

MEMORANDUM

TO: Tax Policy Makers
FROM: Cooley Godward LLP
Glen Arlen Kohl (650-843-5457)
Daniel P. Meehan (720-566-4061)
DATE: January 29, 2003
RE: Inefficiencies in R&D Tax Incentives for Small Businesses

In a result that could hardly have been intended by Congress, the current tax incentives for research and development (“R&D”) activities have been rendered largely unavailable to venture capital-backed startup companies. As a result, these tax incentives are ineffective in stimulating R&D and job creation by startups. Almost by definition, startups can only benefit from these incentives if they are allowed to carry the R&D deductions and credits forward to future years when they have profits. After all, a startup company that has yet to develop a product or business incurs only losses in its early years.

Unfortunately however, two of the Internal Revenue Code’s restrictions on tax benefit carryovers, Sections 382 and 383, effectively preclude most startups from realizing any meaningful benefit from the Code’s R&D tax incentives. Indeed, one commentator has observed that the effect of these provisions is to “effectively repeal” the R&D tax incentives for startups.¹ This situation has compounded the difficulties startups face in raising capital during the current economic malaise.

The proposal described in this memorandum would rectify the above-described problem and thereby provide a stimulus to the startup community. In particular, we propose to exempt deductions and credits generated by the R&D activity of “qualified small businesses” from some of the limitations imposed by Sections 382 and 383 of the Internal Revenue Code (we refer to the proposed exemption as the “R&D Exemption”).

While we are not the first to identify this problem,² we believe that the time is particularly ripe to fix it. In the current economic climate, the flow of investment capital to, and job creation by, startups has slowed to a trickle. The extraordinarily high valuations for startups prevalent during the late 1990’s are no longer available to mask the problem. Thus, as foreshadowed by earlier commentators, the effective denial of the R&D Incentives for startups now serves as a real economic drag on efforts to jump-start small business R&D and job creation. We believe that our proposal strikes the right balance between correcting this inefficiency and proper targeting of tax benefits.

¹ Parker, *The Innocent Civilians in the War Against NOL Trafficking: Section 382 and High Tech Start Up Companies*, 9 VA. TAX REV. 625, 706 (1990) (hereinafter cited as “Parker”).

² See Daily Tax Report, June 19, 1996 (Lexis, 1996 DTR 118 d3) (“Entrepreneurs’ Coalition” proposal to amend Section 382 to end “discrimination against entrepreneurial firms which lose much of the value of their NOLS when they get capital from new investors through stock offerings, mergers, or acquisitions”); Daily Tax Report, Sept. 14, 1995 (Lexis 1995 DTR 178 d12) (Competitiveness Policy Council proposal to reform Section 382 due to “tendency to negate the benefits of research and development credits for many high-tech firms”); Joint Committee on Taxation, Description of Additional Miscellaneous Tax Proposals (JCX-66-89), October 20, 1989 (proposal permitting retroactive Section 174 amortization to mitigate Section 382 impact); *see generally*, Parker, *supra* note 1.

Executive Summary

<p>Problem Addressed:</p>	<p>Existing R&D-related tax incentives are illusory for most startups. Most startup corporations focused on R&D spend their early years in a tax loss position, and are unable to immediately benefit from the Section 174 deduction for research and experimental expenditures and the Section 41 credit for increasing research activity (“R&D Incentives”). Deductions and credits attributable to the R&D Incentives accumulate as net operating loss and tax credit carryforwards (“NOLs”). As startups fund their R&D efforts through stock issuances to venture capitalists, Sections 382 and 383 drastically limit—and very often eliminate—the company’s ability to use NOLs after the transaction. This defeats the purposes of the R&D Incentives in the first place. Venture capitalists know the NOLs they fund will be limited by Section 382 and generally discount the value of these incentives to zero. Eliminating this systemic inefficiency, so venture capitalists could reasonably factor the value of a startup’s NOLs into the investment risk/reward ratio, would incrementally increase the flow of funds to R&D consistent with the original purpose of the R&D Incentives.</p>
<p>Proposed Solution:</p>	<p>Exempt loss and credit carryforwards from the loss limitation rules of Sections 382 and 383 to the extent attributable to a qualified small business’s Section 174 deductions for research and experimental expenditures and its Section 41 credits for increasing research activity.</p>
<p>Expected Benefits:</p>	<p>Promote a much-needed increase in the flow of investment capital to qualified small business corporations active in R&D.</p> <p>Promote job creation by such small businesses.</p> <p>Promote the most desirable type of small business spending—on high-wage jobs and R&D, which enhances the competitiveness and productivity of U.S. businesses.</p> <p>Target smaller businesses in a very direct way, both in effect and by limiting the exemption to corporations classified as qualified small businesses under Section 1202(d) (corporations with less than \$50 million in gross assets).</p>

Background

Historically, much of the research and development activity in the U.S. has been conducted by small businesses. A 1997 report of the Small Business Administration entitled “The Facts About Small Business, 1997” states that:

Small firms produce 55 percent of innovations. They produce twice as many product innovations per employee as large firms. . . This is also true of significant innovations.

Small firms obtain more patents per sales dollar and apparently have more discoveries than large firms.

Small research and development (R&D) firms are quite research intensive: the percentage of employees that are R&D scientists and engineers are 6.41 percent in small firms and 4.05 percent in large R&D firms.

Many have written and spoken about the historical importance of R&D to the U.S. economy. The macroeconomic benefits of R&D are summarized well by a 1998 National Science Foundation Issue Brief entitled “High-Tech Industries Drive Global Economic Activity.” It states:

Nations seek to develop . . . R&D intensive industries for several reasons:

High-tech firms are associated with innovation. Firms that innovate tend to gain market share, create new product markets, and use resources more productively.”

High-tech firms are associated with high value-added productions and success in foreign markets, which helps to support higher compensation to the workers they employ”.

Industrial R&D performed by high-tech industries has other spillover effects. These effects benefit other commercial sectors by generating new products and processes that can often lead to productivity gains, business expansions and the creation of high-wage jobs. (Citations omitted.)

To summarize, R&D promotes innovation, global competitiveness, high-wage jobs and productivity increases. This suggests to us that stimulus measures focused on small business R&D activity will provide a great economic “bang for the buck.”

Problems Addressed by the R&D Exemption

The R&D Exemption addresses two interrelated problems—one technical, and the other economic. The technical problem is that the current tax-related incentives for R&D are illusory for many startup companies that seek outside financing. For a startup, one or more financing transactions will almost always trigger loss limitation rules that limit and often permanently eliminate the startup’s ability to utilize any tax deductions and credits it accrued in connection with its R&D expenditures. The economic problem is the current shortage of investment capital

flowing into high tech startups, which we believe could be partially alleviated by solving the technical problem. This result was clearly unintended by Congress.

The Economic Problem: Less Capital Flowing to Startups

The current pace of R&D by small businesses has slowed. Over the past decade, our firm has represented many of the most dynamic high-tech startups. Our experience over the last three years indicates a reduced number of such high-tech startups forming, pursuing R&D and ultimately succeeding in their business plans.

Moreover, it is clear that the capital flowing to R&D startups has declined dramatically in recent years. A January 28 Associated Press report states:

Venture capitalists finished 2002 plodding at the slowest investment pace in nearly five years as the limping industry continued to pick up the pieces from the high-tech crash. . . . Venture capital is trickling in at the slowest rate since the first quarter of 1998.³

The PriceWaterhouseCoopers/Venture Economics/National Venture Capital Association MoneyTree Survey shows a decline in total venture capital investment in the U.S. in every quarter since Q1 of 2000, and similar declines in early/seed stage venture capital investment, with Q4 2002 levels at only 5% of the Q1 2000 levels.

The recent rise in unemployment can almost certainly be linked in part to the reduced flow of capital to startups. The correlation between venture capital investment and job creation is well-documented. A 2001 study by DRI-WEFA commissioned by the National Venture Capital Association concluded that venture capital invested during the period from 1970 to 2000 created 7.6 million U.S. jobs and more than 6.1% of the U.S. payroll as of the end of 2000.

We also see it in our practice. When a company gets funded, they hire people. When a company cannot get funding, it does not hire people. It is as simple as that. We believe, therefore, that a stimulus measure aimed at increasing the flow of capital into technology startups will have a positive effect on both R&D levels and unemployment.

The Technical Problem: R&D Tax Incentives Are Illusory For Startups

Various tax measures have been enacted in the past to promote R&D activity, including the deduction for research and experimentation under Section 174 and the credit for increasing research activity under Section 41 (“**R&D Incentives**”). While many small businesses are eligible for and do accumulate deductions and credits under the R&D Incentives, most small businesses—especially those focusing heavily on R&D activity—spend their startup years in a tax loss position, and are unable to immediately benefit from the R&D Incentives. Instead, startups typically accumulate these deductions and credits as net operating loss and tax credit

³ Liedtke (Assoc. Press), “Venture Capital at 1998 Level,” San Francisco Chronicle, January 28, 2003 p. B3.

carryforwards (“NOLs”). Some businesses are able to use these NOLs to offset their taxable income later, when the business becomes profitable.

However, for many startups, the potential benefit of the R&D Incentives is effectively unavailable. Startups often depend on outside investment to finance their R&D spending, or at some point must combine with another business that has sufficient resources to finance the startup’s continued activity. For these startups, the effect of the R&D Incentives is heavily diluted or eliminated by limitations on the use of NOLs after an “ownership change.” If a startup with NOLs is acquired or financed by investors who acquire a large portion of the company’s stock, Sections 382 and 383 (the “**NOL Limitations**”) drastically limit—and in some cases virtually eliminate—the amount of the company’s NOLs that can be used after the transaction.

Another Silicon Valley lawyer, in an excellent 1990 article describing the adverse impact of Section 382 on high-tech startups, states:

[N]ew section 382 was enacted over warnings from a leading contributor to the NOL carryover debate that adoption of rules similar to those ultimately reflected in the statute ‘would be like throwing a hand grenade into a village and killing innocent civilians. . .’ [T]he innocent civilians can now be identified. They are the village’s most promising young people: high-tech, start-up companies.⁴

Both the private equity and public capital markets have factored these limitations into (and thus discount their) valuations for technology startups, thereby diluting the intended purpose of the R&D Incentives. One of the elements investors consider when evaluating a corporation for investment is the impact of corporate taxes on the corporation’s potential net earnings. If, as a result of the NOL Limitations triggered by the investment, the corporation will be unable to fully utilize its pre-investment NOLs to reduce its taxable income, this may reduce the value assigned to the corporation by the investor, or, in the case of a particularly risky startup, it may tilt the risk/reward ratio toward a decision not to invest.

To make matters worse, a high percentage of venture capital investments in the last three years have been in so-called “down-round” financings, whereby the new investor acquires a large percentage of the company’s stock at a very low valuation. In addition to reducing the holdings of previous investors significantly, a down-round financing often results in application of the NOL Limitations because the new investor acquires more than 50% of the company’s stock. Because the amount of pre-financing NOLs utilizable by the company after imposition of the NOL Limitations is primarily determined by the value of the company as of the date of the financing transaction, the low company valuation typical of a down-round financing results in a commensurately small utilization cap under the NOL Limitations. This means that the company’s ability to use its pre-financing NOLs (including any deductions and credits attributable to the R&D Incentives) is extremely limited after a down-round financing. Similarly, the acquisition of a startup company by a third-party buyer renders its NOLs effectively useless.

⁴ Parker, supra note 1, at 625.

We have seen firsthand in our practice the effect of the NOL Limitations on startup company financing transactions and the difficulties engendered by a regime that denies a company any tax benefit (and thus any value to its investors) for the dollars spent on R&D. This is simply not fair, nor is it consistent with the intentions of Congress in enacting the R&D Incentives.

Congress has previously recognized the importance of the R&D Incentives in promoting investment in R&D. In connection with the 1997 extension of the Section 41 credit, the House Report stated:

Businesses may not find it profitable to invest in some research activities because of the difficulty in capturing the full benefits from the research. Costly technological advances made by one firm are often cheaply copied by its competitors. A research tax credit can help promote investment in research, so that research activities undertaken approach the optimal level for the overall economy. Therefore, the Committee believes that, in order to encourage research activities, it is appropriate to reinstate the credit. (Emphasis added.)⁵

Notwithstanding Congress's recognition of the importance of investment incentives for R&D, the numerous extensions of and refinements to the R&D Incentives over the years have done nothing to make them worthwhile incentives for startups. These extensions and refinements can be analogized to airline bonus miles granted to passengers grounded by a snowstorm. Even triple mileage credit will fail to cause the plane to take off. Analogously, Congress could extend the Section 41 credit permanently, but startups still reap no benefit from it as long as the NOL Limitations cast their long shadow over the financing landscape.

Recent changes to the NOL Limitations themselves have similarly ignored this problem. The last economic stimulus package ("The Job Creation and Worker Assistance Act of 2002") added Section 172(b)(1)(H), which provided a 5-year carryback period for NOLs for taxable years ending during 2001 and 2002. Unfortunately, this provision left startups out in the cold yet again. Startups typically spend their first several years generating losses, which must be carried forward to obtain a tax benefit. Once turning profitable, startups are almost never able to benefit from an NOL carryback, as they have no profitable prior years to which NOLs can be carried back. Moreover, as noted above, the NOL Limitations very often render a startup's NOL carryforward worthless as well.

In our experience, the small businesses most affected by the NOL Limitations are those most likely to generate high levels of R&D activity and job creation. Almost by definition, R&D startups that obtain funding from outside investors or combine with other businesses are likely to spend absolute amounts on R&D (and salaries for those performing the R&D) higher than the amounts spent by businesses that do not look outside the company and its founders for funding. Moreover, startups that obtain outside funding are also likely to spend a higher percentage of their total capital on R&D than businesses that must fund their R&D with revenue solely from sales or services. Indeed, in most cases, R&D is the primary activity for the first years of a

⁵ H.R. Rep. No. 105-148, 105th Cong., 1st Sess. 369 (1997) at 369 (House report to "Taxpayer Relief Act of 1997").

startup's life cycle. Many startups focus on nothing but R&D until a product is developed. Only then do they hire a sales force and an administrative staff.

To summarize, we believe that:

- Most startups are effectively denied the intended benefits of the R&D Incentives as a result of the NOL Limitations;
- This denial undermines the effectiveness of the R&D Incentives for the very businesses that are most likely to be motivated by the R&D Incentives;
- This denial inhibits the flow of capital into startups to fund R&D activity; and
- Less capital flowing to startups means fewer jobs created by startups.

Proposed R&D Exemption

The “R&D Exemption” we propose would exclude the NOLs generated by qualified small business corporations from the bulk of the NOL Limitations to the extent the NOLs are comprised of deductions and credits attributable to R&D expenditures.⁶ Thus, under our proposal, the R&D-related deductions and credits of qualified small businesses would survive an outside financing transaction or a business combination and be fully usable to offset taxable income generated after the financing or business combination. Please understand that we are not proposing a complete exemption. To prevent abusive loss-trafficking, we would not exempt such NOLs from the “continuity of business enterprise” requirement of Section 382(c). Thus, the business enterprise of the qualified small business must be continued following the financing or acquisition in order for the R&D Exemption to apply.

We propose to limit the suggested relief to only the R&D expenditures incurred by those corporations⁷ classified as qualified small businesses under Section 1202(d). This section defines “qualified small businesses” as domestic C corporations with aggregate gross assets of \$50 million or less.⁸ Section 1202 is already cross-referenced by other provisions of the Internal Revenue Code designed for small businesses.⁹ This limitation would more narrowly target the incentive effect of the R&D Exemption to small businesses.

⁶ For one possible way of implementing this proposal, see Exhibit A.

⁷ We note that businesses organized as limited liability companies and partnerships, and those conducted as sole proprietorships, are generally not subject to the NOL Limitations, and therefore are not in need of the R&D Exemption.

⁸ Specifically, we would propose to limit the exemption to corporations with gross assets of \$50 million or less at the time of the research and development expenditure.

⁹ See, e.g., I.R.C. §1045 (rollover of gain on qualified small business stock); I.R.C. §1400B (exclusion of qualified “DC Zone” gain).

Benefits of Proposed R&D Exemption

As noted above, the R&D Exemption would remedy a longstanding technical inefficiency in the tax code which renders the R&D Incentives effectively worthless for most startups. We believe this technical fix would have a positive effect on the flow of investment capital into startups.

Our experience with startup clients suggests that there is no shortage of ideas or desire to innovate and develop new technologies. Moreover, there does not appear to be a shortage of capital available for investment generally. The problem is that the available capital is not flowing to R&D startups. The R&D Exemption would reassure investors that the tax benefits and value attributable to the company's existing R&D-related deductions and credits will be preserved. This should cause investors to assign higher values to startups, or at least help shift risk/reward analyses toward more affirmative investment decisions.

Consider the example of a startup that receives venture capital funding, and develops some interesting technology, but ultimately determines that it cannot build a successful stand-alone business around its new technology. The natural exit strategy for the startup in this scenario is a sale to a strategic buyer, who can successfully integrate the startup's technology with its existing business or distribution channels. In this scenario, the buyer will assign no value to the startup's NOLs due to the NOL Limitations. Our proposal would change that, thereby increasing the exit value of the startup. Increasing the potential exit valuation in this and other scenarios would, we believe, cause investors to be less skittish when considering an investment in the startup. We believe this would ultimately lead to more successful financing transactions, and more dollars invested in R&D startups.

As noted above, we believe the NOL Limitations perversely impact those startups that are likely to spend the most in absolute terms on R&D and the highest percentage of their total capital on R&D. By directly targeting and eliminating this perverse impact, the R&D Exemption focuses its benefits in a highly desirable way.

Of course, an increased flow of investment capital to small businesses engaged in R&D and an increased allocation of investment dollars to R&D by small businesses should result in an increase in the total amount of R&D undertaken and the creation of more high wage R&D-related jobs by small businesses. Accordingly, we believe that our proposed R&D Exemption would be beneficial as a business and economic stimulus measure, and would positively impact U.S. business competitiveness and productivity.

Protections Against Abuse

The original purpose of the NOL Limitations was to prevent "trafficking" in tax losses. However, the single-minded focus of the NOL Limitations resulted in the evisceration of the R&D Incentives for start-up corporations. We do not believe that our proposed modifications -- which are limited to R&D expenditures incurred by small businesses -- would result in an NOL trafficking problem. Nevertheless, to address this issue, we do not recommend a complete

exemption from the NOL Limitations. Two existing anti-abuse provisions—Section 382(c) and Section 269—would continue to apply.

As noted above, our proposed R&D Exemption would not constitute an exception to Section 382(c), which requires that the Section 382 limitation is zero unless, for two years after an ownership change, the corporation continues its existing business enterprise. Thus, a corporation that acquires a company with R&D-related deductions and credits could not simply shut down the acquired business and retain those deductions and credits. The acquiring company would be required to operate the acquired business for at least two years in order for the R&D Exemption to apply. Similarly, if a corporation previously eligible for the proposed R&D Exemption goes out of business, Section 382(c) would prevent another corporation from acquiring the inactive corporation merely for its NOLs.

Section 269 provides that the IRS may disallow any deduction or credit that was generated by one corporation and used by an acquiring corporation if the acquirer's principal purpose for the acquisition was the avoidance of tax through use of such deduction or credit.

We believe that limiting our proposal to the R&D expenditures of qualified small businesses, coupled with the deterrent effect of the "continuity of business enterprise" requirement and the police powers accorded the IRS by Section 269 will achieve the dual objectives of limiting loss trafficking without precluding startup enterprises from realizing the benefits of the R&D Incentives.

Conclusion

We believe the proposal described in this memorandum would remedy some very real inefficiencies in existing R&D-related tax incentives, and in the process should serve as a stimulus for additional investment in R&D startups. If you have any questions or would like to discuss this proposal further, please feel free to call us.

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**Exhibit A
Proposed Statutory Changes**

There are many ways to fix the technical problem described in the attached memorandum. We defer to the skilled statutory draftspersons inside the Beltway, but we offer the following as a possible starting point.

Add new Section 382(l)(9), reading as follows:

(9) SPECIAL RULE FOR QUALIFIED SMALL BUSINESS CORPORATIONS.—Except to the extent subsection (c) applies, subsection (a) shall not apply to the portion of any pre-change loss or net unrealized built-in loss attributable to research or experimental expenditures (within the meaning of section 174) paid or incurred by a corporation that is a qualified small business (within the meaning of section 1202(d)) as of the date such expenditures are paid or incurred.

Add new Section 383(f), reading as follows:

(f) SPECIAL RULE FOR RESEARCH TAX CREDITS OF QUALIFIED SMALL BUSINESS CORPORATIONS.— For purposes of this section, rules similar to the rules of section 382(l)(9) shall apply to research credits determined under section 41 that are attributable to expenditures paid or incurred by a corporation that is a qualified small business (within the meaning of section 1202(d)) as of the date such expenditures are paid or incurred.