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Giving Developers the Research Credit They Deserve

by Jeffrey E. Moeller

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Jeffrey E. Moeller

Jeffrey E. Moeller is a partner with Ivins, Phillips & Barker Chtd.

In this report,
Moeller examines the
source of the
substantial rights rule
in the regulations under
section 41 and argues
that the rule has been
misinterpreted to deny
the research credit to
custom producers and
developers — the very

type of taxpayer Congress intended to target.

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It is time to reexamine the peculiar substantial rights rule in the research credit regulations. Largely dormant during the two decades since its contours were purportedly set down by the Federal Circuit in *Lockheed*, ¹ this misunderstood provision actually lay in wait to spring upon unsuspecting developers and producers. That happened earlier this year, in the Tax Court's *Tangel* decision. ²

Section 41 offers a credit to taxpayers that increase their expenditures on research and development as a percentage of their gross receipts from year to year. The policy behind the credit is to subsidize R&D spending, which economists believe creates significant positive externalities in the economy. A company risking investment capital may not be able to fully monetize the resulting product because other companies might reverse-engineer its product and build on its accomplishments. This, along with conflicting short-term market incentives, may prompt underspending in R&D to maximize immediate profit and stock gains, leading to the loss of long-term benefit to society.

Where do custom developers and producers fit into the research credit scheme? These companies, which develop and then produce

¹Lockheed Martin Corp. v. United States, 210 F.3d 1366 (Fed. Cir. 2000), rev'g 42 Fed. Cl. 485 (1998).

²Tangel v. Commissioner, T.C. Memo. 2021-1.

³The credit is equal to 20 percent (originally 25 percent) of the *excess of* a taxpayer's qualified research expenses paid or incurred in carrying on its trade or business in a tax year *over* an established base period amount of qualified research expenses (plus 20 percent of specified basic research expenses and specified payments for energy research). Section 41(a)(1). There is also an elective alternative calculation method.

^{*}See Economics Online, "Positive Externalities" (2021); and Treasury, "Investing in U.S. Competitiveness: The Benefits of Enhancing the Research and Experimentation (R&E) Tax Credit" (Mar. 25, 2011).

specialized machinery and equipment for their customers — custom tooling, production line machinery, plastic injection molds, oil and gas drilling equipment, seagoing vessels, and even nuclear containment devices — often promise to deliver a product to the customer's specifications. They risk breach and no payment if the product fails to meet those specifications.

Thus, they face precisely the type of risk intended to be subsidized by the research credit. Many companies with these arrangements are claiming the credit and believe that their claim is safe from IRS audit. Hidden deep in the file cabinets of their legal departments, however, lurks a problem (often unknown to the tax departments) that can undo their entire claim.

I. How to Allocate a Credit

A. Defining 'Funded'

Congress's enactment of the section 41 credit in 1981⁵ followed the enactment of section 174 in 1954, which allows taxpayers to elect to deduct rather than capitalize R&D expenses. Both provisions were intended to promote R&D, but the valuable credit would have limitations not present in the section 174 deduction.

One of the important rules of section 41 is the allocation of the credit when one party is conducting the research but another party is paying for the project. Congress believed that only one of them should receive the credit. Whom is it better to encourage? Which one deserves the subsidy from an economic and tax policy point of view?

Section 41 sets up this issue by providing a credit for in-house research expenses on the one hand, and a credit for contract research expenses on the other. In-house research expenses relate to qualified research activities performed directly by

the taxpayer or its employees.⁷ However, the taxpayer performing those otherwise qualified activities may not claim them "to the extent funded by any grant, contract, or otherwise by another person (or governmental entity)."⁸ Instead, the paying party gets to count the underlying activities in its calculation of contract research expenses.⁹

Section 41 does not define the term "funded," so the regulations step in to try to clarify the boundary between these two situations. In two provisions that have been referred to as "mirror image" rules, 10 the regulations identify the key factor as whether the research agreement between the parties makes payment "contingent on the success of the research." If research is performed on behalf of the payer under an agreement that requires payment regardless of the outcome of the research, the payment is a contract research expense of the payer. ¹² By contrast, if payment is contingent on the research being successful, both mirror rules provide that the expense is considered to be paid for "the product or result" of the research, rather than the performance of the research.13

Accordingly, when payment is contingent on the success of the research, the payer cannot claim the payment as contract research. Instead, the researcher can claim its expenses if they are otherwise qualified. As noted in *Fairchild*, "Thus, the regulations implement allocation of the tax credit to the person that bears the financial risk of failure of the research to produce the desired product or result." A nice solution to the question of who should be given the incentive.

⁵Congress enacted the credit as part of the Economic Recovery Tax Act of 1981 (P.L. 97-34, section 221) as section 44F of the 1954 code. In 1984 it was renumbered as section 30, without modification, under the Deficit Reduction Act of 1984 (P.L. 98-369, section 474). That version of the credit expired December 31, 1985. The Tax Reform Act of 1986 (P.L. 99-514, section 231(d)) reenacted the credit with modifications to, *inter alia*, the definition of qualified research. The credit was renumbered as section 41 of the 1986 code and made applicable from 1986 through 1989. It has since been periodically reextended and was made permanent in 2015. Protecting Americans From Tax Hikes Act of 2015 (P.L. 114-113, Division Q, section 121(a)).

⁶Section 41(b)(1(A) and (B).

Section 41(b)(2).

⁸Section 41(d)(4)(H).

Section 41(b)(3). Section 174 does not have a similar toggle switch for direct versus contract research. Both parties can generally deduct amounts paid or incurred by a researcher on behalf of (and reimbursed by) another. *Compare* reg. section 1.174-2(a)(2), *with* reg. section 1.41-4A(d)(1). When a credit, rather than a deduction, was involved, Congress decided to allocate the subsidy to one or the other party, not to provide it to both.

¹⁰Fairchild Industries Inc. v. United States, 71 F.3d 868, 870 (Fed. Cir. 1995), rev'g 30 Fed. Cl. 839 (1994).

¹¹Reg. section 1.41-2(e)(2) and -4A(d)(1).

¹²Reg. section 1.41-2(e)(2)(iii).

 $^{^{13}}$ Reg. section 1.41-2(e)(2) (flush language) and -4A(d)(1).

¹⁴ Fairchild, 71 F.3d at 870.

B. An Asymmetry Arises

But then the mirror seems to crack. The regulations also provide:

If a taxpayer performing research for another person retains no substantial rights in research under the agreement providing for the research, the research is treated as fully funded for purposes of section 41(d)(4)(H), and no expenses paid or incurred by the taxpayer in performing the research are qualified research expenses.¹⁵

To put this in context: An engineering company with an established trade or business of designing and building aircraft engines is hired by an airplane manufacturer to design a new, experimental engine. The airplane manufacturer will pay only if the design is successful, at which time the engineering company will turn over all rights in the design to the manufacturer. The manufacturer is not permitted to claim the credit because it is treated as purchasing only the successful product of the research rather than paying for the performance of research on its behalf. But the engineering company *also* doesn't get the credit? The regulations double down and make it clear:

If a taxpayer performing research for another person retains no substantial rights in the research and if the payments to the researcher are contingent upon the success of the research, neither the performer nor the person paying for the research is entitled to treat any portion of the expenditures as qualified research expenditures.¹⁶ [Emphasis added.]

It's a jarring result. No one gets the credit? Where did a substantial rights rule come from anyway? It's nowhere in the statute. How is not retaining rights considered "funding"? If only one company had been involved, it would have received the credit, but split the effort between

two companies, and no one gets it. That seems patently unfair.

The seeming unfairness goes further: Even if the engineering company spent more than the payment it received, it doesn't get to claim its excess expenses. Can this be a rational interpretation of the "to the extent funded" rule of section 41(d)(4)(H)? There is no explanation for this in the Treasury materials accompanying the regulations.¹⁷

And here's the hidden danger in the file drawers: When a customer hires an engineering company or other custom developer and producer, the customer knows it is paying extra for customization. The customer doesn't want the developer to simply turn around and sell the same equipment to its competitor. Yet, everyone understands that the developer will apply the knowledge it gains from one customization to its next customization.

In many industries, however, the customers' legal departments have managed to establish the standard contract language, which doesn't just protect the customer from unfair competition but also strips the developer of virtually all rights in the research results. Tax departments are often unaware that their legal departments are accepting this boilerplate language and that they may be running afoul of the substantial rights rule. Everyone knows the strictures are not literally followed in the field, but "everyone knows" doesn't stand up in court.

So, if they have not already done so, tax departments of custom developers and producers should go to their legal departments and make sure tax has input into the wording of customer agreements. A few changes in that wording can put their research credit claim on a much better footing under current authorities. Even if the language cannot be changed, don't despair. There

¹⁵Reg. section 1.41-4A(d)(2).

¹⁶ Id. This last sentence was not in the proposed regulations but was added by the final regulation in response to a comment. See infra discussion at notes 21, 132.

¹⁷See infra discussion at Section VII.

¹⁸ In addition to changes in wording to improve the company's stance regarding the substantial rights rule, there are wording changes that can improve the taxpayer's ability to show its contracts are "contingent on the success of the research." A few words can make all the difference. *See, e.g.,* Order at 8, *Meyer, Borgman & Johnson Inc. v. Commissioner,* No. 7805-16 (T.C. Nov. 19, 2020) ("Contract provisions like quality assurance procedures, specific barometers for success, and mechanisms for inspection, evaluation, and acceptance show that payments made under the contracts were contingent on the success of the research required under the contract.").

are excellent arguments, discussed below, that have not been addressed by the courts.

II. An Ambivalent Rule

A. Which Test Is It?

We need to step back a bit to put the substantial rights rule in context. It actually appears in two places: not only in the "funded" section of the regulations but also in the "trade or business" test of reg. section 1.41-2(a). Section 41(b)(1) provides that in-house and contract research expenses qualify for the credit only if "paid or incurred by the taxpayer during the taxable year in carrying on any trade or business of the taxpayer."

Reg. section 1.41-2(a) implements this requirement by first outlining some basic trade or business rules and then addressing "research performed for others." Subparagraph (A) of reg. section 1.41-2(a)(3) provides: "If the taxpayer performs research on behalf of another person and retains no substantial rights in the research, that research shall not be taken into account by the taxpayer for purposes of section 41." One would assume that this provision, appearing within the trade or business section of the regulations, means that a taxpayer performing research on behalf of another and retaining no substantial rights flunks the trade or business test. But the subparagraph doesn't say that explicitly (just "that research shall not be taken into account by the taxpayer for purposes of section 41"), and it then provides: "See Section 1.41-4A(d)(2)" (the jarring funded rule, which says that the research "will be treated as fully funded").

Confusion is warranted at this point because if a taxpayer has already flunked the trade or business test, what is the purpose of citing the funded rule? And if failure to retain substantial rights is funding, why bother to have a meaningless additional rule in the trade or business section?

Perhaps the result — no qualified research — is just overdetermined; the two provisions are redundant in this situation. But it's still not clear what rights have to do with funding. And why

does reg. section 1.41-4A(d)(2) say such research is "treated as" fully funded, rather than saying straight out that failure to retain rights *is* funding under section 41(d)(4)(H)? Neither provision wants to come out and say which test or tests are being flunked. The substantial rights rule doesn't know what it wants to be when it grows up.

B. Allocation Complexity the Key?

The full funded rule is in reg. section 1.41-4A(d). Paragraph (d)(1) provides the basic rule: "Research does not constitute qualified research to the extent it is funded by any grant, contract, or otherwise by another person (including any governmental entity)." It provides that all relevant agreements should be considered, and then sets forth the contingent-on-success rule, saying payments contingent on success "are not treated as funding."

Paragraph (d)(2), titled "Research in which taxpayer retains no rights," provides the jarring rule denying the credit to both the researcher and the payer if the researcher does not retain substantial rights, even though the payment is to be made only if the research is successful. It provides the following straightforward example:

For example, if the taxpayer performs research under an agreement that confers on another person the exclusive right to exploit the results of the research, the taxpayer is not performing qualified research because the research is treated as fully funded under this paragraph (d)(2).

The paragraph also provides:

Incidental benefits to the taxpayer from performance of the research (for example, increased experience in a field of research) do not constitute substantial rights in the research.

¹⁹Reg. section 1.41-2(a)(3).

²⁰The rule was proposed in 1983 as prop. reg. section 1.44F-4(d) (PS-236-81, 48 F.R. 2790 (Jan. 21, 1983)). It was finalized as reg. section 1.41-5(d) (T.D. 8251, 54 F.R. 21204 (May 16, 1989)), reflecting the redesignation of the research credit as section 41 in TRA 86. The 1986 act made substantive changes to the research credit, so the final regulations were made effective only for tax years beginning before 1986. The rule was redesignated as reg. section 1.41-4A(d) in T.D. 8930, which implemented the TRA 86 changes. The effective date (pre-1986) was retained, but new reg. section 1.41-4(c)(9) was added, providing: "To determine the extent to which research is so funded, Section 1.41-4A(d) applies."

Paragraph (d)(3), titled "Research in which the taxpayer retains substantial rights," provides an allocation rule to implement the "to the extent funded" language of section 41(d)(4)(H). It also adds a somewhat awkwardly placed further definition of substantial rights:

A taxpayer does not retain substantial rights in the research if the taxpayer must pay for the right to use the results of the research.²¹

The default rule for the allocation of payments is that funding stacks first against otherwise creditable expenses. So if a researcher being reimbursed 50 percent of her costs spends \$200 — \$120 on otherwise creditable expenses and \$80 on other research expenses (for example, overhead costs allocable to the research) — and thus receives a check for \$100 from the payer, she must treat the entire \$100 as funding against the \$120 otherwise creditable amount, and none against her other expenses. That leaves only \$20 eligible for the credit, out of \$120 spent.

There is an exception, however, that permits an allocation if the taxpayer can "establish to the satisfaction of the district director" that (1) total "research expenses" (that is, not just otherwise creditable research expenses) exceed the funding amount, and (2) otherwise creditable expenses exceed 65 percent of funding. In that case, the researcher is permitted to allocate funding proportionately among total research expenses, except that at least 65 percent of the payment may be allocated to otherwise creditable expenses.²³

The researcher in our example spent \$200 and was reimbursed only \$100, so she satisfies criterion 1. And because the researcher spent \$120 on otherwise creditable research expenses, which was greater than 65 percent of the payment she received, criterion 2 is also satisfied. Provisionally, the researcher may allocate only \$60 — rather than the entire \$100 — to qualified research (100 *

120/200 = 60). However, because the regulation requires at least 65 percent of the payment to be allocated to otherwise creditable expenses, the researcher must increase allocated funding from \$60 to \$65 (100 * 65 percent).

Why so complicated? Presumably, a more straightforward allocation rule, such as simple pro rata or a straight 65 percent, was frowned upon by Treasury as inviting manipulation. For instance, a payer willing to fund 100 percent of research might be asked by the researcher to instead fund 50 percent of some greater pool of expenses so that the research would be only 50 percent funded. The complexity of the allocation rule, however, offers a possible explanation for the shuttling of the substantial rights rule between the trade or business section of the regulations and the funded section.

As discussed earlier, the substantial rights rule appears in subparagraph (A) of reg. section 1.41-2(a)(3) as part of the trade or business section of the regulations, and it refers to reg. section 1.41-4A(d)(2), the equivalent substantial rights rule in the funded section of the regulations.

The next subparagraph in the trade or business section, subparagraph (B), provides that a taxpayer performing research on behalf of another but retaining substantial rights "shall take otherwise qualified expenses for that research into account for purposes of section 41 to the extent provided in [reg.] Section 1.41-4A(d)(3)" (the complicated allocation rule).²⁴ Under the trade or business provision, the retention of substantial rights allows the taxpayer to satisfy the trade or business test, but it has still received reimbursement for its research expenses, which should qualify as the payer's contract research expenses instead. An allocation rule is required, and there is just such an allocation rule in the funded section of the regulations. So the trade or business section sends the taxpayer to the funded rule for allocation purposes to determine what portion of the otherwise qualified research is funded.

This reading, if it applies to subparagraph (A) as well, would mean that the substantial rights rule is predominantly part of the trade or business

²¹Reg. section 1.41-4A(d)(3)(i). This sentence was not in the proposed regulations; it was added by the final regulations with no explanation. Some sloppiness is evident from the fact that the insertion makes incorrect a reference to "the preceding sentence" in the sentence that follows the inserted one, which reference was not corrected.

Reg. section 1.41-4A(d)(3)(i).

Reg. section 1.41-4A(d)(3)(ii). The regulation also specifies that the allocation methods are to be "applied separately to each research project undertaken by the taxpayer." Reg. section 1.41-4A(d)(3)(iii).

²⁴Reg. section 1.41-2(a)(3)(B).

requirement, and that the funded rule serves as a sort of mechanism for making sure the proper amount is calculated. This makes sense but requires a somewhat strained reading. Why the complexity and ambiguity in both rules?

Another question worth asking is, why doesn't the contingent-on-success rule override the rule in reg. section 1.41-2(a)(3)(A)? Taking into account the mirror rules' declaration that a payment contingent on the success of the research is a payment for the *results* of the research, not the research itself, one might logically conclude that such a researcher would not be researching "on behalf of" the other party but instead be selling it a product. However, the definition of on behalf of doesn't follow that logic. Under the regulatory definition, one person performs research on behalf of another merely if the other "has a right to the research results."25

So even though payment to a researcher performing research under a contract is contingent on the success of the research — which should pull the arrangement out of the funded rule — the researcher is still considered to be researching on behalf of the payer, and if the researcher will retain no substantial rights in the research, she fails the trade or business test, the funded test, or both. The result is clear, but the details and rationale are far from it. What accounts for this confusion?

III. 'On Behalf of' Versus 'Funded'

A. Tracking the Rules

The on-behalf-of rule of reg. section 1.41-2(a)(3) and the funded rule of reg. section 1.41-4A(d) reflect the current connection in the statute between contract research and funded research, but the two statutory provisions began life as entirely distinct rules. In the initial Senate provision,²⁶ the on-behalf-of and funded rules addressed two different situations. The Senate language provided a credit measured by (1) wages paid or incurred by the taxpayer for

(B) WAGES PAID ON BEHALF OF TAXPAYER. — In any case in which the taxpayer reimburses another person for wages paid or incurred by such person for services performed in conducting research and experimentation on behalf of the taxpayer, such wages shall be treated as paid or incurred by the taxpayer (and not by such other person) at the time paid or incurred by such person.²⁸ [Emphasis added.]

This provision alone would have been sufficient to allocate creditable expenditures between a researcher and someone paying for the research (that is, without a separate funding rule). It was the original mirror rule: Someone gets the credit, depending on whether the researcher is working on her own behalf or on behalf of another person.

The Senate report on this provision called for a facts and circumstances test to distinguish expenses that were outside the parenthetical reimbursed-wage exclusion versus those inside it:

The determination of whether and to what extent payments from a taxpayer to another person enter into the credit computation as reimbursement of wages for services performed in conducting research on behalf of the taxpayer depends on all the facts and circumstances of the particular research arrangement. If, therefore, the taxpayer enters into a research contract with a university under which substantial benefits of the research, if any, are to accrue to the taxpayer, such

research services and (2) reimbursement of wages paid or incurred by another person for research services performed on behalf of the taxpayer.²⁷ The bill specified that wages paid or incurred by someone performing research on behalf of a taxpayer and reimbursed by that taxpayer would not count as creditable wages by the person performing the research:

²⁵Reg. section 1.41-2(e)(3).

²⁶Unlike most tax legislation, which arises in the House, the initial version of the research credit was proposed by the Senate as an amendment to H.J. Res. 266, section 221(a) (1981) (Senate bill). Accordingly, the first committee report is a Senate report (S. Rep. No. 97-144 at 75 et seq. (1981) (Senate report)).

Senate bill (section 44F(c)(1)(A)-(B)). There were no supply costs or other eligible expenses in the credit calculation included in the Senate

research generally will be considered to be performed on behalf of the taxpayer.²⁹

The facts and circumstances, such as benefits to the payer from any successful research results, determined whether research was performed on the payer's behalf by the researcher. Also, the "to what extent" language indicated that the rule was proportional. For example, if the researcher's wage expenditures were reimbursed at only 75 percent, the other 25 percent would count toward the researcher's credit calculation. There was no apparent daylight between these two binary results; the rule operated as a toggle switch that gave the credit to one party or the other based on the facts and circumstances.

There was a funded rule in the original Senate bill as well, but it was clearly distinct from the wage reimbursement provision. Under the Senate language, one could not claim otherwise qualified wages in the credit "to the extent funded from any grant, contract, or subcontract for research and experimentation with any agency or instrumentality of Federal, State, or local government." So the original funded rule applied only to government funding. "Funded" meant a government grant, not a payment under a research contract.

The next iteration of the proposed credit,³¹ in House bill 1, made several changes to the Senate language. It added to eligible wages (1) supply costs and (2) payment for specified personal property used in research and called them all "inhouse research expenses." It swapped out "reimbursed wages" of another person, providing instead for 65 percent of amounts paid under

contracts for research, calling them "contract research expenses." This replaced the Senate's difficult-to-apply wage reimbursement provision (would the taxpayer have been required to keep track of a contract researcher's actual payroll?) with a rule-of-thumb approximation instead. Sixty-five percent of payments made under a research contract were considered reimbursement of qualified research expenses, and the other 35 percent were attributable to overhead, profit, and the like.

As a result of those changes, the express parenthetical reimbursed-wage exclusion of the Senate bill no longer fit into the structure of the provision, and it was removed. Instead, the House expanded the funded rule by changing the government-only list to "funded by . . . another person (or any government entity)." So the original government-funded grant rule was adapted to take over for the parenthetical sorting out of whether research had been conducted on behalf of another. The funded rule came to serve as both (1) the on-behalf-of distinction, sorting out whose research it was if someone was paying the researcher; and (2) the provision dealing with government grants.

The legislative history clearly tracks this migration of the on-behalf-of rule. The facts and circumstances test moved to the contract research discussion, while the example of "on behalf of" moved to the expanded funded rule discussion. Thus, the same on-behalf-of rule was considered by Congress to be present both in the contract research expense provision of the statute and in the "to the extent funded" provision. And both were to be determined based on the facts and circumstances. All indications are that under the House's new formulation of the rules, the mirror-reciprocal approach between contract research and funding remained.

B. A Logical Approach

Given this congressional understanding that the same rule was to be applied to determine both the researchers' and the payers' right to the credit,

²⁹Senate report, *supra* note 26, at 79. The Senate report continues with an additional example of a corporation that contracts with a university medical school. Note, there is nothing in either of these examples that introduces benefits or rights retained by the *researcher* as a factor.

Senate bill (section 44F(c)(1)(D)(2)(B)(ii)).

³¹The House version came second and was in reaction to the Senate's proposed credit. The House introduced H.R. 4242, section 241(a) (House bill 1), which contained the same general approach to a credit as the Senate bill, but with a few significant changes. House bill 1 was not passed with its original language, but the House report (H.R. Rep. No. 97-201 at 109 et seq. (1981)) was written based on that language. Another bill was introduced in the House as well — H.R. 4260, section 221(a) (House bill 2), which was slightly different from House bill 1. No official committee report was written for House bill 2.

House bill 1 (section 44F(b)(2)).

³³*Id.* (section 44F(b)(3)).

³⁴*Id.* (section 44F(d)(3)).

³⁵See House report, supra note 31, at 119.

consider what a logical on-behalf-of/funded rule would look like. The legislative history indicates, in examples, that whether a payer will benefit from the research is an important factor. It seems common sense to conclude that for research to be on behalf of the payer, the payer must at least receive some rights or other benefits.

But that rule alone would allocate the credit to the payer even when payment is contingent on the success of the research. While the legislative history says nothing about risk being part of the facts and circumstances test for on-behalf-of/ funded, the entire purpose of the credit is to provide an incentive for research, which means taking on risk. So an additional logical rule would be that even if the payer will receive rights to the research results, the credit will not be allocated to the payer if payment is contingent on the success of the research. The reasoning is twofold. The first is policy-driven: The rule allocates the credit to the party taking on the risk intended to be subsidized. The second is technical: It's not research on behalf of someone if they're really purchasing the product of the research rather than the time and effort of the researcher per se. Likewise, from the researcher's perspective, it's not research on behalf of another; it's research to create a product to be sold to another.

So if it's not research on behalf of another, awarding the credit to the researcher makes sense. The researcher is taking the risk, engaging in the behavior favored by Congress. But as we have seen, the regulations add an additional rule: The researcher must also retain substantial rights in the research results. Because this breaks the symmetry obvious in the legislative history, introduces a term ("substantial rights") not present in the statute or legislative history, and appears to cut against Congress's intent to subsidize taxpayers taking on risk, there had better be a good reason for it.

Giving Treasury the benefit of the doubt, why might it have thought this additional stricture was necessary? Nowhere in the legislative history is it stated that a researcher not retaining rights after the project is thereby "funded," even though she is selling the results of the research, not her research services. However, this type of situation is discussed in another place in the legislative history.

IV. The Legislative Source

A. Snow-ed Under

The substantial rights rule did not arise out of nowhere. To understand its origin and the concerns it was intended to address, it's necessary to take a trip back to the 1980s — the era of the Rubik's cube, leg warmers, and the passive activity tax shelter.

Congress recognized in 1981 that offering a sizable tax credit would create an irresistible prize for clever or unscrupulous (or both) taxpayers and their counsel.³⁷ Legislators were concerned about the siphoning of benefits to taxpayers who were merely passive financiers³⁸ or hobbyists.³⁹

Moreover, Congress was very much focused on applied research: "the development and application of new techniques and equipment to *production*" and "the development and manufacture of new *products*." (Emphasis added.) The legislative history cites the need "to stimulate a higher rate of capital formation and to increase productivity" and laments that "the decline in this country's research and development activities has adversely affected economic growth, productivity gains, and our

³⁶The term "substantial benefits" appears in the Senate report, but in an example making the point that a payer must receive substantial benefits of the research in order for the research to be on its behalf. Senate report, *supra* note 26, at 79. There is no similar indication in the legislative history that the rights retained by the researcher are a factor in the on-behalf-of/funded test.

³⁷See, e.g., Gerald J. Robinson, "Comment: Lawyers and Avoiding Taxes," *The New York Times*, Jan. 18, 1981 ("Lawyers for tax shelter promoters are anxiously awaiting the tax package which the Reagan administration will soon present to Congress. The ink will hardly be dry on the new law before they rush to redesign their shelter deals to squeeze out every last dollar of tax benefit.").

See, e.g., Jerome Kurtz, "Kurtz on 'Abusive Tax Shelters," Tax Notes, Feb. 18, 1980, p. 213 (IRS Commissioner Jerome Kurtz decries the prevalence of tax shelters, especially through partnerships, and the growing share of government resources they required to control).

³⁹The notion of hobby losses being a serious tax policy concern seems quaint today, but in the 1980s it was considered a very real problem. *See*, *e.g.*, Alan J. Samansky, "Hobby Loss or Deductible Loss: An Intractable Problem," 34 *Fla. L. Rev.* 46 (1981).

Senate report, *supra* note 26, at 77; House report, *supra* note 31, at 111 (identical language in both reports).

competitiveness in world markets,"⁴¹ another widespread concern of the 1980s.⁴²

To address both those concerns, Congress intentionally applied a stringent trade or business requirement to claiming the research credit. Section 162(a) allows taxpayers to deduct ordinary and necessary expenses paid or incurred "in carrying on any trade or business." Generally, expenses incurred before the sale of any goods or services must be capitalized as start-up expenditures. When section 174 was enacted in 1954, allowing the deduction of R&D expenses, a similar test was included, but it used the phrase "in connection with" rather than "in carrying on" a trade or business."

In Snow, 45 decided in 1974, the Supreme Court held that section 174 and its use of the phrase "in connection with" was enacted "to dilute some of the conception of 'ordinary and necessary' business expense under section 162(a)."46 The Court reasoned that section 174 was intended to encourage R&D by "small or pioneering business enterprises," and that a more stringent interpretation "would defeat the congressional purpose somewhat to equalize the tax benefits of the ongoing companies and those that are upcoming and about to reach the market."⁴⁷ The case is read to have established that "in connection with" includes expenses in pursuit of a future trade or business, while "in carrying on" requires a current trade or business.

Snow, however, involved an individual with no scientific or engineering experience who deducted his loss allocation as a limited partner in a partnership for which he did not provide significant services. The partnership, in turn,

hired a machinery company to actually perform the research and hired another company that was to manufacture and sell any eventual product.⁴⁸ All this while the taxpayer (as the Sixth Circuit pointed out) worked a full-time job as a marketing executive at a substantial income, putting him in a high tax bracket.

The Sixth Circuit flagged the problem in its handling of the case, which would be overturned by the Supreme Court:

Thus, as is so frequently true, two laudable public purposes are in direct conflict: 1) the Congressional purpose of stimulating research and development, including research and development on the part of inventors and small businessmen, and 2) the desirability of strict interpretation of tax laws so as to prevent unintended tax shelters.⁴⁹

The Supreme Court, without explanation, chose not to address this issue, prompting one court to note later, "The Supreme Court's interpretation of section 174(a)(1) fairly invited the creation of R&D tax shelters, and the bar quickly took up the invitation." In fact, an avalanche of research partnerships soon hit the courts, which had to dig out from under the *Snow* consequences for decades. What those cases had in common was a flow-through entity (generally a partnership) with a passive investor in a high tax bracket, and neither the entity nor the investor performed the research or intended to do anything with the research results other than

Senate report, *supra* note 26, at 77; House report, *supra* note 31, at 111 (identical language in both reports).

The House would add a "basic research" credit to the Senate bill for amounts paid to universities and research institutes (now in section 41(e)), but its constraints would be tighter than the general credit, further demonstrating Congress's intent to focus the general credit on applied research and production.

⁴³ See section 195.

 $^{^{44}}$ Section 174(a)(1) (as effective before tax years beginning after December 31, 2021).

⁴⁵Snow v. Commissioner, 416 U.S. 500 (1974), rev'g 482 F.2d 1029 (6th Cir. 1973), aff'g 58 T.C. 585 (1972).

⁴⁶Id., 416 U.S. at 502.

⁴⁷ *Id.* (citing hearings on H.R. 8300 (1954) Pt. I, at 105; 100 Cong. Rec. 3425 (1954)).

See Snow, 58 T.C. at 590-591. The general partner of the partnership owned the other two companies.

⁴⁹Snow, 482 F.2d at 1031.

⁵⁰ Spellman v. Commissioner, 845 F.2d 148, 151 (7th Cir. 1988); see, e.g., Raymond J. Grenier Jr., "Structuring the R&D Partnership," 87 Comm. L.J. 630 (1982) ("Tax sheltered partnerships are emerging as increasingly popular vehicles for funding research and development expenditures.").

⁵¹See, e.g., Green v. Commissioner, 83 T.C. 667, 690 (1984); Diamond v. Commissioner, 930 F.2d 372 (4th Cir. 1991); Levin v. Commissioner, 832 F.2d 403 (7th Cir. 1987); and Harris v. Commissioner, 16 F.3d 75 (5th Cir. 1994). See also William Natbony, "The Tax Incentives for Research and Development: An Analysis and a Proposal," 76 Geo. L.J. 347, 350 (1987) ("Shortly after the Snow decision in 1974, R&D syndications began finding their way into the marketplace as so-called tax shelter limited partnerships. As a consequence, R&D tax law is of relatively recent vintage with little or no judicial authority interpreting numerous thorny questions.").

receive royalties.⁵² In the view of the courts addressing these research partnerships, they were really financing arrangements intended to artificially transfer tax benefits (section 174 deductions) to a taxpayer not actually involved in the activities section 174 was intended to encourage.⁵³

Clearly anticipating this problem, Congress consciously took steps to *Snow*-proof the 1981 research credit. The Senate report states:

Under the provision, the credit is to be available only with regard to research expenditures paid or incurred in carrying on a trade or business (within the meaning of Code sec. 162) of the taxpayer. The credit, therefore, is not available for research expenditures paid or incurred by a taxpayer merely in connection with, but not in carrying on, a trade or business. Similarly, the credit is not available with respect to expenditures paid or incurred by a taxpayer as part of a hobby or a financing arrangement.⁵⁴

Initially, the House report had specified that research expenses need not be paid or incurred "in the particular business being carried on by the taxpayer, as long as the taxpayer is carrying on a trade or business." ⁵⁵ But Congress's concern grew as the provision moved through the legislative

process. By the time the Senate and House bills

expenses be paid or incurred in carrying on "a

found their way into conference,⁵⁶ the committee decided to tighten the reins, requiring that the

particular trade or business already being carried on

B. The Nexus Paragraph

Finally, there is this telling paragraph (the nexus paragraph), which is substantively identical in both the Senate and House reports:

For example, under the trade or business test of new section 44F, the credit generally is not available with regard to a taxpayer's expenditures for "outside" or contract research intended to be transferred by the taxpayer to another in return for license or royalty payments. (Receipt of royalties does not constitute a trade or business under present law, even though expenses attributable to those royalties are deductible from gross income in arriving at adjusted gross income.) In such a case, the nexus between the research and the transferee's activities generally would be insufficient to support a finding that the taxpayer had incurred the research expenditures in carrying on a trade or business. (Under appropriate circumstances, nevertheless, the nexus might be deemed adequate for purposes

by the taxpayer."⁵⁷ (Emphasis added.)

Congress's concern is apparent in the treatment of partnerships as well. The House report adds the following: "In addition, it is intended that the Treasury will issue regulations, for credit purposes only, which will allow the credit in the case of research joint ventures by taxpayers who otherwise satisfy the 'carrying on' test and who are entitled to the research results."⁵⁸

⁵²The Commerce Department even published what was basically a "kit," guiding companies on how to finance R&D through partnerships. Commerce, "Summary of the Use of the R&D Limited Partnership: A Means to Enhance Our International Competitive Position," at 10 (Dec. 6, 1982).

See Harris, 16 F.3d at 78.

Senate report, *supra* note 26, at 77-78. The House report on a subsequent version of the proposed legislation further emphasized this point by changing the parenthetical to a complete sentence: "Generally, the phrase 'in carrying on any trade or business' is intended to have the same meaning for credit purposes as it has under the business deduction provisions of section 162." House report, *supra* note 31, at 112. Congress later relented in part. In 1989 an exception was added for start-up taxpayers to claim in-house expenses only, if "at the time such in-house research expenses are paid or incurred, the principal purpose of the taxpayer in making such expenditures is to use the results of the research in the active conduct of a future trade or business." Omnibus Budget Reconciliation Act of 1989 (P.L. 101-239, section 7110(b)).

House report, *supra* note 31, at 112.

⁵To make the legislative history even more complex, the language of House bill 2 was substituted for that of House bill 1, and it was the Senate bill and a House bill numbered as House bill 1 (but with House bill 2's language) that went to conference. The conference committee adopted, for the most part, that substituted-language House bill, which had no committee report. The Joint Committee on Taxation issued a general explanation of the provision based on the final language. JCT, "General Explanation of the Economic Recovery Tax Act of 1981," JCS-71-81, at 117 et seq. (Dec. 29, 1981) (general explanation).

[&]quot;Id. at 122.

House report, *supra* note 31, at 112.

of the section 174 deduction elections.) If, however, the taxpayer used the product of the research in the taxpayer's trade or business, as well as licensing use of the product by others, the relationship between the expenditures and the taxpayer's trade or business activities generally would be sufficient for credit purposes.⁵⁹

Aha! This is the only place in the legislative history that mentions a researcher's actions regarding the research results. If there's a source for the substantial rights rule anywhere in the legislative history, this is the best (and, I believe, only) candidate.

Let's examine the paragraph more closely. Pause for a moment after the first sentence and parenthetical:

For example, under the trade or business test of new section 44F, the credit generally is not available with regard to a taxpayer's expenditures for "outside" or contract research intended to be transferred by the taxpayer to another in return for license or royalty payments. (Receipt of royalties does not constitute a trade or business under present law, even though expenses attributable to those royalties are deductible from gross income in arriving at adjusted gross income.)⁶⁰

There are two interesting things to note here. First, the initial sentence is remarkably prescient: It foresees the torrent of section 174 tax shelters about to hit the courts. It sets forth Congress's intent that the credit not be available to passive investors, those involved in neither the research nor the marketing of the results.

The second note of interest involves the parenthetical, which grammatically supports the first sentence. The parenthetical, oddly enough, is demonstrably wrong. Well-established case law as of 1981 (and now) clearly provided that one may be engaged in the trade or business of inventing, with revenue coming solely from the

sale or licensing of patents or other research results. There is and was no requirement that the taxpayer also manufacture goods covered by its patents, for instance. A taxpayer in this position might be considered someone with the trade or business of an inventor.

However, the case law was unclear, as of 1981, on whether a taxpayer could have a trade or business when he neither was active in the research (that is, farmed it out as contract research) nor expected revenue from anything but the sale or license of the research results. In this type of frontless-backless arrangement, the taxpayer might be called a research intermediary. He's not the researcher, and he's not the seller of the product; he is an investor who puts up funds in return for potential royalties. But note: He still faces the risk of the failure of the research. So one might reasonably conclude that the policy of section 174 — to encourage R&D — applies to a research intermediary.

Then again, there's that tension noted by the Sixth Circuit in *Snow*. Should tax benefits flow to high-bracket, passive investors, away from actual researchers and producers, even if it encourages some of the behavior (increased funding of R&D) that is the goal of the tax policy?

The Supreme Court in *Snow*, heedless of the Sixth Circuit's warning, hinted that the answer was yes, a research intermediary has a trade or business. (*Snow* involved a passive investor in a partnership that contracted with one company to research the product and with another to manufacture and sell it.) But the *Snow* Court focused entirely on the current-versus-future trade or business issue. It assumed *some* future trade or business in general without asking whether it was a trade or business of the partnership, the investor, or even the whole group of companies (they were all related).

⁵⁹Id. at 113; see Senate report, supra note 26, at 78 (substantively identical language).

⁶⁰Id.

⁶¹E.g., Bailey v. Commissioner, T.C. Memo. 1963-251 at 1257 ("Certainly, one may be engaged in business as an inventor, with the expectation of profitable exploitation of one's inventions through royalties, sale of patents, or otherwise."); Avery v. Commissioner, 47 B.T.A. 538, 542 (1942) ("What may have been a hobby originally became a trade or business when he held the patents for sale or license to others for profit."); and Kilroy v. Commissioner, T.C. Memo. 1980-489 ("This Court has held that the exploitation of inventions through royalties, sales of patents, or otherwise may constitute a business." Citing Avery, 47 B.T.A. 538.).

Lower courts would later resolve the tension presented in the research partnership cases decidedly against high-bracket taxpayers, using the trade or business requirement of section 174 to find that a research intermediary did not qualify. One can definitely read this as a partial overturning of the Supreme Court, leaving *Snow's* legacy as solely that the "in connection with" language means that expenses anticipating a future trade or business qualify under section 174.

But back to the legislative history — and that paragraph (we're still winding our way toward the source of the substantial rights rule). As a reminder, the nexus paragraph begins [with my bracketed comments]:

For example, under the trade or business test of new section 44F, the credit generally is not available with regard to a taxpayer's expenditures for "outside" or contract research intended to be transferred by the taxpayer to another in return for license or royalty payments [that is, a research intermediary will *not* qualify for the new credit]. (Receipt of royalties does not constitute a trade or business under present law, even though expenses attributable to those royalties are deductible from gross income in arriving at adjusted gross income.) [An incorrect statement of law if referring to an inventor.]63

So the first sentence is merely congressional fiat: Research intermediaries will not qualify. This is within Congress's prerogative, of course. Congress is creating the credit, and the legislators can call for regulations to set the boundaries. The regulations dutifully repeat this rule as part of the trade or business test. ⁶⁴ The parenthetical is not really needed; if it is mere support for the first

sentence, it would have to be read as referring only to research intermediaries — that is, reading the parenthetical as continuing to refer only to the universe of taxpayers identified in the first sentence. 65

If the parenthetical is read as a separate rule, that Congress assumes inventors also will not qualify for the credit, some interesting issues arise. They are discussed below.⁶⁶

The paragraph in the committee reports continues:

In such a case [the case of a research intermediary and perhaps an inventor], the nexus between the research and the transferee's activities generally would be insufficient to support a finding that the taxpayer had incurred the research expenditures in carrying on a trade or business. (Under appropriate circumstances, nevertheless, the nexus might be deemed adequate for purposes of the section 174 deduction elections.)⁶⁷

Pause once more. This is again an impressive forecast of the *Snow* storm to come. As the Fifth Circuit in *Harris* would say in a well-reasoned opinion:

Although *Snow* settled that the temporal nexus of a research project to the start of an active trade or business was not dispositive of section 174's applicability, it left open the degree of "connection" required between the expenditures and the operation of the trade or business itself — the operational nexus — in order to trigger section 174's exception to the general rule of nondeductibility of preoperation expenditures. 68

The general explanation prepared by the staff of the Joint Committee on Taxation made a change

⁶²At least when the back end was "pre-cooked." The research partnership cases all involved partnerships that contracted out for research and either pre-licensed the results to someone else (usually the person doing the research) or gave that other person an option whose terms (e.g., low strike price) ensured that it would be exercised if the research were successful. So a research intermediary that prearranges that the person actually doing the research will also use the research results in *its* business cannot have a trade or business involving the research.

⁶³House report, *supra* note 31, at 113 (with my bracketed comments); *see* Senate report, *supra* note 26, at 78 (substantively identical language).

Reg. section 1.41-2(a)(1) (final sentence).

⁶⁵For instance, the parenthetical could be read as: "(Receipt of royalties [under such an arrangement] does not constitute a trade or business under present law, even though expenses attributable to those royalties are deductible from gross income in arriving at adjusted gross income.)"

⁶⁶See infra discussion at Section IV.B.

⁶⁷House report, *supra* note 31, at 113 (with my bracketed comments); *see* Senate report, *supra* note 26, at 78 (substantively identical language).

⁶⁸*Harris*, 16 F.3d at 78.

to the first sentence that may clear up the confusion about whether this nexus rule applies just to research intermediaries or also to inventors. The general explanation substantially repeats the nexus paragraph from the Senate and House reports but adds a parenthetical example of the type of arrangement that would generally lack sufficient nexus.⁶⁹ The example is of an operating company that forms a limited partnership as its general partner. It specifies that the limited partnership's research expenditures would not have sufficient nexus to the operating company's trade or business. It happens that this was *precisely* the situation in *Snow*. While only an example, this tends to demonstrate that in the nexus paragraph, Congress was focusing on research intermediaries. The example also shows, once again, that Congress understood the threat of tax shelter partnerships.

So Congress seems merely to be prohibiting research intermediaries from receiving the credit, using the lack of a current trade or business as the determining factor. Providing a little wiggle room, however, even for research intermediaries, Congress used the word "generally," indicating that, notwithstanding the prohibition above, appropriate nexus might exist. The final sentence illustrates such a situation:

If, however, the taxpayer used the product of the research in the taxpayer's trade or business, as well as licensing use of the product by others, the relationship between the expenditures and the taxpayer's trade or business activities generally would be sufficient for credit purposes.

Here is a requirement to use the results of research in one's trade or business when one is also licensing the results. It's a trade or business rule concerning what rights the taxpayer retains to use the research results. If there's a source for the substantial rights rule anywhere in the legislative history, that's it. It's the only place that

makes any sense. But when and how is it to be applied?

The nexus paragraph clearly applies to *Snow*-type research intermediaries, and the regulations provide that rule in reg. section 1.41-2(a)(1) (using the word "generally" to indicate the possibility of an exception, as in the final sentence of the nexus paragraph). But then there's that peculiar parenthetical that seems to claim that inventors don't have a trade or business. The addition made by the general explanation indicates that the entire paragraph is about research intermediaries, not inventors (and the inaccurate parenthetical is not setting up a new rule, but merely continuing the reference to research intermediaries).

However, this seems precisely the rule implemented by reg. section 1.41-2(a)(3). An inventor who is not a research intermediary is denied the credit merely because she does not retain rights in the results of her research, and (at least this half of) the rule is in the "trade or business" section of the regulations, consistent with its apparent source in the nexus paragraph — specifically, the inaccurate parenthetical. And the rule of reg. section 1.41-2(a)(3) is not framed as an exception to the "generally" rule, as in the legislative history, but as its own rule.

If the nexus paragraph is the source of the substantial rights rule (and I can see no other logical source), two questions arise. First, is the regulation valid? The parenthetical does not seem to authorize any specific rule at all — its parenthetical nature indicates that it is merely in support of the previous sentence, which deals with research intermediaries using outside researchers. Add to that, as we have seen, that the statement of law is incorrect. An entire, separate report could be written on whether a regulation relying on an incorrect statement of law by Congress is valid (does Congress have the power to override the law in that indirect manner?).

Moreover, even if the regulation was originally valid, there's a good argument that the substantial rights rule was made obsolete by the Tax Reform Act of 1986. The regulations containing the rule were proposed in 1983 and were to be effective only through the end of 1985,

⁶⁹General explanation, *supra* note 56, at 123. As noted, *supra* note 56, the version of the House bill eventually adopted by the committee had no legislative report specifically written for it. Therefore, the general explanation should be considered more authoritative than might usually be the case for a legislative document prepared after the passage of the statute

to match the sunset date in the original 1981 provision. By the time the regulations were finalized in 1989, however, TRA 86 had extended the credit through the end of 1988 and made significant changes. Accordingly, reg. section 1.41-5, containing the funded rule, was made effective only through the end of 1985 because Treasury reserved on matters affected by the 1986 act.

In TRA 86, Congress extended the credit but also reacted to Treasury's concern that taxpayers had been claiming the credit for too broad a class of expenditures. ⁷⁴ Even in light of that intent to tighten eligibility, however, a change to the definition of qualified research made clear that Congress anticipated that inventors could claim the credit. In new section 41(d), Congress limited the credit to specific expenses associated with new or improved "business components" and provided:

B. Business component defined

The term "business component" means any product, process, computer software, technique, formula, or invention which is to be —

- (i) held for sale, lease, or license, or
- (ii) used by the taxpayer in a trade or business of the taxpayer.

That the term "invention" is on the list of business components and that it need only be held for "license" or used in a trade or business, in the disjunctive, should dispel the notion that an inventor can't have a trade or business for purposes of the credit. It should vitiate any claim that the inaccurate nexus parenthetical provides

regulatory support for the substantial rights rule. Accordingly, the nexus paragraph becomes entirely a rule regarding research intermediaries, and the "rights" language in the final sentence is merely an illustration of what an exception for a research intermediary would look like, not an excuse to erect a rule taking the credit away from inventors.

I won't pursue either validity argument here, however, and will instead assume, for purposes of this report, that Congress implicitly authorized at least some sort of stricter trade or business scrutiny for those selling inventions rather than manufacturing new or improved products resulting from their research. That would make sense with or without an express substantial rights rule. It is consistent with Congress's concern about hobbyists and the potential use of *Snow*-like arrangements and with its intent to subsidize applied research — that is, research likely to result in production. So the second question is, how should the rule be interpreted in light of this purpose?

I propose that there are three principles from the legislative history that should be applied when interpreting the substantial rights rule:

- 1. The on-behalf-of/funded test was intended to operate in the same manner when applied from the perspective of either the researcher or the payer. Congress anticipated a binary outcome, with no situation in which as a result of *this* rule alone neither the researcher nor the payer could claim otherwise qualified research.
- Congress's primary concern in the nexus paragraph the only place in the legislative history where retention of rights is mentioned was excluding research intermediaries from the credit. The intended treatment of inventors is less clear, and it should be determined consistent with the next, related principle.
- 3. Congress intended to subsidize production and applied research and avoid giving the credit to those with indirect or less serious research activities.

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⁷⁰48 F.R. 2790 (1983).

⁷¹TRA 86 section 231. The credit had been extended once again in 1988, and at the time the regulations were finalized, it was set to expire at the end of 1989. Technical and Miscellaneous Revenue Act of 1988 (P.L. 100-647, section 4007(a)).

Now reg. section 1.41-4A.

 $^{^{73}}$ The provision hung in limbo until 2001, when it was incorporated by new reg. section 1.41-4(c)(9).

⁷⁴See S. Rep. 99-313, at 694-695 (1986) ("The committee believes that the definition [of qualified research] has been applied too broadly in practice, and some taxpayers have claimed the credit for virtually any expenses relating to product development. According to early data on the credit, the Treasury has reported, many of these taxpayers do not engage in high technology activities."); accord H.R. Rep. No. 99-426, at 178 (1985).

⁷⁵But see infra Section VII for a summary of validity arguments.

The nexus paragraph accordingly requires a nexus between a taxpayer's research expenditures and *its* trade or business.

Let's look now at how these principles have fared in court.

V. Contractors Meet Reaganomics

A. Private Versus Public R&D

At the same time Congress was pursuing an incentive to increase private R&D, the Reagan administration pushed through increased government spending on the military. Consistent with the administration's laissez-faire approach, and in reaction to perceived waste in defense spending, the Defense Department began to move away from traditional cost-plus contracts, under which defense contractors were paid for their work (that is, cost reimbursement plus a profit) regardless of the success of the project. In an attempt to force defense contractors to control costs and become more competitive, they were asked to bid on fixed-price contracts, under which they would be paid only if they successfully produced something that met government-set specifications.⁷⁶

That these two policies were on a collision course was not apparent at the time.

Essentially, the U.S. government had set up the major defense contractors to receive subsidies for doing research paid for by the U.S. government. The IRS was not amused. The credit was supposed to provide an incentive for *private* research and help "overcome the resistance of many businesses to bear the significant costs" of "initiating or expanding research programs." Now it was subsidizing projects that the Defense Department would have pursued in any case, the IRS believed. But defense contractors are engaged in a fiercely competitive business, requiring risky decisions regarding devotion of

capital, and nothing in the provisions of the credit expressly ruled out a defense contractor whose customer happened to be the government, particularly when the government had shifted risk of success to the contractor.

The Fairchild⁷⁹ court was the first to grapple with this. Fairchild Industries Inc. entered into a fixed-price contract to design and produce a pilottraining aircraft. Although the Defense Department had the right to reject and not pay for any work that did not meet its specifications, the contract required it to make progress payments to Fairchild during the work. The government argued that despite the technical right to demand return of the progress payments, such an action by the Defense Department was highly unlikely, and therefore the progress payments were funding under section 41(d)(4)(H).

The Court of Federal Claims agreed with the government, ⁸⁰ but the Federal Circuit reversed the decision. The Federal Circuit held that, consistent with the government's own regulations, payment contingent on the success of research is payment for the *product* of the research and thus cannot be considered funding. ⁸¹ The court wrote, "The statute is designed so that those who will bear the risk of financial loss can include the tax credit in their calculation of investment risk."

The government did not challenge the taxpayer in *Fairchild* based on the substantial rights rule. That would come in the next case, *Lockheed*.⁸³

B. Lockheed: The Central Case

Lockheed Martin Corp. claimed the research credit for expenses incurred under multiple fixed-price defense contracts for missiles and other military equipment. In each case, Lockheed was to design the product, produce prototypes for testing, and sell the product to the U.S. government if the testing was successful (the sales

⁷⁶ See David F. Bond, "Industry Controls Effort, Costs in Fixed Price Development Losses," *Aviation Week & Space Technology*, Sept. 3, 1990, at 179 (by the second half of the Reagan administration, fixed-price contracts had become the "preferred way of doing business").

⁷⁷Senate report, *supra* note 26, at 76-77; House report, *supra* note 31, at 109.

⁷⁸See Defendant's Brief in Support of Its Cross-Motion for Summary Judgment and in Opposition to Plaintiff's Motion for Partial Summary Judgment (Substantial Rights Issue) at I.A.2, Lockheed, 42 Fed. Cl. 485 (1998) (No. 96-161T) (Lockheed government claims court brief).

⁷⁹ Fairchild, 71 F.3d 868.

⁸⁰Fairchild, 30 Fed. Cl. 839.

 $^{^{81}}$ Fairchild, 71 F.3d at 869-874 (citing reg. section 1.41-2(e)(2) and -4A(d)(1) and referring to them as "'mirror image' rules for determining when the customer for the research, rather than the researcher, is entitled to claim the tax credit").

⁸²*Id.* at 874.

⁸³ Lockheed, 210 F.3d 1366.

were either part of the development contract itself, a follow-on contract, or both). Lockheed also had the right to sell the products to third parties (for example, foreign governments), but there were significant limitations.

The contracts gave the U.S. government significant rights in the taxpayer's research results, including "an unlimited right to use Lockheed Martin's technical data and disclose it to third parties." Before the Court of Federal Claims, the government argued:

Because the Government obtained the research results, it has absolute use of those results. For example, the Government could publish the LANTIRN technical data on the Internet. The Government could sell Titan IV data which contained the designs for the entire rocket, or for one component, such as the solid rocket motors, or give the data to plaintiff's most intense competitors. . . . Under the Major Program Contracts, plaintiff has no power to prevent the entire world from knowing and using its technical data — hardly the position of a researcher who retained substantial rights or has any semblance of ownership.85

Lockheed argued that the right to "use the research in the researcher's trade or business" was a substantial right, even if it was nonexclusive and the researcher could not prevent disclosure of the results to others.⁸⁶

The claims court agreed with the government's arguments⁸⁷ and held that Lockheed had not retained substantial rights. It

found that "the government's unlimited right to use and disclose plaintiff's technical data considerably diminished, if not destroyed, the commercial value of plaintiff's right to use the results of its research, a right derived from the competitive advantage to the researcher over others." 88

So the claims court focused on the value of the retained right rather than its nature as connected to a trade or business of the researcher. If the researcher's "competitive advantage" is destroyed, the right cannot be substantial, the court declared. Truth be told, that is a fair reading of the regulations *if* the substantial rights rule is viewed in isolation (as an awkward add-on to the funded rule), lacking context. Standing alone, absent an interpretation informed by Congress's concerns in the legislative history, any right in intellectual property that can be given away freely seems pretty insubstantial. As we have seen, however, Congress did have specific concerns.

Lockheed countered by pointing out that the company was highly profitable and had generated significant revenue from the very projects in issue, so its rights could not be worthless. But the court characterized this revenue as derived from the competitive advantage Lockheed had as a result of its knowledge and experience, and it dismissed these as "incidental benefits" under reg. section 1.41-4A(d)(2).⁹¹

Two other limitations facing Lockheed in exercising its "rights" in the research were that (1) if it sold to another party (most likely a foreign government), there was a recoupment requirement under which Lockheed had to repay the U.S. government some of its funding for the original project; and (2) national security and export control requirements, as one might imagine for this type of project, were strict, and

⁸⁴ Id. at 1370. The contracts incorporated the terms of the Defense acquisition regulations and the federal acquisition regulations providing for those license rights. *Lockheed*, 42 Fed. Cl. at 489-490.

⁸⁵ Lockheed government claims court brief, *supra* note 78, at II.A (footnote omitted). The government pointed out several instances in which the Defense Department did in fact share the results of Lockheed's research with competitors as part of obtaining a "second source" for the item Id

⁸⁶ *Lockheed*, 42 Fed. Cl. at 496.

⁸⁷ In doing so, the court managed to completely misunderstand the taxpayer's position: "Plaintiff's interpretation of the substantial rights requirement as disqualifying the researcher from receiving a research credit *only* where the researcher retains *no* rights to the research, cannot be a correct interpretation since it renders superfluous the word 'substantial' in the regulation." *Id.* (emphasis in original). While flawless in its logic, this statement bears no resemblance to the taxpayer's "use in a trade or business" argument.

⁸⁸Lockheed, 42 Fed. Cl. at 498 (citing *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1011 (1984) (economic value of property right in trade secret lies in competitive advantage over others by virtue of its exclusive access to the data; disclosure or use by others destroys that competitive edge)).

Lockheed, 42 Fed. Cl. at 498.

No one would claim, "I just went on the internet, and now I have a substantial right to make a pinewood derby car!"

 $^{^{91}}$ Lockheed, 42 Fed. Cl. at 499 (referring to then-reg. section 1.41-5(d)(2)).

the U.S. government had to approve any sales to third parties. The court pointed to the first of these as contrary to the rule in reg. section 1.41-4A(d)(3) that a "taxpayer does not retain substantial rights in the research if the taxpayer must pay for the right to use the results of the research." The court pointed to the second point as further proof of the illusory value of the taxpayer's rights.

On appeal to the Federal Circuit, the Justice Department reprised its argument that Lockheed's rights were eviscerated by a capricious government seeking to quash its competitive advantage. Lockheed tried again to direct focus to "use in a trade or business," as opposed to the value of the retained rights.

Lockheed argued that the substantial rights rule had no antecedent in the statute or (contrary to the discussion above) the legislative history: "It is rather a creation of interpretive Treasury regulations." (However, Lockheed did point to the nexus paragraph as an indication that "Congress' central concern was that the taxpayer retain the right to use the research" and that "Congress did not want to establish tax shelters for taxpayers who would not be able to use the research in their businesses." (Surprisingly, Lockheed did not cite reg. section 1.41-2(a)(3), the other version of the substantial rights rule, which is *in* the trade or business section of the regulations.

The government countered that the substantial rights rule was properly a rule of funding. It argued:

The concept of "substantial rights" produces a reasonable interpretation of

the statutory reference to "funded" research because, as a practical matter, one who pays for research will generally insist upon an ownership interest in the results. Thus, a researcher's failure to retain substantial rights in the research results suggests that he did not conduct the research at his own expense but was funded by another, while his retention of substantial rights to research results indicates that the research was not funded but was pursued at the researcher's own expense, notwithstanding any subsequent payments by another.⁹⁶

In addition to being a remarkable feat of reverse-inference, this reasoning misses the biggest reason why a researcher not retaining rights to the research would nevertheless conduct the research at his own expense: because payment was contingent on the success of the research, so he was actually selling the *product* of his research.

The Federal Circuit sided with the taxpayer's "use" approach, citing, *inter alia*, reg. section 1.41-2(a):

Treasury Reg. section 1.41-5(d) thus implements the statute's purpose of giving a tax credit only to those taxpayers who themselves take on the financial burden of research and experimentation to develop new techniques, equipment, and products that they can use in their businesses.

This interpretation is supported by Treasury Reg. section 1.41-2(a), which ties the concept of "substantial rights" to use.

+ *

This regulation requires that the taxpayer use the results of its research in its trade or business to fulfill the credit's "trade or business" requirement and makes specific reference to Treasury Reg. section 1.41-5(d), the funding provision discussed above. This regulation supports the conclusion that a taxpayer that retains the right to use the research results without

⁹²*Id*. at 499.

⁹³Brief for the Appellant at 21, Lockheed, 210 F.3d 1366 (No. 99-5039) (Lockheed taxpayer Federal Circuit brief).

⁹⁴ *Id.* at 23 (citing House report, *supra* note 31, at 113; and Senate report, *supra* note 26, at 78).

Perhaps that was because that section does not say "use," a key notion the taxpayer's counsel was championing over the government's focus on resulting value of the rights. Instead, counsel focused on a series of examples in the regulations that use phrases such as "retains the right to use the results of the research in carrying on [its] business" as part of the factual assumption setting up the example. See, e.g., Lockheed taxpayer Federal Circuit brief, supra note 93, at 22 (citing reg. section 1.41-5(d)(6), Example 1 (now reg. section 1.41-4A(d)(6), Example 1)). The government reasonably countered that the examples were not delving into what constitutes substantial rights but were merely making assumptions for purposes of illustrating other parts of the rules. Brief for the Appellee at 41-43, Lockheed, 210 F.3d 1366 (No. 99-5039) (Lockheed government Federal Circuit brief).

Lockheed government Federal Circuit brief, supra note 95, at 23.

paying for it has "substantial rights in research."

We therefore must reject the government's argument that "substantial rights" only includes the scenario in which the taxpayer retains the right to exclude others (including the government) from its research and in which other parties do not also have the right to use or disclose the taxpayer's research, including patented inventions. Nothing in the statute or the regulations supports such an interpretation. The right to use the research results, even without the exclusive right, is a substantial right. ⁹⁷

C. The Lockheed Standard

Above, I argued that the substantial rights rule is properly an element of the trade or business requirement of section 41(b)(1), and its appearance in both the trade or business and funded provisions represents the regulations' attempt to use the funded rule as an expedient method of calculation only. In particular, it is not part of the definition of the term "funded," which Congress anticipated would be reciprocal, leaving no daylight between researcher and payer.

The government in *Lockheed* asserted the opposite extreme: The substantial rights rule is entirely a rule of funding, part of the definition of funded, and unrelated to use in a trade or business. ⁹⁸ Its appearance in the reg. section 1.41-2(a) trade or business requirement is secondary, as demonstrated by the explicit cross-reference to the reg. section 1.41-4A funded rule, and it is the

The taxpayer in *Lockheed* took a middling position. It essentially conceded that the substantial rights rule is part of the definition of funded, but that as a principled matter, use in the taxpayer's trade or business is an automatic out. This was a strategic move taken by Lockheed presumably because counsel believed the full trade or business interpretation might be too far for a court to go, and in any case, Lockheed had a good case even under the government's theory that value was the metric of substantial rights.¹⁰⁰

That turned out to be an underestimation of the Federal Circuit, which was willing to embrace the centrality of trade or business use. Citing reg. section 1.41-2(a)(3), which Lockheed had avoided citing, the court did not specifically decide whether the substantial rights rule belonged in one section or another, but reasoned that the funded rule "implements the statute's purpose of giving a tax credit only to those taxpayers who themselves take on the financial burden of research and experimentation to develop new techniques, equipment, and products that they can use in their businesses."

In terms of the three interpretive principles I listed earlier, the *Lockheed* decision ticks off the first two:

1. The on-behalf-of/funded test is essentially made reciprocal between the researcher and the payer. The court does not announce that the substantial rights rule is entirely a trade or business rule, but its formulation of the way it works under the funded rule turns it into simply another iteration of the trade or business

latter that provides the only definition of substantial rights. ⁹⁹ This turns the substantial rights rule into a question of what value was exchanged versus retained, thus allowing the government to question the value of the retained rights. The government prevailed on this theory at the trial level.

⁹⁷ Lockheed, 210 F.3d at 1375. The Federal Circuit dismissed the government's other arguments, saying (1) the recoupment requirement was not payment for research rights, and (2) the security restrictions were outside the research contracts. *Id.* at 1375-1378.

⁹⁸See Lockheed government Federal Circuit brief, supra note 95, at 41 ("Contrary to taxpayer's apparent understanding, the requirement that to be creditable the research must be intended for use in the taxpayer's business is completely unrelated to the provision that no credit is allowable for funded research. The substantial rights test relates only to determining whether research is funded, not to how it was developed or how it was intended to be used.").

⁹⁹ See Lockheed government claims court brief, supra note 78, at I.A ("Simply put, an examination of the language and framework of the regulations under Section 41 makes plain that the substantial rights regulation is an interpretation of the funded research exclusion and does not turn on whether a researcher has a right to attempt to sell the research results in the future.").

 $^{^{100}}$ The value of follow-on contracts was apparent by the time of trial. $^{101}Lockheed$, 210 F.3d at 1375.

- requirement. That is a fair reading of the muddled regulatory provisions, and it gets the job done in this case, at least.
- 2. While not citing the nexus paragraph, the court declines the government's invitation to transform Congress's anti-*Snow* rhetoric into a rule against companies with established trades or businesses.

The third principle did not arise in the litigation, but it should have. I framed it as follows:

3. Congress intended to subsidize production and applied research and avoid giving the credit to those with indirect or less serious research activities. The nexus paragraph accordingly requires a nexus between a taxpayer's research expenditures and its trade or business.

The nexus paragraph weeds out research intermediaries, and perhaps inventors as well, because Congress wanted primarily to subsidize (1) producers investing risk capital; and (2) researchers themselves, but only if they had some stake in production. This was the way to achieve the increased productivity and societal benefits Congress sought without allowing the tax benefits to be siphoned off to those who had never set foot in a production plant. Congress wanted to subsidize General Motors and IBM, not Ivan Boesky and the neighborhood alchemist.

If that is accurate, *Lockheed* missed something highly consequential. Both parties, and the Federal Circuit as well, focused on the taxpayer's rights *after* completion of the contracts in issue. They discussed the potential for future sales to foreign governments and to the U.S. government under subsequent contracts. They debated the consequences of facing future competitors. Only the potential of future trade or business activities counted as retention of substantial rights.

But in many of its projects, under contracts that were contingent on the success of the research, Lockheed was required to not only develop a new product but also deliver commercial units after development. Why didn't the production under those very contracts *itself* constitute substantial rights? The nexus is there: Lockheed was a researcher deciding whether to take on risk in order to itself produce the product. Does it matter what its rights were after that?

Does it matter that a competitor might start manufacturing the same product? No. A primary purpose for the credit was to subsidize risk-takers *precisely because* it is difficult for them to prevent competitors from enjoying some of the benefits of their research. They get the production ball rolling, so to speak, and competitors and society get many of the benefits. This was recognized as the very problem being addressed by Congress.

Properly interpreted, the substantial rights rule should be about limiting the subsidy to those with both financial risk and a stake in production. Congress framed this as a trade or business requirement for the researcher, requiring a nexus between the decision to take on risk and the decision to produce. In a case in which a contingent-on-success development contract includes both the research and production, that intent is satisfied.

Because the subsequent sales potential was deemed likely by the Federal Circuit, this ended up not mattering in *Lockheed*. But it matters to other taxpayers — particularly to custom developers and producers.

VI. Government Response to Lockheed

A. The Taxpayer Hierarchy

After *Lockheed*, the substantial rights rule went dormant for a while. The IRS in 2002 acquiesced to the Federal Circuit's approach, saying, "It is our conclusion that, except where a contract has explicit provisions granting ownership of all intangible or intellectual property (not merely designs, specifications, blueprints and the like) to the client, [the researcher] retains substantial rights." ¹⁰²

When the substantial rights rule reappeared in the years that followed, the situations came in an interesting order. Congress had essentially set up a hierarchy in the legislative history:

1. On the lowest rung are research intermediaries. They are never to get the

NSAR 20350 (2002). However, in *Union Carbide Corp. v. Commissioner*, T.C. Memo. 2009-50, the IRS argued that a taxpayer's production improvement test runs were funded because, if successful, the taxpayer would have had to license the product being tested from the vendor. The Tax Court rejected that argument, finding that the results of the test runs were retained by the taxpayer and valuable to it regardless of whether it licensed the product.

credit, unless they show sufficient nexus to their own trade or business by retaining rights to use the research (presumably in production, because Congress assumes mere retention of rights to further license the results would not be a trade or business).

- 2. Somewhere in the middle, it appears, are inventors. Their exact status is unclear because of the incorrect parenthetical and the effect of the 1986 act. Scrutiny under the principles of the nexus paragraph is probably warranted.
- 3. In the highest position are developerproducers, those who both develop and produce products. The credit was made for them, and their right to it is unquestioned if they are developing a product within an established trade or business and are not funded.

It happens that the next few rulings and cases addressing substantial rights came in that same order.

First, the IRS issued a technical memorandum in 2008. TAM 200811020 involved a research intermediary, and surprisingly, the IRS ruled in favor of the credit. The taxpayer was a corporation owned 50 percent each by two corporate shareholders, which were in the same industry but operated in different regions of the world. The taxpayer paid contract research expenses to try to invent new products. When the research was successful, the shareholders received exclusive licenses to produce and sell the product in their respective territories. Sometimes the taxpayer would also license rights to third parties in other areas of the world where its shareholders did not operate. It did not produce products.

The taxpayer was certainly a research intermediary, with contract research and only licensing income. So how did the IRS get around the express prohibitions in the nexus paragraph and in reg. section 1.41-2(a)(1)? The IRS pointed out that the taxpayer had been making money on royalties from successful inventions for years, enough to fund its own ongoing research without additional capital from its shareholders. The taxpayer, it noted, also retained the rights to its previous contract research results sufficient to work on improving the inventions.

The IRS, quite sensibly, believed that this was not the type of arrangement Congress was concerned about:

This provision was intended to prevent the abusive use of [qualified research expenses] by individuals or tax shelter partnerships. However, this language was not directed toward situations in which there is no tax avoidance motive, and in which the research results are used by the taxpayer in carrying on the taxpayer's trade or business. ¹⁰³

So even though the nexus parenthetical states that "receipt of royalties does not constitute a trade or business under present law," the IRS decided that this taxpayer's license activities did:

In this case, it is agreed that since Year 1, Taxpayer has been involved in a bona fide business operation that involves the licensing of the results of Taxpayer's research. In the course of its business operations, Taxpayer not only licenses the results of its research, but uses the result of that research in continued research and development of new Inventions. ¹⁰⁴

This conclusion by the IRS not only makes an exception for research intermediaries if they are sufficiently unlike a tax shelter partnership, but it also should clear up the incorrect information in the nexus parenthetical — that is, that inventors can't have a trade or business. After all, even with the taxpayer's retained rights, it anticipated only future *license* arrangements.

The next IRS foray also boded well for inventors. In a 2012 non-docketed service advice review, ¹⁰⁵ the IRS examined whether projects performed by an environmental engineering company were funded. Deliverables were basically remediation design plans and construction drawings, marking the taxpayer as selling only IP, not a product. The IRS found that most of the projects were funded because the contracts were not contingent on success, and it

¹⁰³TAM 200811020.

Id.

¹⁰⁵NSAR 1401F (2012).

found that under most of the contracts the taxpayer retained substantial rights because the contract did not give away exclusive rights to the customer. The IRS did not suggest that an engineering company selling IP does not have a current trade or business.

It's a shame that the good sense from these two rulings did not carry over to the government's next handling of substantial rights.

B. Dynetics: A True Inventor

In *Dynetics*, ¹⁰⁶ decided in 2015, an engineering company performed top-secret research for the U.S. government, both directly and as a subcontractor. Dynetics was, for the most part, a contingent-on-success case, involving the analysis of government contract provisions to see whether they met the Fairchild standard. Because it was another case involving a defense contractor, *Dynetics* went without much notice among other companies. The case is interesting, however, because Dynetics Inc. was a prototypical inventor, to which the legislative history's confused parenthetical may apply.

In addition to challenging the risk contingency of the contracts, the government challenged the taxpayer based on the substantial rights rule for two of the projects. One of those is particularly relevant in light of TAM 200811020. Dynetics contracted with the Defense Department to analyze foreign missile threats. It was tasked with examining recovered pieces of foreign missile systems and reverse-engineering them to estimate and analyze the foreign government's missile technology and determine how a U.S. system could be designed to defeat the foreign threat. 107 Deliverables included computer simulations, physical models, and analysis and data from test results. 108

The government argued that all the knowledge gained from the project was top secret, meaning it could not be disclosed without U.S.

government permission.¹⁰⁹ Dynetics argued that "non-classified models, analyses, or technical advancements developed under the NT001 contract were retained and used by Dynetics in the performance of future work for [the Defense Department] or other government agencies." It asserted that, "in fact, the government contemplated that Dynetics would use this research in defensive systems analysis projects."111 Those claims were generally uncontested by the government.

It's difficult to see how this situation isn't better than the one in TAM 200811020. Dynetics (a true inventor) did the research itself; the taxpayer in the technical memorandum (a research intermediary) used contract research. Both clearly had a trade or business of selling research results. Both retained enough rights to continue to invent, even though their customer bases were limited (Dynetics by security classification issues and the taxpayer in the technical memorandum by its agreement to license mostly to its shareholders).

The government, however, did not see it that way. Instead, it took a clever — although what should have been transparent — tack. The government moved for partial summary judgement on just one task in the project (the overall effort in the contract was segregated by specific task orders), saying the principles of a decision on that task order could be applied more broadly to other task orders in the contract. 112 The selected task isolated an early stage of the project, which consisted of fact gathering and raw data analysis, and the government argued that all the results were classified information that Dynetics could not use without government permission.113

The results of the fact gathering and analysis, however, were to be used in the remainder of the project, right up to, and becoming part of, the

¹⁰⁶ Dynetics Inc. v. Commissioner, 121 Fed. Cl. 492 (2015).

Memorandum in Support of Plaintiff's Cross-Motion for Partial Summary Judgment and Response to Defendant's Motion for Partial Summary Judgement on the Funded-Research Question at 64-65, *Dynetics*, 121 Fed. Cl. 492 (No. 12-576T) (*Dynetics* taxpayer cross-motion and partial summary judgment (PSJ) reply).

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1d. at 65.

¹⁰⁹ *Dynetics*, 121 Fed. Cl. at 520.

 $[\]overset{110}{Dynetics}$ tax payer cross-motion and PSJ reply, supra note 107, at 69.

Memorandum in Support of Defendant's Motion for Partial Summary Judgment on the Funded-Research Question at 42 (n.15), *Dynetics*, 121 Fed. Cl. 492 (No. 12-576T).

Response to Plaintiff's Cross-Motion for Partial Summary Judgment and Reply in Support of Defendant's Motion for Partial Summary Judgement on the Funded-Research Question at 29, *Dynetics*, 121 Fed. Cl. 492 (No. 12-576T) (Dynetics government cross-motion and

production of non-classified models and other research results that Dynetics claimed, uncontested, it would use in its future business of selling research results. Therefore, the government's argument was akin to a taxpayer claiming a house-building tax credit, and the government saying, "Let's look at day 1 as an example: Taxpayer wasn't building a house; he was merely digging a foundation hole."

The court, however, went along with the government's approach without any thoughtful analysis. ¹¹⁵ So an opportunity was missed (by the court ¹¹⁶) and squandered (by the government after its moments of good sense in TAM 200811020 and the 2012 non-docketed service advice review) to clarify what, exactly, should be required for an inventor to meet the substantial rights rule. ¹¹⁷

Dynetics argued that its contracts were contingent on success, but the issue, and the unwarranted nature of the substantial rights rule as the government reads it, become clearer in the context of a researcher whose costs overrun customer expenditures.

Consider an inventor with a history of licensing out the results of successful inventions. She agrees to perform research for another person

in exchange for time and materials plus a fixed margin, regardless of the success of the contract. She will turn over all rights in the research results to the payer. Her research activities are clearly funded. The payer is taking the risk, and it is he who made the financial decision to invest in R&D as part of his trade or business. He gets the credit under the sensible on-behalf-of/funded reciprocal rule established by Congress.

The contract, however, is subject to a cap. The researcher reaches the cap and is still unsuccessful. At this point, she can inform the payer that the research was unsuccessful and walk away with her profit. But suppose, instead, that she decides to continue the research at her own expense. She might do this because the payer is a potential future customer and she wants to do other projects for him. Perhaps she is worried about her reputation as an inventor, which will affect the overall profitability of her future business. Note that the situation has flipped: *She* is now making the financial decision to invest in R&D as part of her trade or business. And she should no longer be considered working on behalf of the payer; she is literally working for the success of her own business.

Yet reg. section 1.41-4A(d)(2) says she "will be treated as fully funded." She gets no credit for what she spends in excess of what she is paid.

What is the rationale for this? Where is the surgical facts and circumstances test for "on behalf of," which Congress ordered, and Treasury failed to provide, giving us instead the substantial rights meat cleaver?¹¹⁹ This example presents perhaps the clearest case for invalidity of the substantial rights rule.

Note how closely the government's actual argument corresponds: "Dynetics' suggestion that it might have a right to use or exploit 'models, analyses, software enhancements, or testing components developed under the NT001 contract' is not relevant to the pending motion, because Task Order 169 did not require Dynetics to prepare any such models, analysis, software enhancements, or testing components." Defendant's Supplemental Reply in Support of Its Motion for Partial Summary Judgment on the Funded-Research Question at 13, *Dynetics*, 121 Fed. Cl. 492 (No. 12-576T).

Dynetics, 121 Fed. Cl. at 522. Dynetics also argued that security restrictions alone cannot quash a researcher's rights under *Lockheed*, which had held that those restrictions were not relevant to the substantial rights inquiry. The claims court correctly noted that *Lockheed* had declared security laws *outside the research contract* irrelevant to the issue and that in the current case, the restrictions were found in the research contract itself. *Id.* at 522-523. Because in both cases the security restrictions were a matter of law regardless of whether they happened to be repeated in the contract, the court did not explain the relevant distinction.

Because the court also found that the contract in question was not contingent on success, it could have passed on the substantial rights issue, finding it moot. Instead, the court merely added bad and confusing law to this area.

The other project challenged by the government for substantial rights was under a subcontract with a university, which had contracted with NASA to create simulations to predict exposure levels to radiation and cosmic rays experienced by instruments and individuals while at different distances from earth (e.g., low-allitude orbit versus deep space). Dynetics taxpayer cross-motion and PSJ reply, supra note 107, at 70. Deliverables included software permitting the running of simulations. Id. at 72. The agreement with the university gave all rights in the research to the university, however, making it a trickier inventor case under the principles discussed above.

Reg. section 1.41-4A(d)(6), Example 1, confirms this.

It is disheartening to see the government unironically chastise the taxpayer in *Dynetics* for not understanding this fundamental point of fairness when it favored the government: "However, even if Dynetics were correct that, upon exhausting its funding under a contract, it was obliged to continue working at its own expense until the desired outcome was reached, the contract would nonetheless be funded to the extent of any payments due to Dynetics. In that case, only the amount of the cost overrun would be unfunded and would qualify for a research credit under the Code. Dynetics fails to comprehend that the funding issue is not an all-or-nothing question." *Dynetics* government crossmotion and PSJ reply, *supra* note 113, at 19.

VII. The Case for Invalidity

While a validity challenge is not the focus of this report, the analysis above demonstrates that the case for invalidity of the substantial rights rule is, well, substantial. The rule is subject to challenge under two related but separate doctrines: (1) the requirement for valid agency action under *Chevron*, ¹²⁰ and (2) the arbitrary and capricious standard of the Administrative Procedure Act (APA). ¹²¹

Chevron sets forth a two-part test. In step 1, the court determines whether the statute is ambiguous — that is, whether Congress has "directly spoken to the precise question at issue." If the statute is unambiguous, the regulation is valid if it matches Congress's intent and invalid if it does not. In determining ambiguity, courts are to use "traditional tools of statutory construction," and thus consult legislative history if the text of the statute is not unambiguous on its own but requires context.

The substantial rights rule is not in the statute, so it is neither expressly supported nor contradicted by the text of the statute itself. As demonstrated above, however, it appears unambiguous that Congress intended the onbehalf-of/funded rule to be reciprocal, with no instance of neither taxpayer receiving the credit based on that rule. On that basis, the substantial rights rule is likely invalid because it establishes an asymmetry that Congress did not intend.

Nevertheless, if a statute is found to be ambiguous under *Chevron* step 1, the court must defer to the agency's interpretation of the statute if it is "reasonable." Step 2, therefore, is to determine whether the regulation is reasonable. In this regard, courts have looked to the arbitrary and capricious standard of the APA. 127

Accordingly, *Chevron* step 2 is very much like the APA requirement, and to be valid, a regulation must pass both challenges.¹²⁸

To meet the arbitrary and capricious standard, the government must satisfy two requirements: (1) the agency must engage in "reasoned decisionmaking," and (2) "the agency must . . . articulate a satisfactory explanation for its action." For the reasons above — particularly the failure to provide a facts and circumstances rule consistent with legislative intent, and the jarring, asymmetric denial of the credit for no valid reason — the reasoned decision-making requirement is not met.

Regarding the second requirement, Treasury offered no semblance of a reasoned analysis for the propriety or necessity of the substantial rights rule, either in the preamble to the 1983 proposed regulations or in the Treasury decision promulgating the 1989 final regulations. The preamble to the proposed regulations provides only:

Section 44F(d)(3) excludes from qualified research, research to the extent funded by any person or government entity. Proposed [reg.] section 1.44F-4(d) provides that, for purposes of computing the credit, research performed solely on behalf of another person is treated as completely funded. The proposed regulations explain how to determine the extent of funding when the researcher retains substantial rights in the research. ¹³⁰

No less than a former Treasury assistant secretary for tax policy, Donald C. Lubick, commented on the 1983 proposed regulations, pointing out the anomalous treatment under the substantial rights rule. ¹³¹ Rather than responding with an explanation of the purpose of the rule, as required by *Chevron* and the APA, Treasury simply noted the comment and stated curtly, "The

¹²⁰Chevron U.S.A. Inc. v. Natural Resources Defense Council Inc., 467 U.S. 837 (1984).

¹²¹5 U.S.C. section 706(2)(A); see also 5 U.S.C. section 553(c).

¹²²Chevron, 467 U.S. at 842.

¹²³Id. at 842-843.

¹²⁴*Id.* at 843 n.9.

¹²⁵See, e.g., Star-Glo Associates LP v. United States, 414 F.3d 1349, 1356 (Fed. Cir. 2005); and Cohen v. JP Morgan Chase & Co., 498 F.3d 111, 116 (2d Cir. 2007).

¹²⁶Chevron, 467 U.S. at 844.

¹²⁷See Judulang v. Holder, 565 U.S. 42, 52 n.7 (2011).

¹²⁸Encino Motorcars LLC v. Navarro, 136 S. Ct. 2117 (2016); see Patrick J. Smith, "The APA's Arbitrary and Capricious Standard and IRS Regulations," *Tax Notes*, July 16, 2012, p. 271.

Motor Vehicle Manufacturers Association v. State Farm Mutual Insurance Co., 463 U.S. 29, 43, 52 (1983).

¹³⁰48 F.R. 2790.

¹³¹See "Lubick Criticizes 'Retention of Substantial Rights' Test for R&D Credit," *Tax Notes*, Apr. 17, 1989, p. 263.

commentator's reading of the interaction of the contingent payment and the substantial rights rules is the correct reading of the two provisions. The proposed regulations are finalized as proposed on this matter." Thus, lacking any cogent explanation, the regulation fails both the *Chevron* step 2 analysis and the APA test. 133

In *Lockheed*, the taxpayer argued in the alternative that if the substantial rights rule were read to exclude the right to use results in a taxpayer's trade or business, the regulations would be invalid because such a draconian rule would depart too far from the statute. The claims court dismissed that argument, citing the *Chevron* test but not actually applying it. Instead, the court merely agreed with government counsel that "there is a clear connection between payment for research and the allocation of rights to research results." The court, however, did not bother to consult the legislative history to discover the nature of that connection.

The government in *Lockheed* also argued that Congress's numerous reenactments of the research credit indicated its approval of Treasury's interpretation of the funded rule. This reenactment doctrine, however, applies only when "an agency's statutory construction has been 'fully brought to the attention of the public and the Congress,' and the latter has not sought to alter that interpretation although it has amended the statute in other respects." The doctrine does not apply in the absence of "any congressional"

discussion which throws light on [the reenactment's] intended scope." Neither of those is the case for the substantial rights rule.

In overturning the claims court based on the taxpayer meeting the substantial rights requirement, the Federal Circuit in *Lockheed* had no need to reach the validity issue, so it neither affirmed nor reversed that portion of the lower court's opinion. Court of Federal Claims opinions are not precedent in any court, including in separate cases within the claims court itself.¹³⁹ Therefore, the rule is ripe for challenge again.

There is an entire separate layer of invalidity after TRA 1986. Even if the substantial rights rule was originally valid, it was a trade or business test that could be based only on the incorrect parenthetical in the nexus paragraph, and it was made obsolete by the 1986 act's clarification in section 41(d)(2)(B) that licensing inventions constitutes a trade or business. This argument has never been made by a taxpayer to, or addressed by, a court.

Finally, any validity that the substantial rights rule might still have should be limited to its application to a situation with the attributes of a tax shelter. While the rule is poorly drafted to reflect this limited purpose, a member of the IRS regulatory project team privately confirmed to me that this was the intent of the rule and that it was thought within the IRS that the Justice Department in *Lockheed* was trying to apply the rule to a situation in which it should not apply.

For instance, notice that the regulations' approach to the substantial rights rule is not to define substantial rights per se but to exclude particular situations, namely, (1) when the customer has exclusive rights to the research and (2) when the researcher must pay for the right to use the research results. These were two of the prominent features of post-*Snow* R&D partnership tax shelters. Notably, the second situation, in which the R&D partnership has a right to use the results only if it pays a royalty, was

 $^{^{132}}$ T.D. 8251, 54 F.R. 21204. It was in this context that Treasury added the final sentence of reg. section 1.41-4A(d)(2), clarifying that neither the researcher nor the payer gets the credit when the substantial rights rule is not met.

¹³³See State Farm, 463 U.S. at 48 ("We have frequently reiterated that an agency must cogently explain why it has exercised its [regulatory] discretion in a given manner.").

¹³⁴Lockheed, 42 Fed. Cl. at 495.

The court also noted that the regulations under section 45C, the orphan drug credit, contain an effectively identical substantial rights rule while not having a trade or business requirement. *See* reg. section 1.28-1(b)(3)(ii). This is untrue, however: Section 45C doesn't have its own trade or business requirement, but it incorporates that of section 41(b). Section 45C(b)(1)(A). Moreover, the Treasury materials supporting the regulations under section 45C also contain no explanation that would pass the *Chevron* step two and APA standards. *See* LR-55-83, 50 F.R. 15930 (1985); and T.D. 8232, 53 F.R. 38708 (1988).

¹³⁶Lockheed government claims court brief, supra note 78, at III.2 (citing, inter alia, Johns-Manville Corp. v. United States, 855 F.2d 1556, 1559 (Fed. Cir. 1988)).

¹³⁷ United States v. Rutherford, 442 U.S. 544, 554 n.10 (1979) (quoting Apex Hosiery Co. v. Leader, 310 U.S. 469, 487-489 (1940)). See North Haven Board of Education v. Bell, 456 U.S. 512, 535 (1982).

¹³⁸ United States v. Calamaro, 354 U.S. 351, 359 (1957); see Brown v. Gardner, 513 U.S. 115, 121 (1994).

¹³⁹West Coast General Corp. v. Dalton, 39 F.3d 312, 315 (Fed. Cir. 1994).

See supra discussion at Section VII.

¹⁴¹See reg. section 1.41-4A(d)(2) and (3).

not in the 1983 Proposed Regulations but was added by the 1989 Final Regulations. It was a technique that was introduced by lawyers in response to the 1984 *Green* decision, the first case to disallow the section 174 deduction to partners. So, the addition of the rule in 1989 appears to be a direct response to that development, showing again that the original purpose behind the substantial rights rule was as a check on tax shelter arrangements.

VIII. All Tangel-ed Up

Continuing through the hierarchy of taxpayers established by Congress — research intermediary, then inventor, and now developer-producer — we arrive at the most recent case. 142

A. The Missed Opportunity

In *Tangel*,¹⁴³ decided earlier this year, the taxpayers were shareholders in Enercon Engineering Inc., an S corporation that designed and produced custom equipment in the power generation industry. Enercon entered into an agreement with an unrelated producer of large, industrial generator systems to develop and produce a new enclosure for turbine power generation. Enercon was to deliver one new commercial unit and retrofit three existing enclosures to the same new design.

Payment by the customer was *not* contingent on success, so Enercon would be entitled to claim only the excess it spent over what the customer paid it. The absence of substantial rights, then, would put the taxpayer in that doubly unfair position of one whose expenses are treated as funded beyond the actual amount of funding it received.

Under the agreement, which the Tax Court noted was drafted by the customer and was a version of its standard contract with contractors, all rights to designs, drawings, and data vested in the customer, and Enercon was prohibited from disclosing or using that information to produce anything for anyone else. As discussed earlier, these are common terms for a custom developer to enter into with its customers.¹⁴⁴

The Tangel court stressed that the analysis of substantial rights must remain within the confines of the agreements. 145 It then followed the Lockheed script faithfully. The taxpayers contended that the company's contract with the customer was "a standard non-disclosure agreement." Sadly, this is all too true. As noted earlier, the file drawers of custom developers are filled with contracts like this, intended to protect their customers from unfair competition but actually written to denude developers of all rights. The taxpayers argued that "Enercon retained the right to use, on its own future projects, the 'institutional knowledge it glean[ed] from research' performed." But the court rejoined that these were mere "incidental benefits" under reg. section 1.41-4(A)(d)(2).

Here was a missed opportunity to move beyond the *Lockheed* standard of looking only to future sales in interpreting the already shaky substantial rights rule. Like Lockheed, Enercon was a developer-producer. Developer-producers occupy the top rung of the congressional hierarchy. Clearly neither hobbyists nor financiers, they are the companies making the decisions whether to invest risk capital *and* produce a product. As we have seen, Congress feared that such projects might not be pursued because the full value of successful development often cannot be realized by its developer-producer.

They represent the archetypal case for government subsidy through tax policy. When a government uses a well-designed tax incentive to influence behavior, there are potential efficiencies

Along the way, a taxpayer also had to push back on the government's attempt to reverse its acquiescence in *Lockheed* that "except where a contract has explicit provisions granting ownership of all intangible or intellectual property (not merely designs, specifications, blueprints and the like) to the client, [the researcher] retains substantial rights." NSAR 20350. In *Populous Holdings*, the Tax Court was forced to point out that an architectural design firm did not relinquish substantial rights to its design work merely by transferring ownership of the design plans and related documents. Order, *Populous Holdings Inc. v. Commissioner*, No. 405-17 (T.C. Dec. 6, 2019).

¹⁴³ Tangel, T.C. Memo. 2021-1. The Tangel decision was in response to a partial summary judgment motion by the government concerning one project. The case remains active regarding other projects and is scheduled for trial in April 2022.

 $^{^{144}}$ Judge Albert G. Lauber noted, "These provisions are quite hostile to petitioners' claim that Enercon retained 'substantial rights." $\emph{Id.}$ at 5.

Lauber, when in private practice, ably represented the taxpayer in Fairchild before the Federal Circuit, and thus helped establish this principle and coin the term "mirror image."

versus other methods of influencing behavior. Using a tax benefit can allow the market to distribute the subsidies efficiently among market participants. The government doesn't have to sift through applications for subsidies, investigating which companies have the best ideas and capabilities. Instead, the developer-producer decides, in competition with other such companies, whether the tax benefit is sufficient to overcome its reluctance to invest capital for uncertain results.

If a developer-producer reaches an agreement to sell a product before its development, but one that is contingent on success of the development effort, that calculus is unchanged. Such a company — a custom developer-producer — is still in competition with similar companies for its customers. Projects may still not be pursued without subsidy unless the custom developerproducer (not the customer) decides to invest risk capital. Anyone who doubts that the same level of competitiveness and entrepreneurship exists for these companies as for other developerproducers, or thinks that the arrangements with third-party customers are similar to "pre-cooked" tax shelter partnerships, 146 has no experience with these businesses.

With this in mind, one should be highly wary of interpreting the substantial rights rule as excluding this production decision. To the contrary, any valid interpretation should look to whether the researcher's failure to retain rights takes the situation out of this archetype. In the case of a custom developer-producer, it clearly does not. And it is easy to find substantial rights: Look no further than the production under the very agreement in issue.

In one of the *Lockheed* contracts, the contract price, in excess of \$200 million, was designated roughly half for development and half for production of units of the resulting high-tech equipment. Lockheed certainly used the results of its research from the first half of the contract to produce the product required by the second half. A \$100 million production contract would sound substantial to most companies.

Likewise, in *Tangel*, Enercon had a contract to both develop and produce the unit resulting from its research (one new and three retrofitted). The contract price was not expressly split, but that shouldn't matter. The production was only for four units, but it was only a \$1.4 million contract, and the market is often small for custom development and production. It is still production using research results, and it still requires the developer to make that capital risk decision in the face of possibly not being able to fully monetize its development efforts.

Even for highly integrated development-production contracts in which the prototype becomes the only product (for instance, constructing a single nuclear reactor), one can imagine a research engineer handing off CAD/CAM printouts (the research results) to his production engineer colleague, who will use the results in the production phase. It might even be the same person, using his own research results in production the next day. How does this *not* meet the nexus to production Congress sought?

Variations exist. Perhaps the production is not in the research contract but anticipated in a follow-up contract. Perhaps the customer has an option to purchase production units. These are the kind of facts and circumstances that Congress anticipated would be used to apply the on-behalf-of/funded rule. It is still reasonable to note a researcher's lack of rights to its own research in an arrangement. It may disclose a lack of nexus to production. But the presumption shifts if the researcher will likely be involved in production.

B. Un-Tangel Now!

It's not too late. The substantial rights rule can grow up to be the successful "facts and circumstances" surgeon its congressional parents had hoped for. Under either *Lockheed*'s formulation of the substantial rights rule or the one I have proposed here, it can be applied so as not to exclude a custom developer-producer.

Lockheed declined to categorize the substantial rights rule as either a trade or business requirement or a funded requirement. It held that anticipated use of rights in a trade or business to be conducted after the research contract was a substantial right, regardless of the rule's proper locus. This approach, though, invites one to look

¹⁴⁶See discussion of "pre-cooked" arrangements, supra note 62.

at the whole payment under the research contract as a potential funding payment.

But the taxpayer in *Lockheed* did not argue, and the court did not address the possibility, that production *within* the research contract could also meet this test. Another court could faithfully apply the Federal Circuit's rationale but, informed by Congress's focus on the nexus between research and production, also segregate the research contract into two agreements: one for research, the other for production. The retained substantial right is the right to produce under the same contract, even if there may be no sales afterward.

Just as the *Lockheed* decision didn't question the value of the retained rights to future sales, it is inappropriate to question the value of the production rights within the research contract alone (without future sales). Absent a sham arrangement, the custom developer-producer has made a business decision that those production rights (whether they be for 100 units or for one) are worth the investment of risk capital. And that is a decision made by a producer facing the risk of not being able to fully monetize its development effort. It ticks all the congressional boxes.

Alternatively, under the formulation of the substantial rights rule endorsed by this report, applied in accordance with the three principles evident in the legislative history, the path to restoring custom developer-producers to their proper level in the hierarchy is even clearer. The substantial rights rule is entirely focused on the trade or business requirement and whether the research expenses have sufficient nexus to a real trade or business. It is meant primarily to weed out research intermediaries unless they can show clear nexus. The on-behalf-of/funded rules of reg. section 1.41-2(a)(3) and (e)(2)-(3) and 1.41-4(A)(d) act as a toggle switch for counting the expense as either researcher or payer expenses, based on whether the contract is contingent on success.

Accordingly, if no nexus to the researcher's trade or business is found, the reg. section 1.41-2(a)(2) trade or business section sends the case over to reg. section 1.41-4A(d)(2) with a "fully

funded" designation. Even if nexus is found by reg. section 1.41-2(a)(3) but the research is being performed on behalf of another (that is, not contingent on success), that section sends the case to reg. section 1.41-4A(d)(3) for the "to the extent funded" allocation rule. A custom developer-producer such as Lockheed or Enercon passes the substantial rights test by virtue of simply being a producer that made the decision to invest risk capital. That's sufficient nexus, and the substantial rights rule has no business looking beyond that.

IX. Conclusion

The substantial rights rule reads very much like the last sentence of the nexus paragraph. But that sentence illustrates an exception to the general prohibition against research intermediaries taking the credit. The substantial rights rule, however, does not seem to act as such an exception, but instead appears to create a new rule prohibiting inventors from taking the credit unless they use their own inventions in their trade or business. To that extent, it appears the rule is invalid or obsolete, unless interpreted as merely a check against tax shelters. What the rule does not even purport to do, however, is deny the credit to developer-producers, which use the results of their research in actual production, even if that production is only under the research contract itself.

It is unclear why the substantial rights rule was ever interpreted as requiring retention of rights *after* production, because the nexus requirement is clearly met with production. A plausible explanation is that the government was simply upset that the credit could go to defense contractors being paid by the U.S. government. After all, a reading of the words of the substantial rights rule, absent any consideration of the legislative history, can lead one to believe that retention of rights is necessary after production, even in perpetuity.

But taxpayers should never have ceded this ground. The reading is entirely unsupported by, and contradictory to, the legislative history, which aims the credit squarely at producers deciding whether to invest risk capital. *Lockheed* was fought on the government's battlefield for strategic reasons specific to one taxpayer. And although

This was another strategic choice on the part of counsel for Lockheed.

that taxpayer won, it left other taxpayers — real developers and producers — behind.

It's time to reexamine the substantial rights rule and give credit back to the developers and producers that deserve it.

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