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16 March 2020

Attention: Mr Mark Fitt
Committee Secretary
Senate Economics Legislation Committee
PO Box 6100
Parliament House
Canberra ACT 2600

By email: economics.sen@aph.gov.au

Dear Senators

Inquiry into the provisions of the Treasury Laws Amendment (Research and Development Tax Incentive) Bill 2019

Chartered Accountants Australia and New Zealand (CA ANZ) appreciates the opportunity to provide our comments on the Treasury Laws Amendment (Research and Development Tax Incentive) Bill 2019 ([the Bill](#)) to the Senate Economics Legislation Committee (the Committee).

On 6 February 2020, the House of Representatives referred the provisions of the Bill for inquiry and report by the Committee by 30 April 2020.

The Bill contains three schedules and seeks to implement the legislative measure '*better targeting the research and development tax incentive*' from the 2018-19 Budget, with amendments relating to the application date and the tax offsets. According to the [Explanatory Memorandum \(EM\)](#), the Bill aims to "reform, enhance, and improve the Research and Development Tax Incentive (R&DTI) by increasing its effectiveness, integrity, and transparency".

Executive summary

- This Bill should not be passed in its current form. CA ANZ considers that the proposed R&D changes in Schedule 1 of the Bill would achieve the exact opposite of the core objectives and stated aims of the Bill. We believe the intensity measure is a damaging policy proposal and would do serious harm to the success of both the program and the businesses that are dependent upon its support for their R&D investment.
- Australia can ill-afford such an adverse policy outcome at a time when it is more important than ever for Australia's R&DTI to encourage businesses to innovate in Australia, to attract increasingly mobile capital, to transition urgently to a zero-emissions economy in response to present and accelerating climate change impacts, to spur economic activity in light of the COVID-19 outbreak and potential recession, and to generate business opportunities, employment, intellectual property, technology, knowhow, efficiencies, productivity and income for the benefit of the Australian economy.

- Australia cannot risk our nation’s vital, scarce R&D expenditure being diluted and diverted into grants programs. It is far too important. We cannot afford any lost time nor lost funding or opportunity-cost in the potential situation where critical funding could go to ineligible projects or otherwise be used contrary to the public interest and national innovation objectives. R&D funding must be available based on the rule of law, i.e. legislated in a broad-based tax system mechanism that enables all companies across the economy to participate. The tax incentive’s legislative certainty, fairness and accessibility to all participants is what has made it so successful in the past. We must not lose these program features in favour of a funding mechanism that cannot offer comparable parameters and public transparency that ensures that there are clear, stringent, objective criteria established by law that will be applied and enforced to determine eligibility. All companies must be able to access R&D funding on an equitable basis so that a diverse, creative and socially relevant range of R&D and/or innovations are appropriately supported for the proper public purpose of Australia’s R&D and innovation agenda.
- We call on the Senate Committee to recommend that the Government establish an Innovation Tax Policy Working group to consult with stakeholders on how to integrate Innovation and Science Australia’s (ISA’s) recommendations that broader non-R&D innovation in the economy should be financially supported. Such support could either be integrated into the R&D/innovation tax incentive program as a non-R&D innovation tax incentive or developed and administered separately through another Department. Importantly, the Working Group should also consider how the overall incentive could be aligned with Australia’s ‘missions-oriented’ innovation policy agenda to ensure the big, important goals for our national wellbeing and prosperity are achieved.

Key comments and concerns

This submission seeks to reiterate many of the concerns outlined in CA ANZ’s previous submissions on the earlier iterations of the provisions of the Bill, as well as to raise new matters. Based on our review and analysis, the provisions of the Bill are substantially and substantively the same as they were in the earlier iteration before the Senate. As such, the issues that we have previously raised in our [submission dated 5 November 2018](#) continue to be relevant and applicable.

Our key concerns regarding the current Bill that we wish to either reiterate or raise now for the first time, are as follows:

1. Bill does not address the main concerns of the Senate Committee report

The February 2019 Committee recommendation was that:

“...the Senate defer consideration of the bill until further examination and analysis of the impact of schedules 1–3 is undertaken. In particular, the committee recommends that:

- the approach to the cap on the refundable portion of the Research and Development (R&D) tax incentive is refined, noting investment decisions already taken; and
- the formula for R&D intensity is refined, noting inherent differences in R&D intensity across industries and impacts on businesses with large operating costs.”¹

The Bill fails to address the above two key recommendations of the Committee and the Committee’s other concern regarding retrospectivity of the Bill, for the following reasons:

- (i) **R&D intensity measure** → The intensity measure has been substantially retained in Schedule 1, with only minor tweaks. There has been no re-examination or substantive refining of the formula as requested by the Committee to overcome the “unintended consequences” and “to ensure that Australian businesses are not disadvantaged”², particularly domestic manufacturing companies. In CA ANZ’s opinion, the R&D intensity

¹ Senate Economics Legislation Committee, [Report on Treasury Laws Amendment \(Making Sure Multinationals Pay Their Fair Share of Tax in Australia and Other Measures\) Bill 2018 \[Provisions\]](#) (Senate Report), February 2019, at [2.111]

² Senate Report, n 1 at [2.102] - [2.103], p. 32

regime is a flawed policy with a potentially detrimental impact on the future of Australian Research and Development (R&D). This is because of its likely obliterating effect on eligibility for the non-refundable offset which is the central policy plank of the R&DTI, which in turn drives the majority of Business Expenditure on R&D (BERD) in Australia. This is discussed further below mainly under point 2.

- (ii) **Retrospective start date** -> The new start date is 1 July 2019 (Schedule 1)³ which makes the Bill retrospective in effect. R&D claimants will again be justified in saying that “they have not had enough time to plan for the changes proposed in the Bill and that the retrospective start date would have detrimental consequences for their R&D investments.”⁴ Claimant companies will have planned their year’s expenditure and they are now most of the way through the income year to which the Bill’s new rules will apply with dramatic adverse impacts for many non-refundable claimants. That is manifestly unfair lawmaking, particularly where the existing law is an incentive to incur additional R&D expenditure.
- (iii) **\$4 million cap for refundable offset** -> The Bill contains no response to the request to refine the approach of the cap by taking into account the impact of the cap on existing investment decisions. Although the legislative start date has been deferred by 12 months, the Bill does not contain adequate transitional provisions given the long-term nature of R&D investment. As the Committee recommended, the Bill needed “some finessing to ensure that R&D entities that have already made investment commitments are not impeded unintentionally.”⁵ This has not occurred, and disadvantages start-ups and small claimants in particular. It is also highly unusual for the legislative cap to change the character of the offset (the excess over the cap) from refundable to non-refundable in nature. Offsets exceeding the annual cap should be able to be cashed out in subsequent income years where the annual cap for that respective year is not reached.

2. Bill does not “better target” the incentive and does not increase its effectiveness, integrity and transparency

We now provide a more detailed discussion of the reasons why we consider the measures contained in this Bill are flawed.

2.1. R&D intensity is the wrong policy metric for Australia

The proposed measures in Schedule 1 do not “better target” the R&D tax incentive. The R&D intensity measure will do the exact opposite of what the Ferris/Finkel/Fraser R&D Review⁶ recommended which was to increase additionality, i.e. BERD that may not otherwise occur in Australia.

The recent research report by AlphaBeta⁷ confirms exactly what CA ANZ predicted in our earlier submission to the Senate – that R&D intensity is not a suitable R&D policy design metric for Australia because intensity is a structural issue for our economy, not an intrinsic issue. In our submission on the previous Bill, CA ANZ said:

“... the studies on R&D intensity sound a warning bell for law-makers which cautions against the adoption of R&D intensity as the measure on which to reward and encourage private R&D investment with public R&D support, particularly if the cause of R&D intensity deficiency in an economy is structural. We believe this is the case for the Australian economy, which is closer to the EU in composition, than it is to that of the US or Japan.”⁸ (emphasis added)

³ See Clause 17 in Schedule 1 of the Bill.

⁴ Senate Report, n 1 at [2.8] – [2.10], p. 14, citing submissions by Bio Melbourne Network, Swanson Reed, Fastbrick Robotics Limited, and Australian Information and Industry Association.

⁵ Senate Report, n 1 at [2.101], p. 32.

⁶ Ferris, Finkel & Fraser, [Review of the R&D Tax Incentive](#), April 2016 (3Fs R&D Review).

⁷ AlphaBeta, [Australian Business Investment in Innovation: levels, trends, and drivers](#), 20 January 2020,

⁸ Chartered Accountants Australia and New Zealand, [Submission to the Senate Committee](#), 5 November 2018.

The international corporate R&D intensity research states that “the results of this study clearly show that R&D intensity as a policy target [and comparing different corporate R&D intensity ratios from different economies] should be handled with care, particularly with respect to the policy measures that result from such comparisons.”⁹ (emphasis added)

Critically, it also concludes that the adoption of R&D intensity policy measures will do little to increase a country’s R&D intensity where the cause is structural:

“Generally, if deficient R&D intensity is *intrinsic* in nature [such as underinvestment in particular industries within an economy], it can be remedied by policymakers in a relatively short period. In contrast, if the R&D intensity problem is *structural*, resulting from sectoral composition, it is much less sensitive to governmental policy and broader and deeper longer-term measures will be needed.”¹⁰

When we overlay that with AlphaBeta’s findings in its new report, it is now clear that Australia’s R&D intensity ratios are due to ‘structural’ reasons (sectoral composition and industry mix), not intrinsic reasons (firms’ own level of R&D investment). The relevant findings regarding R&D intensity are:

- Over 90 per cent of the decline in BERD is from structural causes – macroeconomic factors – primarily a decline of mining exploration and development after the boom of the late 2000s – and Australia’s changing industry mix. (at p11 and Exhibit 5)
- Under 10 per cent of the drop was due to other factors, such as declining R&D intensity at an industry level. (at p11 and Exhibit 5)

These findings indicate that the R&D intensity measure will not have a positive impact on intensity but will likely have a dramatic detrimental impact on the volume of BERD generated by non-refundable participants which is world-standard.

The following findings further confirm this:

- Australia’s large firms already invest in R&D at close to the pace of their global peers in the same sector. (at 28)
- However, R&D intense sectors (including information, media and telecommunications (IMT) and manufacturing) comprise less of the ASX, by value, than they do on peer stock exchanges. (at 29)
- If the sector mix of Australia’s large listed firms were to match that of other leading major exchanges, the R&D intensity of the ASX200 would almost double to 6 per cent, almost equal to the averages on those other exchanges. (at 29)
- If the sector mix of Australia’s large listed firms were to match that of other leading major exchanges, Australian large firms’ intangible asset ratio would increase by an estimated 7 percentage points to over 15 per cent, above the averages on those peer exchanges. (at 29)

All of the above findings by AlphaBeta indicate that there is nothing particularly wrong with Australia’s R&D intensity. The issue is with broader economic factors and broader sectoral policy issues (not related to R&D) that would first be required to attract, create and establish those higher R&D intensity sectors, such as IMT and manufacturing, in Australia. CA ANZ supports such an objective, but it must happen in the correct order. To try to ratchet up the R&D intensity thresholds in the R&DTI *before* the broader economic conditions are re-set to create such sectors in Australia would be enormously detrimental to R&D and innovation for Australia.

⁹ Pietro Moncada-Paternò-Castello (2016), [A review of corporate R&D intensity decomposition](#), European Commission, IPTS Working Papers on Corporate R&D and Innovation No 02/2016, at p. 24

¹⁰ Pietro Moncada-Paternò-Castello (2016), above n 9, at p. 25

It is also important to note that R&D intensity is not typically used as a short-term eligibility criteria, but rather as a long-term metric which allows a country to monitor R&D across the economy over time. There are more appropriate indicators of R&D at a more granular level that should be adopted by countries for incentive purposes.¹¹

2.2. R&D intensity ratios are now worse barriers, not better

Intensity-based 'goals' that the Bill sets for large R&D entities are now worse than in the previous iteration of the Bill, not better. They are not just hurdles, but walls. The new tiers make it even harder to access any higher rates than the base 'premium' rate: companies now need intensity of at least >4%, instead of >2%.

This means the government has doubled what was already a huge ask for most Australian companies. Former Tiers 1 and 2 have effectively been merged into new Tier 1, but the premium rate has not increased at all towards the 6.5% figure.

Table 1

Current R&D Bill			Previous R&D Bill		
Tier	R&D intensity range	Intensity premium under current Bill	Tier	R&D intensity range	Intensity premium under current Bill
1	0 - 4% of total expenses	4.5%	1	0 - 2% of total expenses	4.5%
2	>4% - 9% of total expenses	8.5%	2	>2% - 5% of total expenses	6.5%
3	>9% of total expenses	12.5%	3	>5% - 10% of total expenses	9%
			4	>10% of total expenses	12.5%

A further important point to note is that these proposed 'premium' rates are available on an incremental basis only. Only the amount of the expenditure that falls into each bracket receives that premium rate. The premium rate is not volume based, i.e. it doesn't apply to all of an entity's R&D expenditure. We understand that calculations undertaken by our members indicate that the overall intensity rate required in order for companies to be better off under the proposed R&D intensity regime is around 13%.

It should also be noted that the non-refundable offset change applies to companies with a turnover over \$20 million, so this is a not just a big business issue. This change will adversely impact a huge number and wide range of companies.

Apart from the unrealistic intensity ranges imposed, the intensity premium calculation is unnecessarily complex, compared with a simple, single, flat rate, such as that retained for the refundable offset. For companies under the non-refundable offset, the EM explains the proposed entitlement in this way:

"1.33 R&D entities with aggregated turnover of \$20 million or more for an income year are entitled to an R&D tax offset equal to their corporate tax rate plus marginal intensity premiums determined with reference to the R&D intensity of their R&D expenditure on an incremental basis.

¹¹ Rindicate (2008), *A Time Series Analysis of the Development in National R&D Intensities and National Public Expenditures on R&D*, Brussels, at p. 5 and 35

1.34 The intensity premiums in the table ... apply to notional deductions within a range of R&D intensity for R&D expenditure where notional deductions are expressed as a proportion of the R&D entity's total expenses."

The member feedback which CA ANZ is receiving raises a number of questions:

- It is meant to be an incentive, so why design an R&D tax incentive in this complicated way?
- Why make the entitlement to the premium so uncertain, because it is a function of so many variables and unknowns that eligibility for all of the incremental rates, other than the base rate benefit of 4.5c/\$, entitlement is unknown until after the end of the income year?
- Why make the Tier 1 base rate for the premium so low that it is below the marginal value of the incentive (i.e. the viable net benefit) after administration and compliance costs to claim the R&DTI? The net benefit would be a mere 2.5c/\$ after deducting 2c/\$ which is known to be the average compliance cost rate. Compliance and administration costs include registering for the incentive, calculating the eligible R&D expenditure and preparing the claim for all eligible activities. The costs will outweigh the low reward, especially after the risks of challenge by the regulators are considered.

The current R&D tax benefit offering under the non-refundable offset is 8.5c/\$ on a volume basis, i.e. on every R&D dollar spent (net 6.5c/\$), or it is 11c/\$ (net 9c/\$) for companies with a turnover up to \$50 million.¹² The new base premium rate of 4.5c/\$ (net 2.5c/\$), which is only around one third of the current net tax benefit for those companies, 2.5c/\$ net versus 6.5c/\$ or 9c/\$ net.

For these reasons, the R&D intensity regime is grossly unfair for larger companies. The Bill does not fix the unfairness, nor the unintended and discriminatory consequences referred to by the Senate Committee. It arguably makes it much worse, particularly for manufacturing companies that would find the task of reaching the new 4% intensity ratio to get into the Tier 2 rate of 8.5c/\$ practically impossible. Australia will have little hope of establishing a lucrative advanced manufacturing industry based on clean, renewable energy in the future with this kind of R&D intensity regime in place in our R&DTI. This opportunity is discussed further below.

CA ANZ urges the Committee to engage with large Australian companies who have operated under the non-refundable offset arrangements to determine if the above matters will cause them to steer away from R&DTI.

That the government would seek to make such wide-ranging, detrimental changes to the R&DTI at this point in time when the Australian economy, businesses and employees need our R&D and innovation system to be powering along on an 'all systems go' basis, is hard to comprehend.

We note too that these proposed R&D changes are coming at a time of unprecedented and accelerating climate disasters that are directly impacting Australia, as we have seen recently from the horrific Australian bushfire catastrophe.¹³ There is unprecedented urgency for all businesses and government to act in concert by investing and innovating to transition the global economy to net zero emissions by 2050 at the latest.¹⁴ Adapting our infrastructure will also involve huge innovation challenges. Add to this the immediate, shorter-term global health emergency that the COVID-19

¹² The R&D definition of small and large business is now outdated as the turnover threshold for "[base rate entities](#)" from 2018/19 is now at \$50 million for corporate tax purposes, while for R&D it is at \$20 million. This lack of alignment causes a mismatch, complexity and unintended interactions with the corporate tax rates.

¹³ Emergency Leaders for Climate Action, [Australia Unprepared for Worsening Extreme Weather](#): "Ensure continued funding for stakeholder-driven research into how we can respond to, mitigate, and increase resilience to bushfires, natural hazards and escalating climate change risks."

¹⁴ World Meteorological Organization, [WMO Statement on the State of the Global Climate in 2019](#), published 10 March 2020. It includes input from national meteorological and hydrological services, leading international experts, scientific institutions and United Nations agencies. The flagship report provides authoritative information for policy makers on the need for Climate Action. See also the UNFCCC Paris Accord 2015, the international Climate Change Treaty to which Australia is a signatory.

outbreak presents, and the significant impacts it is expected to have on the Australian economy, and it is clear that the proposed changes to the R&DTI is poor policy, right at the wrong time in history.

As Christiana Figueres has written during her recent Australian visit, in responding to the global challenges we face: “Australia can lead and prosper. With political honesty and vision, ambitious targets, and a stubborn commitment to innovation, Australia stands ready to assume its rightful place as a clean energy superpower of the world. With the right choices, the future is bright.”¹⁵

2.3. Over-correction away from large business R&D is a major mistake

In our view, the R&D intensity regime is an ill-judged, massive over-correction of the incentive away from larger companies, potentially a remnant of the historical concern of the size of a handful of very large company’s claims.

However, the R&D incentive had already been re-targeted in 2011 to establish the present R&DTI with its two streams for smaller companies (refundable offset) and larger companies (non-refundable offset). In addition, the introduction of the \$100 million R&D expenditure cap responded to concerns about very large, open-ended claim amounts (now proposed to increase to \$150 million).

In over-correcting further, the proposed changes if enacted would practically decimate the availability of the tax incentive for the majority of large existing R&D claimants, which will likely see them exit the R&D incentive program. This is the exact opposite of what the 3Fs R&D Review recommended which was to increase additionality, i.e. BERD that may not otherwise occur in Australia.

CA ANZ acknowledges, as the Committee puts it, “the importance of innovation across the economy” to ensure “the scheme meet[s] its stated objectives of additionality and spillovers.” We also recognise the need for the government to maintain public confidence in the integrity and financial sustainability of the R&D tax incentive”. However, the Bill as it stands will not achieve these important objectives, in fact, it will make them all much harder to achieve. This is primarily because the bulk of the medium to large business community will lose confidence in the R&D program, they will disengage, and BERD will decline substantially in the non-refundable offset as a result of the R&D intensity requirement.

As can be seen from the discussion in 1 and 2 above, the Bill punishes large Australian business for our economic sectoral structure and for macroeconomic factors outside of their control. It removes the incentive from the very companies we are relying on for our R&D merely because they do not have the R&D intensity of completely different sectors, in completely different countries.

Given that large companies will be so adversely impacted, the following findings by AlphaBeta categorically establish that the Bill does not “better target” the R&DTI:

- In Australia, larger firms are more likely to invest in R&D or other innovation than small firms (p. 25, Exhibit 18 and p. 43).
- Small businesses’ investment in R&D is particularly low, and small firms focus more on non-R&D innovation. (at p. 30 and p. 43)

Having disengaged from the Australian R&D program, we believe that it is likely those claimants with the ability to do so may move their R&D activities and projects offshore, perhaps to New Zealand (NZ) to take advantage of their attractive 15% R&D credit offered on a volume basis, i.e. applicable to every R&D dollar spent, or to other overseas jurisdictions. Together with this ‘overseas flight’ of R&D will go international capital, intellectual property, know-how, GDP growth, tax revenues, jobs, and people/intellectual talent who are needed to solve problems for the benefit of the Australian economy.

In comparison, Australia’s proposed offering is a 4.5c/\$ benefit, which is available only after undertaking onerous intensity factor calculations (giving only a \$2.5c/\$ net benefit after compliance costs), and with higher benefits applicable only on an incremental basis, i.e. to the dollars spent in

¹⁵ [Be honest Australia, you're not 'meeting and beating' your emissions targets](#), an article by Christiana Figueres, published by the Sydney Morning Herald, 9 March 2020

excess of each intensity threshold. Due to all of these design elements, the proposed new so-called “R&D Premium” does not live up to its name and is certainly not internationally competitive with NZ or most other countries.¹⁶

As shown in Table 2 below, BERD under the non-refundable offset constitutes the majority of Australia’s BERD (52.5%) despite being generated by only 19.5% of the total participants. In terms of ‘bang for buck’, for \$0.5 billion in (gross) program costs, Australia receives program participation to the tune of \$6.4 billion in eligible BERD. There is a correlation between BERD and long-term productivity growth, according to the [OECD research](#).

BERD is also known to produce a range of advantageous spillovers and supporting such expenditure with public investment is known to increase additionality. ‘Additionality’ is R&D expenditure that otherwise would not have occurred or would have occurred but not in Australia.

On this basis, we refute the suggestion by the government, repeated in the Committee’s Report, that the R&DTI in its current form is falling short of these aims and objectives and that therefore there is “a need to reform the R&D tax incentive”, at least in the manner proposed. CA ANZ does however accept that it could be enhanced, and complemented by a broader innovation program, as discussed further in 3. below.

The Committee’s inquiry on the first previous Bill found, “on the weight of evidence presented, ... the bill should not proceed until there is further consideration of the R&D tax incentive measures.” We believe there is nothing new that changes this conclusion, and only further reasons, as discussed above and below, why the current Bill should not be passed.

2.4. Poor and unstable R&D policy settings cause uncertainty and R&D underinvestment

Australian BERD has been headed in the wrong direction, since its peak in 2008-09 when it was at 1.37 per cent of GDP. AlphaBeta report notes that BERD has since declined to 0.94 per cent of GDP in 2017-18, which is well below the OECD average of 1.67%. BERD has decreased by 12% from \$18.8 billion (2013-14) to \$16.7 billion (2015-16). (at 10) According to the [Global Innovation Index 2019](#), Australia has recently fallen out of the world’s 20 most innovative economies, now ranked at 22nd.

While AlphaBeta’s report illustrates the primary structural economic reasons for the decline in BERD, it also suggests that part of the cause of underinvestment in R&D within industry sectors is due to policy uncertainty. The report says that policy changes to the R&DTI may have prompted some firms to cut R&D and that perceptions of announced but unlegislated policy changes could also change innovation effort, although they say it is difficult to quantify the extent of such impacts on the overall BERD rate. (at 16 and Exhibit 11)

CA ANZ agrees with these observations and has long promoted the critical importance of policy certainty for the R&DTI. ‘Investment grade’ certainty is needed for firms to make the kind of long-term investment decisions required to embed deep, high quality, high value innovation programs into their business strategies and operations.

In 2008, Australia’s BERD was right on the OECD average of R&D spend to GDP. CA ANZ considers that a significant contributor to the declining BERD to GDP intensity ratio has been the constant reviews and policy uncertainty that has plagued the R&DTI policy since that time. This started with the Cutler Review in 2008 when R&D intensity was at its peak. De-stabilising and weakening the R&DTI policy has only worked to materially diminish Australia’s R&D spend.

For proof of how policy uncertainty can completely paralyse long-term investment commitments, we need look no further than the Australian renewable energy sector. The analysis in the Clean Energy Council’s new policy paper [Australia’s clean energy generation investment outlook](#) finds that “while large-scale renewable energy no longer needs subsidies, long-term policy certainty and regulatory reform are crucial to giving confidence to investors”. The Clean Energy Council says that investors’

¹⁶ For example, see the Table of comparative international R&D tax incentives in this [article on Deloitte’s submission on the Bill](#), dated 5 March 2020.

enthusiasm for Australian wind and solar projects has been tempered due to a lack of national policy, growing threats of government interference in the energy market and a range of out-of-date regulations.” With no energy or climate policy to replace the large-scale Renewable Energy Target (RET) from 2020, “financial commitments in new renewable energy projects reached a high in late 2018 but have since collapsed to [less than one fifth] in each of the first two quarters of 2019.”¹⁷

The situation for R&D investment is no different. Simplicity and certainty must prevail. The proposed R&D intensity regime will obscure claimants’ ability to know with certainty (let alone the government, the public or anyone else) whether they will qualify for the incentive, even in the income year they are currently in. The complex calculation will also obscure the regulators’ ability to audit and assure compliance by claimants, and complexity often introduces opportunities for intentionally or inadvertently uncovering unexpected loopholes in the rules which can cause unpredictability for program budgets.

The key lesson from the RET, one of the most effective technology investment policies of all time in Australia, is that its success as a policy was due to its simplicity, long-term certainty and bi-partisan support. The uncertainty, tinkering with and undermining of Australia’s long-standing, successful, flagship R&D policy must stop. So too must the trend of de-funding the R&DTI. Australia’s public investment in R&D must increase, not decrease. According to the IMF, “Governments in many countries should do more to promote R&D, for example, by providing well-designed subsidies and tax incentives. If R&D were lifted by 40 percent, GDP could rise by 5 percent in the long term.”¹⁸

2.5. Proposed R&D intensity does not position Australia for future challenges

The [OECD Science, Technology and Innovation Outlook 2018: Adapting to Technological and Societal Disruption](#) warns that there are several disruptive drivers of change facing economies. These include “the ongoing slowdown in productivity growth, despite widespread technological change; rapidly ageing populations; the impacts of climate change, and the resulting need for mitigation and adaptation; and globalisation and the growing role of emerging economies.” Many of these drivers pose “grand societal challenges”, e.g. around healthy ageing, clean energy and food security. In a new era of “mission-oriented” innovation policy, Governments around the world are seeking to redirect technological change from existing trajectories towards more economically, socially and environmentally beneficial technologies to align with the Sustainable Development Goals (SDGs).

However, the OECD flags that current trends in public R&D spending may not be commensurate with the corresponding ambition and challenges, with OECD government R&D expenditures stagnating or decreasing since 2010 in absolute and relative terms to GDP.

Achieving ‘additionality’ in the context of R&D refers to the policy objective of inducing additional private R&D expenditure by contributing public investment in R&D. The OECD research reveals that generally “across countries, R&D intensity in the business sector has a positive correlation (0.3) with the level of government support to business R&D”.¹⁹

That is, generous public R&D investment is needed to induce productive flows of private R&D investment. The intensity measure will do the opposite.

AlphaBeta’s research more broadly provides strong support for the position that the current R&DTI is successful despite its relative state of flux - that the flat rate incentive is a clear signal to the market and is delivering on the aims and objectives of the program such that Australia’s R&D performance is comparative with peers globally:

¹⁷ Clean Energy Council, [Renewable energy investment slows as policy uncertainty and regulatory challenges mount](#), 11 September 2019

¹⁸ International Monetary Fund (IMF), [Fiscal Monitor – Acting Now, Acting Together](#), April 2016

¹⁹ OECD (2017), [Technology and Industry Scoreboard 2017: The digital transformation](#), OECD Publishing, Paris.

- About half of Australian business innovation investment is likely to have been “R&D” – \$17 billion or just under 1 per cent of GDP.²⁰ [This is what is at risk if the R&D program is adversely impacted]
- Australia invests more in R&D than our global peers do in many sectors. But we are not competing as intensively **in arguably the most lucrative parts of the global innovation race.**²¹

Again here, AlphaBeta are pointing to the structural issue that Australia has in our economy. If we wish to vastly increase our R&D intensity as the Bill is contemplating, we need to get ourselves into the global innovation race in exponential growth sectors, such as advanced manufacturing, IMT, energy sector innovation such the renewable energy integration / transition technologies and systems, and zero-emissions industrial processes. Anna Skarbek, a former investment banker and a founding director of the Clean Energy Finance Corporation, said that achieving net zero would require dialling up progress on the known technologies and “vastly scaling up carbon sequestration through forestry to buy us time **to also scale up the research and development for the residual emissions**”. (emphasis added)

The Australian economy is one of the most carbon-intensive in the world, and the decarbonisation challenges ahead are not to be underestimated or delayed in their implementation.²² Skarbek says: “If we want to achieve 1.5C instead of 2C warming, which we know from the science, 2C is exponentially worse than 1.5C, to do that, we can’t afford any of these areas to be going slower than they could. It’s all in.”²³

2.6. Overlooks need to strategically contain growth of refundable offset

Apart from the new \$4 million cap, the Bill fails to consider other mechanisms to rein in the growing costs of the refundable offset to the Budget. Since the R&D program was significantly retargeted towards the refundable offset in 2011, the refundable offset has been the fastest growing part of the R&D program cost.

The proposed measures should be more focused on strategically defining and containing the expanding amount and volume of the refundable offset. In addition to scope and design issues, integrity measures that address the refundable component of the program will help reduce any highly questionable R&D claims (to the extent such claims exist), and this will likely have a material impact on the overall cost of the program.

The rate of the RDTI and whether it is refundable or not depends primarily on the R&D entity's aggregated turnover. Broadly, if a company's aggregated turnover is less than \$20 million, then it can claim the 43.5% refundable tax offset. If aggregated turnover is \$20 million or more, then the business can claim the non-refundable 38.5% tax offset (8.5c/\$ benefit).

Under the refundable offset, for \$2.5 billion in program costs, Australia generated \$5.8 billion in BERD. Additionality may be greater for smaller claimants under the refundable offset, however so too is the increasing risk of the program costs growing unpredictably in trying to generate this additionality. We need to ensure the additional risks being taken with the program are worth the reward, and balance those two things. The risks include the program's financial sustainability, as well as its integrity as refundable offsets tend to attract more fraudsters and promoter of schemes because of the cash payouts. Under the refundable offering, the difficulty is managing the program budget due to its generous R&D benefit and its open-ended nature.

²⁰ Australian Bureau of Statistics. ABS publishes BERD statistics every two years. Australian businesses invested \$16.7 billion in R&D in 2015-16 (1.00 per cent of GDP) and \$17.4 billion in 2017-18 (0.94 per cent of GDP).

²¹ AlphaBeta, n 7, p. 3

²² [‘Australia’s electricity market must be 100% renewables by 2035 to achieve net zero by 2050 – study’](#), article by Katharine Murphy, published by the Guardian, 26 February 2020

²³ Katherine Murphy, n 22.

The \$4 million annual cap would not necessarily fix this issue as the majority of small claimants will be well below that annual cap but claiming at least 38.5c/\$ for every dollar spent on a growing R&D spend. This could see the refundable offset costs continue to grow into the future as the vast majority (over 80%) of claimants and cost fall in the refundable category.

Note the estimated cost in the table below for the refundable offset is based on start-ups and micro-companies cashing out the full 43.5% tax offset. The actual cost is likely somewhat lower as a portion of the refundable claimants are in profits with tax payable and therefore only obtain a 16c/\$ net benefit. A breakdown from the ATO would be required to understand the number of refundable offset claimants in tax losses versus profits. We believe that the vast majority of funds are directed to start-ups and micro businesses who can claim the 43.5c/\$ benefit.

We anticipate that only a small proportion (around 10%) of claimants and program funds relate to companies with turnover above \$50 million. We recommend that the Committee seek to obtain better data from the ATO on the full breakdown of claimants with company turnover in the large (>\$50 million), small to medium enterprise (\$50 million or less), and start-ups.

Table 2

Current Cost of Program (AusIndustry data FY18)*				
	No. of claimants (%)	R&D Expenditure (%)	Effective R&D tax offset benefit	Cost of Program (%)
Refundable offset	11,454	5,800,000,000	43.5c/\$	2,523,000,000
< \$20 million turnover	(80.49%)	(47.5%)		(82.26%)
Non-refundable offset	2,777	6,400,000,000	8.5c/\$	544,000,000
\$20 million turnover or more	(19.51%)	(52.5%)		(17.74%)
	14,231	12,200,000,000		3,067,000,000

* Source: R&D Roundtable Presentation - [Program Performance](#), November 2019.

For this reason, the introduction of the intensity requirement for non-refundable claimants will not achieve the government's desired effect of containing the overall R&D program costs. Consequently, savings will likely be sought to be achieved by an increasingly narrow administrative interpretation of eligible R&D activities by AusIndustry, contrary to the objectives of the program. Improperly curtailing the scope of the incentive through unduly narrow interpretations and is not the appropriate way to contain the refundable offset.

It is common knowledge that a trend of this nature in the administration of the program is already being experienced by claimants and advisers, and feedback from our members supports this. We are concerned that the proposed amendments in the Bill will only put more pressure on AusIndustry to interpret the incentive in this manner, with many more unintended and unfair outcomes for small business claimants as the result.

Following a range of complaints from small businesses, the Australian Small Business and Family Enterprise Ombudsman (ASBFEO) conducted a [Review of the Research and Development Tax Incentive \(R&DTI\)](#). The review comprehensively investigated the experiences of small and family businesses that have claimed the R&DTI. It recommended that “this important incentive be retained and a suite of reforms made to the way the system is administered.”²⁴

In its press release, the ASBFEO said that “[o]ur report found *there has been a shift in the interpretation of the R&DTI legislation, narrowing the focus and leading to more claims being rejected, particularly in the area of software innovation*. Both the ATO and AusIndustry have heard these concerns and have pledged to update their approach to R&DTI compliance checks to ensure better communication guidance and education.” (emphasis added)

The ASBFEO’s report is revealing and includes, by way of evidence of this, a detailed “analysis of the R&D legislation and application of the 2015 Frascati Definition to R&D in the development of software” at Attachment B, as well as an analysis of AusIndustry’s failure to date to consult on the implications of the landmark *Moreton Resources* Federal Court decision²⁵ on the scope of “experimental activities” for the “purpose” of generating new knowledge in the form of new or improved materials, products, devices, processes or services, at Attachment C of the report.

As set out in the ASBFEO’s report “the Full bench of the Federal Court decided in favour of *Moreton Resources* and agreed that the application of the law by ISA was incorrect. This was because ISA was incorrect on the nature of the tests to determine what is R&D and it was wrong on limiting the purpose of R&D to ignore that the new knowledge can be in the experimental development of materials, products, devices, processes or services.” (Attachment C, p. 41)

By distinct contrast however, the Bill, together with the latest report by ISA, and AusIndustry’s approach are sending some mixed messages which seem to cast an ominous shadow on the future of software innovation in Australia, because it is unclear exactly how the government intends to provide financial support for such projects to either small business or large business. At this stage it appears that AusIndustry is categorising software innovation primarily as “non-R&D innovation” which is not eligible R&D.²⁶ Yet, the ASBFEO’s findings do not support that conclusion. In addition, as we can see from AlphaBeta’s report, developing a successful IMT sector in Australia will be a critical part of realising future economic success and international competitiveness.

CA ANZ believes that the R&DTI is the appropriate funding mechanism for innovative software-related projects and that the joint regulators’ approach needs to be reviewed and re-considered in active consultation with stakeholders to resolve the unacceptable uncertainty and ambiguity surrounding the eligibility of software R&D claims.

2.7. Does not incorporate the latest ‘innovation’ research or recommendations into the incentive

The most recent innovation research report by AlphaBeta, commissioned by the Department of Industry, Science and Energy (the Department), January 2020, makes the point that there is a lot of business innovation being undertaken which does not qualify as R&D, but which warrants consideration for financial support.²⁷ The study found that smaller businesses do more innovation than R&D, and that larger businesses do more R&D than smaller businesses.²⁸

²⁴ [Ombudsman recommends sweeping changes to R&D Tax Incentive administration](#), press release by the ASBFEO, 12 December 2019

²⁵ *Moreton Resources Limited v Innovation and Science Australia* [2019] FCAFC 120

²⁶ [R&D tax interpretations are ‘ludicrous’](#), article by Denham Sadler, published by InnovationAus, Public Policy and Business Innovation, 2 March 2020

²⁷ AlphaBeta report, n 7, p. 40

²⁸ AlphaBeta report, n 7, pp. 25-26, Exhibit 18, and p. 30

In its separate Strategic Statement, ISA has recommended that the government “rebalance its policy mix to support business investment in both non-R&D innovation and R&D, specifically with significant additional support for non-R&D innovation for a defined period, say, 5–10 years.”²⁹

CA ANZ supports the recommendation to consider how to support innovation more broadly. However, the research findings in the AlphaBeta report, do not provide support for the proposed amendments to the R&D program contained in the Bill. To the contrary. Under the Bill, the entitlement to the greatest portion of the R&D program funding is effectively being redirected to smaller businesses who, as the study confirms, do not do as much “R&D”. This quite frankly defies reason, logic, the evidence and good tax policy design, as it means that neither small nor large business will be properly supported with appropriate financial funding by the Bill.

Similarly, ISA’s other three Strategic Recommendations have not been reconciled with nor incorporated into the Bill, in particular, Strategic Recommendation 2 – “ISA recommends that government and business prioritise the key growth sectors”. The two high growth sectors with the highest amount of R&D-intensity according to the AlphaBeta report³⁰ are IMT and advanced manufacturing. Undermining the ability of the R&DTI to support innovations in these lucrative, productivity-enhancing but to date illusive sectors in the Australian economy, by labelling it as pre-determined ‘non-R&D innovation’ is a confounding approach.

The Bill and ISA’s Strategic Statement feel like poorly considered policy development on the hop, as the principal changes are not supported by the experts’ report on which ISA is purporting to justify the policy mix rebalance.

The government has long told advisers and the business community that ‘business as usual’ (BAU) activities are not intended to be supported, even though they may be innovative. They have also suggested that businesses have been rorting the incentive by claiming it when it is not the kind of “genuine R&D” that they wish to support. Now, the Department has released evidence by AlphaBeta that supports a policy change to potentially fund in some way innovation in a broader sense because it is a desirable activity.

To our mind, these new findings are insightful, and we agree that it makes sense to consider how the government could support broader business innovation activities. However, for the purposes of the present Bill, we consider that the research findings contradict the government’s own policy rationale in the Bill to redirect the best part of the R&DTI funding towards smaller businesses. This is even more true if ISA considers the bulk of software claims by this group of claimants to be ineligible as R&D.³¹

Therefore, particularly in light of this research, the Bill should not be passed in its current form. Instead, the following should occur so that we can achieve evidence-based policy making:

- (i) the R&DTI policy should be reconsidered in consultation with all stakeholders,
- (ii) the scope of the tax incentive should be broadened to cover both traditional R&D and the new category of innovation;
- (iii) the provisions of the R&DTI should be re-designed as appropriate;
- (iv) the new definitions of desirable innovation activities should be developed;
- (v) the incentive should be aligned with Australia’s ‘missions-oriented’ innovation policy agenda to ensure the big, important goals for our wellbeing and prosperity are achieved; and
- (vi) the overall funding increased to support this broader set of economic activity that is considered to be valuable R&D and innovation.

²⁹ Innovation and Science Australia (ISA), [‘Stimulating business investment in innovation’](#), February 2020, p. 11, Strategic Recommendation 1

³⁰ AlphaBeta report, n 7, p. 21 (Exhibit 13)

³¹ ISA, Strategic Statement note 29 above: “These investments are in non-R&D categories such as enhanced business models, marketing and branding, productivity-enhancing technologies (including software and systems) and intellectual property acquisition.”, p. 11.

3. Bill's financial impacts - misrepresenting costs and undervaluing benefits of R&DTI

3.1 Program costs are offset by broader tax system revenues and adjustments/clawbacks

The ASBFEO recently acknowledged that “discussions about the cost of the R&DTI program do not take into account the flow through to increased employment and resulting PAYG(W) deductions. The figures are often quoted before offsetting deductions and before feedstock is calculated. Thus, there is not a true account of the ‘net’ cost of the R&DTI.” (ASBFEO R&D Review report, p.12)

In the 2018-19 Budget announcement in May 2018, the Federal Government raised concerns about the cost of the program and introduced measures to cut the cost of the program, in these terms: “We are cracking down to ensure that R&D tax incentives are used for their proper purpose, with enhanced integrity, enforcement and transparency arrangements, saving taxpayers \$2 billion over the next four years”.

The government estimates that the Bill will save \$1.8 billion over four years.³² However, the annual cost of the program is substantially less than reported as the reported figures do not take into account that the incentive is a ‘timing’ benefit which is later recouped through taxes paid when companies are profitable, combined with reduced depreciation and other mechanisms:

- Flow on reduction to franking credits³³ which result in dividend recipients paying more tax: The R&D Tax Incentive reduces tax payable by the company undertaking the R&D, but this tax saving reduces the ability of the company to fully frank its dividends. This means that the R&D incentive effectively becomes a *timing benefit rather than a permanent benefit* because a shareholder who receives a partially franked dividend as a result of R&D tax savings ultimately reimburses the incentive through their personal tax liability on the dividend;
- Corporate income tax, personal income tax, and other taxes such as State payroll tax paid as a result of expenditure on R&D activities;
- Corporate tax amounts paid by all smaller companies in tax payable position (because the ‘refundable offset’ records the full offset, i.e. 43.5c/\$ even where the company is tax-paying and therefore only receives the net benefit of 16c/\$); and
- Amounts ‘clawed back’ under the feedstock and grant clawback provisions.

All of these amounts effectively reduce the cost of the program but are not included in Treasury modelling.

We understand that senior innovation sector leaders such as Dr Alan Finkel have also acknowledged this issue with stakeholders, yet despite this none of the above important positive budget impacts of the program have been accounted for in Treasury’s modelling of the cost of the program.

Our concern is that the government may have focused on a figure that is exaggerated and inaccurate.

3.2 De-funding the incentive to go to consolidated revenue for grants? – losing the heart of R&D

As the EM confirms, the proposed measures will lead to the R&DTI being de-funded by an estimated \$1.8 billion over 4 years.³⁴ Disappointingly, these ‘innovation dollars’ are proposed to be [returned to consolidated revenue](#), rather than being retained and redirected for innovation funding. The ‘re-balancing’ of the policy mix may lead to direct grants programs for R&D and/or innovation instead of the tax incentive. We strongly caution the Committee that such a move is likely to achieve much *less transparency* around the funding of R&D, have much *less integrity*, and is likely to be far *less effective* by attempting to ‘pick winners’ in innovation. Innovation is an organic process and, by virtue of its technically risky nature, is full of unknowns. It is difficult to predict which entities or what projects will result in success or failure. Even failure in the R&DTI context is valuable, and a perfectly acceptable

³² [Explanatory Memorandum to the Bill](#), p.3

³³ See the [Australian Taxation Office’s explanation of the impact of R&D claims on franking credits](#)

³⁴ [Explanatory Memorandum to the Bill](#), n 32, p.3:

and productive outcome to fund, unlike funding failed projects under a grants program whose projects are selected to the exclusion of most other possible recipients to be the successful winners. The narrower, more interventionist approach of grants limits diversity and necessarily options for a variety of outcomes, including many more failures and learnings. Failures in R&D can be a success on the other side of the same coin as they provide new knowledge. Indeed, many inventions owe their existence to failures in R&D, because the new knowledge created was able to be applied to a completely different field or innovation. Examples of this are the inventions of the pacemaker, penicillin, the microwave, and bubble wrap.

It is through the R&D program's tax incentive that the right kind of stable, environment is created for innovation. This environment - capable of turning failures into innovation success stories, and capable of turning R&D into real, tangible inventions that add value to society and to the economy - requires a stable, certain, reliable funding platform, so that innovation can be embedded in the business culture, strategy, and operations. CA ANZ does not believe that this kind of organic environment of organisation-wide, 'adaptable innovation' and 'applied creativity', to perhaps coin some phrases, which Australia is looking to establish, can be fostered and nurtured by a competitive, grant-style environment.

Both the Australian Parliament and the joint regulators need to ensure that the scope of R&D is not artificially circumscribed or constrained by a view point that cuts out the heart of what R&D is really about. R&D and innovation is about understanding the value of technology or inventions to users' and society's needs and putting in place all of the broader business processes to support the creation of that value. Much of that activity will be core R&D and supporting R&D (which may loosely be described as the innovation part). In this regard, CA ANZ notes the recent emergence of the notion of 'non-R&D innovation', and we are eager to ensure that eligible R&D is not increasingly being artificially split out and cast off into this territory in a way that erodes the heartland of the R&DTI.

In any event, in seeking to fund 'non-R&D innovation', CA ANZ considers that direct grants should be avoided wherever possible because they are prone to being highly subjective and not subject to the rule of law and objective criteria. As we have witnessed with the Sports Grants program scandal and other such programs recently in the media, they can potentially be used for political or conflicted purposes, rather than furthering the objectives of the program in the public interest. The Australian National Audit Office (ANAO) found:

"The design of the program was deficient in a number of important areas... A significant shortcoming was that, while the program guidelines identified that the Minister for Sport would approve CSIG funding, there are no records evidencing that the Minister was advised of the legal basis on which the Minister could undertake an approval role, and it is not evident to the ANAO what the legal authority was."³⁵

Australia cannot risk this situation with our nation's R&D and innovation expenditure. It is far too important.

We cannot afford any lost time nor lost funding or opportunity-cost in the potential scenario where critical funding could go to ineligible projects or otherwise be used contrary to the public interest and national innovation objectives. R&D funding must be available based on the rule of law, i.e. legislated in broad based tax system mechanism that enables all companies across the economy to participate if they wish to engage in R&D and innovation. The tax incentive's legislative certainty, fairness and accessibility to all participants is what has made it so successful in the past. We must not lose these program features in favour of a funding mechanism that cannot offer comparable parameters and public transparency that ensures that there are clear, stringent, objective criteria established by law that will be applied and enforced to determine eligibility. All companies must be able to access that funding on an equitable basis so that a diverse, creative and socially relevant range of R&D and/or innovations are appropriately supported for the proper public purpose of Australia's R&D and innovation agenda.

³⁵ Australian National Audit Office (ANAO), [Award of Funding under the Community Sport Infrastructure Program](#), 15 January 2019, at [219]: "No section 11 directions were issued to Sport Australia in 2018–19. In the absence of a section 11 direction, there was no legal authority evident to the ANAO under which the Minister was able to be the approver of CSIG program grants to be paid from the money of Sport Australia."

Conclusion

We believe that the Senate would be taking an unacceptable risk in passing this Bill. The proposed 'R&D Premium' intensity measure for the non-refundable offset represents a far reaching, ill-suited and likely damaging policy change to the R&DTI.

The R&D policy changes that are required to implement the important R&D and innovation research findings and OECD recommendations to secure Australia's future prosperity in a rapidly changing world need to be carefully considered and integrated into appropriate evidence-based R&D and innovation policy, following a process of collaboration and co-design with stakeholders.

Recommendations

We recommend that the entire Bill be rejected by the Committee and the Senate.

If the Senate wishes to pass Schedules 2 and 3 to retain the integrity provisions, then Schedule 1 should be excised from the Bill and rejected in its entirety.

Schedules 2 and 3 could then be passed.

The Senate should not pass Schedule 1 of the Bill which contains the deeply flawed intensity measure, and the \$4 million cap which has not been transitioned or finessed and will operate harshly and detrimentally against start-ups and other small claimants under the refundable offset.

We are grateful for the opportunity to offer our feedback on the Bill to the Committee and would be pleased to provide any further assistance required to ensure that the appropriate R&D tax reforms are designed and implemented for Australia's flagship innovation policy, the Research & Development Tax Incentive.

If you have any questions, please feel free to contact either Donna Bagnall on (02) 9290 5761 or by email at donna.bagnall@charteredaccountantsanz.com, or me on (02) 9290 5609 or by email at michael.croker@charteredaccountantsanz.com.

Yours sincerely



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Appendix

Chartered Accountants Australia and New Zealand

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