

The Australian carbon pricing experience: are there any lessons for Japan?

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Abstract

In 2010 the Japanese Government made substantial commitments to the reduction in greenhouse gas emissions. In particular it proposed a 25% reduction on 1990 levels by 2020 and an 80% reduction by 2050. At the forefront of this policy was to be an additional (carbon) tax on fossil fuels, strategies to promote renewable energy (in particular a feed-in tariff) and an emissions trading scheme. Notoriously there was to be greater reliance on nuclear energy.

Subsequent events conspired to derail these plans. The Fukushima power station disaster forced the Government to reconsider nuclear power. Continued global economic uncertainty, together with the damage to the economy caused by the March 2011 tsunami, resulted in the deferral of the introduction of the emissions trading scheme.

Meanwhile on July 1, 2012 the Australian Government introduced a hybrid carbon tax/emissions trading scheme putting it at the cutting edge of climate change response using fiscal measures. However the path to the introduction of this regime was not easy and its future is not assured. Whilst Australia had been active in negotiating the 1997 *Kyoto Protocol*, and an early signatory, during the subsequent decade the Liberal coalition Government refused to embrace a price on carbon, the centerpiece of the Protocol, even questioning the science on climate change. With the election of a Labor Government in 2007 the *Kyoto Protocol* was promptly ratified and an emissions trading scheme proposed. However the proposal met neither the expectations of environmentalists nor industry and in 2010 it was shelved upon failing to pass through Parliament for a third time. Although it seemed that the impetus had been lost, with the toppling of a Prime Minister later that year and a Federal election resulting in Labor forming a coalition with the Greens, momentum again swung in favour of an emissions trading scheme.

Meanwhile the Liberal coalition Opposition remains divided as to the approach it would adopt if it wins government in the elections scheduled for late 2013. Having dismissed one party leader for promoting an emissions trading scheme, the current policy of the party is that it would repeal the Government's scheme and focus on emissions reduction strategies requiring other than a fiscal response.

There may be political economy lessons for the rest of the world, including Japan, in how the carbon tax/emissions trading scheme was designed and implemented in Australia. This paper explores the developments in Australia. It is hoped that Japanese policy analysts might find the Australian experience informative.

Introduction

If the scientists are correct our World is on the edge of a precipice brought about by climate change. Every country, indeed, humanity faces an uncertain future.¹⁾

For Australia, already the driest inhabited continent on Earth,²⁾ the implications of global warming and the extreme weather forecasts are frightening. Whilst the important primary production industry has an uncertain future in the face of changing weather patterns,³⁾ with 85% of the population coastal dwellers,⁴⁾ rising sea levels will directly affect much of the population. The anticipated destruction of Great Barrier Reef before the end of the century and erosion of the country's World renowned beaches will impact harshly on tourism and the cherished quality of life of the Australian population. Apart from those island nations that will simply cease to exist⁵⁾ few countries may be as adversely impacted by climate change as Australia.

It could, therefore, be anticipated that Australia would be at the forefront of efforts to reduce manmade emissions of carbon considered by most scientists to be cause of the problem that is climate change. However, huge distances between population centres, necessitating long distant transport, together with sprawling cities, have conspired to render Australia the greatest emitter of carbon per head of population in the developed World.⁶⁾ Furthermore, its vast reserves of coal, and the vital extractive industry that these reserves support, provide no incentive to see the use of coal reduced, albeit that coal powered electrical generation is one of the World's primary sources of manmade carbon emissions.⁷⁾

So the country has faced a conundrum. The quality of life of its inhabitants demands that climate change be tackled. Yet any measures focused on the reduction of carbon emissions

¹⁾ It is not proposed to canvass the scientific debate in this paper. This has been performed admirably by others. For example, see Lidia Xynas, "Climate change mitigation: carbon tax — is it the better answer for Australia?" *Australian Tax Forum* 26 (2011): 339-47.

²⁾ See <http://www.about-australia.com/facts/> (last visited 11 November 2012).

³⁾ B. L. Preston and R. N. Jones, *Climate change impacts on Australia and the benefits of early action to reduce global greenhouse gas emissions*, CSIRO, February 2006, available at <http://www.csiro.au/files/files/p6fy.pdf> (last visited 11 November 2012).

⁴⁾ The Commonwealth of Australia, Australian Bureau of Statistics, *Year book of Australia 2004*, available at <http://www.abs.gov.au/ausstats/abs@.nsf/Previousproducts/1301.0Feature%20Article32004?opendocument&tabname=Summary&prodno=1301.0&issue=2004&num=&view=> (last visited 11 November 2012).

⁵⁾ For example, see Bill Blakemore, "Micronesia: A third kind of Nation, Written off?", *ABC News*, 9 December 2009, available at <http://abcnews.go.com/Technology/global-warming-micronesia-island-nations-threatened-sea-level/story?id=9280340> (last visited 11 November 2012).

⁶⁾ *Climate Commission, The critical decade: international action on climate change*, Commonwealth of Australia, 2012, available at www.climatecommission.gov.au (last visited 5 October 2012), 13-19.

⁷⁾ Coal amounts for around 75% of Australia's electricity generations: *Climate Commission, The critical decade*, 15.

will require both fundamental changes to the economy and to the entrenched behavior of the population. Furthermore, as a relatively small country in terms of population the impact of any carbon emission reductions in the global context might be almost negligible⁸⁾ yet as a price taker in global markets its industry needs to remain competitive.

Apart from (initial) contention over the science and reality of human induced climate change it is these considerations that have been at the heart of the debate in Australia as to the appropriate response to global warming.

It is proposed in this paper to examine the events that have led to the introduction in Australia of a price on carbon. It will be seen that 2007 was a watershed year when, for the first time, both major parties acknowledged the need for a fiscal response. However the path to the subsequent introduction of an emissions trading scheme (“ETS”) was rocky and there may be lessons in the experience for other nations considering or embarking upon a similar journey. It is hoped that this contribution to the literature might assist the Governments of these nations in negotiating the process.

1. Climate change response — the policy alternatives

Once it is accepted that manmade carbon emissions need to be reduced a number of Government initiated strategies are possible. First, there are regulatory measures ranging from prohibitions on the use of particular energy sources through to incentives to adopt more energy efficient practices and look to renewable energy solutions. It is this direct measures approach that the Australian Liberal coalition Opposition supports. Indeed the current Government already has many such measures in its suite of responses.⁹⁾

The more controversial response is the proposal to place a price on carbon emissions. The *Kyoto Protocol* endorses such an approach as the most cost effective.¹⁰⁾ There is, however, nothing new in this concept. For decades economists have promoted the idea of internalizing the costs of external or public goods, of which air quality is one example.¹¹⁾ This movement was probably at its zenith during the 1970s when air pollution in developed nations was increasingly a concern. Then, and even more so now in a more globalised market, a central concern with such measures is the potential to drive industry offshore to escape the competitive disadvantage generated by the added cost burden. In carbon pricing parlance the expression “carbon leakage” has been coined to refer to the phenomenon where

⁸⁾ Although, according to the *Climate Commission*, Australia is the 15th largest emitter (larger than around 180 other countries): *Climate Commission, The critical decade*, 14.

⁹⁾ See the discussion in Xynas “Climate change mitigation: carbon tax — is it the better answer for Australia?”, 375-82.

¹⁰⁾ Generally see <http://unfccc.int/2860.php> (last visited 12 November 2012).

¹¹⁾ Taxes used to internalize negative externalities are referred to as Pigovian taxes: A. Sandmo, “Optimal taxation in the presence of externalities,” *Swedish J. Econ* 77, no. 1 (1975): 86.

origin based carbon pricing leads to a reorientation of carbon emitting activities away from countries that price carbon to destinations that do not.

For those countries that look to implement a carbon pricing mechanism, essentially there are two choices: a tax on carbon emissions or a market mechanism whereby a cap is placed on the amount of carbon that the country should emit (in line with its ultimate goal of achieving its Kyoto obligations) and permits to emit carbon can be traded. Under such a “cap and trade” system permits might be both issued by the Government and, effectively, created by entities trapping carbon.

The respective advantages and disadvantages of these alternative approaches have been the subject of much debate, one which it is not appropriate to engage in this paper. Suffice to say that a major deficiency in the carbon tax approach is the lack of a cap – conceivably the amount of carbon emissions could stay the same or even rise with the added cost simply passed on to consumers. The setting of the tax rate (i.e. the carbon price) would also be problematic for governments. Too low and nothing is achieved. Too high and the economy might be significantly damaged.¹²⁾

Whilst a market based “cap and trade” scheme avoids these limitations such regimes suffer from the unknown and complexity. The negative impact on investment planning arising from the uncertainty as to the future carbon price, difficulties in fairly allocating carbon credits and the potential for speculation and corrupt market practices also have the potential to derail their effectiveness.¹³⁾

In the absence of a global co-ordinated regime either mechanism has to deal with the international environment. Carbon leakage, as described above, is a real threat. The typical policy response is to introduce a border adjustment tax that seeks to tax the underlying amount of carbon emissions reflected in imports from destinations without pricing mechanisms.¹⁴⁾ Apart from the obvious difficulties in setting the rate of tax and identifying the amount of indirect carbon emissions there is a concern that such taxes may violate international trade rules, and, in particular, the *General Agreement on Tariffs and Trade* (the “GATT”).¹⁵⁾ For an ETS a further issue is as to whether and what permits issued by foreign countries should be recognized. If foreign carbon markets are not available to domestic

¹²⁾ For a discussion of the difficulties of setting a carbon tax rate and a possible solution see: De Villemeur and Leroux, “CO₂: Tax now, Pay later!,” 49.

¹³⁾ Lidia Xynas comprehensively canvasses the opposing arguments in relation to carbon taxes and emission trading schemes concluding that a carbon tax is preferable: Xynas, “Climate change mitigation: carbon tax – is it the better answer for Australia?,” 352-70. For a similar conclusion see Jim Corkery, “A carbon tax – onwards,” *Revenue Law Journal* 19, no. 1 (2009): 1-8.

¹⁴⁾ An alternative response is the issuing of free carbon permits to trade exposed industries, which presents its own difficulties as a policy solution.

¹⁵⁾ An alternative might be to encourage non-abating exporting countries to impose a carbon tax on their exports, encouraged by the realization of an additional revenue flow that might otherwise go to abating countries in the form of border adjustments.

entities then a higher domestic market price compared to other countries (as would be expected if other markets were larger) might lead to carbon leakage. Recognizing foreign permits exposes the country to integrity issues which might be problematic for its carbon regulator to resolve.

2. Australia's path to a price on carbon

International agreement on climate change dates back to the early 1990s. In Rio de Janeiro, Brazil in 1992, 166 countries signed the *United Nations Framework Convention on Climate Change* (“UNFCCC”) agreeing to work towards stabilizing greenhouse gas concentrations in the atmosphere.¹⁶⁾ This Convention set no mandatory limits but in December 1997 the parties adopted the *Kyoto Protocol*, under which developed countries collectively committed to reduce greenhouse gas emissions by at least 5% below 1990 levels during 2008 to 2012.

Working alongside the *Kyoto Protocol* have been the United Nations climate change conferences. Since the 2010 session at Cancun (Mexico) though, countries have begun pledging to limit or reduce their emissions. These countries include Australia which has pledged to reduce its emissions by 5% compared with 2000 levels by 2020.¹⁷⁾ Whilst it is difficult to compare the various pledges, Australia's *Climate Commission* has suggested that Australia's commitment is broadly comparable to other countries, in particular the targets of the United States, Japan, Europe and China.¹⁸⁾

2007 is year zero for climate change response in Australia. As at the start of the year the Liberal coalition Government had been in power for just over 10 years during which time it had refused to ratify the *Kyoto Protocol* or establish a comprehensive greenhouse gas reduction strategy. Finally, following the final report of the *Prime Ministerial Task Group on Emissions Trading*, all but the diehards in the Government accepted the science of climate change and the Government committed the country to a carbon trading scheme.¹⁹⁾ The Labor Opposition had also commissioned the *Garnaut Climate Change Review* earlier in the year.²⁰⁾ The result was that both major parties went to the November 2007 election with a promise to introduce carbon trading.

The subsequent election of a Labor Government was viewed as a mandate from the people to deal with climate change, which the new Prime Minister had said was the “greatest

¹⁶⁾ www.unfccc.int (last visited 5 October 2012). There were 195 signatories as at that date.

¹⁷⁾ Australia is prepared to adopt a target of 25% reductions under strict conditions relating to significant global action.

¹⁸⁾ *Climate Commission, The critical decade*, 28.

¹⁹⁾ Available at <http://pandora.nla.gov.au/tep/72614> (last visited 5 October 2012).

²⁰⁾ The 2008 report and 2011 update can be found at: <http://www.garnautreview.org.au/> (last visited 5 October 2012). Garnaut supports an ETS over a carbon tax provided that it is not too heavily compromised.

moral challenge” facing the country on which he was committed to act. Indeed one of the Government’s first acts was to ratify the *Kyoto Protocol*. In the euphoria of the moment the introduction of a carbon price in Australia seemed assured.

There followed during 2008 a number of reports and Government papers teasing out the details of how an ETS might be implemented and seeking community input.²¹⁾ This fostered considerable public debate and political lobbying which extended throughout 2009. The Government faced the difficulty that, although it had a large majority in the lower house, the peculiarities of the Australian federal electoral system were that conservatives continued to control the Senate. Thus it was necessary for it to negotiate to ensure passage of its legislation. Against this political reality the Government introduced a Bill into Parliament on May 14, 2009 to enact an emissions trading scheme termed the “*carbon pollution reduction scheme*” (“CPRS”).²²⁾

However as a negotiated compromise the scheme failed to meet the expectations of environmentalists nor be acceptable to industry. There were too many exclusions, free permits and a particular problematic feature allowing for the acquisition of cheap permits from the developing World as a substitution for emission cuts. Furthermore, uncertainties remained and the complexity of the regime made it difficult to sell to the community. A foreshadowed low fixed permit price of \$10 AUD per tonne in the first year of operation raised the spectre that the scheme would create a mere revenue churn that would not be effective in achieving its environmental objectives.

Nevertheless, successful negotiations with the leader of the Liberal coalition in November 2009 seemed to ensure the safe passage of the Bill. However the inability of the Opposition leader to bring the remaining climate change skeptics within his party onboard saw him imprudently issue an ultimatum leading to his ousting as leader.²³⁾ His replacement,

²¹⁾ Including the Garnaut Review, *Carbon Pollution Reduction Scheme, Green Paper*, Commonwealth of Australia, Department of Climate Change, 16 July 2008, available at <http://www.climatechange.gov.au/government/reduce/~media/publications/cprs/greenpaper.pdf> (last visited 5 October 2012), *Australia’s Low Pollution Future: The Economics of Climate Change Mitigation*, Treasury and *Carbon Pollution Reduction Scheme: Australia’s low pollution future, White Paper*, Commonwealth of Australia, 15 December 2008, available at <http://pandora.nla.gov.au/pan/102841/20090728-0000/www.climatechange.gov.au/whitepaper/report/index.html> (last visited 5 October 2012).

²²⁾ Issued first as an exposure draft for public consultation on 10 March 2009, then as a Bill on 14 May 2009 (see <http://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=Id:legislation/billhome/R4127>) which, following its failure to pass the Senate, was reintroduced in 2010 but subsequently lapsed upon Parliament rising for the calling of a general election (see <http://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=Id:legislation/billhome/R4281>).

²³⁾ In December 2009 Malcolm Turnbull was replaced by Tony Abbott after the former had instructed his colleagues that they should support the Government’s emission trading proposal. See: Matthew Franklin, “Malcolm Turnbull sharpens the knife,” *The Australian* (November 26, 2009), available at <http://www.theaustralian.com.au/politics/malcolm-turnbull-sharpens-the-knife/story-e6frgczf-1225803954519> (last visited 5 October 2012) and “Shock win for Abbott in leadership vote,” *ABC News* (1 December

a climate change skeptic himself, led the Senate to reject the Bill for a second time.²⁴⁾

Whilst the Bill was reintroduced into Parliament in 2010, public weariness of the issue together with an increasing reluctance to embark on any initiative whose impact on the economy was potentially negative at a time of continuing global economic instability, induced the Prime Minister to announce that resolution of the country's greatest moral challenge would be deferred until such time as greater World consensus was reached.²⁵⁾ His subsequent inability to achieve passage of an equally controversial piece of legislation enacting a special mining tax was to see him replaced as leader in June 2010. Reading the community's fatigue with the issue his successor, Prime Minister Gillard, went to the August election under a no carbon tax platform.²⁶⁾ With the Opposition leader publicly doubting the science of climate change both major Australian political parties had dramatically retreated from a policy to impose a price on carbon in three short years. A highly popular Prime Minister and well regarded leader of the Liberal coalition Opposition had been dethroned in the process.

Nevertheless, a massive swing against the Government was to see it only retain office with the help of independents and the Greens as part of a power sharing agreement. This was a game changer. Carbon pricing was back on the agenda.

3. The 2012 Australian ETS

In fulfillment of the Labor Government's power sharing agreement with the Greens a *Multi-party Climate Change Committee* was established to determine the exact way this would be delivered. Fundamental design issues had to be negotiated in a highly charged atmosphere. Business and right wing lobby groups were fuelling the Opposition attacks.²⁷⁾ Pledges in blood that the regime would be repealed when they were returned to

2009), <http://www.abc.net.au/news/2009-12-01/shock-win-for-abbott-in-leadership-vote/1163910> (last visited 5 October 2012).

²⁴⁾ On 2 December 2009.

²⁵⁾ Announced 27 April 2010. See "Carbon Pollution Reduction Scheme" (Press release), Australian Government Department of Climate Change and Energy, 5 May 2010, available at www.climatechange.gov.au/en/media/whats-new/cprs-delayed.aspx (last visited 5 October 2012).

²⁶⁾ Although the Government argues that an ETS was not ruled out. The difficulty is that these semantics seem to have been lost on the Australian population who generally believe that the Prime Minister was not truthful with them: see, for example, D. Atkins, "Carbon tax plan is do or die for Prime Minister Julia Gillard," *The Courier-Mail* (11 July 2011), available at www.couriermail.com.au/spike/columnists/carbon-tax-plan-is-do-or-die-for-prime-minister-julia-gillard/story-e6frerff-1226091892661 (last visited 5 October 2012).

²⁷⁾ See for example the criticism referred to in Randall Jackson, "Gillard announces carbon tax," *Tax Notes International* 61 (March 7, 2011): 729. However it should be acknowledged that some business leaders actually welcomed the introduction of a carbon tax preferring to see Australia not fall behind the rest of the world and encouraged by the end to the uncertainty it would bring: Randall Jackson, "Australian mining giant calls for carbon tax," *Tax Notes International* 59 (Sept 27, 2010): 1002.

office,²⁸⁾ calls for a national plebiscite on its introduction²⁹⁾ and attempts to arrest power from the Government in the lower house³⁰⁾ were all part of the attack. On the other side, environmental lobby groups were demanding a price that internalized the full cost of carbon pollution and an end to contradictory policies (such as assistance to polluting industries).³¹⁾ Even actors³²⁾ and State politicians³³⁾ entered into the fray.

The Government's primary mechanism for galvanizing community support and introducing credible evidence to support its policy was to establish, as part of the Department of Climate Change and Energy Efficiency, a *Climate Commission* empowered to lead the national debate on the implications of climate change and the appropriate response. As at August 2012 the Commission had been very active, having issued 12 reports, primarily focusing on the need for strong rapid action and the steps Australia could take.

In February 2011 the Prime Minister announced the broad features of a resurrected ETS based on the recommendations of the Multi-party committee.³⁴⁾ However the precise details remained fluid with further refinement present in the draft legislative package issued for comment in July 2011 and the subsequent bills presented to Parliament in September 2011,³⁵⁾ with even further changes made leading up to the 1 July 2012 commencement of the

²⁸⁾ Randall Jackson, "Australia. Lower house passes carbon tax bills," *Tax Notes International* 65 (October 17, 2011): 177.

²⁹⁾ Kristen A. Parillo, "Opposition leader seeks plebiscite on carbon tax," *Tax Notes International* 62 (June 27, 2011): 1011.

³⁰⁾ Power is split 76/74 with the Government required to provide a speaker. One Government member has been facing possible criminal charges which have presented the possibility that he might need to vacate his seat. The support of the Independents has also not always guaranteed. An attempt by the Government to improve their position by persuading one of the Opposition members to be speaker backfired when allegations of improper behavior forced that member to step down and the Government was required to provide a speaker from its own ranks.

³¹⁾ David D. Stewart, "Think tank calls for coherent climate change tax policies," *Tax Notes International* 61 (February 21, 2011): 553.

³²⁾ Randall Jackson, "Cate Blanchett panned for promoting carbon tax," *Tax Notes International* 62 (June 6, 2011): 763.

³³⁾ See for example the threat by the New South Wales Treasurer to increase the state mining royalty tax (which increase would be reimbursed to the mining companies by the Federal Government in his view) to offset the effect of the carbon tax: Kristen A. Parillo, "Australian Feds, State tussle over mining tax," *Tax Notes International* 64 (Sept 12, 2011): 779.

³⁴⁾ See the press release and attachments at <http://www.pm.gov.au/press-office/climate-change-framework-announced> (last visited 11 November 2012).

³⁵⁾ The legislative package included four main bills: The *Clean Energy Bill* 2011 (which set up the carbon price mechanism); The *Clean Energy Regulator Bill* 2011 (which established a regulatory body to administer the mechanism); The *Climate Change Authority Bill* 2011 (which established a new Authority to advise the Government on the future design of the carbon price mechanism) and The *Clean Energy (Consequential Amendments) Bill* 2011. Generally see <http://www.climatechange.gov.au/media/whats-new/clean-energy-legislative-package.aspx> (last visited 11 November 2012). Also see the Government's comprehensive plan, *Securing a clean energy future: the Australian Government's climate change plan*

scheme.³⁶⁾

The regime as introduced can be outlined as follows:³⁷⁾

- the top 500 “large” emitters of carbon dioxide are to purchase an eligible emissions unit (“EEU”) for each tonne of carbon dioxide emitted each year from facilities over which they have operational control (with no cap imposed),³⁸⁾
- those entities affected are to report carbon emissions for a financial year to the *Clean Energy Regulator*³⁹⁾ whose function is to ensure the accuracy of these reports and impose penalty unit shortfall charges if insufficient EEU’s are purchased,⁴⁰⁾
- the EEU price is fixed until 1 July 2015, for the first year at \$23 AUD per tonne and then rising at 2.5% pa in real terms, purchased from the Government⁴¹⁾ and immediately surrendered⁴²⁾ (hence the measures are more accurately a carbon tax for the first 3 years),

issued in July 2011 and available at <http://www.pm.gov.au/press-office/securing-clean-energy-future-australia> (last visited 11 November 2012). The Government maintains a website to promote its plan and keep the community abreast of developments: www.cleanenergyfuture.gov.au (last visited 11 November 2012).

³⁶⁾ For example, see the *Clean Energy Legislation Amendment Act 2012*, available at <http://www.comlaw.gov.au/Details/C2012A00084>.

³⁷⁾ The central piece of legislation is the *Clean Energy Act 2011*. Passed by a majority of 74 to 72 in the lower house and 36 to 32 in the upper house. The legislation received Royal assent in December 2011. A detailed summary of the legislation and surrounding issues is available in the Bills Digest no. 68, 2011-12, available at http://www.aph.gov.au/Parliamentary_Business/Bills_Legislation/bd/bd1112a/12bd068 (last visited 11 November 2012).

³⁸⁾ And certain waste facilities emitting 10,000 tonnes per year. Notably some businesses not liable under this scheme are also to be subject to an equivalent carbon price through reductions to the fuel tax credits arrangements. Whilst the Government estimates that around 60% of Australia’s emissions will be covered by the ETS with other measures there will be a carbon price effectively imposed on 2/3rds of all emissions: Australian Government, *Carbon pricing mechanism: who is liable?*, available at <http://www.cleanenergyfuture.gov.au/500-companies/> (last visited 30 October 2012).

³⁹⁾ By 31 October. The Climate Change Authority is to monitor the regime and set the cap for annual emissions.

⁴⁰⁾ At 130% of the cost of acquiring an EEU during the first 3 years and once the market mechanism applies, the charge will be double the average price of units for the year.

⁴¹⁾ Alternatively Australian Carbon Credit Units (“ACCU”) may be surrendered, up to a cap of 5% of the emission obligations during the fixed price period. ACCUs are generated through certain farming and forestry activities – the *carbon farming initiative*. This initiative commenced in December 2011 and provides for credits to be issued on the basis of approved projects that reduce or avoid greenhouse gas emissions and/or increase carbon storage or sequestration: see <http://www.daff.gov.au/climatechange/cfi> (last visited 5 October 2012).

⁴²⁾ In general EEU’s equal to 75% of the estimated (or the preceding year’s) liability are to be surrendered by 20 June with the balance by 1 February of the subsequent year.

- from 1 July 2015 the fixed price EEU's are to be replaced by a "cap and trade" ETS whereby any gains or losses will be on revenue account from an income tax perspective (and not subject to GST),
- industry and household assistance is made available: free EEU's are to be issued to certain trade exposed activities for the first five years⁴³⁾ and coal-fired electricity suppliers⁴⁴⁾ and tax cuts, pension increases and other compensatory government payments are implemented.⁴⁵⁾

In the following section the key features of the regime will be discussed in greater detail and their rationale examined.

4. The politics of implementation: price setting, exclusions and compensation

The regime is the product of a political bargain. Explanations and justifications for how the fundamental aspects of the regime were arrived at are attempted below:

Carbon tax or emissions trading scheme

The debate as to the most appropriate mechanism was noted earlier. The hybrid reflects a view that Australia needs to be part of a global market for carbon permits that the Government hopes will exist by 2015. Until then the regime operates as a carbon tax which avoids the potential for price volatility in the carbon price. This has plagued the European Union ETS with the carbon price at one time falling dramatically when the market reacted to a view that there had been an oversupply of free permits. Price volatility was also especially a risk in the short term while the scheme remained the subject of controversy and threats to repeal it. Ensuring a minimum ceiling for the carbon price both has the effect of maintaining the impetus for behavioral change, especially by providing assurance to those contemplating low carbon investments, and protecting government revenues.

The carbon price

The hybrid nature of the regime required the Government to set the initial price. This exercise involved a tradeoff between the environment and the economy. It was inevitable that proponents of the two sides would be unsatisfied with the outcome. Business interests

⁴³⁾ For example, steel, aluminum, glass, paper, zinc, cement clinker and urea production industries.

⁴⁴⁾ Only in the first four years and up to a cap and subject to passing certain criteria.

⁴⁵⁾ Compensation to households ranged from increased social security payments and family assistance to tax rate cuts and other tax reduction measures. Small businesses also received assistance in the form of accelerated tax deductions. Other related measures include the availability of \$40m AUD of energy-efficiency grants, a \$240m AUD fund to assist small businesses to reduce their energy consumption and, over six years, a \$1b AUD clean technology investment program for capital expenditure on energy-efficient technology in certain industries.

pointed to the price at which carbon permits were trading in Europe (around \$15 AUD) whilst environmentalists pointed to analysis that suggested a price around \$130 AUD was necessary to drive a move to renewable energy sources. Ultimately the price of \$23 AUD accepts a need for carbon to be priced but at a level that the Government hopes will not damage the economy and lead to massive carbon leakage.

Large emitter threshold

The regime applies to “large” emitters, namely entities that emit 25,000 metric tonnes⁴⁶⁾ of carbon dioxide annually (or the equivalent)⁴⁷⁾ with entities required to calculate emissions and be subject to audit. The Government has stated that this should account for around 60% of Australia’s greenhouse gas emissions. The logic behind the threshold is to not burden smaller emitters with the cost and administration imposed by the regime, although those close to the threshold will still need to be able to verify that their emissions level does not exceed it. Notably the *Clean Energy Regulator* downgraded the list of affected entities from a projection of more than 500 (initially 1,000) to only 294 just prior to the regime taking effect.⁴⁸⁾ The science of measuring emissions is still being developed. One particular difficulty is that whilst fugitive emissions are caught (essentially the gas that escapes during (coal) mining operations) the measurement of such emissions is especially problematic.⁴⁹⁾

Exemption for the agricultural sector

The agricultural sector was exempted albeit that it is the country’s third largest emitter. Various justifications for this have been given including the difficulty of measuring emissions on farms,⁵⁰⁾ the fact that the industry is a price taker and could not pass on the added costs⁵¹⁾ and that the concession was necessary to obtain the support of the independents on whom the Government relies.⁵²⁾ Gasoline was also exempted but large diesel and jet fuel users are to be subject to increases in excise taxes.⁵³⁾

⁴⁶⁾ Some landfill operators emitting 10,000 tonnes or more and certain natural gas retailers are also caught. Entities may also elect to opt-in to the regime to avoid the payment of taxes such as the fuel excise. The scheme contains provisions directed at schemes splitting emissions over different entities in an attempt to fall below the threshold.

⁴⁷⁾ The ETS applies to four of the six greenhouse gases acknowledged in the *Kyoto Protocol*.

⁴⁸⁾ Randall Jackson, “Fewer firms expected to pay carbon tax,” *Tax Notes International* 66 (June 25, 2012): 1193.

⁴⁹⁾ Discussed in Philip Burgess, “Australia’s carbon Sunday: a price is put on carbon emissions,” *Tax Notes International* 64 (Sept 5, 2011): 751.

⁵⁰⁾ *Ibid.*

⁵¹⁾ See the comments attributed to the National Farmers’ Federation by Jackson, “Australian mining giant calls for carbon tax,” 1002.

⁵²⁾ Reported in Jackson, “Gillard announces carbon tax,” 729.

⁵³⁾ In the case of fuel for heavy road transport the exemption applies only for the first two years.

Emissions intensive trade exposed (“EITE”) industries

EITE industries (such as steel, aluminum, zinc and glass production) are to receive substantial assistance in the form of free units covering up to 94.5% of their liability during the first three years, although this assistance will taper off at 1.3% per annum reflecting a carbon productivity contribution. The steel industry is to receive added assistance to encourage innovation and efficiency whilst the natural gas industry is also to receive a special 50% assistance level. The coal sector is to receive special assistance to help the transition away from the most emissions intensive coal mines whilst an energy security fund is to be established to provide some assistance to the electricity generation sector. These aspects of the regime all reflect the Government’s concern not to damage the economy with a too greater initial shock but rather to allow high emitting industries critical to the economic health of the nation time to introduce measures to reduce their exposure.

On the other side of the equation the Government is also supporting the nascent clean energy industry. The most significant proposal is the establishment of the *Clean Energy Finance Corporation* to be set up to increase investment in renewable energy, energy efficiency and other low emissions technology. The Government has been active to promote the opportunities that the introduction of the scheme has for those wishing to be part of the vanguard of a new clean energy industry.

The level of assistance to EITE industries is particularly controversial and problematic. Whilst the rationale is to encourage the continuation of domestic production and prevent carbon leakage it has been argued that the assistance is excessive leading to windfall gains to these industries, the damaging of the environmental effectiveness of the regime by reducing incentives and increasing the cost of carbon reduction elsewhere in the economy.⁵⁴⁾ This is not to say that properly designed assistance to EITE industries may not be appropriate and necessary. As was noted earlier, the alternative of a border adjustment mechanism suffers from legal uncertainty in terms of compliance with GATT principles, administrative costs and calculation difficulties and could lead to international trade disputes and protectionism. Until international agreement and acceptance of such a mechanism is achieved the approach adopted in Australia of a free allocation of units is likely to be the preferred approach to counter carbon leakage.⁵⁵⁾

Compensation and managing price rises

Whilst it was acknowledged, and indeed is the rationale for the scheme, that the price of certain products in the market place would rise, the *Australian Competition and Consumer Commission* (“ACCC”) is to take action against any price gouging claimed falsely to be

⁵⁴⁾ T. Wood and T. Edis, *New protectionism under carbon pricing: case studies of LNG, coal mining and steel sectors*, The Grattan Institute, 2011.

⁵⁵⁾ Elena de Lemos and Pinto Aydos, “Australia’s carbon pricing mechanism,” in *Carbon pricing, growth and the environment*, ed. Larry Kreiser, Ana Yabar Sterling, Y Pedro Herrera, Janet E Milne and Hope Ashiabor (Abingdon Oxon Edwards Elgar Publishing 2012): 261-76.

as a result of the introduction of the regime. Certainly it was anticipated that the price of electricity would rise but businesses intending on passing on additional costs to consumers are required to be able to substantiate that this is a result of the carbon measures if this is, in fact, what they claim. Given the potential for the electricity price rises to challenge the community's resolve to put a price on carbon⁵⁶⁾ the Government initiated a marketing offensive to defray concerns as to the significance of the carbon price on electricity prices.⁵⁷⁾ see appendix 1.

Although there is contention over whether the initial set price of \$23 AUD a tonne is too low (to encourage a change in behavior or investment in clean energy) or too high (compared to other regimes and hence damaging the international competitiveness of Australian businesses) forecasts suggest that it will flow through as a 5-10% increase in the price of electricity and gas, 0.5-2% increase in the price of steel, aluminum and cement and 0-0.5% increase in the cost of waste removal services, water, fuel, chemicals and paper.⁵⁸⁾ These price rises are promoted by the Government as modest and more than offset by the increased compensation to some businesses and households. Whilst the Opposition suggests that the ETS and its countervailing compensation measures will simply generate a pointless money churn the Government argues that cashed up households will spend their extra funds wisely focusing on those industries and products that are able to avoid price rises through clean energy investment and/or energy savings. Market forces will, therefore, accelerate the desired change in behavior.

Whilst the Opposition mounted a scare program in the lead up to 1 July 2012,⁵⁹⁾ price monitoring in the months following identified little impact from the ETS.⁶⁰⁾ Admittedly these were early days and it might be expected that any flow on effect will take some time to work its way through to retail prices. There were, however, a number of grievous and well publicized attempts to profit gouge blaming the carbon tax identified by the ACCC.⁶¹⁾ There

⁵⁶⁾ Approximately 35% of Australia's carbon emissions come from the generation of electricity: Burgess, "Australia's carbon Sunday: a price is put on carbon emissions," 751.

⁵⁷⁾ The carbon price was estimated to add around \$300 AUD annually to household power bills: Jackson, "Gillard announces carbon tax," 729.

⁵⁸⁾ Generally see: The Commonwealth of Australia, *An overview of the clean energy package*, available at http://www.cleanenergyfuture.gov.au/wp-content/uploads/2012/05/CEF-overview_Apr2012.pdf (last visited 11 November 2012).

⁵⁹⁾ Resulting in comedians and comics blaming the carbon pricing scheme on everything ranging from being late for work through to the poor performance of the Australian cricket team.

⁶⁰⁾ David D. Stewart, "Carbon tax has little effect on consumers, report shows," *Tax Notes International* 67 (August 13, 2012): 611.

⁶¹⁾ The managing-director of one of the country's largest bakery chains was forced to resign after a newsletter was leaked where he urged his franchisees to put up prices and blame it on the carbon tax: Randall Jackson, "Head of bakery chain resigns over carbon tax deception," *Tax Notes International* 67 (July 16, 2012): 201. Also see Randall Jackson, "Government clarifies relationship between carbon tax, GST," *Tax Notes International* 67 (July 23, 2012): 305.

were also businesses that were rumored to have sacked workers, closed down or moved offshore in response partly, at least, to the introduction of the measures with small business reportedly particularly affected due to their apparent inability to be able to pass on the additional costs arising from the carbon price.⁶²⁾

Presumably the Government hopes that the package as a whole sufficiently sugarcoats the introduction of a carbon price so that both the economy (and the Government) can survive the experience. At the same time the measures must not be that unobtrusive that they do not bring about the desired behavioral change. Only time will tell although on 18 October the Government announced that carbon emissions from electricity generation had fallen since the introduction of the measures, although at the same time arguing that the carbon price had only marginally contributed to a rise in electricity prices.⁶³⁾ The Government is, it seems, having it both ways.

5. Is there really an Australian carbon pricing spring and, if so, will it prevail?

The lingering effects of the global economic crisis stymied the nascent attempts by some World leaders to rise above the disappointments of the Copenhagen, Cancun and Durban climate change conferences and actually implement a fiscal response to climate change. Australia has been a star exception, albeit that the country only contributes 1.5% of the global greenhouse gas emissions.⁶⁴⁾ This raises the question: why has the country proceeded down a path so many other countries have shied away from?

The answer is one of political necessity. Notwithstanding the Prime Minister's non-carbon tax pledge, decimation at the 2010 polls saw the Government only retain power with the aid of the Greens on whose insistence the implementation of a carbon price became Government policy. Furthermore, it could be suggested that the regime is mere window dressing - an attempt to look as if the Government is doing something. Given Treasury estimates that a price around \$131 AUD per tonne is necessary to meet the Government's greenhouse gas reduction targets,⁶⁵⁾ something politically inconceivable, it is difficult to see how a price of \$23 AUD per tonne will generate sufficient financial imperative to steer

⁶²⁾ Steve Lewis and Lisa Cornish, "Carbon price unfair to small businesses," *The Daily Telegraph* (August 20, 2012), available at <http://www.news.com.au/business/your-business/carbon-pain-registers-for-businesses/story-fn9evb64-1226453653623> (last visited 5 October 2012).

⁶³⁾ The Hon Greg Combet, "Evidence shows carbon price is working," *Media Release GC 287/12*, 18 October 2012.

⁶⁴⁾ The Commonwealth of Australia, *Securing a clean energy future: The Australian Government's climate change plan* (AGPS 2011), 21, available at www.cleanenergyfuture.gov.au/wp-content/uploads/2011/07/Consolidated-Final.pdf at p xi (last visited 5 October 2012).

⁶⁵⁾ The Commonwealth of Australia, The Treasury, *Strong Growth, Low Pollution: Modeling a carbon price* (AGPS 2011), 11, available at http://cache.treasury.gov.au/treasury/carbonpricemodelling/content/report/downloads/Modelling_Report_Consolidated.pdf?v=2 (last visited 5 October 2012).

the economy towards a renewable energy future. If there is likely to be one real effect of the Government's climate change reforms it may be to lock the economy into an alternative fossil fuel, namely gas-fired power rather than the more polluting coal-fired power.⁶⁶⁾

The likelihood of the failure of the pricing to be able to achieve the outcome pleaded for by the scientists may be exacerbated by other design features.⁶⁷⁾ Notable of these are the limited application of the tax to 294 big polluters (1,000 was the initial plan),⁶⁸⁾ the exclusions for some industries and sectors (notably agriculture), the free units for trade exposed high polluting entities (shielding them from up to 94.5% of their liability) and the massive household compensation scheme that will see nine out of ten households receiving some compensation, many in excess of the anticipated impact on them.⁶⁹⁾ The combined effect of these features is that the regime will not be revenue neutral for the Government, at least initially. Whilst the rationale of the compensation is to soften its introduction, the Government must surely be looking towards the long term. For carbon pricing to generate the necessary behavioral changes the compensation package must eventually disappear into the inflation generated bracket creep and government policy change morass.⁷⁰⁾

In any event, whether the Government's carbon pricing mechanism (for what it is) has a long term future is uncertain. Whilst the weight of the science has apparently convinced most in the Opposition that climate change is real and manmade, the centre piece of their climate change policy is direct measures at tackling carbon emissions with a promise to repeal the ETS. This threat to repeal the regime is significant given that the Opposition is expected to win the elections scheduled for late 2013.⁷¹⁾ Even the mere threat is damaging enough to the policy aims of the regime. The Opposition has warned businesses not to purchase forward units in a scheme that will be closed down. Any investment decisions away from fossil fuels towards renewable energy need long term certainty and investment groups have slammed this approach of the Opposition as irresponsible and introducing political risk into the investment equation.⁷²⁾

Of course, whether the Opposition will be elected (and have control of both houses of

⁶⁶⁾ See John Passant, "Australia's carbon tax – the sweet and the sour" *Bulletin for International Taxation* 65, no. 12 (2011).

⁶⁷⁾ For a similar sentiment see: Evgeny Guglyuvatyy, "Australia's carbon policy — a retreat from core principles," *eJournal of Tax Research* 10, no. 3 (2012): 552-72.

⁶⁸⁾ Jackson, "Fewer firms expected to pay carbon tax," 1193.

⁶⁹⁾ \$10.10 per week compensation for the average family as against an anticipated increase in costs of \$9.90: The Commonwealth of Australia, *Securing a clean energy future: The Australian Government's climate change plan*.

⁷⁰⁾ Passant, "Australia's carbon tax – the sweet and the sour," 12.

⁷¹⁾ Australia must hold its next federal election by 30 November 2013.

⁷²⁾ David D. Stewart, "Australia. Investment groups praise carbon tax as opposition pledges repeal," *Tax Notes International* 65 (October 24, 2011): 254.

Parliament) cannot be taken for granted, even given their current lead in the polls.⁷³⁾ The current Opposition leader is as unpopular as the Prime Minister and liable to damaging gaffs.⁷⁴⁾ Furthermore, whilst he has made a “pledge in blood” that he will repeal the regime⁷⁵⁾ the international implications of such a move now that an agreement for mutual recognition of European units has been forged, the fact that domestic businesses may have, in fact, bought units in advance and the need to also unwind the massive compensation arrangements directed towards business and households, would make this a challenging proposition.

6. Are there any lessons for Japan from the Australian experience?

In recognition of the fact that it contributes 3.2% of the World’s greenhouse gas emissions,⁷⁶⁾ under the *Kyoto Protocol* Japan committed to reducing its emissions by 6% relative to 1990 levels by 2012. As an interim measure its 2010 Cancun pledge was to reduce emissions by 25% relative to 1990 by 2020. In the longer term the reduction target is 80% from 1990 levels by 2050.

Whilst a small scale voluntary ETS targeting small and medium sized businesses (“SMEs”) was commenced in 2005⁷⁷⁾ and a broader ranging voluntary experimental ETS in October 2008⁷⁸⁾ the Japanese Government has procrastinated over how it might best achieve its Kyoto undertakings. As of February 2012 the Government was still reportedly reluctant to place a general price on carbon on economic and political grounds and had even admitted that its commitment to reduce emissions by 25% from 1990 levels was no longer viable.⁷⁹⁾

⁷³⁾ The latest opinion polls suggest that Labor may be recovering ground: Peter Lewis and Jackie Woods, “Polls apart: is Labor really coming back?” *ABC The Drum Opinion* (10 October 2012), available at <http://www.abc.net.au/unleashed/4303712.html> (last visited 12 November 2012).

⁷⁴⁾ Phillip Coorey, “Turnbull firms as preferred leader,” *The Sydney Morning Herald* (September 17, 2012), available at <http://www.smh.com.au/opinion/political-news/turnbull-firms-as-preferred-leader-20120916-260kj.html> (last visited 12 November 2012).

⁷⁵⁾ Whatever that means. Reported in Jackson, “Australia. Lower house passes carbon tax bills,” 177.

⁷⁶⁾ Over twice that of Australia (1.5%) although greenhouse gas emissions per Japanese are a mere 10.5 tonnes CO₂ –e compared with 27.3 tonnes per Australian: *Climate Commission, The critical decade*, 55. (Although with the move away from nuclear energy in Japan this difference may not now be so stark.)

⁷⁷⁾ Going by the acronym “JVETS”, a regime based on the EU system. Generally see: Stephanie Monjon, *Implementation of an emission trading scheme in Japan: some food for thought*, Climate Strategies October 2011, available at www.climatestrategies.org (last visited 5 November 2012). JVETS was apparently introduced as a voluntary scheme only due to strong opposition from industry and the Ministry for the Economy, Trade and Industry: Hitomi Kimura and Andreas Tuerk, *Emerging Japanese emissions trading schemes and prospects for linking*, Climate Strategies, October 2008, available at www.climatestrategies.org (last visited 5 November 2012).

⁷⁸⁾ On the ETS in Japan generally see the Ministry of the Environment website at http://www.env.go.jp/en/earth/ets/mkt_mech.html (last visited 13 November 2012).

⁷⁹⁾ Leo Shanahan, “Japan’s energy crisis puts ETS launch on ice,” *The Australian*, February 29, 2012.

Meanwhile, the OECD's 2009 Economic Survey of Japan recommended that Japan should shift from a voluntary to a mandatory ETS based on a cap and trade that covered the whole economy drawing on lessons from other countries as well as its voluntary system. Furthermore, the design features should be such as to facilitate linking to those in other countries.⁸⁰⁾ Given these sentiments a consideration of the Australian mandatory economy wide ETS would seem particularly appropriate for Japanese policy analysts.

The political economy of implementation

Generally, whilst political economy theory predicts that broad ranging ETSs are almost impossible to introduce as the most influential political actors oppose carbon markets, some empirical studies have shown that under certain circumstances policy windows for the introduction of such systems may open.⁸¹⁾ The Australian experience bears out this theory and illustrates the circumstances giving rise to such a window.

The Australian carbon pricing mechanism is the product of ten years of heated political debate. It played a part in the demise of the country's second longest serving conservative Prime Minister who took too long to accept the science. It saw the end of a conservative Opposition leader who fell on his sword trying to drag the skeptics in his party to an enlightened future. It hastened the end of one of the most popular Prime Ministers in Australian history⁸²⁾ who, after campaigning on a climate change response being the greatest moral challenge facing the country, failed in his attempts to pass the legislation. It witnessed his successor campaign on the promise that no carbon tax would be introduced then, within six months, announce that the Government would proceed to introduce an ETS. Even now with the regime operating it remains controversial and its future uncertain.⁸³⁾

Are there any lessons for other countries, and especially Japan, in the Australian

The experimental ETS continues but solely on a voluntary basis with participating entities establishing their own emissions reduction targets although verification by the Government is a pre-requisite to any trading.

⁸⁰⁾ R. S. Jones and B. Yoo, *Economic survey of Japan 2009: Improving the policy framework in Japan to address climate change*, OECD Economics Department Working Papers (OECD Publishing), 740 doi: 10.1787/218874608768. On linking also see Kimura and Tuerk, *Emerging Japanese emissions trading schemes and prospects for linking*.

⁸¹⁾ Discussed and referenced in the paper by Sven Rudolph and Takeshi, "Tokyo's greenhouse gas emissions trading scheme: a model for sustainable megacity carbon markets?" available at <http://ideas.repec.org/p/mar/magkse/201225.html> (last visited 13 November 2012).

⁸²⁾ Second in ranking with a popularity rating of 74%: see "The Rudd Supremacy," March 30, 2009, available at <http://www.brisbanetimes.com.au/national/the-rudd-supremacy-20090330-9g6s.html> (last visited 6 November 2012).

⁸³⁾ As at October 2012 debate still rages in the media between the Government and anti-ETS proponents: for example see: The Hon Greg Combet, "Dick Warburton's inaccurate claims," *Media Statement GC 292/12*, 25 October 2012, available at <http://www.climatechange.gov.au/~media/Files/minister/combet/2012/media/october/Combet-MediaRelease-292-12.pdf> (last visited 13 November 2012).

experience? Clearly the introduction of such a regime is politically challenging. Vested interests, climate change skeptics and political opportunists abound. In the face of opposition how does a Government go about introducing such measures? Deceiving the electorate is one element of the Australian response which might be employed, but, it is suggested, only after very careful consideration. A steadfast assuredness of the need to act urgently and, hopefully, subsequently bring the community along would seem to be a prerequisite for such an approach although it is doubtful that the Australian Government had any loftier ideals than political expediency. The price for its deceit may soon be paid at the ballot box.

This Australian “big bang” approach is contrasted with the incremental approach adopted in Japan. The introduction of narrowly focused voluntary regimes gradually intended to morph into an economy wide mandatory regime sounds reasonable, although such an approach was apparently forced on the Government by the refusal of the powerful industry groups to accept a mandatory regime with such groups now continuing to successfully insist on a deferral of the mandatory stage. A duplicitous approach may be necessary therefore, but it needs to be managed properly. Introducing the measures with a narrow application and at a low carbon pricing (if it is not to be market determined) is also more likely to be politically expedient. The intention to subsequently broaden the regime’s application and lift the price need not be (initially) made public. Public consultation on the specifics of the regime should play its part but on certain fundamental features the Government must signify that there is no room for compromise.

Environment v economy tradeoff: compensational and behavioral change

Any mechanism subsequently introduced in Japan must balance the protection of the environment with the protection of the economy. Australia has been fortunate in this regard. Whether it was the Chinese demand driven mining industry boom or the Government’s clever economic management that sheltered the economy from the ravages of the global financial crisis is unclear but what is clear is that the Australian economy is one of the few that has remained strong and so is better placed to absorb the shock of the introduction of a price on carbon. Even so, the price is not as high as environmentalists would wish and there are many concessions, exemptions and beneficiaries of free units. In particular, perceived critical and trade exposed high emitting industries are protected, at least in the short term. The provision of exemptions and other largesse requires difficult tradeoffs in the face of intense lobbying by interest groups and all manner of wild claims about impending doom (both environmental and economic). Such concessions are a necessary feature of such a regime though, although best bounded by strict time lines for withdrawing the largesse and coupled with financial and other Government assistance to implement change. Whilst the Australian measures contain these features there will always be debate as to whether they are too generous or not generous enough.

Of course, pricing carbon is all about achieving behavioral change. The speed at which this change can be achieved is a product of the environment/economy tradeoff. There

is no advantage in making the economy so unattractive to operate in that carbon emitting industries are driven offshore or frightened away – the so called carbon leakage. The exemptions and concessions in the form of the allocation of free units are directed at this concern. Furthermore, in this regard Australia has again been lucky as it is well placed as a desirable investment location.⁸⁴⁾ The cost of conducting business is only one consideration relevant to investment decisions by global investors.

Once the carbon price and the excluded and supported industries are identified the measures must focus on the best way to achieve behavioral change for the bulk of the community. The Australian approach is, at least at first, an upstream one, to focus on the biggest polluters with the expectation that they will pass on the additional cost. The proceeds from the sale of units to the big polluters will flow into the compensation provided to other business (especially small business who are more likely to be price takers and unable to pass on these costs) and consumers. The theory is that consumers acting rationally will spend their increased wealth on utilities, products and services that are cheaper because their costing is impacted to a lesser extent by the price put on carbon, that is, were produced, distributed and/or provided using less carbon emitting processes. Therein lies the incentive for business to go green.

Like most economic theories this is contentious and depends on many assumptions. Whilst the Government has attempted to explain the theory it can be expected that many in the community are still perplexed by the utility of this huge money churn apparently justifying nothing other than a new Government bureaucracy. Furthermore, real fears exist as to what the “rational” consumer might really do with their compensation. These fears were exacerbated by the fact that the first round of payments preceded the flow though effect of the carbon price becoming apparent (in fact, they even preceded the introduction of the carbon price). Speculation has ranged from that the money would simply be banked (maybe even used to pay down debt) to that it would immediately be splurged on the latest internet ready 3D super high definition plasma TV out of China. Whilst either response may sound rational to many, neither are the responses on which the measures are predicated.

A further possibility, which presumably the Government’s economists consider irrational, is that consumers will continue to spend in exactly the same way simply using the compensation to meet the price increases generated by the carbon price. That the Government suspects that this hugely undesirable outcome is a possibility is the basis for Passant’s suggestion that the compensation is designed to eventually fall below parity with the cost of the carbon price and, ultimately in fact, fade into obscurity. Hence the justification for his proposition that the ETS will result in a decline in the living standards of working people.⁸⁵⁾ Certainly this may be true if there is not an attendant adoption of measures by

⁸⁴⁾ See the sales pitch by the Government at: <http://www.austrade.gov.au/Invest/Why-Australia/default.aspx> (last visited 22 November 2012).

⁸⁵⁾ Passant, “Australia’s carbon tax – the sweet and the sour,” 12.

industry that will see it eventually be able to exclude the cost of carbon from its products and services.

Whether or not the compensation regime is critical to the economic outcomes of the regime, it is fundamental to the political acceptability of the ETS. The Government hopes that the compensation package both blunts the Opposition's threat to repeal the measures whilst shoring up community support. If the Government retains power in the 2013 elections or the Opposition subsequently retreats from its threat to repeal the regime it is arguable that this outcome could be substantially attributed to these generous compensation measures.

Serendipity

It must be asked: why has an economy wide ETS been able to be introduced in Australia and not Japan notwithstanding that the Japanese Government and its Ministries have been considering the idea for a decade? After all, both countries have (at times) demonstrated an enthusiasm to take a world leadership role in the response to climate change.

The Japanese intransience might be attributable to both the power of industry lobby groups and the nature of the power split between various Ministries with opposing mandates rendering it more difficult to implement a policy crossing ministerial boundaries. Undoubtedly the sluggish economy and the triple disasters of 2011 have also played a part in delaying the introduction of an ETS.

Whilst Australia has maintained a vibrant economy throughout this period and there have been no natural disasters of the magnitude as that impacting on Japan, both the anti-ETS business lobby and the ministerial power split factors were also at play. Additionally, until 2007 the Government was comprised primarily of climate change skeptics who saw no need for such measures and took the view that, in any event, as a major exporter of fossil fuels the country had too much to lose by encouraging a price on carbon. Such skeptics were emboldened by the argument that even though Australians emit the highest amount of greenhouse gases per capita than anyone else in the world, in absolute terms the amount was so small that it would make no difference whilst the possible adverse effects of "going it alone" on a price taker export dependent economy were considerable.

The power of the anti-ETS lobby was also well demonstrated in Australia by its contribution to the removal of both an Opposition leader and a Prime Minister with both their replacements expressing a no carbon price policy. However serendipity was to play its part. A hung Parliament, only resolved by a power sharing agreement with the Greens in both Houses of Parliament was to see an ETS introduced, against the tide of both mainstream public sentiment and the policies of the major parties. The ETS was thus born from a fortuitous and unique set of circumstances rather than as the result of a strong Government policy supported by the mandate of the people.

Future linkages

Greater efficiency in carbon markets are achieved where the market is bigger or it is linked to other markets. Indeed the Australian Government had always envisaged that its ETS would need to be linked to other schemes, such as the EU regime.

Both the Australian and any future Japanese carbon market will be price takers when linked to larger markets like the EU and any future Chinese or US economy wide market. It is critical, therefore, that not only must the design features of the regime be established with a view to not generating barriers to bilateral linking but that each country must carefully review the features of other trading schemes before linking to them. It might be expected, therefore, that Japanese analysts will wish to carefully monitor the progress towards the linking of the Australian scheme with that of the EU (and New Zealand).⁸⁶⁾

Conclusion: an irrelevant discourse

The introduction of an ETS in Australia has been accompanied by a saga of political intrigue. Political careers have been destroyed (or at least set back). Backroom deals done to secure power. Whether it will achieve the necessary environmental objectives remains to be seen but the politics of implementation have caused many to doubt the effectiveness of the regime given the quantification of the carbon price, number of exemptions and the extent of free permits issued to (so called) high emitting trade exposed entities. In particular, there is the (initial) setting of the carbon price at \$23 AUD per tonne, in contrast to the Government's own Treasury estimates of \$131 AUD per tonne as necessary to meet the country's greenhouse gas reduction targets. There is a real concern that the Australian regime is merely a cynical attempt by the Government to be seen to have done something albeit that the regime may achieve nothing in terms of greenhouse gas reductions. In any event, the regime has a tenuous future.

Developments in Japan are even less sanguine. Whilst some additional taxes have been imposed on fossil fuels, with the anticipated effect to increase the price of fuel by one yen per litre⁸⁷⁾ this tax is hardly likely to achieve any environmental objectives in terms of an incentive to reduce fuel consumption. Meanwhile the introduction of an economy wide mandatory ETS seems as far away as ever. With the controversy over the current Government's plan to double the consumption rate tax to 10% (from 2015) there appears to

⁸⁶⁾ Australia is a member and Japan an observer of the *International Carbon Action Partnership* ("ICAP"). ICAP is an open forum comprised of public authorities and governments that have established or are actively pursuing carbon markets through mandatory cap and trade systems with absolute caps. It provides a forum to share experiences and knowledge especially with a view to facilitating future linkages. See <http://www.icapcarbonaction.com/> (last visited 13 November 2012).

⁸⁷⁾ Chisaki Watanabe, "Japan introducing carbon tax prompts backlash from businesses" (Sept 28, 2012): see <http://www.bloomberg.com/news/2012-09-28/japan-introducing-carbon-tax-prompts-backlash-from-businesses.html> (last visited 12 November 2012).

be little appetite for the introduction of further imposts on the community.

As the author writes the conclusion for this paper it is hoped that it is not merely a further contribution to what Earth and paleo-climate scientist Andrew Glikson has termed the “irrelevant discourse.” In his view it is all too late. He advocates the proposition that the political and economic fury over the carbon price and appropriate mechanism has obscured the fundamental issue that we should be considering, namely the catastrophic consequences for the world 3 to 4 degrees warmer by 2100.⁸⁸⁾ We can only hope that he is mistaken.

⁸⁸⁾ Andrew Glikson, “The Faustian bargain – while we debate the numbers, the planet suffers,” The Conversation (online), 27 July, 2011, available at <http://the.conversation.edu.au/the-faustian-bargain-while-we-debate-the-numbers-the-planet-suffers-2512> (last visited 5 October 2012).



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Where every \$100 on your electricity bill goes

The carbon price will
cut pollution and drive
investment in clean
energy like solar and
wind power.

