Chapter 2

Research and Development Tax Incentive

The existing R&D tax concession

2.1 The legislative provisions that govern the existing tax concessions for R&D are set out in sections 73B to 73Z of the *Income Tax Assessment Act 1936* (ITAA 1936) and Part IIIA of the *Industry Research and Development Act 1986* (IR&D Act). These provisions, which were introduced to encourage research and development in Australia and make eligible companies more internationally competitive,[1] provide concessions for particular expenditure on defined activities.

2.2 There are four elements to the existing R&D tax concession:

- a 125 per cent tax concession that provides claimants with a deduction of 125 per cent of eligible expenditure incurred on Australian owned R&D activities;
- an R&D tax offset that enables small companies with an annual turnover of less than $5 million and whose aggregate Australian-owned R&D expenditure is more than $20,000 but less than $1 million[2] to obtain a tax offset equivalent to their tax concession entitlement;
- an incremental 175 per cent premium tax concession for those companies that increase their R&D expenditure in Australia relative to their average R&D expenditure over the previous three years; and
- an incremental 175 per cent international premium tax concession available for increases in foreign-owned R&D activities carried on by a company incorporated in Australia.[3]

2.3 Responsibility for administering the current concession is split between the Commissioner of Taxation and the Innovation Australia Board. To access the concession a company must have registered its R&D activities with Innovation Australia before then completing the relevant sections of their income tax return.[4]

2.4 The cost of the current scheme has been increasing over the past few years as the value of R&D claimed has risen sharply (Table 2.1).

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1 Section 73B(1AAA), *Income Tax Assessment Act 1936*.

2 Following the announcement of the changes in the 2009-10 federal budget the Government increased this grouped expenditure threshold to $2 million for the 2009-10 income year.

3 AusIndustry and Australian Taxation Office, *Guide to the R&D Tax Concession*, Part A, Version 4.3, February 2010, p. 9.

4 AusIndustry and Australian Taxation Office, *Guide to the R&D Tax Concession*, Part A, Version 4.3, February 2010, p. 11.

Table 2.1 – Value of R&D claims

	2005-06	2006-07	2007-08
	$mn	$mn	$mn
R&D concession (not including incremental)	9,620	12,310	14,870
R&D incremental concession	820	1,230	1,250
R&D refundable tax offset	290	310	390
Total value of claims	***10,730***	***13,850***	***16,510***

Source: Australian Taxation Office, Answers to Questions on Notice, Senate Economics Legislation Committee, Additional Estimates, 10-11 February 2010, Question aet 36, p. 2.

2.5 The numbers of claimants under the various components of the current scheme are shown in Table 2.2.

Table 2.2: Current R&D tax concession scheme

	Estimated cost, $mn, 2009-10	Number of companies registered, 2007–08	Reported R&D, $bn, 2007–08
125% concession	650	2,986	4.6
Tax offset	522	2,712	0.8
175% premium	350	1,473	8.5
International premium		7	0.0
combinations		576	0.3
Total	1,522	7,754	14.2

Source: derived from *Innovation Australia, Annual Report 2008-09*, p. 25; information from DIISR.

2.6 The Government hopes the changes in the bill will open the incentives to more of Australia's two million businesses:

> At the moment 100 firms are getting around 60 per cent of the total, the equivalent, in this financial [year], of $1.5 billion. The current scheme, which was a good scheme when it was introduced, is in need of renovation. There are going to be a lot of folk out there—the 100 firms—that have a huge vested interest in keeping the current scheme the way it is. We are actually in the business of helping the 8,000 firms that are currently registered—and I would like to see a lot more firms. Given that we have two million firms in this country, the fact that we have only 8,000 registered for the scheme strikes me as way short of what we need to do as a country.[5]

Rationale for the proposed changes

2.7 The changes set out in the Tax Laws Amendment (Research and Development) Bill 2010 and the Income Tax Rates Amendment (Research and Development) Bill seek to modernise the existing incentive by cutting red tape and providing a more targeted incentive thereby ensuring that 'public support for business R&D is consistent with the underlying rationale for government intervention and delivers value for money for taxpayers.'[6]

2.8 The bills currently before the parliament will achieve these stated objectives by repealing the complex provisions that currently apply and replacing them with a much simpler tax offset. The rate of the offset and whether or not it will be refundable will be dependant on the entity's turnover.[7]

2.9 Like the existing test, the offset will only be accessible where the company involved is investing in eligible R&D activities, the definition of which will be redefined by the passage of the Tax Laws Amendment (Research and Development) Bill 2010.

2.10 It should be noted that the IR&D Act will continue to operate in concert with the new Division 355 – Research and Development in the *Income Tax Assessment Act 1997* (ITAA 1997).

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5 The Hon. Senator Kim Carr, Minister for Innovation, Industry, Science and Research, *Senate Estimates Hansard*, 31 May 2010, p. 51.

6 Explanatory Memorandum, Tax Laws Amendment (Research and Development) Bill 2010, para 1.6, p. 12.

7 Explanatory Memorandum, p. 12.

2.11 The after tax benefit[8] of the different R&D concession rates over time are set out in Table 2.3.

2.12 Under the existing regime, eligible entities are entitled to claim a deduction. The amount of the deduction is used to reduce the taxpayer's taxable income. Under the proposed scheme, either a refundable or non-refundable offset will be available. Offsets are applied to reduce the calculated tax liability, therefore, if there is an excess the taxpayer is entitled to a refund unless their turnover exceeds $20 million, in which case, the excess offset will be carried forward to be applied against their tax liability for the next year.

Table 2.3

Financial year(s)	Tax rate (%)	Incentive rate (%)	After tax benefit
87-88	49	150	24.5
88-89 to 92-93	39	150	19.5
93-94 to 94-95	33	150	16.5
95-96 to 96-97	36	150	18.0
96-97 to 00-01	36	125	9.0
Current	30	125	7.5
Ongoing (IF BILL NOT PASSED)	28	125	7.0
IF BILL PASSED:			
2010-11 (turnover less than $20 million)	30	150*	15
2010-11 (turnover greater than $20 million)	30	133*	10

Source: Adapted by Secretariat from Victorian Innovation Economy Advisory Board, 2006. *equivalent calculated under the proposed regime of a refundable tax offset.

8 The after tax benefit is the value of the additional deduction, ie the additional 50 per cent where the deduction was 150 per cent of expenditure. For example, in 1988 the applicable tax rate was 49 per cent meaning business deductions would be worth 49 cents, however, if the deduction were for R&D expenditure, the entity would be able to claim a deduction for one and a half times the actual expenditure, the result being that the company would receive an additional 24.5 cent (49/2) deduction for their actual expenditure.

Role of AusIndustry/Innovation Australia

2.13 Under the existing regime, the Innovation Australia Board, with the assistance of AusIndustry officials, is responsible for registering the R&D activities of eligible companies seeking to access the concession annually.[9]

2.14 Registration is not an indication that the activities of the company seeking to access the concession are eligible R&D, rather entities self assess and register. The Board then reviews registered companies through its internal assessment process or on referral from the Tax Office.[10]

2.15 When reviewing registrations, the Board reviews the facts to determine whether or not the facts fall within the words of the definition.[11]

2.16 Innovation Australia determines the eligibility of R&D activities; the Tax Office considers the eligibility of R&D expenditure.[12] The role of Innovation Australia is discussed in Chapter 7. R&D activities and R&D expenditure are defined in Chapter 5.

2.17 The existing R&D concession regime operates in an environment of self assessment; the Board and the Tax Office provide guidance material to assist companies seeking to access the concessions to self assess their eligibility. This is consistent with the broader operation of Australia's tax system.

2.18 This will not change under the amendments set out in the bills; entities will still be required to assess their eligibility for the R&D tax incentive under the new rules of Division 355. They will however be required to identify, on application, both their core and supporting R&D activities.

2.19 This obligation, which will be introduced by the bill, will be accompanied by a requirement that Innovation Australia then confirm or reject the applicant's claim.[13] Although the amended provisions provide for greater integrity in the application and registration process, the explanatory memorandum to the bill notes at paragraph 5.28 that:

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9 AusIndustry and Australian Taxation Office, *Guide to the R&D Tax Concession*, Part B – Research and Development Activities, Version 4.2, July 2008, p. 6.

10 AusIndustry and Australian Taxation Office, *Guide to the R&D Tax Concession*, Part B – Research and Development Activities, Version 4.2, July 2008, p. 14.

11 AusIndustry and Australian Taxation Office, *Guide to the R&D Tax Concession*, Part B – Research and Development Activities, Version 4.2, July 2008, p. 14.

12 AusIndustry and Australian Taxation Office, *Guide to the R&D Tax Concession*, Part B – Research and Development Activities, Version 4.2, July 2008, p. 19.

13 Explanatory Memorandum, para 5.21, p. 122.

> As the new R&D tax incentive is a self assessment regime, the majority of applications to the Board will be registered without formal examination in relation to the activities conducted in the income year in question…[14]

2.20 Guidance, and therefore a degree of certainty, will be provided to companies through the Board's issue of public advice and advisory materials and generalised public findings about activities.[15]

Consultation undertaken and changes made

2.21 As the following discussion and Table 2.4 shows, there have been a number of public reviews of the scheme.

Table 2.4: Consultations on R&D assistance

	Year	No. of submitters	No. of public hearings
Productivity Commission	2007	157	2
House of Representatives Standing Committee on Economics, Finance and Public Administration	2007	50	13
Cutler review, *Venturous Australia*	2008	>700	9
Treasury – consultation paper	2009	197	
Treasury – first exposure draft	2009	131	
Treasury – second exposure draft	2010	55	
Senate Economics Legislation Committee	2010	31	2

2.22 Following the 2009-10 federal budget announcement, the Government commenced a consultation process in September 2009 when an initial discussion paper was released. The Treasury received 197 submissions in response to the release of the paper. Draft legislation was then exposed for public comment in December 2009, the Government announcing that:

> The draft legislation follows through on [the] commitment to deliver a more generous, more predictable, and less complex tax incentive by replacing the

14 Explanatory Memorandum, p. 123.

15 Explanatory Memorandum, para 5.5, p. 118.

> outdated and complicated R&D Tax Concession…[that would] help boost the competitiveness of the Australian economy.[16]

2.23 Following that round of public comment, a revised exposure draft was released on 31 March 2010.[17] Final adjustments were made before the bill was introduced into the House of Representatives on 13 May 2010.

Earlier studies

2.24 The precursor of the current scheme was introduced as part of Senator Button's 1985 industry reforms. The programme was cut back in 1996 (Table 2.3) but expanded again in 2001. There have since been a number of studies of the scheme which formed the basis of the bill. The conclusions of the most recent of these are given below.

Productivity Commission, 2007

2.25 A major study by the Productivity Commission in 2007 concluded:

> The extent to which the basic R&D tax concession stimulates additional R&D is low, particularly for large firms…Access to the 125 per cent R&D tax concessions should be restricted to small firms.[18]

2.26 The PC attempted a cost-benefit analysis of the scheme but the results were inconclusive, with the net benefits found to lie in a range of -$234 million to +$231 million.[19]

Department of Industry, Tourism and Resources, 2007

2.27 The Department of Industry, Tourism and Resources issued a report prepared by their Steven Playford, *How R&D Assistance Influences Company Behaviour: A Survey Investigating Behavioural Additionality Effects of the R&D Tax Concession Program*, in 2007. A survey of recipients of the R&D tax concession found that 73 per

16 Senator the Hon Kim Carr and the Hon Wayne Swan MP, New R&D tax credit – exposure draft legislation, Media Release, 18 December 2009.

17 The Treasury, The new research and development tax incentive – Consultation guide – a second exposure draft, March 2010, p. 1.

18 Productivity Commission, *Public Support for Science and Innovation*, March 2007, pp 392 and 403.

19 Productivity Commission, *Public Support for Science and Innovation*, March 2007, p. 390.

cent said that they spent more on R&D as a result of the concession.[20] (Further information about the study is given in Chapter 3.)

House of Representatives Economics Committee, 2007

2.28 A 2007 report by the House Economics Committee concluded:

> There are doubts about the extent to which the existing R&D tax concessions are effectively inducing additional R&D, especially given the reduction in the company tax rate.[21]

Cutler review, 2008

2.29 The report by an expert panel chaired by Dr Terry Cutler, entitled *Venturous Australia*, reviewed the national innovation system. The panel established a specific working group to examine R&D tax concessions.

2.30 The conclusions of the panel on the R&D tax concession were:

> Since its inception the R&D Tax Concession has been subject to several problems. Instead of being tackled directly in the design and funding of the central concession, these problems have typically been tackled by establishing additional programs. While the Concession offers no benefits to firms until they are in tax profit, many of Australia's most innovative firms remain cash strapped and in tax loss for many years…Further, the Concession is accounted for 'below the line' and so is often invisible in company financial decision making….The International and Premium schemes should be terminated and the basic concession increased and recast as a 40 per cent tax credit…For small firms we propose increasing the rate of assistance further…[22]

Henry Tax Review, 2010

2.31 The *Report on Australia's Future Tax System*, generally known for its chair as the Henry Tax Review, comments:

> Where the research and development of a firm generate spillover benefits for others, the social returns from research and development may be greater than the private returns. A tax-preference or government expenditure that appropriately targets such spillovers may therefore be beneficial and improve overall productivity. But where a subsidy is inappropriately

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20 *How R&D Assistance Influences Company Behaviour: A survey investigating behavioural additionality effects of the R&D Tax Concession Program*, p. 16; http://www.innovation.gov.au/Section/Innovation/Documents/RDbehaviour200720071024131738.pdf.

21 House of Representatives Standing Committee on Economics, Finance and Public Administration, *Australian Manufacturing: Today and Tomorrow*, July 2007, pp 141-2.

22 *Venturous Australia*, 2008, pp xiii-xiv.

> targeted, such incentives can bias the allocation of resources in the economy and actually reduce productivity.[23]

2.32 The *Report*, however, cites the recent reviews of innovation policy as a reason for it not to give detailed consideration to the matter.[24]

Committee View

2.33 In summary, the design of the new R&D assistance in the bill has been informed by a number of inquiries with broad consultation.

Research and development in Australia

2.34 Total R&D expenditure by businesses in Australia was around $14.4 billion in 2007-08. While small business employs about half the workforce, it only does about a tenth of R&D, which is dominated by large firms (Table 2.5)

Table 2.5: R&D by size of firm, 2007-08 (percentage share)

Employment size	
Less than 4 persons	3
5 to 19 persons	8
20 to 200 persons	19
Over 200 persons	70

Sources: ABS, *Research and Experimental Development, Business 2007-08*, cat. No. 8104.0, p. 12.

2.35 About a third of R&D expenditure is on labour, with capital expenditure only a very small element (Table 2.6).

Table 2.6: R&D by type of expenditure, 2007-08 (percentage share)

Labour costs	34
Other current expenditure	60
Land and buildings	1
Other capital expenditure	4

Sources: ABS, *Research and Experimental Development, Business 2007-08*, cat. No. 8104.0, p. 12.

23 *Report on Australia's Future Tax System*, p. 168.

24 *Report on Australia's Future Tax System*, p. 168.

2.36 The majority of R&D comprises experimental development with pure research only accounting for a very small proportion of business R&D (Table 2.7).

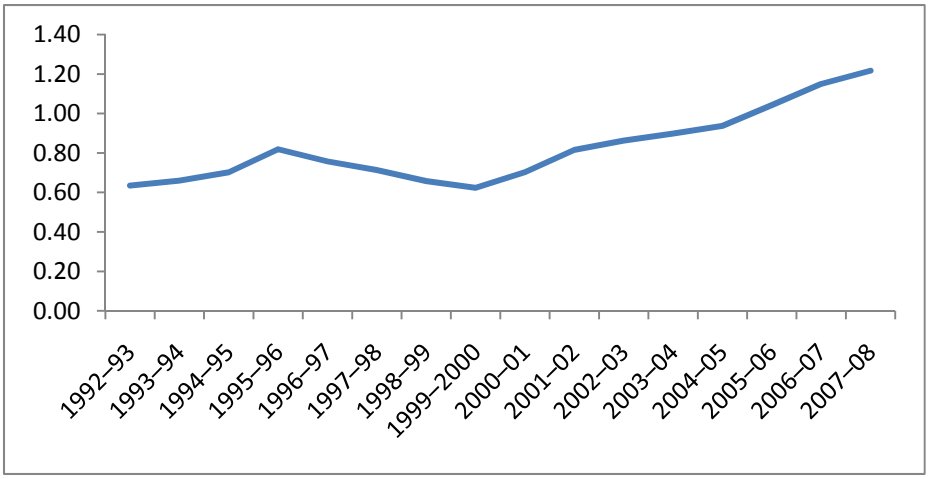
Table 2.7: R&D by type of expenditure, 2007-08 (percentage share)

Pure basic research	1
Strategic basic research	5
Applied research	32
Experimental development	62

Sources: ABS, *Research and Experimental Development, Business 2007-08*, cat. No. 8104.0, p. 12.

2.37 Business R&D has increased relative to GDP in the past decade (Chart 2.1).

Chart 2.1: Business R&D: per cent to GDP



Source: derived from data in ABS 5204.0, *Australian System of National Accounts, 2008-09*; and ABS 8104.0, *Research and Experimental Development, Businesses, 2007-08*.

2.38 Manufacturing, mining and professional services are the largest investors in R&D, both in absolute terms and relative to their contributions to GDP. (Table 2.8)

Table 2.8: Business R&D by industry, 2007-08

	$ bn	% to gross value added
Manufacturing	4.3	3.9
Mining	3.3	4.1
Professional, scientific and technical services	2.2	3.2
Financial and insurance services	1.4	1.2
Wholesale trade	0.8	1.6
Information media and telecommunications	0.8	2.3
Construction	0.6	0.7
Transport, postal and warehousing	0.2	0.3
Electricity, gas, water and waster services	0.2	0.7
Agriculture, forestry and fishing	0.1	0.4
Administrative and support services	0.1	0.3
Rental, hiring and real estate services	0.1	0.2
Retail trade	0.1	0.1
Other services	0.1	0.3
Health care and social assistance	0.1	0.1
Arts and recreation services	0.0	0.3
Education and training	0.0	0.0
Public administration and safety	0.0	0.0
Total	*14.4*	*1.4*

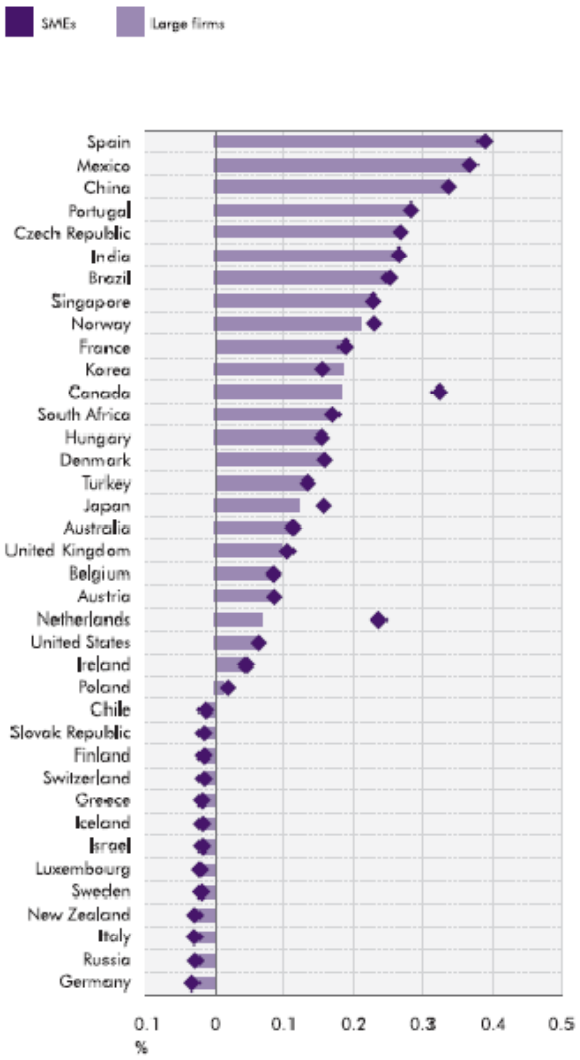
Source: derived from data in ABS 5204.0, *Australian System of National Accounts*, 2008-09; and ABS 8104.0, *Research and Experimental Development, Businesses*, 2007-08.

International comparisons of R&D assistance

2.39 An international comparison by two Treasury economists suggested that Australia provides relatively generous tax concessions for R&D.[25]

2.40 A recent UK study has Australia ranked around the middle for its support for corporate R&D (Chart 2.2).

Chart 2.2: Rates of subsidy for R&D, 2007



Source: Dyson, *Ingenious Britain*, 2010, p. 53.

25 G Davis and G Tunny, 'International comparisons of research and development', *Economic Roundup*, Spring 2005.

2.41 A comparison by KPMG also has Australia currently ranked in the middle of 10 OECD economies, but moving up to first place once the new scheme is in place (see Chapter 8).

2.42 Medicines Australia drew the Committee's attention to a comparative study by a Canadian accountancy firm which suggests the new scheme will place Australia in a favourable spot.[26] The study is summarised in Table 2.9.

Table 2.9: R&D Tax Incentives – International Comparison

	Started	Benefit rate (%)		Eligible location
		tax deduction	refund rate	
Australia-now	1985	125		>90% in Aust.
Australia-proposed	2010		40-45	
Austria	1988	125		within EU
Canada	1986		20-35	>90% in Canada
France	1983		30-50	within EU
India	1997	150		in India
Ireland	2004	20	and 12.5	within EU
New Zealand	2008		15	predominantly NZ
South Africa	2006	150		in South Africa
Spain	1995		25	
United Kingdom	2000	130-175		anywhere
United States	1981		20	in USA

Source: based on Scitax Advisory Partners, Overview of Research & Development Tax Incentives in Selected Global Knowledge Economies, April 2010; available at http://www.scitax.com/pdf/Scitax.International.RD.Tax.Credit.Survey.Table.08-April-2010.pdf.

2.43 A recent UK study noted the widespread use of tax incentives for R&D:

> Even countries with low corporation tax have instigated a separate regime to encourage R&D investment. For example, Ireland lowered its

26 Medicines Australia, *Answers to questions on notice*, p. 2.

corporation tax to 12.5% in 1998 but followed that with a new R&D tax credit in 2004. Similarly, Singapore has a twin policy of low corporation tax rates supplemented by an attractive R&D tax credit system. The swell of investment in France highlights how countries with high corporation tax rates can stimulate investment with the intelligent use of tax credits.[27]

27 James Dyson, *Ingenious Britain: Making the UK the Leading High Tech Exporter in Europe*, 2010, pp 52-53.