

TREASURY EXECUTIVE MINUTE

Minute No.

14 July 2011

Deputy Prime Minister and Treasurer

ECONOMIC AND FISCAL IMPACTS OF THE COALITION'S DIRECT ACTION PLAN

Timing: As requested by your Office.

Recommendation/Issue:

- That you note this analysis of the additional cost of direct action abatement policies.

Noted

Signature:

...../...../2011

KEY POINTS

- The economic costs of direct action to achieve a 5 per cent reduction in emissions in 2020 (compared to 2000 levels) would be higher than the costs of the market based mechanism modelled in the core policy scenario of the *Strong Growth, Low Pollution* (SGLP) report for two reasons.
 - First, direct domestic action would forgo opportunities for cheaper, internationally sourced abatement.
 - Second, direct action programs are generally less effective at driving take up of all potential abatement opportunities.
- Forgoing cheaper, internationally sourced abatement would roughly double the economic cost of achieving the 2020 emission reduction target through a carbon price mechanism.
 - The modelling for SGLP shows that a carbon price in 2010 dollars of around \$62 per tonne would be required to meet the abatement task of 159 million tonnes in 2020 using only domestic abatement, compared with \$29 in the core policy scenario with international linking.
 - This would reduce the level of real gross national income by 1.0 per cent in 2020, compared with a reduction of just 0.5 per cent in 2020 under the core policy scenario.
 - Real gross national income per person would grow by 1 per cent per year from 2012-13 to 2020 without international linking, compared to 1.1 per cent per year with international linking.
- The economic cost of direct action would almost certainly be even larger because it would be less efficient than a market-based carbon price mechanism.
- If domestic abatement were pursued through direct action, the average fiscal cost of abatement may be higher or lower than the carbon price that would deliver the same domestic abatement through a market mechanism.

- The average fiscal cost of direct action may be lower than the carbon price if the Government can pay different prices for different abatement activities, including lower prices to purchase the cheapest abatement opportunities.
 - : However, this is likely to be difficult in practice because the Government does not have as much information as businesses about the costs of abatement and businesses are likely to bid strategically in tender processes.
- The fiscal cost of direct action may also be higher, depending on how much of the abatement that is funded through the plan is actually additional. Programs with weak additionality criteria could result in expensive costs per tonne of real abatement compared to the marginal cost under an efficient market mechanism.
 - : Conversely, direct action measures with tight additionality criteria can result in lower take up, and therefore deliver less abatement than potential.
- These conclusions rely on the assumption that the carbon price mechanism modelled in SGLP broadly matches the coverage of the Coalition's Direct Action Plan, and in particular that there are not significant amounts of cheap abatement available in the land sector that would not be harnessed by the Carbon Farming Initiative.
 - Based on the details of the Coalition policy outlined in its Direct Action Plan, Treasury considers that this assumption is defensible.

• Subsection 34(3)

- The following areas have been consulted in the preparation of this minute: Industry, Environment and Defence Division.

Contact Officer:

Ext:

Manager, Sectoral Analysis Unit
Macroeconomic Modelling Division

ADDITIONAL INFORMATION

Coalition's Direct Action Plan

- The Coalition released its Direct Action Plan to reduce carbon emissions on 2 February 2010. The Coalition proposed an Emissions Reduction Fund to support 140 Mt of abatement in 2020. The Fund would invest an annual average of around \$1.2 billion in direct emissions reduction activities through to 2020.
 - The Emissions Reduction Fund consists of two distinct elements: a 'baseline with penalty' scheme which would need to be legislated; and a grant based 'abatement purchasing' scheme.
- Based on DCCEE analysis, the funding committed under the Direct Action Plan (\$1.2 billion per year on average through to 2020) could not purchase sufficient domestic abatement to meet Australia's bipartisan 2020 emissions reduction target of a 5 per cent cut in emissions compared with 2000 levels, which would require 159 Mt CO₂-e of abatement in 2020.
- Previous analysis from DCCEE estimates that it is unlikely that the Direct Action Plan could secure more than around 40 Mt in 2020.

Economic costs

The carbon price modelling contained in the *Strong Growth, Low Pollution* (SGLP) report provides a basis for comparisons with the Coalition's Direct Action Plan.

- In the high price scenario, with a carbon price of A\$62/t CO₂-e in 2020 (2010 \$), domestic abatement is projected to be 150 Mt, slightly less than the 159 Mt abatement task at 2020.
 - This includes 130 Mt of domestic abatement from sectors covered by the carbon price mechanism (see SGLP, Chart 5.3), and a further 20 Mt in abatement from the Carbon Farming Initiative (CFI) (see SGLP, Table 4.3).
- A comparison can be drawn between the Gross National Income (GNI) costs of the high price scenario and the GNI costs under the core policy scenario.
- Adjusting the GNI cost in the high price scenario to remove the costs of abatement sourced overseas (since this is not needed to achieve a -5 per cent target) provides a rough estimate of the cost of the domestic abatement under that scenario (that is, the 150 Mt of domestic abatement).
 - While this comparison provides a rough approximation, other factors such as exchange rate movements and payments to foreign investors would also be influenced.
- The adjusted GNI cost of the high price scenario at 2020 (-1.0 per cent) is around double the GNI cost in the medium price scenario of -0.5 per cent.

Breadth of coverage

- These conclusions rely on the assumption that the carbon price mechanism modelled in SGLP broadly matches the coverage of the Coalition's direct action plan.

- A policy framework that is broader in coverage than was assumed for the SGLP modelling could conceivably lead to cheaper abatement. If this were the case, then the high price scenario may not provide an appropriate estimate of the full potential of abatement.
- Based on the details of the Coalition policy outlined in its Direct Action Plan, Treasury considers that the scope of the Coalition's policy would not be broader than the carbon pricing mechanisms assumed in the SGLP high policy scenario.
- In particular, the Coalition policy of directly funding abatement would mean that no price signal would flow to consumers to drive demand side abatement. SGLP shows that demand side abatement accounted for half of electricity sector abatement to 2020 (core policy).
- In addition, DCCEE advice suggests that tender based policies generally achieve only around one third of potential abatement.
- It is possible that the Coalition policy could deliver more abatement from the commercial forestry, given the strict permanence requirements of the Carbon Farming Initiative. However, the Coalition's estimate of 12-15 Mt of annual forestry abatement by 2020 would not significantly alter the conclusions in this analysis.
- In addition, the Coalition has estimated 85 Mt of abatement from soil carbon in 2020. This is a difference in assumptions, not in the underlying abatement potential of the policies.
 - Abatement from soil carbon cannot currently be counted towards Australia's Kyoto Protocol obligations, and so were not included in Treasury modelling (as it was based on current policy settings).
 - If soil carbon was able to be counted under the Kyoto Protocol, the Government's *Clean Energy Future* plan would also be able to include this abatement.

Budget cost of direct action

- The budget cost of the Coalition's Direct Action Plan depends on whether the Government can pay differential prices for different abatement activities. However, there are a number of reasons why sustained price discrimination is unlikely to be practical.
 - The Government is often at a substantial information disadvantage compared to the firm bidding for the abatement activity.
 - Firms also tend to act strategically which leads to convergence of bids at a higher final price for the abatement activity.

Table 1: Annual carbon price and abatement task

		2013	2014	2015	2016	2017	2018	2019	2020
High price scenario	2010 A\$2010	27.5	28.8	30.3	51.5	53.6	56.2	58.8	62.0
	CO ₂ -e								
Annual abatement task (-5 target)	Mt CO ₂ -e	24	43	64	84	103	124	142	159