

Chapter 2

Government secrecy on Treasury Modelling Information preventing proper scrutiny

Introduction

2.1 This chapter highlights how the government's ongoing refusal to release relevant information about the Treasury modelling of the carbon tax is preventing proper public scrutiny.

2.2 Specifically, further information has emerged during Senate Estimates from the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) and the Productivity Commission which put the government's refusal to release information into context. Their evidence shows that the government's refusal to release relevant information about the Treasury's carbon tax modelling is inconsistent with past practice, either by ABARES under the Howard Government, or by the Productivity Commission even today.

2.3 This chapter will revisit the decision by the government not to release the specifications and data sets used by the Treasury to model the impacts of the carbon tax. This issue was discussed in considerable depth in this committee's Interim Report – *The Carbon Tax: Economic pain for no environmental gain* (the Interim Report). However, information has come to light recently that warrants additional comment by the committee.

The Joint Select Committee's assessment of the Treasury's modelling

2.4 In the Advisory Report, the Joint Select Committee on Australia's Clean Energy Future Legislation (the Joint Committee) describes the Treasury's modelling as '[the] most reputable and thorough research on the effects of the legislation and pricing emissions on the Australian economy [that] has been conducted'.¹

2.5 It went on to comment in respect of criticisms of the modelling:

During the inquiry, the committee did not receive any alternative comprehensive modelling that was at variance with the Treasury's work. Therefore, the committee concludes that there is no evidence of significant errors in the Treasury's analysis and that its findings are generally sound.²

1 Joint Select Committee on Australia's Clean Energy Future Legislation, *Advisory Report on the Clean Energy Bills and the Steel Transformation Bill 2011*, October 2011, p. 43.

2 Joint Select Committee on Australia's Clean Energy Future Legislation, *Advisory Report on the Clean Energy Bills and the Steel Transformation Bill 2011*, October 2011, p. 45.

2.6 The Joint Committee acknowledges that it did receive criticism of the modelling. It stated:

The committee did receive criticisms of the modelling. One concern related to the Treasury's assumptions about progress in developing international emissions markets. This was raised by the National Lime Association and the Institute of Public Affairs.

The Treasury's response was what they have done is to 'use the Cancun pledges and operationalise them in our modelling', rather than make predictions about international agreement-making. The committee agrees that taking a formal statement by a country's government is a suitable way of developing assumptions.³

2.7 The committee considers that relying on the formal statements of governments as the only basis for developing assumptions on future behaviour over 40 years is a foolhardy approach. The government's economic modelling predicts events beyond the life of many existing governments. For example, the government's former Carbon Pollution Reduction Scheme (CPRS) modelling failed to forecast the failure of the Copenhagen talks. Closer to home, if this approach to modelling had been adopted in August 2010 then the assumption would have been that there would be no carbon tax under a government led by the Prime Minister, the Hon. Julia Gillard MP.

2.8 It is noticeable that the Institute of Public Affairs raised a number of concerns about the Treasury modelling in its submission and its evidence to the Joint Committee, however, the assumption that there will be uniform progress in the development of international emissions markets is the only criticism referred to in the Advisory Report. How it dealt with those comments is instructive of the Joint Committee's approach to criticism of the modelling.

2.9 In its submission, the Institute stated that the Treasury assumption that all countries would meet their Kyoto emissions reduction commitments 'is not widely shared' and that when used in modelling 'the numbers assume unanimity of action, without which very different outcomes would emerge'.⁴

2.10 The Institute also raised this issue in its evidence to the committee:

We know at the present time that that is not taking place. Only the EU has similar regimes envisaged, or at least legislated for. Secondly, it does involve also rapid technological development in carbon capture and storage and other renewable technologies, and there really is not any evidence that this is happening anyway.⁵

3 Joint Select Committee on Australia's Clean Energy Future Legislation, *Advisory Report on the Clean Energy Bills and the Steel Transformation Bill 2011*, October 2011, pp 45-46.

4 Institute of Public Affairs, *Submission 14*, p. 15.

5 Dr Alan Moran, Director, Deregulation Unit, Institute of Public Affairs, *Proof Committee Hansard*, 27 September 2011, p. 57.

2.11 A similar criticism of the modelling was made by the Australian Chamber of Commerce and Industry in its evidence to the Joint Committee:

Senator CORMANN: You mentioned Treasury modelling towards the end and that it did not assess the impact on small business. Taking a more general view, how plausible do you think Treasury's modelling assumptions are—for example, around their expectations on international action—and what are the implications of that?

Mr Evans: We are far from experts in assessing political movements internationally and when countries may or may not join an international carbon agreement. But when we look at our trade competitors—not our trade partners but our trade competitors: countries such as Brazil, Canada, South Africa and, to some extent, the USA—we cannot see any movement by them towards an international agreement. Our fundamental view is that if we move unilaterally and not in concert with, in particular, our trade competitors, then we are going to be at a substantial economic disadvantage.

Senator CORMANN: Given that Treasury has assumed, for example, that the US, Canada and others will have a comparable carbon price in place from 2015-16 onwards, would the effect of Treasury making that very heroic and unrealistic assumption be that the modelling has underestimated the impact of the carbon tax on the cost of production; on the cost of doing business; and on the cost to households, for that matter?

Mr Evans: Absolutely. For that reason, and for many others, they have substantially underestimated the economic dislocation associated with the carbon tax.⁶

2.12 The same issue was raised by the Australian Coal Association in its submission to the Joint Committee:

Decisions based on incomplete modelling

Clearly Australia should have a proper assessment of the desirability of imposing the proposed carbon tax. It is of deep concern that the non-transparent or “black box” Treasury modelling on which the scheme is based does not undertake any sensitivity analysis based on realistic assumptions about international abatement action. Such analysis should have been undertaken both to assess if the Government's proposal is in fact efficient or least cost and whether it is desirable for Australia to impose such a tax if many other countries, including the world's largest emitters and our coal export competitors, do not.

ACIL Tasman has advised ACA that Treasury has modelled two scenarios in which the rest of the world adopts coordinated carbon pricing and concurrently with Australia. But Treasury has not modelled, or if it has it has not released, the most relevant scenario, which is the one in which government imposes such a scheme and Australia's major resource

6 Mr Greg Evans, Director, Economics and Industry Policy, Australian Chamber of Commerce and Industry, *Proof Committee Hansard*, 26 September 2011, pp 31-32.

competitors do not. Moreover, Treasury's modelling is based on a range of assumptions that need to be tested.

It is important to undertake sensitivity analysis to assess the implications of more abatement being required in Australia and/or international permits costing more. There are sound reasons for considering that likely, including: continued widespread use of inefficient abatement policies internationally, as reported by the Productivity Commission; quantitative restrictions by the Australian Government on access to foreign permits; restrictions by other countries on their sales of permits; and restrictions placed by Australia on the acceptability of international units due to concerns about verification, monitoring and enforcement. Moving away from Treasury's carbon pricing assumptions risks higher job losses and less investment in the coal industry.⁷

2.13 Even in a submission which was otherwise favourable towards the Treasury, the Australian Industry Greenhouse Network raised a criticism of the modelling:

AIGN notes that the modelling so far released by the Treasury provides very little insight into the likely economic impacts on Australia. None of the scenarios modelled by Treasury address one of the most likely international outcomes — that being the Government's commitment to a -5% below 2000 emission unit budget by 2020 within a fragmented international agreement. The short to medium term economic costs are not measured by Treasury modelling and the environmental benefits remain very uncertain in the absence of a robust international agreement. To enable a transparent investigation of Treasury's modelling, the models and data actually used by Treasury need to be able to be accessed and peer reviewed.⁸

2.14 The Advisory Report contains no substantial analysis or examination of the Treasury assumption concerning international action to meet Kyoto commitments. The Joint Committee sought to dismiss criticisms of this aspect of the modelling with what this committee sees as sweeping, unsupported statements:

There are widespread and significant international efforts to reduce greenhouse gas emissions, and these are increasingly linked. Perceptions about a lack of coordinated international progress should not influence Australia's decision to act.

...

International efforts take different forms, and different countries are adopting measures appropriate to their particular circumstances.⁹

7 Australian Coal Association, *Submission 58*, pp 4-5.

8 Australian Industry Greenhouse Network, *Submission 33*, p. 5.

9 Joint Select Committee on Australia's Clean Energy Future Legislation, *Advisory Report on the Clean Energy Bills and the Steel Transformation Bill 2011*, October 2011, p. 45.

2.15 This committee examined international efforts to meet emission reduction targets in considerable detail in its Interim Report.¹⁰ It is unnecessary to repeat that evidence here. It is sufficient to indicate that this committee concluded that, at present, there was 'no foreseeable prospect of an appropriately comprehensive global agreement to price carbon dioxide emissions'.¹¹

2.16 Rather than address or examine this criticism, the Joint Committee merely accepted the Treasury assertion that it based its modelling 'on the best available information now, and that is all we can do. We cannot make definitive statements about what will happen'.¹²

Committee comment

2.17 The Joint Committee has taken the expedient step of ignoring all criticisms of the Treasury modelling, by simply asserting that there is no 'alternative comprehensive modelling' and taking that as settling the issue.

2.18 This committee is of the view that there are two errors with this approach. The first is that there is a simple reason why there is no 'alternative comprehensive modelling' to that done by the Treasury. As pointed out above, the Treasury has not released sufficient details of the modelling to enable peer review or public scrutiny of the modelling results.

2.19 As a result of this failure, it is self-evident that it is not possible for there to be 'alternative comprehensive modelling' that could credibly challenge the Treasury modelling conducted at the direction of the government.

2.20 The second error with the Joint Committee's approach is that, from the claimed lack of 'alternative comprehensive modelling', it concluded that 'there is no evidence of significant errors in the Treasury's analysis and that its findings are generally sound'. This conclusion is simply not sustainable, logically or based on the evidence.

2.21 Firstly, the Joint Committee ignored the abundant evidence available in the public arena from economists and industry experts which point out the many flaws in the Treasury's modelling. Secondly, it ignored the evidence provided to this committee, as discussed comprehensively in chapter 10 of the Interim Report. Thirdly, and most tellingly, it ignored even the evidence that the Joint Committee acknowledged it received.

10 Select Committee on the Scrutiny of New Taxes, *Interim Report – The Carbon Tax: Economic pain for no environmental gain*, October 2011, pp 6-28.

11 Select Committee on the Scrutiny of New Taxes, *Interim Report – The Carbon Tax: Economic pain for no environmental gain*, October 2011, p. 38.

12 Dr David Gruen, Executive Director, Macroeconomic Group-Domestic, Department of the Treasury, *Proof Committee Hansard*, 26 September 2011, p. 5.

Submitting the modelling to public scrutiny

2.22 The above quote from the Australian Industry Greenhouse Network submission highlights the government's failure to release the specifications and data sets it used to modify the models it purchased from external sources, so that other economists could review its work and conduct their own modelling of the carbon tax.

2.23 In fact, evidence to the Senate Estimates Committee on 17 October 2011, quoted at some length below, shows that it was a decision by the government not to release the results of that modelling for public scrutiny. It is noteworthy that this issue is not addressed by the Joint Committee in the Advisory Report.

2.24 This committee attempted to get to the bottom of who was responsible for the decision not to release the modelling during its hearings. On 10 August 2011, a Treasury official told the committee:

In providing information to the public domain, we have provided a comprehensive amount of information. Treasury does not own these models, so it is not possible for us to hand over someone else's model. These models are publicly available. They are purchased and available from organisations within Australia. There is nothing preventing people picking up these models and doing modelling if they have a desire to do so.¹³

2.25 Consequent upon that exchange, on 22 August 2011, the committee wrote to the Hon. Wayne Swan MP, Deputy Prime Minister and Treasurer, asking that:

...the MMRF-Green model, the GTEM model as well as any other relevant models and relevant assumptions used in those models to provide the results for the modelling of a \$23 per tonne carbon tax be provided to the Committee. To enable proper scrutiny of the potential impact of the carbon tax on the Australian economy and community it is essential that the committee have access to the modelling that underpins the carbon tax.¹⁴

2.26 On 5 September 2011, Mr Swan responding stating:

The modelling is built on the previous modelling undertaken in 2008, which has been extensively scrutinised and considered over the past three years. It provides important insights into the economic impact of carbon pricing at global, national, sectoral and household levels.

To ensure public transparency, the [Strong Growth, Low Pollution: Modelling a Carbon Price] report provides detailed information about the assumptions and frameworks used and the range of scenarios modelled to explore different environmental targets and design features of a carbon price scheme. A large amount of data from the report has been made

13 Ms Meghan Quinn, General Manager Macroeconomic Modelling Division, Department of the Treasury, *Committee Hansard*, 10 August 2011, p. 30.

14 Letter from Senator Mathias Cormann, Chairman, Select Committee on the Scrutiny of New Taxes to the Hon. Wayne Swan MP, Deputy Premier and Treasurer, 22 August 2011.

available on the Treasury website. Additional reports commissioned from external consultants have also been made available. These include: detailed reports on the electricity generation sector from SKM MMA and ROAM Consulting; a detailed report on the road transport sector from the Commonwealth Scientific and Industrial Research Organisation; and detailed reports on the Carbon Farming Initiative from the Australian Bureau of Agricultural and Resource Economics and Sciences and the Department of Climate Change and Energy Efficiency.

The Government has asked Treasury to update the macroeconomic modelling to reflect the final policy design of the carbon price package, including the \$23 per tonne starting price that you referred to in your letter. The results of updated modelling are expected to match closely the results of the core policy scenario in the [Strong Growth, Low Pollution] report. Further information on that modelling will be available once it is completed.¹⁵

2.27 On 23 September 2011, the committee again asked Treasury officers about public access to the models. It was advised:

Dr Gruen: Senator, if I might try and clarify, it is not up to us to object or not object. It is not up to us. We do not lay down the law about what other institutions can or cannot do.

Senator BOSWELL: Dr Gruen, that is helpful to know, but when people have turned up to purchase the model from ABARES [Australian Bureau of Agricultural and Resource Economics and Sciences], ABARES officials have said that, because Treasury has made modifications to the model, any decision to make the model available is a decision for Treasury. So what I am asking you is: you have no objection?

Dr Gruen: In respect of that statement that you have read out, our understanding is that it is not a decision for us, so I do not think that statement is correct.

Senator BOSWELL: All right. So you have no objection?

Dr Gruen: Sorry, I am not trying to be difficult here, but we do not go around having objections or not having objections.

Senator BOSWELL: Well, you are, you see, because ABARES are saying you have adjusted the model and therefore you will not let us sell it. So you are saying ABARES are wrong?

Dr Gruen: I am saying that the evidence, as you have read it out, does not make sense to us. We are not making those statements to ABARES.

Senator BOSWELL: So when people go down to ABARES—

Dr Gruen: It is up to ABARES and the government.

15 Letter from the Hon. Wayne Swan MP, Deputy Premier and Treasurer, to Senator Mathias Cormann, Chairman, Select Committee on the Scrutiny of New Taxes, 5 September 2011.

Senator BOSWELL: and ABARES say, 'Treasury won't let us sell'—we have it on the Hansard now—we can put it on the counter and say, 'Treasury has no objections.'

Dr Gruen: You can put it on the counter and say that it is a decision for ABARES and the government.¹⁶

2.28 In commenting on this aspect of the Treasury evidence, the committee's view was that:

...the Treasury officials provided incorrect advice to the Committee [and] Treasury's further replies on this issue were not helpful...quite contrary to the evidence Treasury provided...the GTEM model on which it relied is not available to third parties. As a result, other experts are not in a position to seek to replicate and appropriately test, Treasury's modelling.¹⁷

2.29 On 26 September 2011, the committee wrote to Treasury asking it two questions on notice:

Is the version of the GTEM model 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?

Can you provide any other information that would assist interested stakeholders purchase the models used in the 2008 and 2011 carbon pricing modelling?¹⁸

2.30 On 14 October 2011, the Treasury responded stating:

The GTEM model, in common with other complex models, encompasses four components: model code, database', exogenous assumptions including scenario design assumptions; and software. The access arrangements for the GTEM model differ across the four components reflecting intellectual property and licensing arrangements.

The intellectual property of the GTEM model code rests with [ABARES].

...

The underlying GTEM database is a joint product of ABARES and the Global Trade and Analysis Project (GTAP). Release of the GTEM model database is therefore subject to licensing arrangements being made for the GTAP component.

The exogenous assumptions used in the ALPF and SGLP modelling exercise are explained in detail in the two published modelling reports.

16 Senator Ron Boswell, participating member of the Senate Select Committee on the Scrutiny of New Taxes and Dr David Gruen, Executive Director, Macroeconomic Group, Department of the Treasury, *Committee Hansard*, 10 August 2011, p. 30.

17 Select Committee on the Scrutiny of New Taxes, *Interim Report – The Carbon Tax: Economic pain for no environmental gain*, October 2011, p. 224.

18 Letter from Senator Mathias Cormann, Chairman, Select Committee on the Scrutiny of New Taxes to the Department of the Treasury, 26 September 2011.

The software required to use the GTEM model is available for purchase from Monash University.

Any request for further information associated with the GTEM model is a matter for government, subject to licencing arrangements in the case of GTAP, and should be directed to the Deputy Prime Minister.¹⁹

2.31 On 12 October 2011, Senator Ron Boswell, a participating member of the committee, challenged Senator the Hon. Penny Wong, Minister for Finance and Deregulation, to release the modelling.²⁰

2.32 On 13 October 2011, the Chairman of the committee, Senator Mathias Cormann, directed a Question Without Notice and two supplementary questions to Senator Wong asking whether the models used by the Treasury would be made available for independent scrutiny. Minister Wong did not answer any of those questions directly.²¹

2.33 The issue was raised with ABARES at the Senate Estimates Committee hearing on 17 October 2011:

Senator CORMANN: Could ABARES today make a decision to release the GTEM model or is that now a matter for somebody else?

Mr Glyde: ...There are a number of elements that go into the operation of the model. One is the model. There is the data that comes from a source called GTAP. There are the changes that have been made in relation to some of the assumptions since 2007, some of which have been made by Treasury. Then there is some further work that has been done on the development of it. Given the shared nature of it and the complexity of it, the release of that information is a decision for government. And that is my understanding of the Treasury response to your original request.

...

Senator CORMANN: Has ABARES met with Treasury to discuss the public release of the GTEM model?

Mr Glyde: We have discussed with Treasury the release of the model.

Senator CORMANN: What was discussed?

Mr Glyde: The complexity of the request that you have put forward. As I tried to say before, a number of elements make up GTEM and it use: the model, the data that is supplied to it and other assumptions that are made. That is now shared. It is much more complex than it was when it was ABARES alone that using the GTEM model, as it did for many years.

...

19 Letter from Dr David Gruen, the Department of the Treasury, to Senator Mathias Cormann, Chairman, Select Committee on the Scrutiny of New Taxes, 5 September 2011.

20 *Senate Hansard*, 12 October 2011, p. 47.

21 *Senate Hansard*, 13 October 2011, pp 45-46.

Senator CORMANN: So which organisation would then be responsible for handling requests for the public release of the model—the GTEM model?

Mr Glyde: We would suggest that, as I said before, that is a whole-of-government matter. We would suggest that that would be a matter than in the first instance you might wish to address to the Department of the Treasury, but the response would be handled on a whole-of-government basis.

...

Senator CORMANN: Would ABARES itself have any objection to the government releasing the version of the GTEM model that Treasury used in its carbon tax modelling?

Mr Glyde: As I said before, that is a matter for a whole-of-government decision.

Senator CORMANN: But you as an agency have no objection?

Mr Glyde: What we are saying is that we would have no objection to the release of the base model. As we have shown before, we have done that in the past when it has been our responsibility. What I am trying to convey is that, now that the model, the assumptions and the data are a collective product, this is not a decision that ABARES can take alone.

Senator CORMANN: What you are really saying is that, now that further refinement has been made to the GTEM model, the lead agency from your point of view should be Treasury. Is that right?

Mr Glyde: That is correct, yes.

Senator CORMANN: I have a generic question. You are involved in quite a bit economic modelling, obviously. Is it your view that an independent third party would be able to obtain sufficient access to the GTEM model now to run the same modelling scenarios that Treasury ran to produce its carbon tax modelling report?

Mr Glyde: Probably not, in that the third party would need to obtain the GTAP database, which, as we have discussed, is done through a relatively straightforward licence arrangement. But to capture all of the modifications to the database that have been made over the years by ABARES and Treasury—the amplifications for different industry sectors—they would need information that has not yet been publicly released. Therefore, I do not think anyone could replicate the results at the moment.

Senator CORMANN: You are saying that, on the basis of the information that has been released so far, the Treasury carbon tax modelling cannot be properly scrutinised by third parties?

Mr Glyde: At the moment it is not possible to take the current version of GTEM, its data and the assumptions that are there inside it and run that model.

...

Senator CORMANN: Would you be able to provide us with information today? Specifically the date I am looking for is when consensus was reached between ABARES and Treasury that the release of the GTEM model was not something that ABARES could decide by themselves but that required a whole-of-government consideration to be led by Treasury, as you said earlier. Does that make sense?

Dr Sheales: I can answer that one: Friday, 7 October.

Senator CORMANN: It took until 7 October for you to reach that final consensus. Up until that time there was disagreement, was there?

Dr Sheales: No. We were going around talking about different aspects of the issue, along the line that we talked about this morning, where there was some intellectual input from Treasury as well as from ourselves, and we were not quite sure how best to handle that.

Senator CORMANN: When was the first discussion between ABARES and Treasury about how best to handle it?

Dr Sheales: I cannot give you a date. It is probably either late August or early September.²²

2.34 Senator Wong and Treasury officials were also asked about release of the modelling at the Estimates Committee hearing on 20 October 2011.

2.35 When asked why the government refuses to release all the modelling and codes to open the Treasury modelling to public scrutiny, the Minister was unable to provide a direct answer to the question. Rather Senator Wong fell back on three strategies:

- the response that Senator Wong had given Parliament on 13 October 2011 – that the government 'has released an extraordinary amount of information to ensure transparency';
- taking questions on notice; and
- the reply that there was no reason to release all the material as, Senator Wong argued, 'no amount of data released by the government will shift your [the coalition's] position'.²³

2.36 For its part, the Treasury could not state with any certainty whether it had released all the modelling or all the exogenous assumptions it had made in its modelling and had to take those questions on notice. It did admit that the last time it released the model codes for the GTEM model were in 2007, though it could not say

22 Senator Matthias Cormann, Member, Rural Affairs and Transport – Legislation Committee, Mr Phillip Glyde, Deputy Secretary and Executive Director ABARES and Dr Terry Sheales, Acting Deputy Executive Director, *Proof Estimates Hansard*, 17 October 2011, pp 45-48.

23 Senate Economics Legislation Committee, *Proof Estimates Hansard*, 20 October 2011, pp 30-31 and p. 34.

whether this was under the Howard Government or under the Rudd Government.²⁴ As a matter of fact, the decision to make the model available for license was taken under the Howard Government and reversed subsequent to the 2007 election of the Rudd Government.

2.37 The government's approach in relation to the carbon tax was contrasted to its approach to work undertaken by the Productivity Commission. At the Estimates Committee hearing on 20 October it was asked about the release of modelling it had undertaken using the same Monash University model that the Treasury had used for some its carbon tax modelling:

Senator CORMANN: They would be available on request. That is what I wanted to know. In 2007 the Productivity Commission undertook some economic modelling in relation to the national reform agenda. You used the MMRF model for that work. Is that right?

Mr Gretton: That is correct.

Senator CORMANN: And you contracted with Monash University to assist with the development of the MMRF for that particular work?

Mr Gretton: That is correct.

Senator CORMANN: Did you include a provision in the contract with Monash University for the MMRF model that was used to be made publicly available?

Mr Gretton: That was part of the contract.

Senator CORMANN: So that provision was included at your request, was it?

Mr Gretton: Yes.²⁵

...

Senator CORMANN: So have you signed a contract yet with Monash University in relation to the COAG reform work?

Mr Gretton: There is a contract, yes.

Senator CORMANN: And there is a similar provision in that contract for the public release of the MMRF model which was included in the contract for the national reform—

Mr Gretton: Yes, there is such a provision.

Senator CORMANN: And that was, again, included at the request of the Productivity Commission?

24 Senator Matthias Cormann, Member, Economics Legislation Committee, and Ms Meghan Quinn, General Manager, Macroeconomic Modelling Division, Department of the Treasury, Senate Economics Legislation Committee, *Proof Estimates Hansard*, 20 October 2011, p. 33.

25 Senator Matthias Cormann, Member, Economics Legislation Committee, and Mr Paul Gretton, Assistant Commissioner, Productivity Commission, Senate Economics Legislation Committee, *Proof Estimates Hansard*, 20 October 2011, p. 55.

Mr Gretton: It was included as part of the negotiation between the Centre of Policy Studies and the commission.²⁶

2.38 On 18 June 2010, during his tenure as Minister for Finance the current Minister for Small Business, Senator the Hon. Nick Sherry, wrote to the Productivity Commission, forwarding the terms of reference for its inquiry into the impacts and benefits of the Council of Australian Governments (COAG) reforms, stating:

The Commission will develop and maintain analytical frameworks appropriate for the quantification of the impacts and benefits of reform, and the provision to government and the community of assessments of the economy-wide, regional and distributional effects of COAG's reform agenda....**The frameworks should be transparent, and subject to independent assessment.** As far as practicable, the frameworks should be made available for wider use. [emphasis added]

Committee comment

2.39 It is hardly credible that senior Treasury officers would not have known that:

- without all the specifications and datasets, which were not publicly available, the models alone would not allow someone to 'replicate the results' of the modelling; and
- discussions about releasing the modelling had begun by early September 2011.

2.40 The committee is of the view that this confirms that the Treasury evidence to it was not open and transparent; that it was very carefully tailored not to be misleading but also not to answer the questions that were put to Treasury in a full and frank manner. It is also striking, and a cause of concern, that Treasury categorically assured the committee on 22 August 2011 that third parties could obtain all the access required to test Treasury's results even though at that stage, a decision about complete release of the relevant information had, according to subsequent statements by Treasury and ABARES, not been made.

2.41 That said, that decision not to release the complete modelling was not made until 7 October 2011. Ultimately the decision not to release all the relevant modelling information for public scrutiny was made by the government. It does raise the question what the Gillard Government has got to hide.

2.42 The evidence cited above confirms that, despite consistent and rigorous efforts by this committee, the government has no intention of releasing the modelling for public scrutiny before the Senate considers the carbon tax bills. Instead the government continues to obfuscate and delay on this issue.

26 Senator Matthias Cormann and Mr Paul Gretton, Senate Economics Legislation Committee, *Proof Estimates Hansard*, 20 October 2011, pp 56-57.

2.43 In the Parliament and at the Estimates Hearing, the Minister, Senator Wong, used a number of tactics to avoid answering questions about the release of the Treasury modelling. In her responses, Senator Wong makes two errors. Firstly, it is no answer to say that the government has already released large amounts of information. Even assuming that that is the case, ABARES have admitted that '(a)t the moment it is not possible to take the current version of GTEM, its data and the assumptions that are there inside it and run that model'.

2.44 Secondly, Senator Wong appears to miss the point of why it is important for the modelling to be reviewed independently. The carbon tax is a massive and important undertaking by the government, with significant short and long-term effects on the Australian economy. The Senate is a house of review. It is, therefore, important to its fulfilling of that vital roles that all Senators, and indeed the public, have the benefit of modelling that has been independently scrutinised before voting on the legislation.

2.45 The government's approach to the release of the Treasury's modelling of the carbon tax stands in stark contrast to the approach to modelling by the Productivity Commission. Not only does the Commission have release clauses written into its contracts to use the modelling of an organisation like Monash University, but it also understands that scrutiny of the modelling is important to both the Parliament and the community.

- 2.46 The committee is of the view that the government's approach on this issue:
- is not consistent with its own previous actions in instances where less was at stake, such as in relation to modelling by the Productivity Commission;
 - ignores principles of good government and transparency, in that it prevents the Senate properly fulfilling its constitutional role as a house of review; and
 - strongly suggests it has something to hide.

Cherry picking the best pieces of the modelling

2.47 As part of her Second Reading speech for the Clean Energy Bill 2011, the Prime Minister, the Hon. Julia Gillard MP, told the Parliament that her government's carbon tax legislation is:

A plan to cut carbon pollution by at least 160 million tonnes a year by 2020.²⁷

2.48 As a result:

27 The Hon. Julia Gillard MP, Prime Minister, *House of Parliament Hansard*, 13 September 2011, p. 9845.

Employment is projected to grow strongly with a carbon price. Around 1.6 million jobs to be created to 2020...a further 4.4 million to 2050. (note: ellipses are in original)

...

Real gross national income per person is expected to increase from today's levels by around \$9,000 per person to 2020.²⁸

2.49 The government's target is to reduce Australia's carbon emissions by 5 per cent compared to 2000 levels, by 2020.²⁹ This is a target that is shared by the Opposition. It requires a reduction in emissions of 159 million tonnes.³⁰

2.50 According to the Treasury's modelling, as at 2010 Australia's domestic emissions are 578 million tonnes. By 2020 the picture in relation to Australia's carbon emissions is forecast to be:

- Domestic emissions, without a carbon tax, of 679 million tonnes;
- Domestic emissions, with a carbon tax, of 621 million tonnes (meaning a direct drop in domestic emissions of 58 million tonnes);
- Minus internationally sourced abatement equal to 94 million tonnes;
- Resulting in a total emissions reduction, under the carbon tax, of 152 million tonnes.³¹

2.51 In respect of the economic indicators, the Treasury baselines and forecasts are:

- Baseline Gross National Income (GNI), per person, before a carbon tax, as at 2010: \$55,800;
- Projected GNI, per person, in 2020, without a carbon tax: \$65,100;
- Projected GNI, per person, in 2020, with a carbon tax: \$64,800;
- Baseline employment, before a carbon tax, as at 2010: 11.4 million people;
- Projected employment, in 2020, without a carbon tax: 13 million people;
- Projected employment, in 2020, with a carbon tax: 13 million tonnes.³²

28 The Hon. Julia Gillard MP, Prime Minister, *House of Parliament Hansard*, 13 September 2011, p. 9850.

29 The Department of the Treasury, *Strong growth, low pollution: Modelling a carbon price - Overview*, 2011, p. 1.

30 The Department of the Treasury, *Strong growth, low pollution: Modelling a carbon price - Overview*, 2011, p. 6.

31 The Department of the Treasury, *Strong growth, low pollution: Modelling a carbon price (Update) - Overview*, 2011, p. 5.

32 The Department of the Treasury, *Strong growth, low pollution: Modelling a carbon price (Update) - Overview*, 2011, p. 5.

Table 2.1: Comparison of baseline 2010 (before a carbon tax) and projected 2020 (with and without a carbon tax) emissions and economic indicators³³

	Emissions (million tonnes)				GNI (\$,000s)		Employment (%)	
	Without a carbon tax	With a carbon tax	Overseas sourced abatement	Total emissions reduction	Without a carbon tax (Per person)	With a carbon tax (per person)	Without a carbon tax	With a carbon tax
2010	578	---	---	---	55.8	---	11.4	---
2020	679	621	94	152	65.1	64.8	13.0	13.0

Committee comment

2.52 The comparisons made by the Prime Minister in her Second Reading speech about the effect of the carbon tax on domestic emissions and the economy, in the form in which they were made, do not stand up to close examination.

Domestic emissions

2.53 In relation to domestic emissions, the Prime Minister compared the 2020 forecast situation without a carbon tax to the 2020 forecast situation with both a carbon tax and overseas sourced abatement. What this comparison fails to make clear is that:

- even with a carbon tax, Australia's emissions will actually rise by 43 million tonnes of carbon dioxide equivalent between 2010 and 2020; and
- any reduction in global emissions will be as a result of overseas sourced abatement, at considerable cost to the Australian economy.

GNI per person

2.54 However, when it came to the effect of the carbon tax on GNI, the Prime Minister contrasted the 2010 GNI per person to the 2020 forecast GNI per person with a carbon tax. In making that comparison the Prime Minister ignored Treasury's 2020 forecast for GNI without a carbon tax. This would have been a more appropriate and less misleading comparison.

2.55 What the comparison made by the Prime Minister fails to make clear is that Australia's GNI per person with a carbon tax will actually be \$300 lower than it would

33 Source: The Department of the Treasury, *Strong growth, low pollution: Modelling a carbon price (Update) - Overview*, 2011, p. 5.

be without a carbon tax. Moreover, that is likely to be a very significant underestimate of the impact of the tax, as it assumes similar schemes are being deployed globally.

Employment

2.56 In relation to employment, the Prime Minister has compared the 2010 employment number to the 2020 forecast employment number with a carbon tax. At first glance, it is striking that the Treasury forecasts that in 2020 employment would be 13 million with or without a carbon tax.

2.57 However, it is not appropriate to make this comparison at all. This is because the employment number is, in fact, not a forecast and cannot be phrased as an outcome of the government's policy. Rather, the Treasury's modelling assumes 'in the long run that there is an adjustment of the labour market back to a structural rate of unemployment'. This assumption is made regardless of whether a carbon tax is introduced.³⁴

2.58 This assumption was examined critically in the Interim Report, which concluded:

The committee is of the view that Treasury's modelling of the labour market effects of the carbon tax is unclear to the point of being misleading. In effect, Treasury presents the results as if unemployment was continually at its equilibrium rate, in other words, it appears as if the labour market continuously provides what amounts to full employment.³⁵

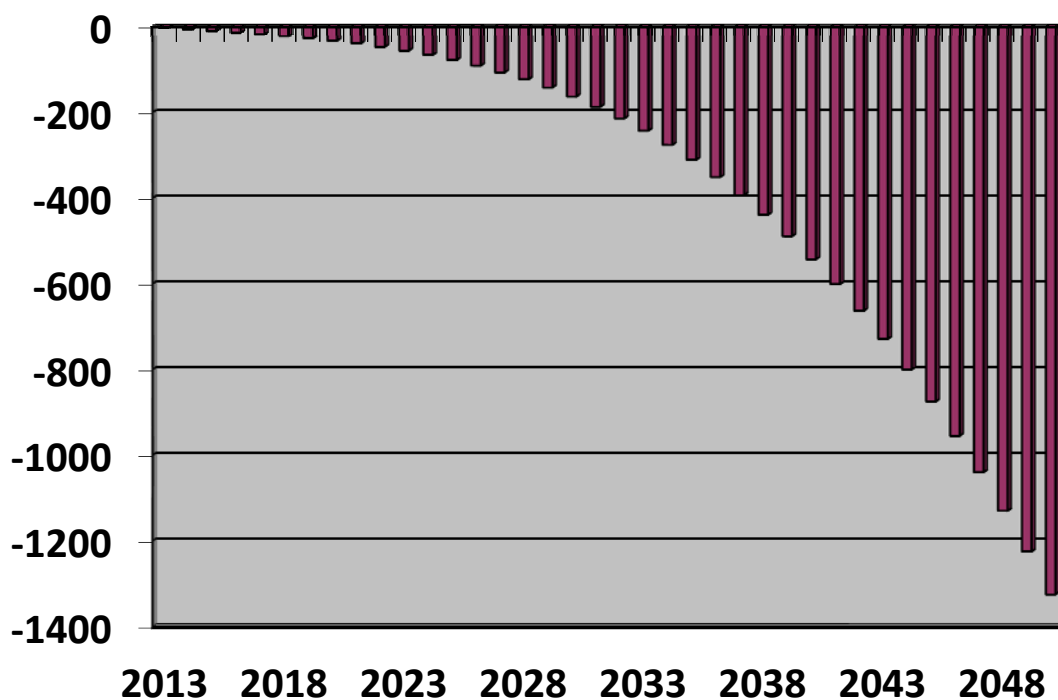
2.59 The committee is of the view that the Prime Minister has cherry-picked comparisons to give the best possible impression about the effect of the government's carbon tax on Australia's domestic emissions (as distinct from global emissions) and on the nation's economic position in 2020. In reality the position is quite different.

The effect of the carbon tax on the economy

2.60 In its Interim Report, the committee referred to evidence from Professor Henry Ergas to the effect that, based on the Treasury's modelling, it is likely the carbon tax will impose a \$1 trillion cost on the Australian economy. Graph 2.1 illustrates the effect:

34 Ms Meghan Quinn, General Manager Macroeconomic Modelling Division, the Treasury, *Committee Hansard*, 10 August 2011, p. 17.

35 Senate Select Committee on New Taxes, *Interim Report – The Carbon Tax: Economic pain for no environmental gain*, 2011, pp 241-243.

Graph 2.1: How much will the carbon tax reduce our economic wealth by?³⁶

2.61 Professor Ergas' evidence to the committee was:

What is available that Treasury have indeed released, and I congratulate them on doing so, is a spreadsheet that is similar to a spreadsheet that they had released for the CPRS model and that spreadsheet allows you to look at the change in the value of GDP under the base case, as it were, and with the so-called core policy, which is the primary abatement scenario that they model, and also under the so-called high-price scenario, which is where you go for more ambitious abatement. So what you can do, Senator, is you can use that spreadsheet—and you do need to make a number of assumptions—to calculate the value today of the change in GDP under those alternative carbon tax scenarios. To put it in perhaps simplistic terms—but this may help explain what is going on—say that in 2020 GDP would otherwise have been \$2 trillion and instead, under the modelling of the core policy, it is \$1.8 trillion, and in 2030 it would have been \$3 trillion and instead is \$2.6 trillion, you can take that difference and express it as if it were a value today. You can bring it back to the present. To do that you have to find some way of adding up amounts at different points in time. You have to take some account of the time value of money. In the calculation that I set out, I used a discount rate—that is, the assumed time value of money, as it

36 The Department of the Treasury, *Strong Growth, Low Pollution: Modelling a carbon price*, Chart 5.13, http://www.treasury.gov.au/carbonpricemodelling/content/chart_table_data/chapter5.asp (accessed 28 October 2011)

were, that is used in the Garnaut report. When you do that, you get a GDP loss that is in the order of somewhere between \$890 billion and \$1.345 trillion for the core policy scenario. I rounded it to about \$1 trillion.³⁷

2.62 The only response to this statement from the government was by the Minister for Climate Change and Energy Efficiency, the Hon. Greg Combet AM MP, who claimed 'They [the committee] have shonked up the numbers'.³⁸ The committee notes that Mr Combet has produced no evidence to discredit Professor Ergas' calculations or support his assertion.

2.63 Moreover, this issue was raised with Treasury officials at the Senate Estimates Committee hearing on 20 October 2011:

Senator CORMANN: Using the same discount rate as was recommended by the climate change adviser to the government, Professor Garnaut, what is the cumulative figure that Treasury comes up with?

Ms Quinn: Professor Garnaut used two discount rates in his analysis—a lower number of 1.35 and a higher number of 2.65—

Senator BOSWELL: 1.35 what?

Ms Quinn: 1.35 per cent real and 2.65 per cent real. If you do the cumulative deviation in GDP over time using the 1.35 per cent discount rate, you get \$0.9 trillion in 2009-10 dollars. If you use a cumulative deviation of GDP using a 2.65 per cent discount rate, you get a number that is one-third smaller than that.

2.64 The Treasury, therefore, admitted that using one of the discount rates utilised by Professor Garnaut, the effect on the budget could be \$0.9 trillion, within the range suggested by Professor Ergas.

2.65 It is correct that, as Ms Quinn says and as Professor Ergas had noted, using a higher discount rate reduces the present value of the income loss. However, if a higher discount rate is used, then the benefits of the emissions reductions from the tax (which all occur post-2100) are virtually zero, while the costs of the tax remain significant. In other words, using a higher discount rate does not strengthen, but rather greatly weakens, the case for the carbon tax. Further, these calculations only estimate the economic loss of introducing a carbon tax to 2050. The carbon tax will lead to lower investment and a smaller Australia capital stock, which will mean lower economic output beyond 2050 as well.

37 Prof. Henry Ergas, *Committee Hansard*, 10 August 2011, p. 68.

38 David Wroe, 'Coalition MPs put higher cost on carbon', *Sydney Morning Herald*, 8 October 2011, p. 4, <http://www.smh.com.au/environment/climate-change/coalition-mps-put-higher-cost-on-carbon-20111007-11dm9.html> (accessed 21 October 2011).

Committee comment

2.66 The resolution that established the Joint Committee tasked it to 'inquire into and report on the provisions' of the Gillard Government's 18 clean energy bills and the Steel Transformation Plan Bill 2011. The Treasury's modelling of the government's carbon tax provides the foundation upon which the tax is built. Without the modelling the government would not be able to proceed with its Clean Energy Plan.

2.67 The Minister for Climate Change and Energy Efficiency, the Hon. Greg Combet AM MP, has described the government's carbon tax package as 'one of the most important environmental and economic reforms in this nation's history'.

2.68 However, the Joint Committee has devoted barely seven pages of its report to a review of the Treasury's modelling, of which less than two pages consider criticisms of the modelling.

2.69 This committee is at a loss to understand how this could be considered anything more than a cursory review of the Treasury modelling.

2.70 In its Interim Report, this committee highlighted how the government had moved with undue haste to implement this carbon tax – how it had not allowed sufficient time for the proper consideration of its legislation, by the public or by the Joint Committee; how it had not even introduced bills to implement all aspects of the plan; and how there was a lack of transparency about the modelling that underpinned the plan.

2.71 The Advisory Report does nothing to dispel this view.

2.72 In the Interim Report, this committee recommended that:

...the Senate should demand that:

the government release all of its modelling, including the actual models, datasets and specifications used by the Treasury, to allow third party review;

the government establish an Independent Expert Panel to review its modelling approach and framework.

2.73 The government has continued to refuse to release the Treasury modelling and supporting data in such a way as to allow it to be independently scrutinised. This hampers public debate on the effect of the carbon tax on the economy and runs contrary to what it has done in relation to another major government economic modelling body, the Productivity Commission.

2.74 The committee is of the view that it now has an even stronger basis for making these recommendations than it did at the time of the Interim Report.

Recommendation 1

The committee recommends that the carbon tax be opposed by the Parliament.

Recommendation 2

The committee recommends that, should the government remain committed to proceeding with the carbon tax, before any vote the Senate should demand that:

- **the government release all of its modelling, including the actual models, datasets and specification used by the Treasury, to allow third party review; and**
- **the government establish an Independent Expert Panel to review its modelling approach and framework.**

