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### **Reform the Research Tax Credit — Or Let It Die**

The federal research and experimentation tax credit, a tax subsidy that is supposed to encourage businesses to perform research that benefits society, is riddled with problems and should be either reformed dramatically or allowed to expire.

Created in 1981, the credit immediately became the subject of scandals when it was claimed by businesses that no ordinary American would consider deserving of a tax subsidy (or any government subsidy) for research — like fast food restaurants, fashion designers and hair stylists.<sup>1</sup>

Reforms enacted in 1986 were supposed to prevent these abuses, but there is evidence that corporate tax planners have often out-maneuvered the reforms. For example, the accounting giant Deloitte openly advertises its services to help the food industry receive the credit for "developing new packaging" or "redesigning existing packaging," activities that do not warrant a government subsidy in any clear way.<sup>2</sup> Meanwhile, some companies use the credit for research that has almost no hope of benefiting society at large — like the \$11.6 million in research credits received by FedEx for attempts to develop a software program entirely for the company's *internal use*.<sup>3</sup> Accounting firms help taxpayers to claim the credit retroactively for research they did years earlier — even though the credit cannot possibly have provided an "incentive" if a taxpayer did not even know it was available at the time the research was being conducted.<sup>4</sup>

Today the research credit is one of the major causes of disputes between the IRS and taxpayers. There is evidence that the IRS is, for political reasons, failing to stand up to companies that abuse the credit.<sup>5</sup> The Obama administration, however, proposes to make the research credit permanent and also make it more generous, at a cost of over \$100 billion over a decade.<sup>6</sup> Meanwhile, apologists for the corporate world have suggested, in a report written for the Center for American Progress, that Congress should simply repeal the reforms of 1986 and make legal the abuses that the IRS is trying to stop.<sup>7</sup>

Even when the credit is claimed by companies doing legitimate research, it's difficult to believe that the research was a result of the credit. The research credit is notoriously difficult to plan around because it is frequently allowed to expire and then extended retroactively by Congress.<sup>8</sup> Spokespersons for companies that use the credit, even

while claiming that it encourages research, often say that the credit cannot provide a very effective incentive until it is made permanent. The temporary tax credit, in need of Congressional action every couple of years in order to keep it alive, seems

suspiciously well-designed to repeatedly capture the attention of corporate lobbyists and campaign contributors.

Congress should let the research credit expire, and redirect the billions of dollars that it costs into true, basic, truly scientific research, which businesses rarely engage in because the payoffs often take years to arrive.

If Congress insists on extending the research credit once again when it expires at the end of 2013, it should address three broad problems. If these problems are not addressed, then the credit should be allowed to expire.

First, the definition of the type of research activity eligible for the credit must be clarified. One step in the right direction would be to enact the standards embodied in regulations proposed by the Clinton administration, which were later scuttled by the Bush administration.

Second, Congress must improve the rules determining which part of a company's research activities should be subsidized (the "base" rules). In theory, the goal is to subsidize only those research activities that a company would not otherwise engage in, but that's impossible to know. But Congress can take steps proposed by the Government Accountability Office to reduce the amount of tax credits that are simply a "windfall," meaning money given to a company for doing something it would have done anyway.

Third, Congress must address how and when firms obtain the credit. Congress should bar taxpayers from claiming the credit on amended returns, because the credit cannot possibly be said to encourage research if the claimant did

Tax Benefit from Research Credit (in millions)

Company	2011	2010	2009	2008	4 yrs
3M	30	12	14	26	81
AGCO	8	5	0	0	13
Agilent Technologies	5	1	7	7	20
Alliant Techsystems	2	4	3	3	11
Apple	167	23	84	21	295
Ashland	9	19	9	1	38
Boeing	146	158	175	172	650
Boston Scientific	22	64	17	10	113
Bristol-Myers Squibb	69	61	81	84	295
Cablevision Systems	2	2	1	1	6
Cummins	126	21	15	9	171
Deere	38	5	25	18	86
Dover	3	4	2	5	14
Eaton	16	15	12	14	56
General Motors	45	235	127	367	774
Google	140	84	56	52	332
Harley-Davidson	5	4	3	5	17
Harris	4	11	6	15	36
Hewlett-Packard	54	11	47	42	154
Intel	178	144	114	108	544
Lockheed Martin	35	43	43	36	157
Medtronic	25	45	24	39	132
Monsanto	34	10	33	5	82
Motorola Solutions	11	16	16	9	52
Navistar International	27	2	8	8	45
Northrop Grumman	17	15	17	13	62
Nucor	4	3	3	2	12
Paccar	5	3	4	6	17
Parker Hannifin	6	16	5	17	44
Raytheon	27	27	26	25	105
Rockwell Collins	40	10	19	25	94
SAIC	7	8	6	5	26
St. Jude Medical	28	29	31	35	122
SunGard Data Systems	3	2	1	0	6
Symantec	12	10	6	12	40
Texas Instruments	58	54	28	75	215
Textron	8	5	7	0	20
Yahoo	10	10	11	14	46

Source: Annual corporate 10-Ks filed with the Securities and Exchange Commission.

not even know about the credit until after the research was conducted. Congress should also reject proposals to make the credit refundable or to allow firms to sell credits they cannot use (because they have no tax liability) to others, because these changes would only invite more abuse.

### I. Background

The federal research credit, also called the research and experimentation (R&E) credit, is a temporary measure first enacted in 1981 and extended many times since then. The credit is projected to cost \$6.9 billion in 2013. 10 Since it was enacted in 1981, the research credit has been extended 15 times, often retroactively, and has only been allowed to expire (with no retroactive extension) for one year during that entire time. 11

The two most important variants of the credit are the regular research credit and the Alternative Simplified Credit (ASC) which provide a subsidy of up to 20 percent and up to 14 percent, respectively, of "qualified research expenditures" above a company-specific base amount. The base amount is supposed to very roughly represent the research activities that the firm would do in the absence of a subsidy, but this is very difficult to approximate, as discussed further on. While the rules to determine the base differ for the regular credit and the ASC, the definition of research is the same for both.

In 2010, the IRS estimates that there were 6,950 claims for the regular research credit and 5,200 claims for the ASC. The total research credit amount claimed in 2010 was \$8.5 billion. (The credit amounts actually allowed are less than that after audits.) Businesses with gross receipts exceeding \$250 million in 2010 made up less than 15 percent of credit claimants but accounted for 82 percent of the credit amounts claimed.

The research credit is not refundable, meaning it cannot be taken in a year in which a taxpayer has no tax liability. But it can be carried back one

Research Tax Credits Claimed in 2010

Size of Business Receipts	Credit	Claims	Amount Claimed		
	Number	Share of	Amount	Share of	
		Total	(thousands)	Total	
Under \$25,000	1,442	11.1%	204,828	2.4%	
\$25,000 under \$100,000	244	1.9%	16,433	0.2%	
\$100,000 under \$250,000	354	2.7%	19,493	0.2%	
\$250,000 under \$500,000	314	2.4%	25,339	0.3%	
\$500,000 under \$1,000,000	304	2.3%	27,475	0.3%	
\$1,000,000 under \$2,500,000	901	7.0%	59,325	0.7%	
\$2,500,000 under \$5,000,000	1,456	11.3%	80,777	0.9%	
\$5,000,000 under \$10,000,000	1,365	10.5%	103,572	1.2%	
\$10,000,000 under \$50,000,000	2,881	22.3%	428,965	5.0%	
\$50,000,000 under \$100,000,000	869	6.7%	200,295	2.4%	
\$100,000,000 under \$250,000,000	919	7.1%	366,722	4.3%	
\$250,000,000 or more	1,892	14.6%	6,977,509	82.0%	
Total	12,941	100.0%	8,510,734	100.0%	

Source: Statistics of Income Division: 2001 - 2010 Corporate Returns Data

year or carried forward 20 years, meaning the full amount of the credit can be used to reduce tax payments in these other years.

The theory underpinning the credit is that research has "spillover effects," meaning that research produces benefits that go far beyond the individuals or companies doing it. This can occur for several reasons. For example, competing companies may find ways to reverse engineer the innovation, or employees at the innovating company may take the knowledge developed during the research process to another company.

The spillover effects also occur, it is argued, when an innovation results in improvements in goods or services that make other businesses more profitable. Imagine a company develops a high-speed modem that facilitates online commerce and business and thus increases productivity, profits and overall happiness to a degree that outstrips the profits the company receives from developing the modem.

If these effects are real, this would mean that private companies might not provide the amount of research that is optimal for society because they don't value it as much as the wider society does. Obviously, the private companies do not factor these societal benefits into their decisions about whether or not to conduct research.

While each of these effects seem conceivable in theory, it's difficult to see how the research tax credit is addressing them. As part of their lobbying efforts, business interests claim that the credit does encourage them to increase their research, but businesses logically prefer to be subsidized for doing things that they would do anyway even in the absence of a subsidy rather than for activities that are only profitable if they are subsidized.

Several studies have been written purporting to prove that each dollar of research credit results in about one dollar in additional research spending by companies. These studies are reviewed in the Congressional Research Service's overview of the credit and in the report on the credit written by Laura Tyson and Greg Linden for the Center for American Progress.<sup>14</sup>

It is unclear, however, whether these findings are meaningful. Because the credit provides a subsidy for research, businesses have an incentive to define more of their activities as research in order to claim the credit. This fact almost certainly skews the findings of these studies.

But even if the studies were accurate, it is not obvious that a dollar of increased research by companies for each dollar of tax credit is a justification for continuing the tax credit. After all, a dollar of *direct* spending on research by definition results in at least a dollar increase in research. Since subsidies provided through direct spending receive much more attention from Congress than subsidies provided through the tax code, from the perspective of good governance and transparency, tax subsidies should be used only when they are clearly more effective than direct spending subsidies.<sup>15</sup>

Both the Congressional Research Service (CRS) and Tyson and Linden note that studies based on data from the early 1980s conclude that the credit is less effective than studies based on later years. Tyson and Linden criticize a 2003 report from the Joint Committee on Taxation questioning the effectiveness of the credit because it was "based primarily on sources that analyzed no data later than 1985." They argue that the credit became more successful after the base rules (rules governing how much of a company's research is eligible for the credit) were loosened in 1990. But it seems equally likely that the looser rules simply encouraged companies to claim the credit for more non-research activities, a practice that was aggressively encouraged by large accounting firms.

If Congress feels compelled to keep the research credit alive, then lawmakers should tighten the rules dramatically so that credit dollars are not diverted to activities that companies would be doing anyway or activities that cannot be said to have any social benefit.

As discussed in Section II, one problem is how "research" is defined for the purpose of claiming the credit. For example, accounting firms market their services to help the food industry obtain the credit for designing food packaging, and also help companies receive the credit for developing software that is used by *no one* outside the company. The companies might argue that they are genuinely working towards inventing new products and processes and that some of the fruits of their labors will "spill over" to other firms that reverse engineer their newly invented products or poach employees that conducted the research. What seems more likely is that these activities are not anything a reasonable person would call research, and even if it is, it is not something most Americans would want to subsidize.

A second problem, discussed in Section III, is that even if one believes that research can be properly defined and that it ought to be subsidized, a great deal of the tax credit might go towards subsidizing research that would have occurred anyway, meaning the tax subsidy is not actually causing an increase in research. The current "base rules" for the credit are attempts to address this. These rules are essentially a guess at what part of a firm's research would have occurred in the absence of the tax credit so that only research beyond that level is subsidized. While it is impossible for any set of rules to determine this accurately, the credit would be far less effective without these rules. The base rules should therefore be reformed (rather than repealed, as some have suggested).

A third problem, discussed in Section IV, relates to how and when a firm obtains the credit. For example, sometimes an accounting firm finds a business that conducted some activities several years ago that could be called "research," and then helps that business file an amended tax return to apply (often successfully) for the credit retroactively. But the credit cannot possibly be said to have encouraged research if the company conducting it *didn't even know* about the credit or that it was eligible.<sup>17</sup>

Many of the problems described here are the work of accounting firms that wrote the book on abusing the credit — and quite literally wrote the credit regulations as well. As explained in the next section, the credit's rules are so lax thanks in large part to Mark Weinberger, a Bush top Treasury appointee who had previously lobbied for a broader definition of "research" while he was at Ernst and Young and, after he left the Treasury, returned to a grateful Ernst and Young where he was eventually promoted to CEO.

### II. Problems with the Definition of "Qualified Research"

### The Origins of the Research Tax Credit

Firms are allowed to deduct their business expenses each year, except that capital expenses (expenditures to acquire assets that generate income in the future) must usually be deducted over a number of years to reflect their ongoing usefulness. So the expenses that go towards developing a capital asset, say, a machine that will create income over several years, will be deducted over several years. In most cases firms would rather deduct capital expenses all in one year rather than delaying those deductions, because of the time value of money, i.e., the fact that a given amount of money is worth more today than the same amount of money will be worth if it is received later. For example, \$100 invested now at a 7 percent return will grow to \$200 in ten years.

In 1954, Congress enacted section 174 of the tax code, which relaxed the normal capitalization rules by allowing firms to deduct immediately their costs of research.

In 1981, responding to a perception that the U.S. was losing its lead in innovation, Congress created the research credit, which firms could take in addition to the section 174 deduction. Stories soon surfaced about firms receiving the credit for activities that no one would consider particularly beneficial to society. As CTJ's Robert McIntyre wrote a decade ago:

But once the tax break was adopted, companies and their tax advisers quickly set out to pervert its purpose. What, after all, is "research"? Soon, horror stories emerged about tax credits being successfully claimed for such scientific breakthroughs as McNuggets, Gillette's Lemon-Lime shaving cream, and new fashions in clothing. More generically, as one wag put it, "if you send the janitor down to fix the boiler and he succeeds, it's repairs; if he fails, it's R&D." 18

In response to these criticisms, the bipartisan Tax Reform Act of 1986, signed into law by President Ronald Reagan, added two new conditions to qualify for the research credit (but not for the section 174 deduction, which also still exists). To qualify for the credit under the 1986 law, research must involve a "process of experimentation" and a focus on "discovering information … which is technological in nature."

The 1986 law also listed activities for which the credit is not available. For example, the credit is barred for research a firm does to develop software for its own internal use — but the IRS is allowed to make rules creating exceptions to this restriction.

### **Regulatory Reforms Under the Clinton Administration**

The IRS did not propose regulations implementing the 1986 law's requirements until 1997, during the Clinton administration. The regulations interpreted the requirement for "discovering information" to mean activities aimed at "obtaining knowledge that exceeds, expands, or refines the common knowledge of skilled professionals in a particular field of science or engineering." This seems straightforward because Congress clearly did not intend to subsidize companies for "discovering" what is already known.

The requirement for a "process of experimentation" was interpreted to mean a process with the goal of evaluating "more than one alternative designed to achieve a result where the means of achieving the result are uncertain at the outset." This would involve developing and testing hypotheses regarding the wished-for product or process.

Research to develop software for internal use would be eligible only if it entailed "significant economic risk" and resulted in an application that was not commercially available.<sup>19</sup>

From the perspective of the American taxpayers who are effectively subsidizing business research activities through the tax code, these requirements, which were finalized in the last days of the Clinton administration in January 2001, hardly seemed overly restrictive. In fact, the regulations closely tracked the language of the statute.

# The Bush Administration Position: Research & Experimentation Credit Does Not Require Research or Experimentation

But the administration of President George W. Bush brought a dramatically different perspective to Washington in 2001. The new President selected Mark Weinberger, a lobbyist-lawyer at the accounting firm Ernst & Young, to serve as the assistant treasury secretary for tax policy.

Weinberger, who had once worked as tax counsel for former Senator John Danforth, had already made millions with a lobbying firm he began in 1996 and from his work at Ernst & Young.<sup>20</sup> His work included lobbying for the "R&D Credit Coalition," a business group promoting an expanded research credit.

Early in 2001, the Bush administration suspended the just-finalized Clinton research credit regulations. Then, at the end of 2001, Treasury proposed, presumably under Weinberger's direction, very different regulations.

The requirement for "discovering information" would not require "obtaining knowledge that exceeds, expands, or refines the common knowledge of skilled professionals in a particular field of science or engineering." Apparently, the Treasury Department now wanted to subsidize companies for learning what was already known.

The requirement for a "process of experimentation" would be interpreted to mean a "process designed to evaluate one or more alternatives to achieve a result where the capability or the method of achieving that result, or the appropriate design of that result is uncertain as of the beginning of the taxpayer's research activities," and whether this occurred would be determined based on the facts and circumstances of each case.

Research to develop internal-use software would be eligible so long as it was aimed at creating something that differed in a "significant and inventive" way from what already existed. The Treasury never issued any further guidance on what that meant.

Mark Weinberger, left Treasury in April of 2002 and returned to Ernst & Young. The firm's announcement of his return reads like a perfect description of the "revolving door" that is so well-known in Washington and so hated by the rest of America:

Weinberger joins a long list of members of Ernst & Young's tax practice who have been recruited for senior-level government positions and who subsequently rejoined the firm following their time in government service. ... When we lost him to the Treasury Department, the country's gain was Ernst & Young's loss. However, we are unabashedly delighted to have him return to the firm.<sup>21</sup>

Weinberger's extremely loose proposed research credit regulations have never taken effect, however, because his successor withdrew them after CTJ and others criticized them.<sup>22</sup> So there are still no final regulations spelling out what "research" qualifies for the credit.

### The Research Credit Today

The Obama administration has not attempted to undo the research credit mess left behind by the Bush administration. As a result, widespread abuses of the credit have continued.

Today, Deloitte, one of the big four accounting firms, has a page on its website titled "Research and development tax incentives for the food industry." The page helpfully explains to potential clients the activities that are eligible for the credit, including

"Developing new packaging and packaging systems or redesigning existing packaging." The page also informs us that "Developing new product flavors, appearances, textures, health benefits, and extending shelf life are all potentially qualifying activities." <sup>23</sup>

In other words, create a new flavor of Twinkie, or a new package for it, or create new preservatives to give it an even longer shelf-life, and you may be eligible for the research credit.

The Deloitte web page tells us that "[d]etermining the true cost of R&D is often difficult" but have no fear because "Deloitte can help." Anecdotal evidence indicates that smaller accounting firms are also aggressively seeking to help the food industry apply for the research credit.<sup>24</sup>

Meanwhile, firms have successfully claimed the credit for development of internal-use software — software used by no one besides the taxpayer. FedEx won a 2009 case in which the IRS tried to block \$11.6 million worth of credits for the development of software that it abandoned.<sup>25</sup>

Of course, it's conceivable that these uses of the credit do result in research with societal benefits in *some* situations. The problem is that the opportunities for abuse and for credit claims for activities with no social value seem far more plentiful.

For example, it's conceivable that a company could develop some way to package frozen fruit so that when it thaws out, it seems like it's freshly picked. That would certainly be innovative and increase societal happiness. But it's certainly far, far easier to imagine situations in which research on food packaging results in something like a slightly modified package for chicken nuggets, with no obvious social benefits justifying a subsidy.

Similarly, it's conceivable that software developed for a company's internal use could allow the company to provide its goods and services more cheaply and effectively in a way that increases society's happiness. But it's far, far easier to imagine this type of research resulting in no social benefit at all. The burden of proof rests on those who believe American taxpayers should give FedEx \$11.6 million for developing and then abandoning software for its internal use. That burden certainly has not been met.

### Unclear Line between What Is Legal and What Is Not

The problem is not simply that "research" is defined too broadly. Research is very difficult to define, and without the type of refinements in the definition that were proposed by the Clinton administration, it may be inevitable that some firms will aggressively push the boundary of the law and cross it. There are many cases in which companies, and the accounting firms and consulting firms that advise them, are probably breaking the law regarding the definition of research, but the IRS is unable to challenge them all because of the agency's limited resources and because of the

politics surrounding tax enforcement. Information on this point is anecdotal because there is no incentive for firms to disclose how much they try to bend the rules to the breaking point.

For example, a 2012 Bloomberg article describes the failed efforts of two people to use whistleblower provisions against their former employer, Alliantgroup, a tax consulting firm with former IRS Commissioner Mark W. Everson serving as its vice chairman and Dean Zerbe, former senior counsel to former Senate Finance Committee Chairman Charles Grassley, as its managing director.<sup>26</sup>

The IRS rejected the whistleblowers' claims that Alliantgroup helped its clients unlawfully obtain \$712.5 million in research credits. When one of those clients lost a federal case related to its research credit claims, Alliantgroup bragged that despite that loss, 93 percent of the research credit dollars claimed by its clients have been allowed, which may say more about the inability of the IRS to challenge such a powerful firm than the virtue of the firm's practices.

As the Bloomberg article explains,

In March, U.S. Tax Court Judge Diane L. Kroupa rejected tax credits by an Alliantgroup client and said the firm had shown no proof that wages paid to two top executives of hair-care products maker Farouk Systems Inc. qualified as research expenses. ...

While Alliantgroup said in a statement that Judge Kroupa's findings were "unfortunate," it said "there is no question" that Farouk Systems' founder and employees engaged in research.

In the whistle-blower claim, the former employees alleged Alliantgroup inflated research expenses by saying top managers spent large portions of their time working on such projects. That enabled more of their salaries to count as costs eligible for the credit.

The whistle-blowers included an internal e-mail that showed — after the IRS began examining one client — Alliantgroup manager Amol Gavankar suggested changing the job description of a purchasing manager. ...

In an interview, Gavankar, who left the company in 2008, said that while he didn't recall the specific e-mail exchanges, it was common to shoehorn employees' job descriptions into positions that would help generate credits.

### The Pro-Corporate Camp's Solution: Repeal the 1986 Reforms of the Tax Credit

Many observers have noted that a great many IRS audits and court cases have focused on the research credit, and this is largely due to disputes over the definition of "qualified research expenditures."

In their report for the Center for American Progress, Laura Tyson and Greg Linden note,

According to one unnamed source cited in a 2007 study, "a quarter of the audit resources of the IRS' small and midsize business division are allocated to examining claims" for the research credit. The large firms that claim most of the credit are routinely audited, and the disputes can last five or more years, with a significant cost to both the companies and the IRS staff.

Often these disputes result in a large difference between the value of the credit originally claimed and the amount ultimately granted. ... This shows that firms are unable to rely on a clear forecast of the amount of the credit that will actually be received in any given year.<sup>27</sup>

The solution to this, according to Tyson and Linden, is to repeal the reforms in the Tax Reform Act of 1986 that attempt to limit the credit to activities that involve a "process of experimentation" and a focus on "discovering information … which is technological in nature," in addition to the extremely loose restrictions that apply to the section 174 deduction for research activities.

In Tyson and Linden's words, Congress should:

Replace the narrower and more complex definition of qualified research expenses in the corporate R&D tax credit with the broader and simpler definition of research expenses eligible for the [section 174] research expensing deduction.<sup>28</sup>

This proposal is outlandish. The logic seems to be that if Congress enacts a law to prevent abuses and companies aggressively try to get around that law, then the answer is to repeal the law and make those abuses legal. By this logic, if companies attempt to circumvent environmental regulations or financial regulations and end up in court as a result, the answer is to repeal those regulations. <sup>29</sup> Of course, those arguments come up in conversations in Washington all the time, but usually those conversations are called corporate lobbying and not academic research.

### The Solution: Enact the Standards Proposed in Regulations During the Clinton Administration

Congress should move in the opposite direction and reverse the damage of the Bush administration. The template for a more effective definition of "qualified research

expenditures" already exists in the regulations that were issued at the end of the Clinton administration but later withdrawn under President Bush.

# **III. Problems Determining Which Part of a Firm's Research Should Be Subsidized (Base Rules)**

Even if "qualified research expenditures" are properly defined, policymakers would still face the question of which part of these expenditures should be subsidized. The research credit is meant to be an "incremental" credit, meaning it is not calculated as a percentage of all of a company's qualified research expenditures (QREs), but as a percentage of QREs above some base amount, which is supposed to represent the research that the company would have carried out even without the subsidy.

Designers of the research credit understood that a subsidy (whether provided as a tax break or as a direct payment) meant to encourage research can only be effective to the extent that it encourages research that businesses would not conduct in the absence of a subsidy. As a 2009 report from the General Accountability Office (GAO) explains, to the extent that a subsidy is received by a company for research that it would have done in the absence of a subsidy, the effect is to provide a windfall to the company with no benefit to the public.<sup>30</sup>

This presents a quandary for policymakers. On one hand, no one has ever come up with a plausible way to predict which part of a business's research would have been conducted without the subsidy and which part, if any, is a response to the subsidy. On the other hand, without any such rules at all the credit would almost certainly become far less cost-effective. For example, if the credit was applied as a percentage of *all* qualified research expenditures, then the credit rate would have to be sharply reduced to keep the credit from becoming much more costly. But then firms would receive far less reward for increasing research beyond the amount they would have conducted anyway.

The two most important variants of the research credit provide a subsidy of a certain percentage of "qualified research expenditures" above some base amount. The regular credit is equal to 20 percent of qualified research expenditures (QREs) above a base amount while the Alternative Simplified Credit (ASC) is equal to 14 percent of QREs above a different, usually lower base amount. In theory, the base amount could roughly (or at least on average) represent the amount of research that a business would do in the absence of a tax subsidy.

But it is highly unlikely that it works out this way in practice. For both versions of the credit, the base amount of research is calculated in ways that are unavoidably inaccurate as a measure of how much research a company would otherwise do. And in some cases, the base amount approach can actually reduce incentives to do research.

### **Base Rules for the Regular Research Credit**

For example, under the regular research credit, the base amount is calculated by taking the percentage of a company's gross revenues that it spent on qualified research expenditures (QREs) from 1984 through 1988 and then multiplying that percentage by the company's average gross revenue of the most recent four years. (A different rule applies to companies that did not exist during those years.)<sup>31</sup>

Of course, the share of its revenues that a company might spend on research in the absence of a subsidy might be much higher, or much lower, than whatever it was spending during a period of years in the distant past for reasons that have nothing to do with tax subsidies.

For example, a company might reduce its research compared to its 1984-1988 level, but reduce it *less* if provided with a subsidy. A subsidy in this case might move the company to conduct certain research that would not occur in the absence of a subsidy, but this situation is not addressed by the base rules for the regular research credit, which require an increase from the 1984-1988 level (or, for newer firms, an increase from the level of whatever period applies).

The rules put a limit on how small the base can be (and thus how large the tax credit can be) by imposing a minimum base equal to 50 percent of the company's current year research spending (the company's current year QREs). Thus a company cannot get the regular research credit for more than half of its research in a given year.

This minimum base rule essentially assumes that at least half of the research conducted by a company currently would have been conducted in the absence of any subsidy. Of course, this also is an arbitrary rule. In the absence of a subsidy, a company might have conducted 100 percent of the research it conducted this year, or 40 percent, or zero percent.

As the 2009 GAO report explains, the minimum base can cut in half the tax cut provided by the credit, which reduces the incentive provided. If the minimum base applies to a company, then every dollar increase in the company's research expenditures can increase the base amount (the amount ineligible for the credit) by as much as 50 cents.

### **Base Rules for the Alternative Simplified Credit (ASC)**

For the Alternative Simplified Credit (ASC), the base amount is defined as 50 percent of the average QREs over the past three years.

In some ways, this rule seems more sensible. First, rather than relying on a base percentage defined by research and gross receipts from many years ago, this rule updates the base as time goes on.

Second, this rule also recognizes that a company might reduce its research in a given year compared to previous years but that the tax subsidy can move the company to reduce research *less* than would be the case in the absence of a subsidy. (A company would have to cut its research by over half compared to the average for the three previous years before it would become ineligible for the ASC).

Third, the ASC does not have a minimum base, so the base rules do not reduce the incentive the way the 50 percent minimum base under the regular credit can reduce the tax incentive by 50 percent.

But there are clearly problems with the ASC as well. On one hand, defining the base amount of research as the average from the previous three years means that any increase in research this year will actually reduce the amount of credit a given company is eligible for in future years. On the other hand, defining the base as half of the average amount of research conducted over the past three years may very well set the base much lower than the amount of research most companies would conduct in the absence of a credit. This means that much of the ASC is received for research that would have been carried out even without a subsidy (that much of the ASC is a windfall, in other words).

### **Possible Improvements to Base Rules**

The 2009 GAO report relies on modeling of firm behavior based on actual tax data showing how firms used the credit and assumptions about their responsiveness to tax incentives. The GAO concludes that, despite the problems with the 50 percent minimum base rule in the regular credit, the same 50 percent base rule should be added to the ASC to prevent windfalls and ensure that more of the tax credit dollars granted actually do encourage research that would not have occurred otherwise. The report also concludes that this reform could be coupled with the elimination of the regular research tax credit computation.

In their report for the Center for American Progress, Laura Tyson and Greg Linden suggest the Congress do the very opposite, by doing away with the base rules altogether and providing the credit as a percentage of *all* qualified research expenditures (QREs).<sup>32</sup> They explain that

The main argument against a flat credit is that it would reward firms for spending they would have done anyway. Yet the whole mechanism of using a base period is just a guess at what firms might have spent in any given year. In practice, the credit design inevitably rewards some firms for research increases that have nothing to do with the credit and denies others in an equally arbitrary manner.

Of course, they are entirely right that the base period is an arbitrary guess at what a corporation might have spent on research in a given year in the absence of a tax subsidy for doing so. The question is whether it is better to simply provide a tax credit for *all* of a businesses' qualified research expenditures, presumably with a lower percentage credit so that the overall cost of the credit remains unchanged. This approach, of course, would create a 100 percent certainty that the credit will go towards research that would have been conducted anyway. It is not clear that this would be a better policy.

Tyson and Linden argue that if a base period is kept, it can be designed better. "If a flat credit is not adopted and the regular credit is continued," they explain, "the base period for both the regular credit and the Alternative Simplified Credit should be changed to a long, recent period such as the most recent five years."

Their suggestion that the base period be a longer period of years (five years, whereas the base period for the ASC under current law is three years) would mitigate the problem of a constantly updated base period reducing the incentive for research in future years. This seems like a more reasonable proposal than providing a flat credit for all qualified research expenditures.

To summarize, if Congress insists on keeping the research credit, it should improve the Alternative Simplified Credit (ASC) and perhaps should also eliminate what is now the regular credit. An improved ASC could have a minimum base equal to 50 percent of a company's current year qualified research expenditures (QREs), meaning no more than half of the QREs are ever subsidized, as proposed by the GAO. Congress could also lengthen the time period used to define the base for the ASC, so that increasing research in a given year has less disincentive effects for future years.

### IV. Problems Related to How Firms Obtain the Research Credit

Several proposals have been presented in the guise of making the research credit more accessible to businesses and more effective in encouraging research, but each of these proposals would more likely lead to increased abuses. Proposals to allow more firms to claim the credit on amended returns, and proposals to make the credit refundable for firms without tax liability, are far more likely to make the subsidy more expensive without necessarily increasing any incentive for firms to do research.

## Congress Should Bar Taxpayers from Claiming the Research Credit on Amended Returns

One of the more outlandish aspects of the research credit is that it is sometimes allowed for taxpayers who do not claim the credit when they first file their tax returns but only do so when they later file amended returns. In this situation, the business is claiming that activities it carried out in the past are "qualified research expenditures"

that should be subsidized, even though it did not know this at the time those activities were carried out.<sup>33</sup>

As tax expert Martin Sullivan has pointed out, the tax credit cannot possibly have provided an "incentive" to do research if a taxpayer did not even know it was available at the time the research was being conducted.<sup>34</sup> Sullivan cites the IRS's statement that a "growing number of these claims, both formal and informal, are based on marketed tax products supported by studies prepared by the major accounting and boutique firms. Typically these studies are marketed on a contingent fee basis."

In other words, accounting firms are offering, for a fee, to figure out a way for businesses to claim the research credit for activities they carried out in previous years. This use of the credit obviously cannot increase the amount of research carried out.

The need for Congress to bar taxpayers from claiming the research credit on amended returns is obvious, but incredibly, there is a movement among some lawmakers to *expand* the ability to claim it on amended returns.

The General Accounting Office report on the research credit explains that the Treasury Department has, through regulations, banned taxpayers from claiming the Alternative Simplified Credit (ASC) on amended returns. The GAO report obtusely states that "[t]here appears to be no reason to prohibit taxpayers from electing" the ASC on an amended return as they are currently allowed to do with the regular credit.<sup>35</sup>

It is true that there is no obvious reason why the regular credit and the ASC should be subject to a different rule when it comes to amended returns. But the proper rule should be that *neither* can be claimed on amended returns.

At least two Senators have called for the opposite — for the IRS to allow taxpayers to claim the ASC on amended returns. Senator Charles Grassley of Iowa, in written questions submitted for the record during Treasury Secretary Jack Lew's confirmation hearing, complained that

the Treasury and IRS through regulation in 2008 — without any support in the statute — greatly limited the benefits of the ASC by not allowing it to be taken on amended returns. ... Why then would the Administration inhibit the use of the credit to small and medium businesses? If you are confirmed as Secretary of the Treasury, will you review these regulations and consider allowing the ASC to be claimed on amended returns?<sup>36</sup>

Lew's written response noted that the administration supports the credit and that he would look into the issue.

A few months later, Senator Amy Klobuchar of Minnesota wrote a letter to Secretary Lew which concluded, "I urge you to consider repealing the Treasury Regulation that prohibits businesses from electing to take the ASC on an amended return."<sup>37</sup>

Neither Grassley nor Klobuchar articulate any explanation of how the credit can serve as an incentive to do research if companies were not aware of the credit until years after they conducted their research.

### Congress Should Reject Proposals to Make the Research Credit Refundable or Saleable

The Congressional Research Service, in its overview of the research credit and policy issues related to it, mentions, without much comment, some arguments for providing the tax subsidy to firms without tax liability, either by making the credit refundable or by allowing firms to sell any unusable credits to other companies.<sup>38</sup>

Making the credit refundable would mean a business would receive the full benefit of the credit even in a year that it (for reasons aside from the credit) owes no taxes or owes less than the amount of the credit that it otherwise qualifies for. In other words, if a company's tax liability before accounting for the credit is zero dollars in a given year and it qualifies for a research credit of \$10,000, the company would receive a check for \$10,000 from the IRS.

Making the credit salable is a different way to achieve roughly the same result. If the company in the example above was allowed to sell the credit, presumably to another taxpayer with tax liability that would be willing to buy the credit for some amount less than \$10,000, perhaps \$8,000, then the company conducting the research would get most of the value of the credit.

Often the arguments for making the credit refundable or salable are framed as making the tax incentive to do research predictable and effective by making it available whether or not a company is profitable in a given year. But making a tax credit refundable or saleable makes it available to companies that lack tax liability, which is not the same thing as lacking profits. A 2011 study from Citizens for Tax Justice examined most of the Fortune 500 companies that had been profitable each year for three years straight, and found that 30 of the companies had a negative effective corporate income tax rate over that three-year period.

A striking case in point is Boeing, one of the top recipients of the research credit. It earned billions in profits each year from 2002 through 2011 and yet had a negative effective income tax rate for 8 of those ten years. Over the decade it had an effective tax rate of negative 6.5 percent on almost \$32 billion in profits.<sup>39</sup> Making the research credit refundable or saleable would increase the ability of very profitable companies like Boeing to gain even more tax subsidies.

If the broader problems of tax avoidance by profitable corporations were adequately addressed in a comprehensive overhaul of our tax system, there might seem to be several arguments for Congress to make the research credit refundable or saleable. Some analysts, including those at the Organization for Economic Cooperation and Development (OECD), argue that young firms (which are often small firms) are particularly worthy of a tax subsidy for research even though they often do not have profits for several years. <sup>40</sup> Perhaps a policy meant to increase research should not hinge on whether or not a firm is profitable or has tax liability, because even a firm that has losses for several years could be encouraged to conduct research that it would not otherwise conduct. And it's true that a subsidy provided through the tax code has a similar economic effect as a subsidy provide through direct spending, i.e., the recipient obtains a benefit and the Treasury loses money. So making the credit refundable or saleable would make it operate more like a direct spending subsidy to companies, because it would not depend on them having tax liability.

But these arguments are reasons for replacing the research tax credit with a direct spending subsidy for research. Subsidies provided in the form of direct spending generally receive more attention from Congress than those provided in the tax code.<sup>41</sup> This seems to be true even in the case of tax subsidies like the research credit that are nominally "temporary," because they are enacted routinely (despite occasional debate over whether or not their cost should be offset and other details apart from the merits of the tax subsidy itself). A direct spending subsidy should generally be preferred over a tax subsidy, unless the purpose of the subsidy is one that can be more effectively met through the tax code.

For the reasons laid out in this report, proponents of the research credit have not made the case that this subsidy is more effectively provided through the tax code. Indeed, a direct spending program would almost certainly not allow research subsidies for much of the so-called "research" for which the tax credit is currently claimed.

### V. Congress Should Not Extend or Make Permanent the Research Credit Without Making Reforms

There are several ways that Congress could react to the scheduled expiration of the research credit at the end of 2013.

First, Congress could simply let the research credit expire. If Congress wants to continue spending a comparable amount of revenue to support research, it could do so through direct-spending programs that subsidize true basic research.

Second, Congress could follow its usual pattern of enacting an "extenders" bill, socalled because it extends the research credit, and several other tax breaks that mostly target business interests, for a couple of years, without offsetting the costs. Third, Congress could make the research tax credit permanent, an option that has been discussed for decades but never acted on. Currently the most prominent proposal to do this is President Obama's proposal to increase the credit rate for the Alternative Simplified Credit (ASC) from 14 percent to 17 percent while also making the credit permanent. Making the credit permanent could also be included in comprehensive tax reform if Congress takes it up in a serious way.

Fourth, Congress could refuse to either extend the credit or make it permanent unless the reforms described in this report are included in the legislation. This would result in a somewhat better policy.

President Obama's proposal illustrates this point. Under current law, the base rules for the ASC are simpler and in some cases more generous than those for the regular credit, but the ASC has a lower rate (14 percent for the ASC versus 20 percent of the regular credit). Raising the rate for the ASC to 17 percent, as President Obama proposes, would likely encourage more companies to shift from the regular credit to the ASC. By making the credit permanent, the proposal could arguably provide a more effective incentive for some businesses because it would be easier to plan with the certainty that the credit will always be available.

However, the President's proposal would leave unchanged the many problems and abuses that plague the credit. Congress should reject the administration's proposal unless it is amended to include the three types of reforms described in this report. These include: clarifying the definition of the qualified research expenditures along the lines of what the Clinton administration proposed through regulation; reforming the base rules (by adding a minimum base rule to the ASC as the GAO proposes and perhaps by also lengthening the time period used to define the base, as Tyson and Linden propose); and barring claims for the credit (whether the regular credit or the ASC) on amended returns.

<sup>&</sup>lt;sup>1</sup> Research and Experimentation Tax Credit, Hearings Before the Subcommittee on Oversight of the House Committee on Ways and Means, 98<sup>th</sup> Congress, 2<sup>d.</sup> Session (1984).

<sup>&</sup>lt;sup>2</sup> Deloitte, "Research and development tax incentives for the food industry," 2010. <a href="http://www.deloitte.com/assets/Dcom-UnitedStates/Local%20Assets/Documents/Tax/us\_tax\_rd\_food\_090210.pdf">http://www.deloitte.com/assets/Dcom-UnitedStates/Local%20Assets/Documents/Tax/us\_tax\_rd\_food\_090210.pdf</a>

<sup>&</sup>lt;sup>3</sup> FedEx Corp. v. United States, 103 AFTR 2d 2009-2722 (W.D. Tenn. June 9, 2009).

<sup>&</sup>lt;sup>4</sup> This and other problems with the research credit are illuminated by Martin Sullivan, "Time to Scrap the Research Credit," *Tax Notes*, February 22, 2010.

<sup>&</sup>lt;sup>5</sup> Jesse Drucker and Peter S. Green, "IRS Resists Whistle-Blowers Despite Wide U.S. Tax Gap," Bloomberg, June 19, 2012. <a href="http://www.bloomberg.com/news/2012-06-19/irs-resists-whistleblowers-despite-wide-u-s-tax-gap.html">http://www.bloomberg.com/news/2012-06-19/irs-resists-whistleblowers-despite-wide-u-s-tax-gap.html</a>

<sup>&</sup>lt;sup>6</sup> Department of Treasury, "General Explanations of the Administration's Fiscal Year 2014 Revenue Proposals," April 2013, pages 13 and 242. <a href="http://www.treasury.gov/resource-center/tax-policy/Documents/General-Explanations-FY2014.pdf">http://www.treasury.gov/resource-center/tax-policy/Documents/General-Explanations-FY2014.pdf</a> The Department of Treasury estimates the cost of the proposal to be \$99 billion over a decade, but the Joint Committee on Taxation, whose revenue estimates are used by Congress, estimates the cost to be \$118 billion over a decade. Joint Committee on Taxation, "Estimated Budget Effects Of The Revenue Provisions Contained In The President's Fiscal Year Budget Proposal," May 10, 2013. <a href="https://www.ict.gov/publications.html?func=startdown&id=4520">https://www.ict.gov/publications.html?func=startdown&id=4520</a>

<sup>&</sup>lt;sup>7</sup> Laura Tyson and Greg Linden, "The Corporate R&D Tax Credit and U.S. Innovation and Competitiveness," Center for American Progress, January 6, 2012, page 51. http://www.americanprogress.org/issues/2012/01/corporate r and d.html

<sup>&</sup>lt;sup>8</sup> The legislative history, including the 15 instances in which the credit expired, is included in Gary Guenther, "Research Tax Credit: Current Law, Legislation in the 112<sup>th</sup> Congress, and Policy Issues," Congressional Research Service, January 10, 2012.

<sup>&</sup>lt;sup>9</sup> For example, see Eric Spiegel, "Make Permanent the Research and Experimentation Tax Credit," July 12, 2011. <a href="http://www.theatlantic.com/business/archive/2011/07/make-permanent-the-research-and-experimentation-tax-credit/241683/">http://www.theatlantic.com/business/archive/2011/07/make-permanent-the-research-and-experimentation-tax-credit/241683/</a>

<sup>&</sup>lt;sup>10</sup> The Joint Committee on Taxation, "Estimates Of Federal Tax Expenditures For Fiscal Years 2012-2017," February 1, 2013. https://www.jct.gov/publications.html?func=startdown&id=4503

<sup>&</sup>lt;sup>11</sup> The legislative history of the research credit is explained in Gary Guenther, "Research Tax Credit: Current Law, Legislation in the 112 Congress, and Policy Issues," Congressional Research Service, January 19, 2012.

<sup>&</sup>lt;sup>12</sup> IRS, Statistics of Income, Corporate Research Credit. <a href="http://www.irs.gov/uac/SOI-Tax-Stats-Corporation-Research-Credit">http://www.irs.gov/uac/SOI-Tax-Stats-Corporation-Research-Credit</a>

<sup>&</sup>lt;sup>13</sup> Gary Guenther, "Research Tax Credit: Current Law, Legislation in the 112<sup>th</sup> Congress, and Policy Issues," Congressional Research Service, January 19, 2012.

<sup>&</sup>lt;sup>14</sup> Laura Tyson and Greg Linden, pages 42-45.

<sup>&</sup>lt;sup>15</sup> Citizens for Tax Justice, "Judging Tax Expenditures: Review is Needed for Spending Programs Buried Within the Tax Code," November 13, 2009.

www.ctj.org/ctjreports/2009/11/new\_ctj\_report\_calls\_for\_review\_of\_spending\_programs\_burried\_within\_the\_tax\_code.php

<sup>&</sup>lt;sup>16</sup> The 2003 report from the Joint Committee on Taxation was cited in a 2008 report from the Congressional Research Service to conclude that "the price elasticity of research is less than 1.0 and may be less than 0.5," meaning a dollar of research credit results in less than a dollar of increased research and possibly less than 50 cents of increased research. Gary Guenther, "Research and Experimentation Tax Credit: Current Status and Selected Issues for Congress," October 6, 2008, page 16.

<sup>&</sup>lt;sup>17</sup> Martin Sullivan, "Time to Scrap the Research Credit," *Tax Notes*, February 22, 2010.

<sup>&</sup>lt;sup>18</sup> Robert S. McIntyre, "Merry Christmas to the Tax Credit Abusers," *The American Prospect*, January 1-14, 2002. <a href="http://www.ctj.org/pdf/tx011402.pdf">http://www.ctj.org/pdf/tx011402.pdf</a>

http://newamerica.net/pressroom/2011/press call repatriation tax cut

<sup>&</sup>lt;sup>19</sup> The history of the different proposed regulations and final regulations to implement the 1986 reforms is included in Gary Guenther, "Research Tax Credit: Current Law, Legislation in the 112<sup>th</sup> Congress, and Policy Issues," Congressional Research Service, January 19, 2012.

<sup>&</sup>lt;sup>20</sup> For the details of Weinberger's history, see Sydney P. Freedberg, "Now He's the One Making the Tax Rules," St. Petersburg Times, March 17, 2002. http://www.sptimes.com/2002/03/17/Worldandnation/Now he s the one maki.shtml

<sup>&</sup>lt;sup>21</sup> Press release, "Mark Weinberger Rejoins Ernst & Young as Americas Deputy Vice Chair of Tax Services," May 16, 2002. <a href="http://www.prnewswire.com/news-releases/mark-weinberger-rejoins-ernst-young-as-americas-deputy-vice-chair-of-tax-services-77478622.html">http://www.prnewswire.com/news-releases/mark-weinberger-rejoins-ernst-young-as-americas-deputy-vice-chair-of-tax-services-77478622.html</a>

<sup>&</sup>lt;sup>22</sup> Letter from Robert S. McIntyre, Director, Citizens for Tax Justice, to Pamela F. Olson, Assistant Secretary for Tax Policy, U.S. Treasury Department, September 5, 2002. http://www.ctj.org/pdf/olsonlet.pdf

<sup>&</sup>lt;sup>23</sup> Deloitte, "Research and development tax incentives for the food industry," 2010. http://www.deloitte.com/assets/Dcom-UnitedStates/Local%20Assets/Documents/Tax/us tax rd food 090210.pdf

<sup>&</sup>lt;sup>24</sup> For example, see Prepared Foods Network, "The Hidden Treasure of R&D Tax Cuts," May 13, 2011. http://www.preparedfoods.com/articles/the-hidden-treasure-of-rd-tax-cuts

<sup>&</sup>lt;sup>25</sup> FedEx Corp. v. United States, 103 AFTR 2d 2009-2722 (W.D. Tenn. June 9, 2009).

<sup>&</sup>lt;sup>26</sup> Jesse Drucker and Peter S. Green, "IRS Resists Whistle-Blowers Despite Wide U.S. Tax Gap," Bloomberg, June 19, 2012. <a href="http://www.bloomberg.com/news/2012-06-19/irs-resists-whistleblowers-despite-wide-u-s-tax-gap.html">http://www.bloomberg.com/news/2012-06-19/irs-resists-whistleblowers-despite-wide-u-s-tax-gap.html</a>

<sup>&</sup>lt;sup>27</sup> Laura Tyson and Greg Linden, page 49.

<sup>&</sup>lt;sup>28</sup> Laura Tyson and Greg Linden, page 51.

<sup>&</sup>lt;sup>29</sup> Indeed, another report authored by Laura Tyson promoting a tax amnesty for repatriated offshore corporate profits arguably follows the same logic. The repatriation amnesty would clearly provide the greatest benefits to the worst corporate tax dodgers, those who shift what are truly U.S. profits into offshore tax havens in order to avoid U.S. taxes. (U.S. companies that have profits in countries where they are doing real business tend to pay taxes in those countries and therefore would benefit less from a tax amnesty for repatriated profits.) Instead of reforming the tax rules allowing offshore profit shifting, Tyson and her co-authors would more or less call off U.S. taxes on those profits that were shifted into offshore tax havens. See Laura D'Andrea Tyson, Kenneth Serwin, and Eric Drabkin, "The Benefits for the U.S. Economy of a Temporary Tax Reduction on the Repatriation of Foreign Subsidiary Earnings," New America Foundation, October 13, 2011.

<sup>&</sup>lt;sup>30</sup> General Accountability Office, "The Research Tax Credit's Design and Administration Can Be Improved," GAO-10-136, November 6, 2009. <a href="http://gao.gov/products/GAO-10-136">http://gao.gov/products/GAO-10-136</a>

<sup>&</sup>lt;sup>31</sup> Such companies start with a flat 3 percent of current revenues as their base, which is gradually increased until the company has been in business for a decade. At that point, the base becomes the percentage of revenue spent on qualified research expenditures (QREs) in the second half of its first decade of existence, multiplied by the company's average gross revenue of the most recent four years.

<sup>&</sup>lt;sup>32</sup> Laura Tyson and Greg Linden, pages 47, 52-53.

<sup>&</sup>lt;sup>33</sup> There is no other reason a business would not claim the research credit on its original tax return. Even if a company has no tax liability, there is still ample incentive to claim the research credit because it can be carried forward 20 years and carried back one year, meaning it can be used to reduce tax liability in the years when the business otherwise would owe taxes.

<sup>&</sup>lt;sup>34</sup> Sullivan.

<sup>&</sup>lt;sup>35</sup> GAO-10-136, page 36.

<sup>&</sup>lt;sup>36</sup> Senator Charles Grassley, Questions for the Record, Nomination of Jacob J. Lew to be Secretary of the Treasury, February 13, 2013, page 7.

<sup>&</sup>lt;sup>37</sup> Senator Amy Klobuchar, letter to Jack Lew, Secretary of the Department of Treasury, June 26, 2012.

<sup>&</sup>lt;sup>38</sup> Gary Guenther, "Research Tax Credit: Current Law, Legislation in the 112<sup>th</sup> Congress, and Policy Issues," Congressional Research Service, January 19, 2012.

<sup>&</sup>lt;sup>39</sup> Citizens for Tax Justice, "Obama Promoting Tax Cuts at Boeing, a Company that Paid Nothing in Net Federal Taxes Over Past Decade," February 16, 2012. <a href="http://www.ctj.org/pdf/boeing2012.pdf">http://www.ctj.org/pdf/boeing2012.pdf</a>

<sup>&</sup>lt;sup>40</sup> OECD press release, "Reform R&D tax systems to boost innovation and help young firms, says OECD," October 10, 2013. <a href="http://www.oecd.org/newsroom/reform-rd-tax-systems-to-boost-innovation-and-help-young-firms.htm">http://www.oecd.org/newsroom/reform-rd-tax-systems-to-boost-innovation-and-help-young-firms.htm</a>

<sup>&</sup>lt;sup>41</sup> Citizens for Tax Justice, "Judging Tax Expenditures: Review Is Needed for Spending Programs Buried Within the Tax Code," November 13, 2009.

<u>www.ctj.org/ctjreports/2009/11/new\_ctj\_report\_calls\_for\_review\_of\_spending\_programs\_burried\_within\_the\_tax\_code.php</u>