

## The Cost of Clean Energy

At 12:01pm on the 13<sup>th</sup> of September 2011, the member for Lalor introduced the Clean Energy Bill (2011) into federal parliament. In an act that is set to define a Government, Prime Minister Gillard set forward a vessel to reach Australia's target of reducing green house gas emissions to 5% below 2000 levels. The legislation's key pillar is a standardised tax (or price) on carbon dioxide emissions made by Australia's top 500 polluters, due to be implemented on the 1<sup>st</sup> of July 2012. This will eventually evolve into an emissions trading scheme (ETS)- similar to the policy initially proposed by the Howard-led Coalition Government in 2007. The idea hinges on the fact that a tax acts like a price signal, making goods that require more emissions in production more expensive to produce and consume, therefore encouraging production and consumption of less emission intensive goods.

But aside from the extensive commentary surrounding this debate- what are the *economic* facts? And why should agriculture be excluded, not only from the direct costs associated with emissions, but indirect as well? Firstly, economically speaking an ETS, whereby people can buy or sell emission permits, is the most efficient mechanism available for reducing GHG emissions. And purely in an economic sense - a carbon tax

is the second most efficient policy instrument. Figure 1 indicates the historical costs associated with both the Coalition's policy approach to reducing GHG emissions (competitive grants) and the Government's approach (based on the NSW Government's Greenhouse Gas Abatement Program)<sup>1</sup>

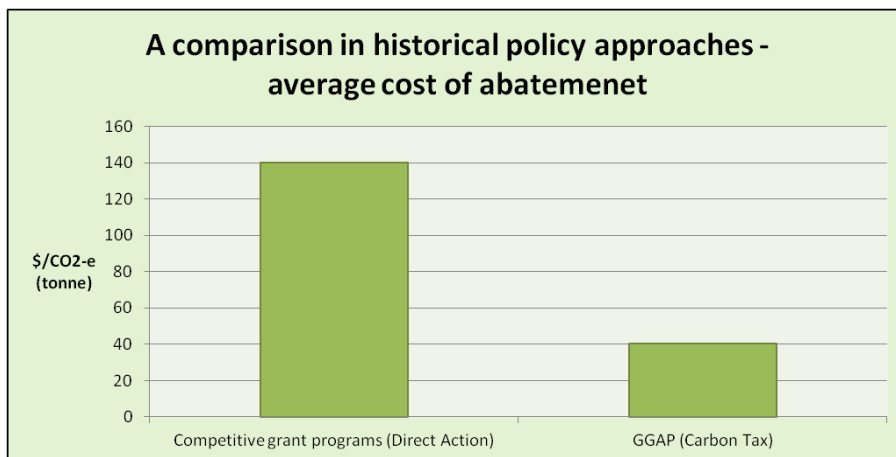


Figure 1

## Australia's Kyoto Agreement

As highlighted in the Australian Government's *National Greenhouse Inventory 2009* report, land use change since 1990 was almost solely responsible for Australia being able to meet its Kyoto requirements. This can be directly attributed to the native vegetation regulations introduced across Australia in the early 1990s. The regulations increased restrictions on land clearing, predominantly affecting farmers, resulting in a significant reduction in net emissions from the *business as usual* scenario. The effect of this was twofold. Throughout the period of 1990 - 2012, the regulations introduced in Queensland and New South Wales were and are responsible for a combined 18 Mt CO<sub>2</sub>-e *per annum* reduction in emissions<sup>2</sup>. To put this in perspective, Australia's current 2020 emission reduction target equates to a total drop in emissions by 160 Mt CO<sub>2</sub>-e from 2000.

<sup>1</sup> *The Real Cost of Direct Action*, the Australia Institute, July 2011

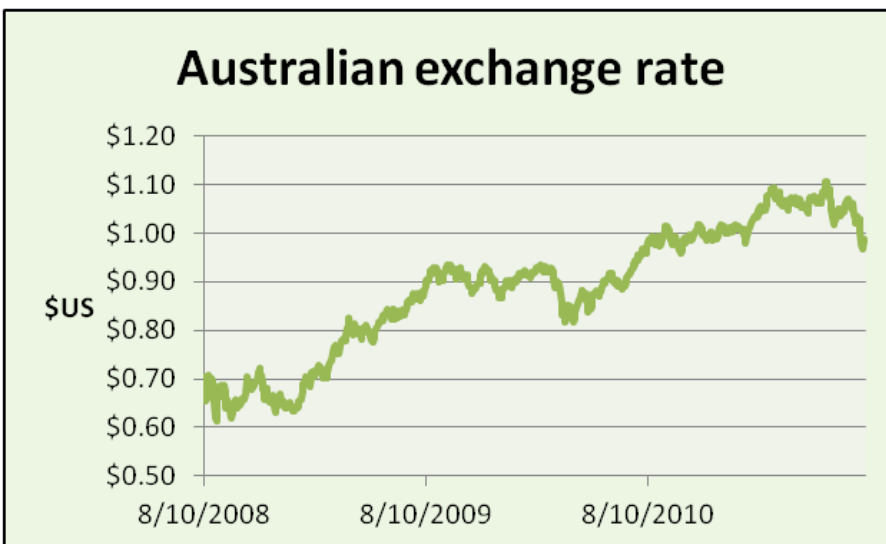
<sup>2</sup> Australia's emissions projections 2010, Department of Climate Change and Energy Efficiency

The new restrictions on land clearing have constrained industry growth, costing significant amounts in future income, or forgone revenue. In 2003, the Parliamentary Secretary to the Treasurer, Ian Campbell, instructed the Productivity Commission to investigate the economic impact the regulations have exerted on farming businesses. The report, titled *Impacts of Native Vegetation and Biodiversity Regulations*, highlighted some interesting, but seemingly obvious conclusions. Primarily of which that the farm sector had been paying a significant price over the previous decade as a direct result of the past legislative changes. The report issued exact costings (using underestimated price paths of commodities) that estimated the annual costs of the regulations on a Shire specific basis.

The main case study was Moree Plains Shire. The study calculated that the net present cost of the vegetation clearing regulations be \$4.7 million per annum. A simple derivation of this figure using ABS statistics<sup>3</sup> can be used to illustrate the effective price, or tax, farmers have been paying in Moree Shire over the previous 10 years. The average annual cost to a farming enterprise in Moree Shire Plains Council is \$4881 per annum. In contrast, the Australian Farm Institute's (*ceritus paribus*) modelling estimated that the implementation of a \$23 carbon tax would lead to an additional annual cost of \$3,392 per annum for an average sheep farm.

### The exchange rate and the carbon tax

Much debate has surrounded the crippling affect a carbon tax will have on trade exposed industries. Some more outlandish comments have been made by politicians and commentators claiming that a tax of this nature will cripple trade exposed industries. While it is correct that a carbon tax will add an additional cost to producers, one of the main drivers of profitability for exporters, the exchange rate, has been regularly



overlooked. Although the two mechanisms are unrelated, a brief comparison as to the influence they have on exporters' profitability does help contextualise some of the concerns surrounding the proposed legislation.

Both the carbon tax and the exchange rate erode the total profit made by an exporter. The carbon tax increases the costs, whereas the exchange rate decreases the real revenue received- both have a net effect on profit.

According to AFI figures, the carbon tax of \$23 will increase costs to the average NSW grains farmer \$12,008. In contrast, the comparative appreciation in the exchange rate that will reduce an identical exporting farm's revenue by \$12,008 is 2.5c. I.e. the Australian exchange rate fluctuating from \$1.00US to

<sup>3</sup> 1379.0.55.001 National Regional Profile, Moree Plains (A), 2005-2009, ABS

\$1.025US will have the exact same effect as a carbon tax being introduced in to an average grains farm. The equivalent appreciation for a cotton farmer is 1.6c. For a steel exporter this figure equates to less than a cent. This would mean that the recent fall in the Australian dollar from US\$1.10 to below parity is the approximate equivalence to the present day repeal of a \$184 dollar carbon tax to cotton farmers (also, assuming prices remained constant, since 2008, the exchange rate appreciation from US\$.60 is equivalent to 32 consecutive carbon taxes being levied on a cotton farmer to present day).

Considering this variability in the exchange rate and its responsiveness to fiscal and monetary policy, it is essential that trade exposed industries pay close attention to the Government’s macro policy settings- which will quite possibly influence the future profitability of agriculture more so than a carbon tax over the long term. One effective mechanism promoted by the NSW Farmers is a sovereign wealth fund, which invests mining taxation revenue offshore, reducing the exchange rate, and interest rate pressures.

### International Government support for farmers

A recent report published by the OECD, *Agricultural Policy Monitoring and Evaluation 2011: OECD Countries and Emerging Economies*, has confirmed that Australian farmers are among the least supported in the world. The report contrasted, amongst other things, the level of producer support among member nations of the OECD and some larger developing nations. Australia, continuing a tradition of minimalistic government intervention ranked a second place in terms of Government support as a percentage of gross farm receipts (Figure 2). This comes as no surprise – the interesting data contained within the report was the comparison of OECD producer support to the level of support offered to larger emerging economies. It has long been an assertion that developed countries offer larger support to their rural industries in order to maintain food production, and by doing so, this damaged the emerging economies that would otherwise have a competitive advantage in producing (and exporting) agricultural commodities. However, the data revealed that of the countries surveyed, China, Russia, Brazil and Ukraine enjoyed significantly higher Government support for producers, with only South Africa experiencing any less support than Australia (by 0.02%).

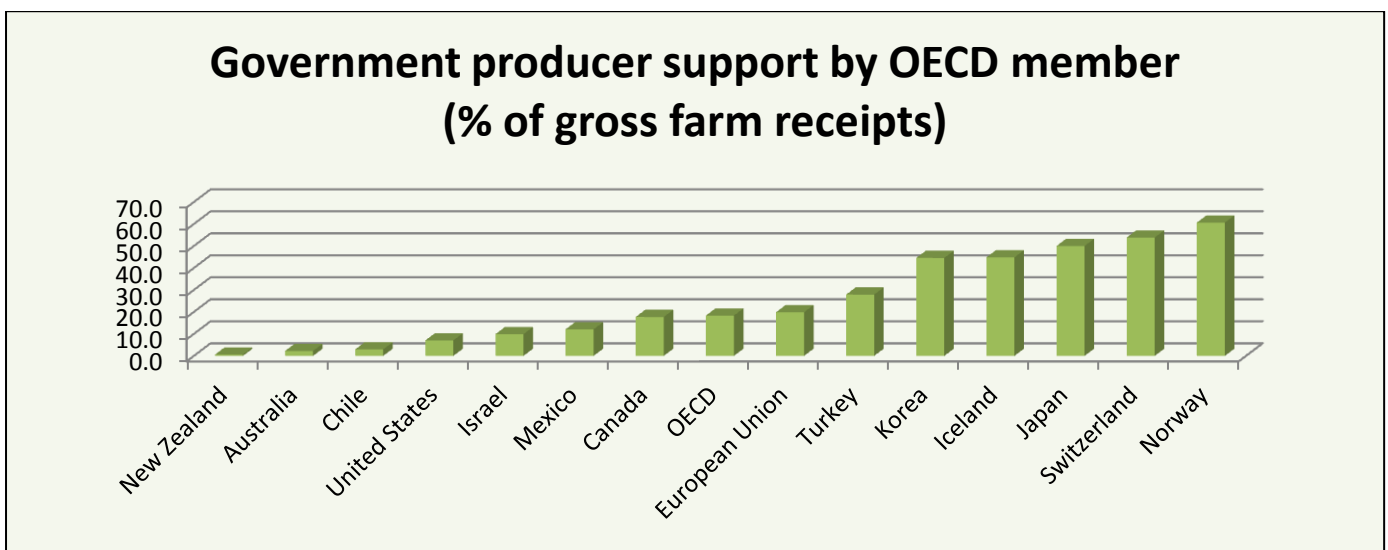


Figure 2 - Source: OECD

## Key Commodity Indicators

- **Wheat** – Global supply stocks remain in reasonable shape, with yields significantly improving on previous years. Argentina and the US have experienced particularly dry conditions in their wheat belts, however this should be countered by the bumper crop coming out of the former Soviet Union States
- **Sugar** – Strong price signals have resulted in increased production across Brazil, China, Russia, India and Thailand. However Brazil and India (the world’s second largest producer) both face unfavourable climatic conditions ahead
- **Cotton** – Poor demand and strong supply has led to the price of cotton significantly declining over the last quarter. The prices were initially driven higher by drought conditions in the US and high demand from China. However, these conditions prices were weakened by a bumper Australian crop and nervousness in the market
- **Wool** – The traditional European holiday period has seen activity on the wool market stagnate somewhat, as the European mills come back online, demand is expected to increase. The natural lag in production is causing increased stress on the market which is expected to ease over the coming period
- **Lamb**– Adverse weather conditions in New Zealand have seen a significant number of Lamb fatalities this quarter. This has led to an increase in demand for Australian produce. This has not stopped the ease in price which has been blamed demand factors
- **Beef** – Key export markets of Korea and Japan remain subdued, whereas there is hope for increased demand in emerging markets. Much needed rains in the second half of the quarter have given pasture levels a boost
- **Dairy** – The effect of the milk price war is yet to be seen from producers’ contract renegotiations. Dairy output is expected to increase by between 1-2% this financial year, with growth limited mainly by natural herd expansion

Commodity		June 2011	September 28 2011	Variation
Soybeans	US\$/t	499.77	449.55	-10%
Wheat	US\$/t	255.65	234.70	-8%
Corn	US\$/t	283.76	248.33	-12%
Sorghum – US Texas Gulf Rail	US\$/t	293.67	290.06	-1%
Oats	US\$/t	250.91	230.45	-8%
Barley– US No 2 Western PNW	US\$/t	333.75	325.00	-2%
Wool - Eastern	Ac/kg	1421	1235	13%
US Cotton - No 2 futures	USc/lb	136.95	101.00	-26%
Sugar	USc/lb	24.92	24.30	-0%
Trade Steers – NSW	Ac/kg	398.25	405.00	2%
Trade Lambs – Victoria	Ac/kg	551.75	466.00	-17%

Source: ABARES Marketmonitor