Senate Standing Committee on Economics

ANSWERS TO QUESTIONS ON NOTICE

Treasury Portfolio

Additional Estimates

10 – 11 February 2010

Question: aet 62

Topic: Measures of R&D – Contribution to Productivity

Hansard Page: E 35 – E 36 (10/02/2010)

Senator COLBECK asked:

Senator COLBECK—I will just put this on notice. You have not got terms of reference so it is hard to know whether there is going to be any measure of contributions of R&D to productivity. Are there any broader measures of R&D and its contribution to productivity, which is a fairly important issue from my perspective in the context of some other issues that are going on as well? I know that the R&D corporations try to measure it but I am looking more broadly across the economy to see if there are any measures of R&D and their contributions to productivity in the economy?

Mr Banks—We certainly will get back to you. One way we can inform you on that will be an issues paper that will be released within a couple of weeks of us receiving the inquiry. What I could do is send you that issues paper. If you felt there were issues in there that had not been properly addressed or if you have any comment, we could get back to you subsequent to that.

Senator COLBECK—I understand it is specific to that inquiry but I am looking more broadly across the economy as well.

Answer:

Commentary on innovation and productivity was included in the Commission's recent submission to the House of Representatives Standing Committee on Economics Inquiry into raising the level of productivity growth in the Australian Economy.

However, the Commission's most recent detailed work on R&D was in its March 2007 commissioned research report into *Public Support for Science and Innovation.* That report contains some 800 pages of evidence and analysis, including findings that, on multiple streams of evidence, the benefits of public spending on R&D was likely to exceed its costs, but that there was scope for significant improvements in some key institutional and program areas.

The report contains much detailed evidence on the amount and delivery of R&D spending (eg Chapter 2 and Appendices B and C). It devotes attention to the problem of discerning the impact of incentives for R&D spending in terms of activity additional to that which would have occurred in the absence of the incentive (Chapters 4 and 8), both economy-wide and in particular sectors.

The report presents estimates of the impact on multifactor productivity of investments in R&D (Chapter 4, appendices E, F and G). The topic is complex for many reasons analysed at length in the report, including that:

- much growth in multifactor productivity arises from innovation, of which technological change is only a part;

- much technological change arises from international transfers of technology, rather than from technology arising from domestic R&D; and
- only some R&D is additional, in the sense of being induced as result of public spending on R&D.