Achieving innovation and global competitiveness through research and development tax incentives: lessons for Australia from the UK

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Abstract

The legislative framework under which Australia’s new ‘R&D Tax Incentive’ (R&DTI) is to be administered received Royal Assent on 8 September 2011. The underlying policy objective of the R&DTI is to make Australian companies more innovative and globally competitive. One key feature of the R&DTI is the adoption of a tax credit system for research and development (R&D) expenditure, similar to that already in operation in the UK. This article identifies lessons for Australia (principally for policymakers, but also for practitioners and tax administrators) based on the UK experience of R&D tax credits. Findings are informed by in-depth interviews conducted with UK-based R&D tax advisors as to their evaluation of the strengths and weaknesses of the UK system in terms of its design, implementation and outcomes. The lessons include the need for policymakers to remain focused on the objectives of the R&DTI and how best to achieve these. This requires careful consideration of the level of incentives provided and the recipients. Simplicity should be a key objective. Tax administrators have an important role to play in promoting the scheme, and in particular, by engaging practitioners.

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1 Introduction

Since the election of a Labor Government in Australia on 24 November 2007 under the leadership of then Prime Minister Kevin Rudd, there has been a policy reform agenda directed at encouraging business to invest in research and development (R&D) as a platform for future growth. Underlying this agenda was the aim to make Australian companies more innovative and globally competitive.¹

Early in its term the Rudd Government created a new Department of Innovation, Industry, Science and Research with Senator Kim Carr appointed as Minister. A policy review into innovation chaired by Dr Terry Cutler (‘Cutler Review’)² was established in January 2008 and its final report released on 10 September the same year.³ In June 2010 Rudd lost the support of his party following opposition to the proposed introduction of a resource super profits tax and the deferral of a carbon pollution reduction scheme that was rejected in the Senate. He was replaced by Julia Gillard as Prime Minister who then went on to form a new minority Labor government after the federal election in September 2010 with Senator Carr remaining the Minister for Innovation, Industry, Science and Research. This is just a snapshot of some of the political turmoil in Australia in recent years which has impacted on the development and implementation of policy agendas, including taxation.

One of key outcomes of the Cutler Review was the recommendation that Australia adopt a tax credit system for expenditure on research and development, similar to that already operational in the United Kingdom (UK). When first released late in 2009 with an expected start date of 1 July 2010, the draft legislation was described as the biggest reform to Australian business innovation policy in over a decade.⁴ However, the proposed credit system was met with resistance by the Coalition and only passed the House of Representatives with the combined support of Greens and Independent parliamentarians and National MP Tony Crook. Further negotiations with the Greens ensued and culminated in a

² ‘Review of the National Innovation System’ chaired by Dr Terry Cutler and announced on 22 January 2008.
joint announcement by Treasurer Wayne Swan and Senator Kim Carr on 15 June 2011 that
crossbench support in the Senate has been secured to allow the passage of the legislation and
that the start date of the credit system, expected to cost A$1.8 billion in the first year of the
program, had been deferred to 1 July 2011.  

On 2 September 2011 Senator Carr announced that the R&D tax credit would be known as
the “R&D Tax Incentive”. The legislative framework under which the new ‘R&D Tax
Incentive’ (R&DTI) is administered is contained in Division 355 of the Income Tax
Assessment Act 1997 (ITAA 97) and Part III of the Industry Research and Development Act
1986, for which Royal Assent was received on 8 September 2011. The R&DTI is to be
jointly administered by AusIndustry (on behalf of Innovation Australia) and the Australian
Taxation Office (ATO). Further legislation regarding the administration of the R&DTI is
currently being developed.

Against this background, the purpose of this article is to examine Australia’s new R&DTI
and to consider the extent to which it can be expected to deliver the desired outcomes of
stimulating investment in research and development that will be innovative and improve
global competitiveness. To assist in this evaluation it makes sense to explore the UK system
of tax credits on which the Australian reforms have been styled, and to closely examine its
design and operation to identify lessons that may be useful to practitioners, businesses and
administrators in Australia.

The article is presented in six parts. Following on from the introductory first part, the second
part of the article contains an outline of the main provisions of the UK system of relief for
R&D expenditure and considers the impact of the relief to date. In part three an overview is
provided of the legislative provisions regarding the R&D tax credit in Australia. The fourth
part of the article explains the methodology used in the research and the fifth part presents the

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5 See note 1.
8 AusIndustry is a specialist program delivery division within the Department of Innovation, Industry, Science and Research.
findings based on in-depth interviews conducted with leading UK R&D tax practitioners. The final part of the article then considers what lessons there are for Australia based on the UK experience with an R&D tax credit system in place. This part also contains recommendations for further reforms that are considered necessary.

2 The UK system of R&D Relief

This part begins by providing a brief overview of the main provisions of the existing UK system of R&D Relief (R&DR) including the rate of relief, the calculation of relief, the activities and expenditure that qualify for R&DR, and the treatment of losses. The impact of the R&DR on investment is then discussed and the effectiveness of the scheme considered. This part concludes with a brief discussion of the key recommendations of the recent report by Sir James Dyson entitled ‘Ingenious Britain’ (Dyson Report) and its impact on R&D policy in the UK.

The UK R&D Relief (R&DR) was introduced in Schedule 20 of the Finance Act 2000 with regular revisions and adjustments in subsequent Finance Acts (FA). It is a relief that allows companies which are subject to corporation tax (CT) to obtain a deduction at a rate that exceeds the actual qualifying R&D expenditure. The current system includes different rates of relief for large companies and small & medium sized enterprises (SMEs). Further, as with other UK tax reliefs, there is a clear distinction between revenue and capital expenditure and this affects the calculation of R&DR. In the 2011 Budget it was announced that the previous requirement for there to be a minimum spend of £10,000 pa in order to qualify for R&DR was to be removed from 1 April 2012. There is no upper limit on the amount of R&DR that can be claimed.

The rate of R&DR on revenue expenditure for SMEs was increased in 2011 from 175 per cent to 200 per cent with a further increase to 225 per cent from 1 April 2012. In practice

12 Legislation previously in FA 2000 and FA 2002 was rewritten under the Tax Law Rewrite project and can now be found in Part 13 of the Corporation Tax Act 2009
13 For R&DR, a SME is currently defined as a company with fewer than 500 employees and either an annual turnover of less than €100M or a balance sheet not exceeding €86M. Prior to 1 August 2008 the SME requirement was less than 250 employees.
14 s43 FA 2011.
the qualifying revenue R&D expenditure is deducted from assessable income in the normal way and then a further ‘super deduction’, for SMEs currently equal to the original amount, is deducted from taxable income (i.e. 100 + 100 = 200%). From 1 April 2012 a further 125 per cent of qualifying R&D expenditure can be deducted as a ‘super deduction’ (i.e. 100 + 125 = 225%). However, as the amount of relief for large companies is limited to 130 per cent, their ‘super deduction’ is limited to 30 per cent of the qualifying R&D expenditure (i.e. 100 + 30 = 130%). Note that this ‘super deduction’ is not available for capital expenditure for either SMEs or large companies, thus relief for this type of qualifying expenditure is limited to an allowance (known as a Research and Development Allowance but as an element of the R&DR scheme) of 100 per cent, thus effectively an immediate write-off.

In order to qualify for R&DR the expenditure on R&D must be made in order to achieve an advance in overall knowledge or capacity in a field of science or technology. It must be achieved through the resolution of scientific or technological uncertainty and not simply expenditure on advancing the state of knowledge or capacity of the company. In addition, the expenditure must relate to the company’s current trade or one it intends to move into once the R&D undertaken indicates that it is viable.

The requirement to incorporate advances in science or technology is crucial to successfully obtaining R&DR and applies to all companies whether large or SME. Determining whether this requirement has been met requires companies to set out – in a format understandable to a non-expert – the uncertainties which have been resolved by the R&D expenditure as claimed. Her Majesty’s Revenue and Customs (HMRC) is responsible for the administration of all aspects of R&DR, including the assessment of whether or not claims meet the requirement of incorporating advances in science or technology. This has given rise to concerns that that HMRC may not have sufficient expertise to accurately assess these claims.15

There are two types of costs on which claims for R&DR may qualify, these being the direct and indirect costs incurred in undertaking the R&D activity. For example the cost of staff directly involved in the R&D activity is a qualifying direct cost, whereas the cost of staff not directly involved in the R&D activity but supporting others who are directly involved, is a qualifying indirect cost (QIC). The calculation of qualifying costs (both direct and indirect) is made more complex by the need to make apportionments where costs have mixed purposes.

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15 Walpole, M. and N. Riedel, “The role of tax choice location of intellectual property” forthcoming
and this in turn has implications for companies’ record-keeping practices. Further, for staffing costs to qualify for R&DR as either a direct or indirect cost, the company making the claim must have contracted with the relevant staff directly and not through a third party. The cost of materials and utilities used directly or indirectly in the R&D activity can qualify (subject to apportionment) for R&DR, but telecommunication and data costs are specifically excluded.

R&DR can create a CT loss or increase it. The type and size of relief available with these losses depends on whether the company is large or an SME and whether there are likely to be future trading profits. Large companies can only carry the loss forward against future profits whereas SMEs can convert the loss into a payable credit at a conversion of 14 per cent of the taxable loss. For example, a trading loss after R&DR of £10K can be converted to a payable credit of £1.4K (£10K x 14%). The claim must be made on the CT return within two years of the end of the relevant CT accounting period. Alternatively, an SME can carry the loss forward against future trading profits and so future relief may be available at the full CT rate (currently 26 per cent). The discrepancy between immediate payable tax credits at 14 per cent and loss relief against future taxable profits will diminish as the proposed reduction in CT rates to 23 per cent occurs during the next 3 years.

Following on from this overview of the UK R&DR scheme, discussion now turns to the impact of the relief to date. The R&DR is the single biggest funding mechanism provided by the UK government to stimulate investment in business R&D.\(^{16}\) In 2009 over 8,000 companies made claims for R&DR and since the introduction of the R&DR scheme in 2000, UK companies have received £52 billion in support of their R&D activities. The value of the relief to individual companies is on average £39K for SMEs and £329K for large companies.\(^{17}\)

The underlying purpose of the stimulus is to make the UK the best place in the world to start and invest in technology - based businesses with innovation being recognised as a key driver


of economic growth.  

This emphasis on the value of the knowledge economy to the UK’s future has been recognised by successive UK governments.

It was concluded from an extensive analysis of the expenditure of 2,023 companies that the availability of tax credits had stimulated R&D investment in the UK. Further, the effect of the reliefs arising from ‘super deductions’ (i.e. on revenue expenditure) exceeded the impact of tax credits arising from the R&D Allowance (i.e. on capital expenditure) indicating that companies were more responsive to incentives for R&D activities that would generate future (though uncertain) profits than they were on expenditure on current capital items. That is, the ‘super deduction’ was effective.

Other sources of evidence exist that support the view that the R&DR has stimulated investment in R&D in the UK. Surveys have consistently shown that companies that claimed the R&DR believed that it has a positive effect on their overall R&D spend. A survey of R&DR claimants conducted by the Confederation of British Industry (CBI) reported that 76 per cent of respondents believed that the relief helped maintain their level of R&D spending and 37 per cent indicated that they had already increased their R&D activity as a result. An evaluation by HMRC of the impact of tax relief on R&D expenditure noted that the analysis of claims for R&DR indicated that up to £3 of R&D expenditure might be stimulated by £1 of tax foregone.

R&D incentives in the UK have a history of undergoing frequent changes and being the subject of ongoing public consultations, reports and reviews. One report in particular that needs to be considered in the context of this article is the Dyson Report. In 2009 Sir James Dyson was invited by David Cameron as the then leader of the Conservative Party and

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18 Depart of Business Innovation and Skills available at [http://www.bis.gov.uk/policies/innovation](http://www.bis.gov.uk/policies/innovation) [accessed 20 September 2011].
24 Dyson Report, see note 10.
Opposition “...to help the Conservatives reawaken Britain’s innate inventiveness”.\textsuperscript{25} At the time the UK was placed 19\textsuperscript{th} amongst OECD countries in terms of attractiveness of tax relief for R&D.\textsuperscript{26} The Dyson Report was published just prior to the 2010 general election which brought about the change of government from Labour to the Conservative/Liberal Democrat alliance.

The Dyson Report included recommendations for the (then) Government to support R&D through specific financial incentives. In particular, it was recommended that the R&D tax credits be refocused on high tech companies, small businesses and new start-ups.\textsuperscript{27} Further, it reiterated the importance of the aspiration goal of the Conservatives that at least 25 per cent of the procurement budget of each government department should be spent with SMEs, either directly or through main contractors.\textsuperscript{28} At the time of its publication, David Cameron was very supportive of the findings of the Dyson Report.\textsuperscript{29}

The Dyson Report resulted in a flurry of consultations that are on-going.\textsuperscript{30} Even so, based on the 2011 Budget announcements it is apparent that the Report has already been influential and has the support of the current Government. Finally, another important recommendation in the Dyson Report was the need to improve the ease with which the R&D tax credit can be claimed. This concern regarding the administrative burden and the need for simplification of the R&DR is also reflected in a recent report\textsuperscript{31} by the Office for Tax Simplification (OTS).

\section{The Australian R&D Tax Incentive}

The R&DTI replaced the former R&D Tax Concession from 1 July 2011. The object of the R&DTI is “... to encourage industry to conduct research and development activities that

\textsuperscript{25} Ibid, p.2.
\textsuperscript{26} Dyson Report, see note 10 p.54.
\textsuperscript{28} Ibid, p.56.
\textsuperscript{29} See note 27.
might otherwise not be conducted because of an uncertain return from the activities, in cases where the knowledge gained is likely to benefit the wider Australian economy."\textsuperscript{32}

The R&DTI has two core components. Firstly, there is a 45 per cent refundable tax offset (equivalent to a 150 per cent deduction) for entities with an annual turnover of less than $20M, provided that they are not controlled by income tax exempt entities. The second core component is a 40 per cent non-refundable tax offset (equivalent to a 133 per cent deduction) for all other eligible entities (entities may be able to carry forward unused offset amounts to future income years).\textsuperscript{33} Further, from 1 July 2014 entities eligible for the refundable tax offset may access their refunds quarterly and thereby improve their cashflow.\textsuperscript{34} These measures are expected to provide more funding to innovative firms – including those engaged in manufacturing, biotechnology, and information and communications technology – to grasp the opportunities to transition Australia to a cleaner economy, and, at the same time, increase productivity and national income.\textsuperscript{35}

In addition to the core components of the R&DTI, three other significant reforms were introduced that are expected to further incentivise and/or enhance the effectiveness of investment in R&D. Firstly, the rate of the credit has been separated from the corporate tax rate. This means that as the company tax rate drops from its current level of 30 per cent to 29 per cent from 1 July 2013 and then to 28 per cent from 1 July 2014,\textsuperscript{36} the rate of the tax incentive will remain unchanged (i.e. 45 per cent for the refundable tax offset and 40 per cent for the non-refundable tax offset) and thereby not diminish. The second change is that the amount of R&D expenditure for which an offset is potentially available is uncapped,\textsuperscript{37} whereas a cap of $2M applied previously.\textsuperscript{38} The third change is that the definition of R&D

\textsuperscript{32} s355-5(1) ITAA 97.
\textsuperscript{33} s355-100(1) ITAA 97.
\textsuperscript{34} The exact requirements to qualify for quarterly refunds are unknown at this stage but will be included in subsequent legislation expected to be drafted before 2014, see note 7. The objective of allowing for quarterly refunds is discussed in the Supplementary Explanatory Memorandum to Amendments to the Tax Laws Amendment (Research and Development) Bill 2010 and the Income tax Rates Amendment (Research and Development) Bill 2010.
\textsuperscript{35} See note 1.
\textsuperscript{37} See note 33.
has been revised to be ‘more targeted’. Whilst R&D activities are still required to be separated into two categories, namely core and supporting R&D activities, the eligibility test regarding core activities (i.e. experimental activities) has been made more stringent with the need to have evident both innovation (i.e. the generation of new knowledge in the form of new or improved materials, products, devices, processes or services) and technical risk, rather than just an element of one or other as was previously required. Further, the definition of supporting activities has been changed to activities ‘directly related’ to core R&D activities, rather than activities ‘carried on for a purpose directly related’ to core R&D activities. In some instances supporting R&D activities may be subject to further eligibility tests regarding dominant purpose.

More generally, the R&DTI has a range of requirements about the location of the R&D activity, the eligibility of entities, and the types of expenditure for which an offset can be claimed. These requirements remain largely unchanged and are dealt with here only briefly. R&D activity must be undertaken solely within Australia or an external Territory and the entity claiming the R&DTI must be a company incorporated in Australia. Further conditions must be met in the case of companies incorporated under foreign law that are either an Australian resident for tax purposes or carrying on business through a permanent establishment in Australia. In terms of qualifying expenditure, a range of eligibility and exclusions exist, but in general terms an eligible entity can claim an offset if it has incurred ‘notional deductions’ of at least $20,000 in the year of income. Notional deductions include the expenditure on the R&D activity and any decline in value of tangible depreciating assets used for R&D activities. However, to claim notional deductions the entity must be registered for the R&D activities under Part III of the *Industry Research and Development Act 1986*.

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39 Ibid.
40 s355-25(1) ITAA 97.
41 s355-30 ITAA 97.
42 See note 38.
43 See note 41.
44 s355-35 ITAA 97.
45 s355-100 ITAA 97.
46 s355-1 ITAA 1997. Companies must still register their activities annually within 10 months after the end of the year in which the activity was conducted, but are no longer formally required to submit R&D plans. See note 38.
One key aspect that remains unchanged with the introduction of the R&DTI that is worthy of emphasis in the context of this article is that AusIndustry and the ATO continue to jointly manage R&D incentives on behalf of the Australian Government. Basically AusIndustry determines the eligibility of registration of the R&D activity and the ATO determines the allowable notional deductions and claims for offsets. The R&DTI is a self-assessment program, so companies registering their R&D activities with AusIndustry need to ensure that their activities are eligible. To increase certainty, advance findings on the eligibility of activities can be requested from Innovation Australia before registration although the preparation of these requests has compliance cost implications. An advance finding binds the ATO for the year the application is made, and the next two income years.47 Similarly, companies claiming offsets in their annual tax return do so under a self-assessment scheme so the onus is on the taxpayer to correctly assess their claims and to maintain the necessary records to substantiate claims. Where the ATO has concerns about the eligibility of an R&D activity, it can request a finding from AusIndustry.48

Prior to the introduction of the R&DTI there was public consultation on the administrative arrangements and it appears that the system of joint management was regarded as working satisfactorily and hence continues under the new regime.49 Already there appears to be a concerted effort on the part of both AusIndustry and the ATO to inform taxpayers and practitioners of the changes and promote the R&DTI with extensive materials available on their respective websites and information sessions scheduled to be held across Australia in the upcoming months.50

48 Ibid.

4 Methodology

A case study methodology consistent with a qualitative research framework was adopted in this research. By nature, qualitative research is both interpretive and subjective, and does not provide hard and fast explanations from which hypotheses can be tested or predictions made.\(^{51}\) That is, the explanations derived from qualitative research do tend to be ‘messy and open-ended’ rather than ‘nice, neat and complete’.\(^{52}\) Qualitative research recognises the complexity of a problem and that explanation or meaning is not easily fathomed or just taken for granted.\(^{53}\) In turn this recognition of complexity can allow the nature of a problem to be better understood and thereby facilitate more effective responses. Given that the aim of the research was to build theories or meaning (i.e. identify lessons for Australia) rather than to engage in theory testing, a qualitative approach was considered to be appropriate.

A case study methodology was used in that the research involved the in-depth exploration of a program or process concerning two jurisdictions at a point in time.\(^{54}\) Secondary data (as presented in the earlier parts of this article) was collected from a variety of sources including legislation and published materials. Primary data was collected by conducting semi-structured, in-depth interviews with a small group of UK practitioners who specialised in providing R&D advice. These practitioners were purposively invited to participate in the research because of their rich experiences and expertise in R&D. That is, the researchers sought to construct meaning by engaging with relevant people in the real world.\(^{55}\) In accordance with university ethics requirements, participation was voluntary and confidentiality assured.

Four practitioners from the one large UK accounting firm participated in the interviews which were conducted in their own setting and with the support of the Partner, Head of Tax. A semi-structured interview usually begins by outlining a set of issues to be explored. In this case the issues to be explored were circulated to the interviewees in advance. They were as follows:

1. **outcomes** delivered by the UK tax credit system in terms of stimulating investment in R&D, meeting the underlying rationale for government intervention and representing value for money for taxpayers;

2. **effectiveness** of its operation in terms of administrative simplicity and transparency;

3. **strengths and weaknesses** (particularly in respect of certain industries and business types); and

4. **further reforms** needed.

The list served simply as a basic check to make sure all issues (from the perspective of the researchers) were covered in each interview; it was not a constraint on the sequence, wording and spontaneity of the questions asked or of the issues raised by the interviewees themselves. The interviews were not recorded other than by notes taken by hand by the two researchers who were both present throughout all interviews which took a total of 4 hours to conduct. The interviews were mainly conducted individually, though one interviewee did sit in with two others. After completion of the interviews the researchers independently wrote up their notes shortly thereafter and then debriefed to reflect on and refine the data collected. The coding of data was undertaken in accordance with recommended practice and themes identified, with the list of issues providing a useful framework. The technique of comparative analysis was then used. It is a data analysis technique, considered particularly relevant to case studies, which uses method of difference or method of agreement, or both, to identify examples on which to focus when seeking findings and building theories.

5 **Findings**

The findings are presented according to the five main themes that emerged from the interviews. These themes are as follows: an assessment of the effectiveness of the R&DR regime in achieving the underlying policy objectives; identifying the drivers of R&D investment; the importance of fairness and simplicity to the success of the R&DR scheme; the relationship between tax administration and practitioners; and accounting for the ‘super deduction’. Direct quotes from the interviewees are included in italics where it is felt they

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are particularly relevant to the discussion of the findings. Underlining is used to indicate emphasis of a particular point on the part of the interviewee.

5.1 Effectiveness of R&DR in achieving the underlying policy objectives

Interviewees were consistently very familiar with the underlying policy objectives or intent of the R&DR scheme. In the words of the interviewees, ‘the front end of the consultation document is explicit about the intent of the scheme – the Government is looking to stimulate a private sector-led recovery’ and ‘the key message is the push to encourage innovation’. Whilst the scheme was obviously important to each of the interviewees given that it was their main area of expertise and source of their livelihood, they did generally express concern about the level of commitment by Government to the scheme. Prior to the release of the consultation document by HM Treasury in November 2010, they had expected the R&DR scheme to be abandoned and ‘had been preparing for a downturn, so the announcement was a surprise’. Since the announcement the interviewees generally felt that that the policy makers and administrators ‘seemed to be listening to clients and the professional bodies’. That is, they now felt more confident about the future of the scheme.

When questioned more specifically about effectiveness (or otherwise) of the R&DR scheme it became clear that, from the perspective of the interviewees, the effectiveness of the scheme ‘depended on the client’. The consistent view expressed was that the R&DR scheme was generally most effective for SMEs. Three reasons emerged in support of this finding. Firstly, the refundable tax credits were seen as ‘incredibly important’ for some SMEs, particularly where ‘all they are doing is R&D – they just have no access to cash’. The second reason was that often in SMEs the owner is closer to the R&D (compared to in a large company) so the impact of the R&D was felt more directly. The third reason, which was strongly supported by each of the interviewees, was that the ‘super deduction’ was a very effective measure for SMEs. It was regarded as evidence of ‘better targeting’; represented ‘good progress’; and would ‘make the UK more attractive for encouraging start-ups’. SMEs from a range of industry sectors were investing in R&D including manufacturing (for example, clothing labels), construction, architecture, although bioscience, software developers and

58 This comment refers to the consultation document Corporate Tax Reform: Delivering a more competitive system was published on 29 November 2010 on the HM Treasury website and included consultation on R&DR.
pharmaceuticals are the biggest spenders. Companies in the IT gaming industry are already big claimants’.

In the case of large companies, the consistent view expressed was that as the R&DR was worth less for large companies it had ‘less impact’. For profit-making large companies one interviewee believed that the incentive needed to be ‘opened-up’, or greater than 30 per cent, to attract investment into the UK. It was pointed out by another interviewee that large loss-making companies tended not to bother making claims for R&DR as ‘they have other things on their agenda’.

In terms of the effectiveness of the R&DR more generally, there was discussion as to whether or not the scheme represented ‘value for money’ for taxpayers. The consistent view was in the affirmative with one interviewee stressing that ‘it is really really important. It’s my money as well. Innovation is important to the UK. Other countries offer incentives to stimulate innovation; the UK needs to maintain its position to be competitive’.

Based on the agreement or consistency of views expressed by the interviewees, two main findings were drawn from this first theme. Firstly, that uncertainty created by Government did have a negative impact on the confidence of the interviewees in the continuance of the R&DR scheme. This in turn may have affected their clients’ R&D investment decisions and could possibly have had a negative impact on the effectiveness of the R&RD scheme. The second finding was that whilst the R&DR scheme was consistently considered effective by the interviewees, they clearly saw that it was more effective for SMEs than for large companies.

5.2 Identifying the drivers of R&D investment

The second theme that emerged was the extent to which R&DR was a driver of R&D investment or regarded by companies as an ‘add on’ or by-product of other decisions. Interviewees consistently acknowledged that whilst R&DR was an important consideration for companies, it was just one of many factors that influenced R&D investment decisions. As one interviewee expressed ‘tax is absent from the initial decision, the focus is on making a profit; but when it comes to quantum and focus, tax does make a difference’. It was also generally agreed that tax was of increasing importance to global groups when deciding where to locate their businesses, but that this was not limited to consideration of the R&DR scheme.
Other tax-related matters to be considered included (for example) tax rates and the controlled foreign company (CFC) rules. That is, the extent to which the R&DR drove the investment decision depended on the company and its circumstances.

Based on the consistency of views expressed by the interviewees, two main findings were drawn in respect of this theme. Firstly, the R&DR was not the main driver of R&D investment decisions. Secondly, tax considerations were more influential in the case of global groups, but even in these cases, the R&DR was only one aspect of a range of tax matters that were expected to be influential.

5.3 Fairness and simplicity of R&DR

One interesting aspect that emerged in the interviews was the extent to which the R&DR was considered to be ‘fair’, with the interviewees consistently finding this assessment to be difficult to make. An assessment of fairness relies on the perceptions of the individual and is inherently subjective in nature. In the case of the interviewees, their perceptions would undoubtedly be influenced by their personal values, attitudes and experiences (including the type of clients they advised and the time spent in their current roles).

In the context of the R&DR, ‘fairness’ could be viewed as necessitating ‘equal in quantity’, which could require the same rates and loss relief applicable irrespective of size or nature of the claimant company. Alternatively, ‘equal in quantity’ could refer to equal funding available to taxpayer types or sectors. In contrast, ‘fairness’ could be viewed as necessitating ‘vertical equity’ which would involve preferential treatment in favour of start ups and SMEs (as they have a harder time and so need more support) relative to large companies.

To some extent the interviewees did grapple with their individual stance on the ‘fairness’ (or otherwise) of the R&DR scheme, acknowledging that it did provide more incentives (specifically in the rates of relief and the loss relief rules) for SMEs. Interviewees could rationalise this inequity because ‘SMEs account for 90 per cent of total businesses in the UK’. That is, in terms of total number, SMEs were the largest group in terms of population whilst the large companies (who were treated inequitably) were in the minority. However, even though ‘large corporates are a small group, they get most of the benefits’. That is, the sum of R&DR claims by large companies outweighs those by the SME sector as a whole, giving rise to the argument that the large companies were not being disadvantaged at all.
The interviewees uniformly acknowledged the importance of the R&D activities of the large companies. They recognised the fact that the knock on effects of an R&D success by a large company could far outweigh the benefits derived by the collective successes of several SMEs. As one interviewee explained ‘they employ a lot of people and contribute to the economy’. The interviewees shared the view that increasing the R&DR for large companies from 125 per cent to 130 per cent seemed small and would be unlikely to stimulate further R&D expenditure. One interviewee demonstrated that, for large profit making companies, the additional 30 per cent R&DR at the current 26 per cent rate of CT only provided a net benefit of 7.8 per cent (30% x 26% = 7.8%) and was ‘sometimes not worth the effort of a making a claim for relief’. There was some support for the view that the incentives for large companies should be increased, ‘particularly with falling tax rates’. However, one interviewee who acknowledged that ‘the reduction in the CT rate had impacted more on the large corporates’, still believed that there was still a ‘need to maintain equivalent benefit between SMEs and large companies’.

This issue of equity extended to the discussion of the differing treatment of loss-making companies that were engaged in R&D. The deliberations moved from not just inequity between SMEs and large companies, but to whether loss-making SMEs were treated unfairly relative to profitable SMEs. As one interviewee explained, the refundable credit of 14 per cent on losses for SMEs seemed ‘out of line’ when compared to the benefit (based on the current CT rate) of 26 per cent gained by profitable SMEs.

No support was apparent amongst the interviewees for large loss-making companies to have access to a refundable tax credit. This agreed view did not appear to be related to any considerations of equity, but more because it was regarded as unnecessary in order to stimulate R&D investment. As explained, ‘on the large corps front, there is a tendency for loss makers not to bother to make claims – they have other things on their agenda. The time, costs and effort to put in a claim can often be more than the eventual value of the claim’.

The interviewees were consistent in appreciating the ‘tension’ in the R&DR scheme when it came to its ‘fairness and complexity’. They each provided many examples of the complexities of the scheme in practice. Most of these examples related to fulfilling the legislative requirements (and in turn explaining them to clients) in determining eligible R&D activities and qualifying costs.
In terms of the activity itself, most of the interviewees highlighted the difficulty in determining when an ‘advancement’ made by a company represented an advancement for the industry rather than a competitive advantage for the company itself, and was thereby an eligible R&D activity. As one interviewee explained the ‘practitioner has to play devil’s advocate. You have to be able to rely on the client’s assessment of their activities as to whether they qualify as R&D’. Similar views were expressed by other interviewees with one explaining that ‘entrepreneurs are initially enthusiastic about the R&DR scheme until you ask them “are you an SME”? The client understanding of the definition is not equivalent to the definition of the scheme’. However a point of difference was made by one interviewee (the most experienced of those interviewed) who felt that the definition of a qualifying R&D activity should not be changed, that it was ‘better if it is narrow, as is’. There are two simple questions to be put to clients. Are you seeking to resolve technological uncertainty? Are you seeking to advance technology?.

One interviewee believed the distinction between ‘research’ and ‘development’ was blurred. ‘Research is the blue sky part and development is making the idea work – this part represents 90 per cent of the team’s business”. However, in practice many companies have difficulty distinguishing R&D from production activities. As explained by another interviewee, ‘I understand the need to draw the line between production and research, but more agile methods are needed these days. It should be looked at on a case by case basis. Businesses can actually go back and forward between the two states and there can be a duality of purpose’. That is, an item which is the outcome of R&D could eventually be realised for cash and thereby become a ‘product’. This renders invalid a claim for R&DR and was regarded by at least one interviewee as being an ‘unfair outcome’.

Interviewees consistently raised the complexities surrounding qualifying costs and the time involved in resolving them, including the lack of clarity in some of the definitions (e.g. consumables) and the collection of necessary evidence to enable apportionment in the case of mixed costs. ‘Qualifying costs are an issue and there is a need for greater simplicity. There are difficulties in putting the rules into practice, getting into the detail. Calculating the apportionments can take a lot of time and sometimes the view is taken not to claim these at all.’ These concerns about the complexities of apportionment were consistently stronger in the case of indirect than direct costs, though it was recognised that they had different impacts on different organisations.
There was also some discussion about specific examples of costs that were regarded as particularly complex or unfair. Several interviewees raised the issue of the restriction regarding externally provided workers (i.e. contractors or agency workers) which sometimes meant essential members of the R&D team fall foul of the rules. The anti-avoidance intention of the rules was understood, but it was felt that they were ‘discriminatory’ in the case of SMEs seeking R&DR. ‘More simplicity is needed and greater sensitivity to commercial practice when it comes to dealing with the problems around contractors’; and that the legislative fix required to achieve the right outcome was not difficult.

Two interviewees felt strongly that rent and telephone costs seem obvious R&D expenses that should be claimable. However, one interviewee was not keen on extending the rules to include rent or rates as ‘you would be going too far and couldn’t draw the line’. Benefits-in-kind (e.g. share options) are also currently excluded, but in practice they are an important enticement to attract and retain key R&D staff. Similarly, ‘consultancy on R&D should be included in the qualifying costs - it’s ‘directly’ involved’.

Although sharing similar concerns about the significance of the problem regarding cost complexities, two interviewees sought a different outcome believing instead ‘that a narrower base of allowable items with an increased rate of relief’ would be of greater incentive to SMEs and start ups. The base could be narrowed by ‘getting rid of indirect costs’. This would reduce complexity and make claims more straightforward with less need to study the regulations or engage advisers. ‘Business wants it simple – working out proportions is an issue’. Similarly, another interviewee highlighted that ‘smaller organisations don’t have the back up of large research departments of large companies and so making it clearer and simpler to claim would be appreciated, and some would maintain, make it fairer’.

Three main findings were drawn from this theme. Firstly, the interviewees were strong and consistent in their view that, to incentivise R&D, a simple system was more important than one that was focused on achieving fairness. Secondly, making a system unduly complex meant that companies did not always claim their entitlement to relief. This did not mean that R&D would not still take place, but that the relief would not act as a stimulus. Clearly the identification of qualifying costs (both direct and indirect) and their apportionment was a significant issue in practice and further (simplification) reforms are needed. In this respect the argument for removing indirect costs and increasing the rate of relief appears compelling.
Thirdly, the R&DR scheme was consistently regarded as being more attractive to SMEs than it was to large profitable companies. It was of least attractiveness to loss-making, large companies. The interviewees did have mixed views as to whether or not the balance was right in terms of fairness, but ultimately this balance has to be determined on the basis of how best to achieve the underlying policy objectives and fairness may be a less important consideration.

5.4 The relationship between tax administration and practitioners

The relationship between the HMRC and practitioners was discussed at length in each of the interviews and was generally portrayed in a favourable light. For example, the HMRC position has changed, they are more positive now and being more pragmatic’; ‘the outreach work of HMRC has been very helpful’ (this includes speaking at trade and business sector conferences and writing for specialist journals); and ‘HMRC have set up seven specialist units. This has made a brilliant difference. I am a fan of the HMRC’. Another interviewee also noted that the HMRC specialist units ‘are very effective. They promote R&D. For example, they ring you to say you haven’t maximised your claim’.

A slightly different opinion was expressed by one interviewee who agreed that the seven specialist units was a ‘very positive move, but their views are not always consistent. You have no control over where the claim goes or which HMRC inspector will assess it. The larger companies have a customer liaison officer in HMRC, you can bounce ideas off them. The smaller companies won’t necessarily approach HMRC in advance and in the first year your claim is not assigned to a specialist unit.’ Further, ‘there can be problems with HMRC in processing claims. It normally takes 2-4 weeks, but claims made in November/December can take up to 3 months to be processed’. The point was also made that in some areas (e.g. technology) making claims for R&DR was ‘hard’ as ‘the HMRC inspectors don’t necessarily understand the language’.\(^{59}\)

Further positive aspects of HMRC efforts in terms of the R&DR were the materials (including worked examples) published on its website; and the provision of advance assurances. ‘Agreeing claims up front with HMRC is a good idea. The client gets certainty and can put together a tax plan. They feel comfortable knowing the agreed level of the

\(^{59}\) This view is supported in the literature, see note 15.
One aspect in which the interviewees expressed points of similarity as to where the HMRC could be more effective was in respect of the promotion of the scheme. ‘The HMRC need to work on improving awareness of the scheme. For example, it could target trade associations, relevant industry groups and small practitioners’. In the words of another interviewee, ‘the scheme could be pushed more, not limited to any one sector. More publicity is required. For example, the food and construction industry generally don’t see themselves in this space but they could be. People don’t always recognise that it applies to them’ and ‘could the name be changed to something like ‘innovation’? More SMEs may see themselves as being engaged in innovation where they do not see themselves as being engaged in R&D.’.

There were two findings drawn from this theme. Firstly, an enabling, supportive approach on the part of the HMRC has been effective in engaging the interviewees in a positive working relationship. Secondly, there was still further effort required on the part of HMRC in promoting the R&DR scheme.

5.5 Accounting for the ‘super deduction’

The practice of deducting the ‘super deduction’ after the calculation of net income is regarded as a ‘below the line’ accounting adjustment. There was limited support amongst the interviewees for moving this adjustment to ‘above the line’, particularly in the case of large companies (i.e. not 100 + 30 = 130%, but simply one adjustment of 130%). That is, the additional saving in CT would then be directly attributable to R&D departments and the net investment by the company in R&D reflected more accurately internally. It was recognised that ‘in large business ‘above the line’ would improve the visibility of R&D support which the finance team may otherwise overlook”. Further, ‘above the line’ accounting for R&DR would mean that the relief was not ignored or disregarded in investment calculations and decisions. While there are some supporters in the UK of a shift to ‘above the line’, the interviewees were not convinced it was necessary. They did not see it as making a difference to SMEs as they were generally aware of the net cost of their R&D activities. Further, one interviewee felt that a change to ‘above the line’ in practice could cause a problem with public sector contracts as they can be written based on charges being a percentage of the costs. If the costs are reduced by R&D relief under the ‘above the line’ approach then the

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60 For example, see Campaign for Science and Engineering (CaSE), 2011, “CaSE response to R&D Tax Credits Consultation”, available at http://sciencecampaign.org.uk/?p=7034 [accessed 26 September 2011].
benefit would not be returned to company claiming the relief, but to the customer. Future contracts could be amended to reflect this although it could be an issue for on-going and current contracts.

The main finding from this theme was that accounting for the ‘super deduction’ either ‘above’ or ‘below the line’ was an internal accounting issue and not a determinant of R&D investment decisions, particularly in the case of SMEs.

6 Conclusions and recommendations

This article set out to identify lessons for Australia implementing its new R&DTI based on the experience of practitioners who were expert advisors on the UK R&DR scheme (and on which the design of key elements of the R&DTI is based). An overview of the design and administration of both regimes was provided by way of background. Findings were then drawn based on in-depth interviews conducted with expert R&D practitioners in the UK.

The final stage of the research is to identify and discuss the lessons that can be drawn for Australia. Before doing so it is clear from the research that the UK scheme had its weaknesses. Whilst our interviewees did present some points of difference, there were many points of strong agreement, two of which relate to the need for further reform and are emphasised again here in this final part of the article. Firstly, that the R&DR scheme is overly complex (particularly in respect of eligibility rules and qualifying costs) and this diminishes the incentivising impact of the relief on the investment in R&D. A range of reform strategies were suggested by the interviewees, the most compelling (in term of simplification without compromising what the R&DR could deliver in terms of outcomes) was to narrow the qualifying cost base (i.e. exclude indirect costs) and increase the rate of relief. Of course this does not resolve all the complexity issues (e.g. eligibility of and R&D activity) but it would make a significant contribution towards simplification of the R&DR scheme. Secondly, the R&DR scheme offers greater incentives to SMEs (compared to large companies) and that further incentives (i.e. increasing the super deduction to more than 30%) for large profit-making companies could reap significant rewards (exponentially) for the UK economy and should be considered carefully by policymakers. At the same time, policymakers needed to be mindful of the impact of a falling CT rate on the net value of the relief to claimants.
James Dyson described the implementation of the UK R&DR as “botched” and “lacklustre. It has been characterised by complex eligibility criteria, constantly changing rules and a profound lack of understanding of how research and development occurs in companies.”61 Elements of Dyson’s criticisms are apparent in the interviewees’ comments, although the interviewees were more positive about the HMRC. It may be that the HMRC has improved its performance post the Dyson Report. There is clearly evidence of a greater willingness to engage with practitioners and businesses and an indication that reforms will take place as a result.62

In terms of lessons for Australia, four main conclusions are drawn. Firstly, the imperatives for stimulating investment in R&D, or innovation, seem obvious from policy and economic perspectives. Yet it is easy to lose sight of them at the ground level when one is facing the inevitable inequities that can arise when one group appears to be more favoured than another for whatever reason, often because of the effectiveness of lobbyists. The lesson here is that policymakers need to keep focused on what they expect the R&DRI to deliver and let this drive its design (including the incentive rates) and implementation. Fairness should not be the main aim; it must be about how best to achieve the desired outcomes, and this requires, amongst other things, a very careful consideration of the rate of incentive and to whom it is to be provided. When comparing the two regimes, both appear to be aiming at providing greater incentives to SMEs compared to large companies. However the rate of incentive to SMEs is quite different (i.e. 225% deduction in the UK compared to 150% deduction in Australia).63 Further, the 100 per cent immediate write off for capital expenditure in the UK is far more attractive that the capital allowances provided for in Australia. Is the Australian rate too low? Is the direction of greater incentives to SMEs appropriate? Are more incentives needed to encourage investment in capital expenditure in R&D in Australia? Time will tell, but there must be concerns even at this early stage that, based on the UK experience, the Australian R&DRI regime may not achieve its policy objectives.

61 Dyson Report, p.53, see note 10.
63 Perhaps another lesson here for the UK from Australia may be to consider quarterly payment of tax credits to SMEs to improve cashflow.
The second lesson must be the need to pursue simplicity. That is, how to deliver the policy outcomes without imposing unnecessary and unproductive compliance costs on both taxpayers and the tax administration. This is not just about the wording of the law and definitions, but about their ease of application and the administrative processes involved. For example, one of the aspects of the UK system that did cause concern for practitioners was the ability of HMRC to determine eligible R&D activities. In the Australian case this equivalent function is undertaken by AusIndustry (where the R&D expertise resides), rather than by the ATO. It may be that this is a lesson that the UK can take from Australia. Another very pertinent example was in the apportionment of qualifying costs where the drilling down and evidentiary requirements were so tedious that they can outweigh the benefits to be derived from the relief.

Another aspect of simplicity is that additional reforms add to complexity and together with the ongoing process of consultations can create uncertainty. This does impact on practitioners and adds to the compliance costs of all parties, but more fundamentally, it may act as a deterrent to would-be investors in innovation, and thereby undermine achievement of the underlying policy objectives. Similarly, uncertainty can be created by Government making policy announcements ‘on the run’ or prematurely. The change in start date of the R&DTI in Australia is a good example of this, as is the fact that the legislation is now in place but many of the supporting regulations and guidelines are not expected to be available until 2014.64

The third lesson is the importance of the tax administrators in promoting the scheme, both directly and indirectly, and in particular, by engaging practitioners. On one hand it seems logical that this could be more easily achieved if it is in the hands of one department (i.e. HMRC as opposed to the joint responsibility model in Australia of AusIndustry and the ATO). Yet even in the case of HMRC, it was clear that having appropriate expertise was problematic. There is no reason that joint responsibility cannot work provided that responsibility is taken; and that communication and feedback channels are in place, together with appropriate review mechanisms. It is clear that AusIndustry and the ATO will have to work together strategically and very effectively to play their part helping deliver on the policy objectives of the R&DRI. The message promoting the incentives of investing in R&D must be clear, loud and consistent; and pro-actively spread and reinforced as widely as possible.

64 See note 9.
Finally, as is the case with all research, there are inherent strengths and limitations which need to be considered. In this case the main strength is drawn from the in-depth interviews which have added not just a practical perspective to the research, but also a richness of understanding of the issues in incentivising R&D from experts in the field. Their invaluable contribution to the research is gratefully acknowledged. Further, the ability to look closely at another regime of similar design does enhance the relevance of the research to Australia. The limitations include that qualitative research by its very nature is subjective and the results are unable to be generalised more broadly. It is believed that the technique of comparative analysis used has added some rigour in this respect; and that evidence from other sources as presented throughout the article does support many of the findings drawn from the in-depth interviews. It is accepted that the number of interviews conducted was small and that they were conducted within the one accounting firm. Resourcing and availability constraints played their part. Further, it is always problematic to compare tax systems which are not identical and are in different jurisdictions with their own idiosyncrasies and are only one element of more comprehensive government policies. In spite of these limitations, it is believed that the research does make an important contribution to the literature on striving for improvements in policy and administration to stimulate research and development through the tax system. Further research could ideally be directed at a similar comparison, say in five years time, to determine whether the lessons have been learnt and progress made in stimulating investment in R&D that will be innovative, improve respective global competitiveness, and drive economic growth in both the UK and Australia.

65 For example, see the Dyson Report at note 10; Walpole and Riedel at note 15; and HM Treasury at note 30.