



28 September, 2011

Senator Mathias Cormann
Chair
Senate Select Committee on the Scrutiny of New Taxes
PO Box 6100
Parliament House
CANBERRA ACT 2600

Dear Senator Cormann,

INQUIRY INTO A CARBON TAX: QUESTION ON NOTICE – MODEL AVAILABILITY.

I am writing in response to the letter I received from the Committee Secretary of the Senate Select Committee on the Scrutiny of New Taxes regarding the availability of the models used in producing the reports *Australia's Low Pollution Future: the Economics of Climate Change Mitigation (ALPF)* and *Strong Growth, Low Pollution: Modelling a Carbon Price (SGLP)*.

Your letter sought answers to the following Questions on notice:

1. Is the version of the GTEM and the data and assumptions actually used by Treasury in its carbon pricing scheme work released in 2008 and 2011 publicly available? If so, where can it be purchased from?
2. Can you provide any other information that would assist interested stakeholders purchase the models used in the 2008 and 2011 carbon pricing modelling?

My answers to these questions are as follows.

The intellectual property of the GTEM model rests with the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES). Treasury has worked with ABARES over time to refine the GTEM model, both during the 2008 modelling exercise and more recently.

Based on the Memorandum of Understanding between ABARES (then called ABARE) and Treasury, ABARES was provided a copy of the model used for the 2008 modelling exercise. Treasury's modifications to the GTEM model since the 2008 exercise for the SGLP report are described in detail in page 140 of the report, which include the change of methodology for implementation of inequality constraints and the implementation of a border tax adjustment. The first change should have negligible effects on the results for the SGLP report; and the second change was effectively irrelevant for the SGLP report as border tax adjustment was not imposed in any GTEM simulations for the SGLP report. Hence, the version of GTEM used for the SGLP report is effectively the same as the version used for the 2008 modelling exercise, in terms of re-producing the SGLP results.

A version of GTEM code released on 17 August 2000 and a documentation of GTEM released in 2007 are publicly available from ABARES website. However, when and how ABARES puts their GTEM model at what version of the model in the public domain is a matter for ABARES in conjunction with the Government, rather than a matter for Treasury.

The version of GTEM used in both the 2008 and 2011 modelling exercises can be broken down into three parts: the model code, the data, and the parameters and assumptions.

- The release of the model code which is able to produce the results in both of the reports is a matter for ABARES in conjunction with Government.
- The data used for the modelling exercises is wholly owned by a third party and available for purchase from the Global Trade and Analysis Project (GTAP).
- The parameters and assumptions used in the modelling exercises are explained in detail in the two published modelling reports.

Yours sincerely

Executive Director
Macroeconomic Group