



**Faculty of Engineering and the Built Environment
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Report Title: A Critique of the Proposed South African Carbon Tax With Particular Analysis on Economic Consequences and Employment-Related Implications

Date: 18th May, 2012

Supervisor: Professor Rosemary Falcon

Subject: Update to Research Report Following Examiner Comments

Dear Rosemary,

This memorandum contains a review of the items raised by the examiners of my research report and, in each case, indicates how I have dealt with the item (or reasons why I do not feel it was appropriate to deal with a particular item). In each case, I begin by stating whether I agree with the comment or not, and follow this either by describing the manner in which I have adjusted my research report in the event that I agreed, or a justification of why I disagree with the comment.

Examiner Reference S2012/323 ("Examiner A")

Reference is made to the comments provided by Examiner A by citing the paragraph and page of the examiner's comments:

1. Page 1 paragraph 7 – **agreed**. Brief coverage of the National Climate Change Response White Paper is now provided at the end of chapter 2.2.1 (and included as reference 12 in chapter 11), but the commentary is limited to the carbon pricing related aspects of this White Paper since this is the

salient theme of the research. Aside from dealing with a wide range of proposed responses by SA to climate change (which are not the subject of my research), this paper in essence simply summarizes the Treasury carbon tax document.


2. Page 1 paragraph 8 – **agreed**. The third paragraph in section 3.1 was added to make it clear that carbon taxes don't in themselves reduce GHG emissions, but rather provide an economic incentive to do so.
3. Page 2 paragraph 1 – **agreed**. A qualifying note has been added in the third last paragraph of section 3.5 to the effect that the EUETS may not be available to SA in the future.
4. Page 2 paragraph 2 – **agreed in part**. A final paragraph has been added to section 2.2.2 in this regard, however the modelling and calculations in the report remain unaltered. The examiner notes the Treasury's modifications to its Discussion Paper to allow the first 60% of emissions to be tax free. This was proposed in Minister Gorhan's budget speech at the end of February 2012, shortly after my research report was submitted. All of the work done in 2011 and January/February 2012 was based on the Discussion Paper structure and could not subsequently be modified. The overall conclusion of my research would not change regarding the negative economic impact of a carbon tax, simply the quantification of job losses and lost GDP would change if the Minister's latest proposals were modelled.
5. Page 2 paragraph 3 – **agreed**. A final paragraph has been added to section 6.4 to make it clear that this research does not comprehensively purport to cover all implications of the carbon tax, such as job creation in the "green energy" sector.
6. Page 2 paragraphs 4 and 5 – **valid but disagree with the need for a change to report**. The issue identified by the examiner of efficiencies and other ways of compensating for the carbon tax is one of the major limitations of the study and this was identified by me in chapter 6.4 point 2 and the recommendations for further work in chapter 9.
7. Page 2 paragraph 6 – **agreed**. A final sentence has been added to the second paragraph of section 2.3.2 to make this qualification.
8. Page 2 paragraph 7 – **agreed**. The new final paragraph added to section 2.2.2 (referred to in point 4 above) covers the update from Treasury regarding the carbon tax, and timing of its imposition.
9. Page 2 paragraph 8 – **agreed**. The new second paragraph added to section 2.4.2 to provide a clear definition of price elasticity.
10. Page 4 grammatical/typo suggestions – changes made except one instance regarding presentation format where I felt creating a sub-list would be too highly indented.

Examiner Reference S2012/274 ("Examiner B")

Reference is made to the comments provided by Examiner B by citing the paragraph and page of the examiner's comments and,

1. Page 1 paragraph 1 and 2 and “Report” section – **agreed in part**. Examiner B expected criticism of the IPCC report and the Stern Report in the literature review. A third paragraph has been added to chapter 2.1 to note that the IPCC and Stern Report are not globally accepted as “gospel”. The thrust of my research was to critique the South African carbon tax and challenge the overall approach adopted by the South African government on climate change as potentially inappropriate for a developing country such as ours. The coverage of the IPCC and Stern Report was meant merely as a background because the South African policies flow from these sources. To critique the IPCC and Stern Reports would have been a major “rabbit trail” and extensive research in itself.
2. Page 1 paragraph 3 – **disagree**. My report is indeed critical of the LTMS (e.g. paragraph 3 of section 2.2.1, 1st paragraph after Table 1 in section 2.4.3) and indeed my entire research shows that the quantitative modelling of exercises such as the LTMS have been inadequate in highlighting the severe consequences of actions such as a carbon tax on South African economic growth and employment (see particularly chapters 3, 7 and 8).
3. Page 1 paragraph 4 – **agreed**. A final sentence has been added to the second paragraph of section 2.3.2 to make this qualification.
4. Page 1 paragraph 5 and 7 – **unclear**. There is no page reference and I was unable to track the matter to which the examiner was referred with this point in paragraph 5. Regarding the nature of “external costs”, I believe I have been clear in section 3.1, together with the issue of a tax attempting to target those consumers and producers who are responsible for it.
5. Page 1 paragraph 6 – **agreed**. A final sentence has been added to the second paragraph of section 2.3.2 to make this qualification.
6. Page 1 paragraph 5 and 7 – **unclear**. There is no page reference and I was unable to track the matter to which the examiner was referred with this point in paragraph 5. Regarding the nature of “external costs”, I believe I have been clear in section 3.1, together with the issue of a tax attempting to target those consumers and producers who are responsible for it.
7. Page 1 paragraph 8 – **unclear**. It is not clear to me what the examiner means by “‘During the industrialization phase’ refer elsewhere”. I have added a sentence to the second bullet point of section 2.4.2 to make it clear what the ‘industrialization phase’ means hoping this is what the examiner was seeking.
8. Page 1 paragraph 9 – **agreed in part**. Refer to point 1 above.
9. Page 1 paragraph 10 – **disagree**. Similar to my comments in point 1 above, a detailed analysis of the Australian carbon tax proposals was not the scope of this research. Further, since the Australian proposals have recently been introduced, it is “early days” to assess their actual impact.
10. Page 1 paragraph 11 – **unclear**. Examiner B states “The treasury discussion paper does WHAT??” Firstly I cannot tell which statement in my research this comment refers to nor what the concern is but assuming that it refers to the third paragraph of section 6.1.3, I believe the last 2 paragraphs of 6.1.2 clarify this adequately and are correct.

11. Page 1 paragraph 12 – **answer to question**. Examiner B asks “what was wrong with the model the Treasury provided?” This is addressed in chapter 5 of my report and I’ve added some working to the 3rd paragraph of chapter 5 to make it clear this my concern with “top down” macro-economic models applies also to the Treasury-related models.
12. Page 1 paragraph 9 – **agreed in part**. A fifth paragraph is added to section 8.2 to cover this valid point by Examiner B. However, my report has shown that South Africa is acting more like a European country and not like its peers (China, India, Brazil, etc) and in that regard it is unlikely that developed countries take negative action against South Africa alone for not introducing a carbon tax.



Signature

18th May 2012

Date

