The Australia Institute
Research that matters.

The industries that cried wolf

An analysis of the claims made by Australia's big polluters of the impact of a carbon price

Policy Brief No. 25
April 2011
ISSN 1836-9014

Richard Denniss

TAI

Policy Brief

The Australia Institute

Research that matters.

About TAI

The Australia Institute is an independent public policy think tank based in Canberra. It is funded by donations from philanthropic trusts and individuals, memberships and commissioned research. Since its launch in 1994, the Institute has carried out highly influential research on a broad range of economic, social and environmental issues.

Our philosophy

As we begin the 21st century, new dilemmas confront our society and our planet. Unprecedented levels of consumption co-exist with extreme poverty. Through new technology we are more connected than we have ever been, yet civic engagement is declining. Environmental neglect continues despite heightened ecological awareness. A better balance is urgently needed.

The Australia Institute's directors, staff and supporters represent a broad range of views and priorities. What unites us is a belief that through a combination of research and creativity we can promote new solutions and ways of thinking.

Our purpose—'Research that matters'

The Institute aims to foster informed debate about our culture, our economy and our environment and bring greater accountability to the democratic process. Our goal is to gather, interpret and communicate evidence in order to both diagnose the problems we face and propose new solutions to tackle them.

The Institute is wholly independent and not affiliated with any other organisation. As an Approved Research Institute, donations to its Research Fund are tax deductible for the donor. Anyone wishing to donate can do so via the website at https://www.tai.org.au or by calling the Institute on 02 6206 8700. Our secure and user-friendly website allows donors to make either one-off or regular monthly donations and we encourage everyone who can to donate in this way as it assists our research in the most significant manner.

LPO Box 5096
University of Canberra, Bruce ACT 2617
Tel: (02) 6206 8700 Fax: (02) 6206 8708
Email: mail@tai.org.au
Website: www.tai.org.au

Introduction

The introduction of a carbon price in Australia in July 2012 will raise more than $10 billion per year, help influence industrial and household decision making and, inevitably, increase the costs and reduce the profits of some businesses. Such increases in cost and the subsequent change in behaviour are, of course, the objective of introducing a carbon price.

Prime Ministers John Howard, Kevin Rudd and Julia Gillard have all stated their belief that Australia needs to introduce a carbon price to help curb greenhouse gas emissions. Despite this, small sections of Australian business that represent a large percentage of Australia's greenhouse gas emissions continue to express surprise and alarm at the prospect. For example, the managing director of Brickworks, Mr Lindsay Partridge, argues that:

> *The end result will be an exodus of manufacturing industries and investment offshore, jobs will be lost, the cost of housing will increase and there will be no change to carbon emissions. The sooner the current plan is abandoned the better.*[1]

Similarly, the Chairman of BlueScope recently stated:

> *The implementation of such a carbon tax in its current form runs a high risk of the steel industry reaching a tipping point where it will no longer be able to maintain the investment required for viable production in Australia. This may mean moving future investment offshore. The broader impact would be devastating for Australian manufacturing across the value chain, and for working families, particularly in regional areas.*[2]

These comments by the representatives of some of Australia's largest polluters are likely to leave their audience in little doubt that the introduction of a carbon price will destroy the Australian economy. But should these comments be believed?

This paper places the claims being made about the likely impact of the introduction of a carbon price into a broader context and concludes that such claims are presented in such a way as to exaggerate their significance.

Crying wolf?

In a recent speech to the National Press Club the Chairman of BlueScope Steel Grahame Kraehe stated that:

> *Two years ago at 70-80 cents to the dollar, we were very competitive, in the top quartile of world steel cost efficiency. Today, with the Australian dollar at around parity with the U.S. Dollar, Australian steelmaking competitiveness has deteriorated on the cost curve – making it a very tough business environment.*[3]

He gave this speech on the 22nd of March, 2011. Surprisingly, however, almost exactly two years previously, on April 1 2009 the Chief Executive of BlueScope, Mr Noel Cornish, told

---

[1] See http://www.smh.com.au/business/carbon-tax-will-hurt-housing-affordability-brickworks-20110324-1c7md.html

[2] See http://www.abc.net.au/lateline/business/items/201103/s3170952.htm

[3] See http://www.crikey.com.au/2011/03/23/graham-kraehes-definition-of-consultation/

the Senate Committee on Fuel and Energy that, in relation to the proposed introduction of the Rudd Government's CPRS:

> *Costs of this magnitude would be difficult to bear in good economic times - in the current downturn they would be disastrous*

When asked to expand by the Chair of the Committee Mr Cornish went on to scare the workers, families and regional communities referred to by Mr Kraehe above:

> CHAIR - But what would that mean in terms of jobs?
>
> Mr Cornish - What it means is that if our business becomes unviable in the global marketplace, then the whole Port Kembla steelworks is threatened.
>
> CHAIR - So that is 4,500 jobs plus 16,000 jobs?
>
> Mr Cornish – Yes.

The quotations from representatives of BlueScope provided above provide clear evidence of the capacity to absorb increases in cost, such as the introduction of a modest carbon price. That is, while BlueScope were implying in 2009 that the carbon price in the proposed CPRS would potentially result in them shutting down the firm has in fact remained in production despite the much larger impact of the recent exchange rate appreciation (see below).

If BlueScope's production costs meant that they were on the edge of moving their manufacturing offshore in 2009 then the subsequent surge in the Australian dollar should have driven it to do so already.

Put simply, if they were exaggerating their financial plight in 2009 why should Australian taxpayers take them seriously today?

The role of profit in a market economy

In a market economy the role of profit is to attract new investment to industries producing the goods or services most desired by society. Declining profits, or even the existence of a loss, send a signal to investors that they might be better off investing their capital in more profitable industries. As discussed below, however, it is important to distinguish between a reduction in profit and the making of a loss. In the theoretical model of 'perfect competition' even a slight increase in a firms costs can result in them making a loss and, in turn, exiting the industry, while in concentrated industries, or industries in which some firms have significantly different cost bases than others, the impact is likely to be quite different. For example, companies that benefit from competitive advantages such as cheap access to raw materials that experience an increase in their costs are likely to simply suffer a slight reduction in profit rather than exit the industry.

The profitability of firms and industries is in a constant state of change. Shifts in customer demand or the arrival of new technology often drive changes in the profitability, or otherwise, of industries. For example, the trend towards daily coffee consumption has been a boon for cafes over the past decade while the invention of the digital camera has decimated the photographic film and photo development industries. The only certainty in a capitalist economy is that there is no certainty.

Government policies can also influence consumer behaviour and, in turn, the relative profitability of an industry. For example, the explicit objective of restrictions on the advertising and sale of tobacco and alcohol was to reduce consumption and, as a consequence, reduce the profits of suppliers. Similarly, the introduction of Fringe Benefits Tax was designed specifically to discourage firms from remunerating their staff through the provision of generous expense allowances, which were tax free, rather than in the form of taxable cash income. The result was devastating for many CBD restaurants.

Governments do sometime provide compensation to firms, and less frequently employees, who suffer as a result of changes in government policy. For example, dairy farmers received billions of dollars in compensation after the milk industry was deregulated. Alternatively, while more than 10,000 workers lost their job as a result of the privatization of Victoria's electricity industry there was little interest in discussing their need for compensation. The only common factor in relation to the provision of compensation for the introduction of a government policy is political power. Politically powerful groups are likely to receive compensation and less powerful groups are not.

Of course, the rules of public debate prevent either industries or governments from referring to the existence or influence of political power. Instead, coded reference to the national interest are used as a proxy for such political power. For example, the size of export markets and the number of workers employed are used as a proxy for the size and power of the firms affected. The polluters' argument appears to be that 'you can't hurt companies as big as ours without hurting the economy as a whole'. As discussed below, however, there is no economic reason to believe that any reduction in the profits made by big polluters will have major impacts on anyone except the polluters' shareholders.

Will a carbon price destroy the competitiveness of the Australian economy?

While the concept of competitiveness is widely discussed in Australian policy debates the term is not well defined or understood. Indeed, most economic textbooks typically do not even refer to the concept of a country's 'competitiveness'.

In the words of the eminent economist Paul Krugman, who won the Nobel Prize in Economics for his contribution to trade theory:

> *Concerns about competitiveness are, as an empirical matter, almost completely unfounded.*

Furthermore:

> *The idea that a country's economic fortunes are largely determined by its success on world markets is a hypothesis, not a necessary truth; and as a practical, empirical matter, that hypothesis is flatly wrong.*

And in case his key message was somehow missed, he went on to add that:

> *The growing obsession in most advanced nations with international competitiveness should be seen, not as a well founded concern, but as a view held in the face of overwhelming contrary evidence. And yet it is clearly a view that people very much want to hold – a desire to believe that is reflected in a remarkable tendency of those*

> *who preach the doctrine of competitiveness to support their case with careless, flawed, arithmetic*[4]*.*

The meaning of competitiveness implied by those who use it most seems, however, to relate to the capacity of Australian firms to be able to 'compete' with the costs of production by firms based in other countries. In relation to the introduction of a carbon price, for example, the argument appears to be that if Australian steel makers have to pay a carbon price and foreign competitors do not then the result will be that Australian steel makers will be priced out of the market, those buying steel will turn to foreign steel makers, and, as a result there will be a reduction in Australian exports and employment for no actual reduction in worldwide greenhouse gas emissions. This transfer of pollution from Australian steel makers to foreign steel makers has become known as 'carbon leakage'.

While it is theoretically possible for such a chain of events to occur, in practice a far more likely outcome is for Australian manufacturers to continue selling steel, albeit at a slightly lower rate of profit. That is, while in the textbook model of 'perfect competition' all firms face the same costs of production and earn the same (very low) rate of profit, in reality different companies have different costs of production and, in turn, make different levels of profit.

In the real world, however, an increase in costs can be either passed on to consumers, be absorbed by the company in the form of lower profits or result in the firm abandoning domestic production and moving offshore. As discussed below, while the big emitters focus almost exclusively on the likelihood of the third possibility, the first two options are far more likely.

The theoretical possibility of carbon leakage relies heavily on the assumption that steel makers in all countries face exactly the same costs of production and, as such, any disadvantage faced by a manufacturer in one country will result in other countries being able to undercut them. There are several major problems with such an argument:

1) countries have different wage and tax rates yet all steel manufacturing does not occur in the lowest wage countries.
2) countries do not have access to the raw materials necessary for steel production (for example, iron ore and coal)
3) private companies are quite concerned about the political environment in which they make long term multiple-billion dollar investments.

Indeed, research by the Grattan Institute in 2010 has shown that while the cash operating margin for steel mills in Australia is between $100 and $200 per tonne of steel produced a $35 carbon price, with no free permits, would increase costs by only $85 for blast furnace production and only $28 for electric arc steel production[5].

While there are numerous 'microeconomic', or industry specific, reasons that the claims of impending 'carbon leakage' are exaggerated, such as those listed above, the main argument against such claims is macroeconomic, or economy wide, in nature. In particular, the existence of a floating exchange rate in Australia provides conclusive evidence that the claims about the impending departure of Australian manufacturers in response to the introduction of a carbon price are exaggerated and misleading.

---

[4] Paul Krugman (2001) 'Competitiveness: A dangerous obsession', Foreign Policy vol. 73(2) pp28-44.

[5] http://www.grattan.edu.au/publications/026_energy_report_22_april_2010.pdf

The exchange rate, the exporters, and the impossibility of Australia becoming uncompetitive

One of the main reasons that economics textbooks do not discuss the concept of competitiveness is that, at a macroeconomic level, it is a meaningless concept. Such a statement may seem strange given the enormous attention paid to the issue of competitiveness in Australian public debate, but consider the following examples:

1) If the Australian mining industry invests in new exploration technologies, new extraction technologies, and new refining technologies that allow it to extract and process more resources at a lower cost than mining firms in any other country in the world has the mining industry become more competitive?

2) The success of the mining industry means that more countries will buy more resources from Australia and the exchange rate will rise. If, as a result of a rapid increase in the exchange rate, the cost of holidaying in Australia rises significantly compared to the cost of holidaying in other countries is the tourism industry more competitive or less?

3) If the mining industry is more competitive and the tourism, education and manufacturing industries are less completive, is Australia more competitive or less?

Economists do not usually have to answer questions such as these for the simple reason that they do not ask them. But if tens of billions of dollars is to be transferred from taxpayers to polluters on the strength of claims about competitiveness then it is important to subject such claims to critical analysis.

While there is no doubt that changes in government policy, such as the introduction of a carbon price, can have an impact on the ability of some firms or some industries to compete with foreign rivals, there is also no doubt that the success of one Australian exporter has an adverse impact on the ability of other Australian firms to ‘compete’. That is, it is misleading and nonsensical to describe the ‘Australian economy’ as being in competition with other economies. Australian firms compete with rivals both domestically and internationally and the relative ‘success’ of the Australian mining industry in increasing its exports is the major reason for the relative ‘failure’ of the Australian tourism and education industries.

The impact of the rising exchange rate on Australian industries

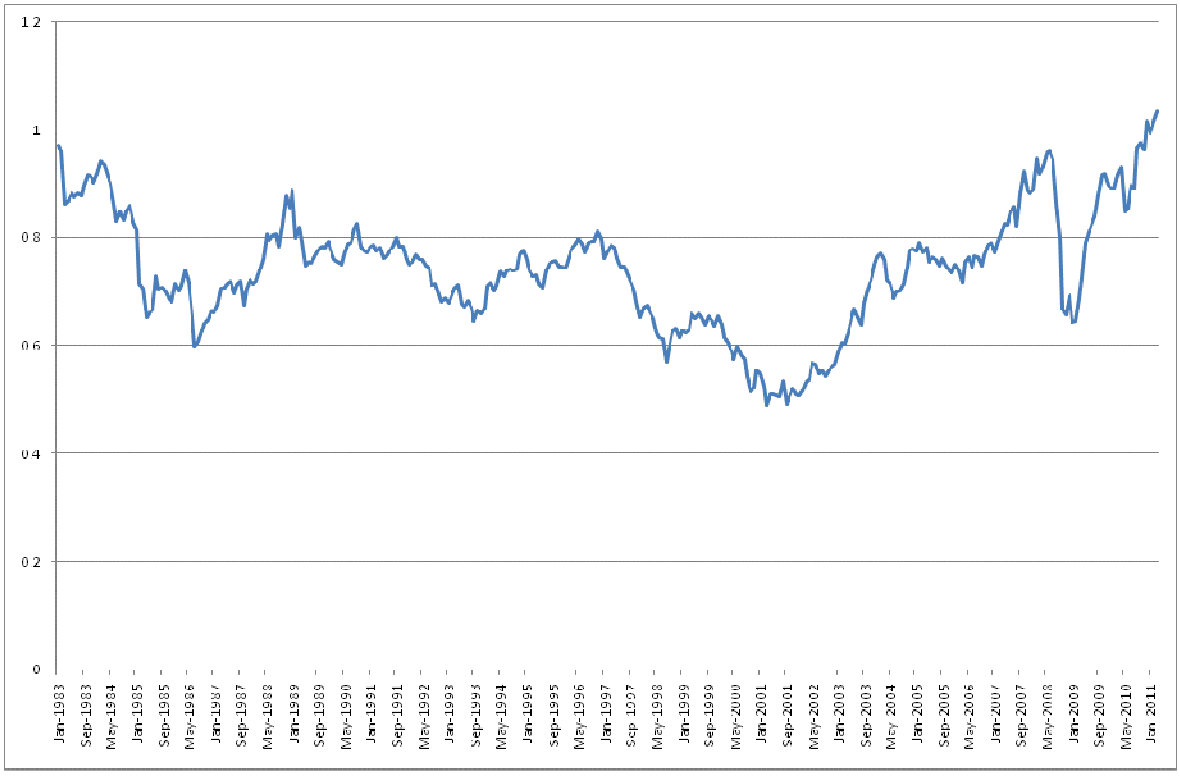
The Australian dollar has appreciated steadily in recent years, driven primarily by rising world demand for natural resources and declining confidence in the US economy. As discussed above, the consequences of this increase have been quite severe for some industries, such as tourism and education, while quite modest for others.

Indeed, in the words of the Commonwealth Treasury:

> The tourism industry was already labouring under a range of problems: ageing infrastructure, a high cost structure . . . the high dollar.

The elevated exchange rate is also placing competitive pressure on other firms in the tradables sector that are benefiting from the mining boom. In some cases this is creating an uncertain outlook.

Figure 1 Australian Dollar exchange rate ($US) 1983 to 2011



Source: RBA http://www.rba.gov.au/statistics/hist-exchange-rates/

The above graph makes a mockery of claims made by Australia's largest polluters that they require 'certainty' in order to invest. In addition to the high degree of volatility in the exchange rate shown in Figure 1 there have also been significant shifts in interest rates, access to finance and roller coaster world demand. Put simply, the introduction of a modest carbon price has a relatively insignificant impact on the ability of Australian exporters to remain price competitive with foreign rivals when compared to recent changes in the exchange rate. This is particularly true when the introduction of a carbon price is viewed in the context that the stated position of both the Rudd and Gillard governments is that big polluters who are 'trade exposed' should be exempt from paying a carbon price on 94.5 per cent of their total emissions. That is, the starting point for the Gillard government is that companies such as BlueScope should only be required to pay the proposed carbon price on 5.5 per cent of their total emissions.

How much will polluters really have to pay?

While the Gillard government is yet to state what the initial carbon price will be in July 2012 it has been much more open about its preferred compensation arrangements stating that the starting point for negotiations relating to the level of compensation would be the arrangements proposed under the CPRS.

While much was said about the CPRS, much less was understood. One of the more surprising features of the proposal was that companies that were deemed to be 'emission intensive', meaning that as a proportion of their revenue or value added they had a relatively high level of greenhouse gas emission and 'trade exposed' meaning that that imports and exports accounted for more than ten per cent of domestic output. Companies that were deemed to be both emission intensive and trade exposed became classified as EITEs and, depending on how emission intensive they were, were to be eligible to receive either 94.5 per cent or 66 per cent of their emission permits for free.

To be clear, that means that a highly emission intensive industry that produced 100 tonnes of pollution would only be required to pay the carbon price on 5.5 tonnes of their pollution.

While the big polluters generally prefer to focus on the total cost of a carbon price, often over a ten year period, the following table places the likely annual impact of a carbon tax in the context of their annual revenues.

Table 1 Pre and Post compensation impact of a $20 carbon price on selected emission intensive trade exposed industries

Activity	Rate of Assistance	Full cost impact	Full cost impact	Cost impact after assistance	Cost impact after assistance
		$ per $million of revenue	% of revenue	$ per $million of revenue	% of revenue
Carbon steel from cold ferrous feed	High	$ 20,000	2.0%	$ 1,100	0.1%
Ethylene	High	$ 40,000	4.0%	$ 2,200	0.2%
Packaging and Industrial Paper	High	$ 40,000	4.0%	$ 2,200	0.2%
Flat glass	High	$ 42,000	4.2%	$ 2,310	0.2%
Fused Alumina	High	$ 42,000	4.2%	$ 2,310	0.2%
Cartonboard	High	$ 44,000	4.4%	$ 2,420	0.2%
Alumina	High	$ 46,000	4.6%	$ 2,530	0.3%
Methanol	High	$ 46,000	4.6%	$ 2,530	0.3%
Dry pulp	High	$ 50,000	5.0%	$ 2,750	0.3%
Carbon black	High	$ 54,000	5.4%	$ 2,970	0.3%
Integrated iron and steel	High	$ 64,000	6.4%	$ 3,520	0.4%

Synthetic Rutile	High	$ 72,000	7.2%	$ 3,960	0.4%
Newsprint	High	$ 74,000	7.4%	$ 4,070	0.4%
Soda Ash	High	$ 78,000	7.8%	$ 4,290	0.4%
Manganese	High	$ 90,000	9.0%	$ 4,950	0.5%
Magnesia	High	$ 100,000	10.0%	$ 5,500	0.6%
Aluminium	High	$ 114,000	11.4%	$ 6,270	0.6%
Silicon	High	$ 120,000	12.0%	$ 6,600	0.7%
White titanium dioxide pigment	Moderate	$ 20,000	2.0%	$ 6,800	0.7%
Carbamide (Urea)	Moderate	$ 24,000	2.4%	$ 8,160	0.8%
Ethanol	Moderate	$ 24,000	2.4%	$ 8,160	0.8%
Glass containers	Moderate	$ 24,000	2.4%	$ 8,160	0.8%
Tissue Paper	Moderate	$ 34,000	3.4%	$ 11,560	1.2%
Lime production	High	$ 242,000	24.2%	$ 13,310	1.3%
Clinker production	High	$ 312,000	31.2%	$ 17,160	1.7%

Source: DCC 'Establishing the eligibility of emissions intensive trade-exposed activities', March 2011

Note: Activities that receive the 'High' rate of compensation under the CPRS were proposed to receive 94.5 per cent of necessary pollution permits for free while activities who qualified for 'Moderate' levels of assistance were expected to receive 66 per cent of their pollution permits for free

The data presented in Table 1 are derived from data on EITE industries released by the Department of Climate Change and Energy Efficiency (DCCEE). This information includes the emissions intensity per million dollars of revenue for each EITE activity. The table shows the number of tonnes of CO2e that is produced for every million dollars of revenue that the firm receives from selling its output.

From this starting point it is possible to calculate the effect a carbon price will have as a percentage of revenue. For example, the table shows that for the Steel industry 3,300 tonnes of CO2e is produced for every million dollars of revenue that is earned. If we assume a carbon price of $20 per tonne of CO2e then the table shows that the Steel industry will have to pay $66,000 per million dollars of revenue (i.e. $20 carbon price multiplied by 3,300 tonnes of CO2e).

In turn, $66,000 in carbon price per million dollars of revenue equates to be 6.6 per cent of revenue for the Steel industry.

However, the actual costs to the steel industry is likely to be far lower than 6.6 per cent of revenue due to the free provision of up to 94.5 per cent of the pollution permits required by the steel industry. Put simply, under the compensation arrangements proposed under the CPRS the steel industry would only have to pay 5.5 per cent of the $66,000 calculated above.

This means that the impact on revenue after assistance would be $3,630 per million dollars of revenue. This is 0.4% of their total revenue or 0.4 cents in every dollar of revenue.

How significant is 0.4% of revenue?

The figures provided above suggest that, at a maximum, a carbon price of $20 per tonne would impose a cost on a steel producers such as BlueScope of around $34.5 million per annum (assuming that they have no capacity to reduce their emissions) which is around 0.4 per cent of revenue.[6]

While $34.5 million may seem like a large amount of money in absolute terms, in relation to the other costs of BlueScope it is, in fact, quite small. Consider the following:

- According to data on wage costs from BlueScope's Annual Report if wages rise by the 3.75 per cent forecast in the Commonwealth Budget papers then BlueScope's costs will rise by $57.2 million

- If the costs of the raw material used by BlueScope were to rise by 1 per cent then their costs would rise by $49.6 million per annum

- In 2010 BlueScope made a loss of $33 million on the operation of their defined benefit superannuation scheme

BlueScope argued in 2009 that a $34 million carbon price bill would potentially ruin the company yet the company has continued to trade while experiencing the far more adverse impacts of exchange rate appreciation.

Could the costs be less than 0.4 per cent?

The data used to create Table 1 is the most conservative available ensuring that, if anything, the actual cost to industry is likely to be lower than the estimates provided. The reasons for this are as follows

1) The data published by the DCCEE provides a range of figures for the emission intensity for each activity. For example, while in the case of steel the DCCEE estimate that the emission intensity ranges from 3200 to 3299 tonnes per million dollars in revenue the calculations presented above are based on the highest end of

[6] This analysis is made on the basis of the data on which the DCCEE is estimating eligibility for compensation. If it is incorrect it would be surprising that a company would not seek to correct it.

that range. To the extent that emissions from some companies in the steel industry have a lower emission intensity the data in Table 1 will overstate the actual cost.

2) The analysis assumes that firms have absolutely no capacity to pass any increase in costs onto their customers and, in turn, the entire cost of the carbon price will be born by the shareholders of the relevant companies.

3) The analysis assumes that firms have absolutely no capacity to reduce their emission intensity in response to an increase in price.

Why aren't we worried about exchange rate leakage or wage rate leakage?

The Australian economy is described by economists as 'small and open'. That is, like most economies we ride the waves that the world economy send our way. Massive increases in world demand have driven up demand for, and the price of, raw materials such as steel and coal that Australia possesses in abundance. In turn, this increase in demand for our raw materials has driven up demand for, and the value of, the Australian dollar.

If companies responded quickly to small changes in the relative cost of producing in different countries then the recent, and unexpected, surge in the Australian dollar would have driven far more 'exchange rate leakage' than the amount of 'carbon leakage' that a modest carbon price could ever achieve.

Similarly, as discussed above, movements in relative wage rates have far more potential to generate 'wage rate leakage' between nations than the impact of a carbon price along the lines of that proposed in the CPRS.

Companies in Australia have for many years mounted arguments that unless their demands for low wages, low taxes and generous industry assistance are met they will be forced to shift their operations offshore. However, the response by some business leaders to the introduction of modest carbon price, accompanied by massive compensation, is unprecedented both in the extent of the exaggeration and the relatively lack of scrutiny to which these exaggerated claims have been subjected.

Some industries in Australia operate on very slim profit margins in world markets that are highly responsive to small changes in price but, as shown above, the steel industry is not one of those. Ironically, the minerals boom is doing far more to undermine the ability of industries such as tourism and education to compete on the world stage than the introduction of a carbon price could possibly do to the resources industry.

Conclusions

The objective of introducing a carbon price is to drive transformation in the Australian economy. The irony of the current debate, however, is that while the transformation envisaged by the Gillard government is far less than that required to drive Australia's emissions down to a level consistent with an equitable contribution to a safe level of atmospheric greenhouse gas emissions the debate is focused almost exclusively on the

exaggerated claims being made by some large polluters that the impact of the proposed carbon price will be far greater than they are likely to be.

As the data provided above clearly shows, the impact of a carbon price on Australia's so called EITE industries is likely to trivially small once the compensation payments are made.

The evidence presented above makes it clear that some large polluters in Australia have sought to exaggerate the likely impact of a carbon price in order to maximise the amount of taxpayer compensation they receive. Such actions should be expected from those who are employed to maximise the profits their companies earn.

That said, Australian taxpayers should not expect that billions of dollars worth of compensation should be paid to large polluters, rather than invested in health, education, renewable energy generation or any other socially desirable activity, on the strength on uncontested claims made by vested interests.

As the rapid rise of the Australian dollar in recent years has shown, Australia's biggest polluters were under far less competitive pressure in 2009, when the CPRS compensation arrangements were being negotiated, than they were publicly suggesting.

It is possible that the excessive compensation arrangements negotiated between Malcolm Turnbull and Kevin Rudd in 2009 have, through a recent accident of exchange rate appreciation, become the optimal compensation arrangements for 2011, but it more likely that compensation arrangements that were clearly excessive then remain excessive today.

The question facing the Australian Parliament is not do we want to protect Australian industry or don't we? The real question is, if we were about to spend billions of dollars to protect or create jobs in Australia, what would the best way to do that be? It would be a coincidence of unprecedented proportions if the compensation deal negotiated between Kevin Rudd and Malcolm Turnbull in the final months of their respective leaderships provided the optimal answer to the second question.