green house gases.

We would like to see the review address the costs associated with squeezing the last drop of efficiency from steel making in the UK against the benefits when set against the inevitable global steel output surge and consequently increased emissions. Is it for example of any benefit to invest beyond that which is commercially viable to reduce the last bit of CO₂ and achieve the theoretical thermodynamic de minimis, when elsewhere in the world CO₂ emissions will flow unmitigated rendering insignificant any progress, and worthless any investment?

Put starkly, there is a very real danger that the EU continuing to show "leadership" by embarking on high-cost unilateral emissions reduction strategies could in fact

undermine global targets by accelerating the trend for a growing proportion of the world's steel to be produced in unconstrained economies. Furthermore, the progressive "offshoring" of manufacturing facilities will also expand global emissions by increasing the distance that goods need to be transported to their markets.

The costs and benefits of actions to reduce the net global balance of greenhouse gas emissions from energy use and other sources, including the role of land-use changes and forestry, taking into account the potential impact

As stated earlier, there is a need to make the distinction between energy and process emissions when undertaking a cost benefit analysis, rather than address the sector emissions as a whole. The reasons for this are that process and energy emissions are subject to different drivers, potential abatement opportunities and measures, and therefore to different levels of investment and future costs.

In terms of energy use, steel makers can only improve on this through increases in energy efficiency. The sector in Europe is close to the theoretical maximum abatement possible under existing technologies. We would welcome the opportunity to provide further evidence on this in the future.

But once energy efficiency has been exploited the sector is relying on the investment and political decisions of the power generation sector to generate energy from other cleaner sources. For example electricity generation has increased fossil fuel use by 6% over the period 1990-2003 resulting in increased CO₂ emissions. The manufacturing sector however has **decreased** its CO₂ emissions by 15% over the same period despite an increase in output. The increase in fossil fuel by the power generation sector has negated the environmental benefits the manufacturing sector has gained at its own expense.

Again this adds to the frustration of the sector which is squeezed and penalised if it does not perform. The impact on the sector in trying to meet this challenge is significant and yet the government have not delivered the right signals to the power generation sector and investors to generate electricity from cleaner sources and until they do any gains made by the manufacturing sector are simply lost.

Against this backdrop it is very difficult for manufacturers to see any advantage in being leaders. As one company recently said, China are knocking on the door, and it is becoming increasingly difficult to keep them at bay on a competitive playing field that isn't level.

The impact and effectiveness of national and international policies and arrangements in reducing net emissions in a cost-effective way and promoting a dynamic, equitable and sustainable global economy, including distributional effects and impacts on incentives for investment in cleaner technologies.

The steel industry is currently hit by several pieces of overlapping and sometimes contradictory legislation. For example, we do not believe it is necessary to use both the Climate Change Levy/ Climate Change Agreement system and the EU

Emissions Trading Scheme as a means to secure energy improvements from the sector. Also, the Thematic Strategy on Air Pollution threatens to increase the already expensive costs of complying with clean air requirements to which steel producers are already subject, at the same time as imposing additional energy costs.

Turning specifically to the EU ETS, we are concerned that this is an example of leadership that will yield little advantage because it implements regional constraints upon operators working in a global economy, where other participants are not subject to the same constraints. UK Steel does not object to the principle of emissions reductions, but is cautious to condone a scheme that puts its members at a disadvantage when the overall global anthropogenic emissions are not being slowed.

For reasons outlined in previous sections it could be argued that the EU ETS is not a cost effective scheme for steel makers. Is investment in developing further techniques to reduce emissions in a process which is already approaching its thermodynamic de minimis and therefore may realise very little gains really the best use of the limited resources to reduce global emissions when techniques already exist which could realise substantial emissions reductions for less if deployed elsewhere in the world? How many more emissions could be saved in developing countries for the same amount of investment?

Joint implementation schemes and the clean development mechanism have been designed to help achieve a cost effective way of reducing global emissions. But according to the principle of supplementarity imposed by the directive, participants can only use a limited number of project credits. This is not a disincentive to participating in the scheme but a barrier. Leading by example can be achieved just as well if not better by engaging with developing countries and becoming involved in projects that will both demonstrate and contribute to the delivery of global carbon management. It is essential that we are not restricted from engaging with countries whose economies are developing at a rapid pace and if left unmanaged will emit enough GHGs to render insignificant any attempt by Kyoto signatories to slow anthropogenic impacts on climate change.

Is it really cost effective therefore to undermine the JI/CDM market by artificially restricting their use, to the potential detriment of slowing the rapid increase in emissions from developing countries?

The use of project credits will facilitate international action on climate change mitigation and support sustainable development in both in developed and developing countries. The use of these credits will help to reduce emissions at the lowest cost location and so help achieve the overall objective of carbon abatement.

The design of the EU ETS and its transposition to a "one size fits all" being implemented has produced a scheme that is inequitable.

For example the inclusion of the power sector who have the ability to pass the cost of carbon on to the consumer has resulted in windfall profits for the generators. Manufacturing companies however who operate in a globally competitive market are

unable to pass on such costs, and suffer instead the double whammy of high ETS compliance costs and increased electricity prices.

This effect will be exacerbated still further if the auctioning of permits is introduced – because again the price of the permit will simply be a further cost for manufacturers which can not be passed on, whereas electricity generators will pass on any higher costs that they incur, with the ability even to bid up the price of permits. Auctioning must be avoided at all costs – particularly for the steel sector.

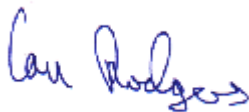
The consumer is powerless to change the source of energy but is forced to pay for the carbon. The apparent inequities of the current EU ETS would be best addressed by moving away from this “one size fits all” approach, towards the development of sector specific policies that recognise the specific needs and abatement potential of different industries. UK Steel would like to see the review address these issues and will be happy to engage further with the review process.

Finally we would like to make the point that all other sectors including business, domestic and transport have also steadily increased their emissions and have yet to be subject to the same pressure from government to improve their performance in this area.

We hope that you will find this outline of use to your review and we look forward to participating further with the process.

In the meantime please do not hesitate to contact us if we can assist you further.

Yours sincerely



Ian Rodgers
Director