## **R&D Federal US Tax Incentives**

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Subject: R&D Federal US Tax Incentives

**Date:** 7 April, 2016

This is a discussion paper produced by students. It served as a pedagogical exercise to include student research in the ongoing project funded by the SSHRC, entitled "Law in the Creative District." We thank SSHRC for its support.

#### I. Introduction

The federal tax credit for Research and Development ("**R&D**") is one of many fiscal incentives administered federally, among other industry-specific federal credits and other state-administered R&D credits. <sup>2</sup> The R&D credit was implemented as a temporary credit in the early 1980s as a mean to boost economic growth. It has since been extended over a dozen times. A 2011 report by Ernst & Young, prepared for the R&D Credit Coalition, established that the credit had a significant impact on private R&D spending, wages and employment. It is estimated that the annual private research spending has increased by US \$10 billion in the short term and US\$ 22 billion in the long term thanks to the credit, but it is also estimated to have cost between US\$ 6 to 8 billion of annual revenue to the federal government. <sup>3</sup> Furthermore, a 2005 study by a US government agency indicated that the research credit tends to favour well-established businesses, with 549 corporations with business profits above US \$ 1 billion accounted for about 65% of claimed credits in 2005.

<sup>&</sup>lt;sup>1</sup> Edited by Jeff Li.

<sup>&</sup>lt;sup>2</sup> Marc Lewis & Jason Yen, "R&D Incentives USA" (2015) 1 IFA Cahier 2015 813 at 815.

<sup>&</sup>lt;sup>3</sup> Robert Carroll, Gerald Prante & Robin Quek, *The R&D Credit: An effective policy for promoting research spending* (Ernst & Young, 2011).

Beyond these initial contextual policy considerations, the purpose of this memo is technical. The aim is to detail how federal R&D incentives work within the economy of the US *Internal Revenue Code* ("**IRC**") and associated caselaw. The US R&D system is comprised of two main provisions for R&D work: the deduction of an expense and the claiming of a non-refundable credit.

I will outline which taxpayers can benefit from the R&D system, as well as which incentives are applied and how they operate within the *Code*. R&D incentives are comprised of two main benefits: a deduction for current and capital expenditures (Part IV) and a non-refundable credit (Part V).

## II. Which taxpayers are eligible?

All taxpayers are eligible for R&D deductions and credits, including foreign taxpayers with a US trade or business (permanent establishment). All expenses claimed must be sufficiently connected with the US business.<sup>4</sup> For the purpose of the credit, research must be conducted inside the United States, Puerto Rico, or a US possession.<sup>5</sup> For the purpose of the deduction, activities do not need to be performed within the US as long as they are sufficiently connected to the US business.

A distinction must be made between qualified expenditures for the allocation of credit and qualified expenditures for the approval of a deduction for expense. R&D expense deductions are allowed if the expense is incurred "in connection with" a trade or business.<sup>6</sup> On the other hand, an R&D credit is allocated to taxpayers for expenses involved in "carrying on" a trade or business.<sup>7</sup>

<sup>&</sup>lt;sup>4</sup> IRC § 874 (nonresident alien individual's deduction), § 882(c)(1)(A) (foreign corporations deductions requiring connection with US business).

<sup>&</sup>lt;sup>5</sup> IRC § 41(d)(4)(F).

<sup>&</sup>lt;sup>6</sup> Green v. Commr, 83 TC 667,686 (1984).

<sup>&</sup>lt;sup>7</sup> IRC, § 41(b)(1); 26 CFR § 1.41-2- Qualified research expenses.

Because the R&D credits are non-refundable, it is difficult for young business and start-ups to take advantage of these incentives, further exacerbated by the requirement that expenses be linked to an active business in order to make use of the credits. Since the mid-2000s, a number of changes have been envisioned by Congress to make credits more attractive to new and small businesses.

# III. R&D Expenditures- What is R&D?

The IRC's definition of R&D is determined by what it will allow as a deduction. R&D deductions are allowed for "research or experimental expenditures", defined as "expenditures incurred in connection with the taxpayer's trade or business, representing research and development costs in the experimental or laboratory sense." This last qualification, "the experimental or laboratory sense" is defined by regulation as "activities intended to discover information that would eliminate uncertainty concerning the development or improvement of a product." Uncertainty can concern the method or capability for development and can target the nature of the activity related to the expenditure, not the product or improvement. The costs of obtaining patents and attorney fees, as well as other services related to research is included in the expenditure allowance.

Research or experimental expenditure does not include: ordinary testing or inspection for quality control, efficiency surveys, management studies, consumer surveys, advertising or promotions, acquisitions of patents, models, production or process, or research in connection with literary, historical or similar projects.<sup>11</sup>

R&D expenditures are generally deductible as "ordinary and necessary" business expenses and not chargeable to capital account.<sup>12</sup> The taxpayer may also elect to

<sup>&</sup>lt;sup>8</sup> 26 CFR § 1.41-2(a)(2) "New business".

<sup>&</sup>lt;sup>9</sup> Lewis & Yen, *supra* note 1.

<sup>&</sup>lt;sup>10</sup> 26 CFR § 1.174-2 "Definition of research and experimental expenditures".

<sup>&</sup>lt;sup>11</sup> 26 CFR § 1.174-2(3).

<sup>&</sup>lt;sup>12</sup> IRC § 162(a); §174(a)(1).

charge the expense to a capital account, subject to depreciation allowance, over a period of less than 60 months; this election must be made within the filing period for the taxable year.<sup>13</sup>

## IV. Qualified R&D Expenses and Basic Research for R&D Credit

Qualified research expenses eligible for the R&D credit must meet the definition of "research or experimental expenditures" applicable to the R&D deduction at § 174, as described above. He application which is technological in nature, and the "purpose of discovering information which is technological in nature, and the application of which is intended to be useful in the development of a new or improved business component of the taxpayer." In addition, the research activities must follow a process of experimentation 15 for a purpose related to "a new or improved function", "performance", or "reliability or quality". He

Here, business component is the essential feature; it means that the qualified research must be undertaken in view of a product "held for sale, lease, or license" or "used by the taxpayer in a trade or business".<sup>17</sup>

Qualified research expenses includes supplies used in the performance of qualified services by an employee of the taxpayer (or a person acting in similar capacity), qualified services involved in qualified research<sup>18</sup> as well as direct supervision and support of this research.

"Contract research expenses" refers to the eligibility of 65% of any amount paid or incurred for qualified research.<sup>19</sup> This amount is upped to 75% when paid to

<sup>&</sup>lt;sup>13</sup> IR § 174(b)(1)(C)-(2).

<sup>&</sup>lt;sup>14</sup> IRC § 41(d)(1)(A).

<sup>&</sup>lt;sup>15</sup> IRC § 41(d)(1)(C).

<sup>&</sup>lt;sup>16</sup> IRC § 41(d)(3)(A).

<sup>&</sup>lt;sup>17</sup> IRC § 41(d)(1)(A)-(B).

<sup>&</sup>lt;sup>18</sup> IRC § 41(b)(2)(B).

<sup>&</sup>lt;sup>19</sup> IRC § 41(b)(3)(A).

"qualified research consortia" primarily operated to conduct scientific research, and to 100% for energy research conducted by eligible small businesses, universities, and Federal laboratories.<sup>20</sup>

Basic research is defined as "original investigation for the advancement of scientific knowledge not having a specific commercial objective." It does not include research in the social sciences, arts, or humanities and cannot be conducted outside the US. Basic research payments are defined as amounts paid in cash by a corporation for basic research, pursuant to a written agreement between the corporation and a qualified organization that will be pursuing the research.

### VI. R&D Credit: What and How Much?

The R&D credit is the sum of three main parts: 20% of a calculation on qualified research expenses, 20% of a calculation on basic research, and 20% of amounts paid to an energy consortium for energy research.<sup>22</sup>

The credit for qualified research expenses, defined above, is equal to 20% of the amount by which "qualified research expenses for the taxable year" exceed a base amount. This base amount is determined by multiplying a fixed-base percentage by the taxpayer's average annual gross receipts for the past 4 years. The fixed-base percentage is also a function of the taxpayer's past research expenses.<sup>23</sup> The minimum fixed-base percentage is no higher than 16%, and the base amount cannot be more than 50% of the qualified research expenses for the credit year. This is done in order to insure that the credit is an incentive for increased

<sup>22</sup> IRC § 41(a)(1)-(3).

<sup>&</sup>lt;sup>20</sup> IRC § 41(b)(3)(D)(i).

<sup>&</sup>lt;sup>21</sup> IRC § 41(e)(7).

<sup>&</sup>lt;sup>23</sup> IRC § 41(c)(1)-(3).

research, not subsidized research. There are also other alternatives for credit calculation, including an incremental credit<sup>24</sup> or a simplified credit<sup>25</sup>.

The credit for basic research, defined above, is 20% of the amount by which basic research payments exceed the "qualified organization base period amount", an amount that takes into consideration the taxpayer's contributions to university that was not taken into account as an R&D expense.<sup>26</sup>

Taxpayers may also elect to use their R&D credit as a deduction instead of a credit, an election that is particularly attractive for younger businesses.<sup>27</sup>

<sup>&</sup>lt;sup>24</sup> IRC § 41(c)(4). <sup>25</sup> IRC § 41(c)(5).

<sup>&</sup>lt;sup>26</sup> IRC § 41(e)(1)-(5).

<sup>&</sup>lt;sup>27</sup> IRC § 280(c)(C)(3).