Retirement Security: Leveraging the Research and Development Tax Credit

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Available at: https://works.bepress.com/tristen_cohen/2/
Abstract: The long-term health and stability of the social security program is currently being threatened by significant demographic shifts and petty political gamesmanship. The importance of the program combined with the significance of the chance of insolvency requires that some action be taken in the present to mitigate problems in the future. Congress can do this by decreasing benefits, raising taxes, or finding alternative ways to raise revenue. One such alternative is investing in program that will increase economic activity and productivity. This paper argues that the Startup Innovation Credit Act of 2013 leverages the research and development credit to create such a program and that it would be a proper investment for Congress to make given the goals and objectives of the social security program.

Retirement Security: Leveraging the Research and Development Credit

In April of 2012 the Trustees of the Social Security trust fund (the “Trust Fund”) gave a report to Congress and the President on the projected financial status the program. The Trustees found that the Social Security program will be able to pay (with withdrawals from the Social Security trust fund) all of its obligations until the year 2033 and then would only be able to fund 75-percent of its obligations for the next fifty years. This means that Social Security, in the exact form it exists today, can only continue for another 20 years before having to slash benefits by 25-percent (I will refer to this as the “2033 Problem”). In order to prevent such a drastic and dramatic decrease in benefits, Social Security must either collect more revenue or decrease future obligations more gradually.

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1 Board of Trustees Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds, The 2012 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds, Apr. 25, 2012 (citing the intermediate, or most likely, estimates) [hereinafter “Trustee’s Report”].
2 Id.
3 Id.
If Congress should choose to decrease future obligations, they would need to decrease benefits paid out to current or future beneficiaries. The Trustees estimate that Congress needs to reduce current or future benefits in a manner “equivalent to an immediate and permanent reduction of 16.2-percent” in order to avoid slashing benefits by 25-percent in 2033.\(^5\) Social Security benefits are calculated by taking the aggregate wages earned during an individual’s 35 highest earning years, adjusted for inflation and subjected to a cap equaling the amount of wages subject to social security taxes, and dividing that number by 420 (the number of months in 35 years).\(^6\) The resulting figure is a person’s “averaged indexed monthly earnings.”\(^7\) That number is the decreased by 10-percent of the first $791, 68-percent of any amount between $791 and $4,768, and 85-percent of any amount over $4,768.\(^8\) The figure after those deductions is a person’s “estimated monthly benefit.”\(^9\) If a person chooses to retire at age 62 then that person’s estimated monthly benefit is reduced by another 25-percent.\(^10\) Congress could reduce the numbers at any stage of the calculation to decrease benefits.

Congress could choose to collect more revenue by either (1) increasing current or future tax collections or (2) finding an alternative source of revenue. The Trustees report suggests that if Congress should choose to increase taxes that they must do so in a way that amounts to an immediate and permanent increase in the tax rate of 2.61-percent.\(^11\) Social Security is funded through payroll taxes at a rate of 12.4 percent with

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\(^5\) Trustee’s Report, supra, note 1 at 12.
\(^7\) Id.
\(^8\) Id.
\(^9\) Id.
\(^10\) Id.
\(^11\) Trustee’s Report, supra, note 1 at 12.
half of the tax paid by the employer and the other half paid by the employee. Social Security taxes are only levied on earned income and only on the first $113,700 of income. Congress could increase the tax rates, increase the cap of $113,700, or increase the income base (say by also collecting payroll taxes on unearned income) in order to increase current or future tax collections.

Congress could also find an alternative source of revenue by creating a new tax or investing the current trust in assets that may get a greater return. Today, and throughout its history, the Trust Fund only invests in bonds issued by the federal government. The Federal government issues “special issue” bonds, which are only available to trust funds, and “public issues,” which are available to the public. The Trust Fund currently only holds special issues. Federal bonds are among the safest investments an entity or individual can make and special issue bonds bear nominal interest equal to the market rate of interest for 4-year federal bonds. The interest from these bonds are the Trust Fund’s only other source of income aside from tax revenue and it is possible that the Trust Fund could make more money with riskier investments.

Of course, any solution to the 2033 Problem may incorporate a combination of the options above. Indeed, a popular proposal from President George W. Bush was to decrease or eliminate the guaranteed benefits of Social Security and allow individuals to

13 Id.
15 Id.
16 Id.
18 Trust Fund Investments, supra, note 14.
19 Trustee’s Report, supra, note 1 at 23.
replace it with individual investment accounts.\textsuperscript{20} The investment accounts would allow individuals to increase the risk of investments in order to create more revenue (the “personal accounts solution”).\textsuperscript{21} The personal accounts solution then would decrease or eliminate Social Security’s obligations and make benefits dependent on an individual’s risk appetite and the whims of the market.\textsuperscript{22} In essence, the personal accounts solution would solve the 2033 Problem by drastically increasing the risks of retirement savings and then passing those risks entirely onto individuals, the vast majority of whom are not educated investors.

This Article suggests a different solution may exist with the Startup Innovation Credit of 2013. The “Startup Innovation Credit” was introduced in the House of Representatives and the Senate in March of 2013 and is meant to extend the Research and Development Credit (R&D Credit) to offset payroll tax liabilities of employers.\textsuperscript{23} In this way, the Startup Innovation Credit decreases current revenue for social security, which would seem to exacerbate the 2033 Problem instead of solving it. This article, however, argues that the Startup Innovation Credit leverages the R&D Credit to create new products and processes that will create jobs in the future and, therefore, increase payroll tax collections in the future. In that way it is better to look at the Startup Innovation Credit as a new investment in future tax collections for Social Security than simply as a decrease in current tax collections.

\textsuperscript{22} \textit{Id.}
\textsuperscript{23} The Startup Innovation Credit of 2013, S. 193, 113\textsuperscript{th} Cong., 2013
Ultimately, any expenditure or investment of social security funds should be well-tailored to fit the overall goals and policies of the social security program. This Article argues that Congress should pass the Startup Innovation Credit because it is a sound investment in future tax collections and well-serves the overall goals and policies of the social security program. Part I will examine the purposes and policy goals of the Social Security program. Part II will explain how the R&D credit work. Part III will explain how the Startup Innovation Credit would work if it is adopted. Part IV will examine whether the manner in which the Startup Innovation Credit expands the R&D Credit will well-serve the goals and policies of Social Security. Finally, this paper will conclude with a brief discussion of the broad effects of the proposal.

Part I – Finding the Overall Goals of the Social Security System

A. One of the Goals of the Social Security Program is to Provide a Source of Income that Retirees can Rely on to Pay for Basic Needs

In 1935 the United States was in the middle of the Great Depression, which had brought to the steps of the U.S. Capitol a seemingly unending list of poverty-related issues to address.24 One of the most alarming issues was the rate of poverty among the elderly.25 Congress and President Roosevelt had instituted many programs to help people get back to work26 and out of poverty but these programs were of little use for elderly people who were not of a working age.27 So, to help those people and the

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24 1933 Relief Census (showing large poverty rates across gender, family, and racial barriers).
25 David Fischer, Growing Old in America, at 226 (1978) (estimating that 50% of the nation’s elderly had to rely on charity for survival).
27 See 1933 Relief Census, supra, note 24.
families that were struggling to support them, Congress passed the Social Security Act of 1935 (SSA).²⁸

The SSA set up a system of old-age retirement benefits (“Social Security”) including lifetime annuity payments once an individual reached retirement age and payment to surviving relatives upon the death of a wage earner.²⁹ The system was designed to give individuals lifetime annuity payments according to their earnings or contributions to the system and to give death benefits to the surviving relatives.³⁰ There was a debate at the time about whether the annuity payments should be sufficient to secure an independent retirement or if they should secure a more luxurious or comfortable retirement.³¹ Essentially, whether the payment should be enough to cover basic living expenses or whether it should be enough to cover basic living expenses plus discretionary income. At a minimum, however, social security was meant to secure for its beneficiaries a minimum amount to allow them to live independently.³²

The system works by collecting payroll taxes. Payroll taxes are taxes on wages that are generally withheld by an individual’s employer. In addition to Social Security, a hospital insurance tax is used to pay for Medicare and state and federal unemployment taxes, which go to pay for unemployment benefits.³³ The general theory was that the government would mandate that individuals and their employers contribute to the Social Security fund and would be guaranteed a stream of income when they reached

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³⁰ Id.
³³ See Helvering v. Davis, 301 U.S. 619, 625 (1937) (holding that payroll taxes for the purposes of the SSA are constitutional taxes and the withholding requirement is also constitutionally acceptable).
retirement age. As such, the program was designed to insist that employers and employees contribute at least a portion of their to a national pension program, instead of allowing them to use the money to increase contributions to their individual pension accounts.

The overall scheme, then, is easy to understand. Instead of allowing individuals keep all of their wages and invest as much or as little into personal retirement savings accounts and allowing businesses to keep all of their profits to establish private pension funds, the government mandated that individuals and businesses contribute to new old-age pension program. This new program was meant to offer more security than individual savings or private pensions, which had failed to protect the elderly against poverty up to that point.

B. Another Goal of the Social Security Program is to Provide a More Stable Source of Income for Retirees than Other Retirement Sources

Typically, retirement requires an individual to replace income from wages with either (1) personal savings or investments, (2) pension(s) from an employer or employers, or (3) Social Security benefits. Even in retirements where the retiree continues to earn a wage, he or she is still likely to have to recoup pre-retirement income lost as a result of diminished productive capacity. In the current environment, the traditional methods of replacing pre-retirement wages out of Social Security (personal savings and pensions) are not as stable as they have been in prior years.

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34 See, supra, note 28.
36 Some elderly individuals get “retirement jobs,” which is a practice that is increasing in popularity. Sid Groeneman, Staying Ahead of the Curve 2007: The AARP Work and Career Study, AARP, at 84 (Sept. 2008) (finding that 7-out-of-10 workers plan to work for pay in retirement).
37 Id.
Over the last two decades traditional pensions began disappearing and were replaced with 401(k) Plans. The difference between the traditional pension and the 401(k) is essentially that the recipient of retirement benefits bears the risk of loss with 401(k) plans but gets a guaranteed payment with a traditional pension. There are benefits and drawbacks to each plan but the point is that the stability that comes from a guaranteed payment is lost when an employer offers a 401(k) instead of a traditional pension.

The personal savings rates in the United States have also suffered a sharp decline over the last two decades. In fact, during the middle part of the 2000s, the personal savings rate actually went negative. Economists have so far been unable to point to a single reason for the sharp decline in personal savings over the last 20 years but many are raising concerns about the ability of families to have resources available in the future. Additionally, the decline in personal savings combined with large

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38 By “traditional pension” I mean defined benefit plans. Defined Benefit plans promise a guaranteed monthly or yearly benefit, which is distinguished from Defined Contribution plans which only promise a specific contribution to a retirement plan. 401(k) plans are Defined Contribution plans. United States Department of Labor, Employee Benefits Security Administration, What You Should Know About Your Retirement Plan, Accessed Feb 28th, 2013, http://www.dol.gov/ebsa/publications/wyskapr.html#Chapter1.


40 See, U.S. Department of Labor, supra, note 38.

41 There is some debate about whether the payment is “guaranteed” with a traditional pension. E.g. Charlie Farrell, 401(k) vs. The Pension, Which is Better?, CBS News, (July 9, 2009) available at: <http://www.cbsnews.com/8301-505146_162-37941502/401k-vs-the-pension-which-is-better/> (arguing that there is more risk with traditional pensions because a retiree needs to rely on his or her former employer to adequately fund a pension); cf. The Pension Benefit Guaranty Corporation, FAQs, [Accessed Feb. 28, 2013] http://www.pbgc.gov/about/faq/pg/general-faqs-about-pbgc.html (explaining a Federal insurance program for private pension funds that are terminated).


43 Id.


National Savings is the best way to make investments today to boost productivity and economic growth in the future.\footnote{GAO, National Savings, June 2001.} Accordingly, not only is personal savings disappearing from the equation to replace pre-retirement wages but the low rate of national saving is harming the chances of future economic growth and stability that could help with other pre-retirement wage replacements like Social Security and 401(k) plans.

Against the backdrop of low personal and national savings and less stable private pensions, Social Security is more important than ever to insuring that American citizens do not retire to a life of poverty and abjection.\footnote{See Edward M. Welch, Social Security and Social Justice, The National Catholic Review, August 26, 2002, http://americamagazine.org/issue/399/article/social-security-and-social-justice.} Social Security has typically been reliable in so far as the amount of the benefits has made it possible for retirees to pay for basic needs.\footnote{Harry R. Moody, Aging: Concepts and Controversies, Pine Forge Press, 360 (Mar. 2009).} It has also been stable in so far as retirees have been able to rely on it for almost 80 years, through bear and bull markets alike.\footnote{Id.} This combination of reliability on sufficient benefits and stability through time are the main policy considerations of Social Security.\footnote{See, 1935 Cong. Rec., supra note 28.}

Ultimately, against the backdrop of low personal and national savings, Social Security is facing financial and political challenges.

The problem is that Social Security is in some financial trouble caused largely by demographic changes expected over the next decade and economic challenges of the
last five years.\textsuperscript{51} The demographic challenges are related to the impending retirement of the baby-boomers generation, which will cause the ratio of workers to retirees (the “dependency ratio”) to shift unfavorably from 3:1 now to almost 2.1:1 by 2030.\textsuperscript{52} The 2008 recession had a significant impact as trust fund assets relative to trust fund costs decreased by 53% over the course of the recession.\textsuperscript{53}

Decreased contributions to the trust fund and changing demographics are not entirely worrisome. In fact, when Congress passed the last Social Security overhaul in 1983 (the “1983 Plan”), they specifically set up the system to deal with changing demographics and anticipated decreased contributions.\textsuperscript{54} The 1983 changes essentially set up a four stage process to deal with the problem of changing demographics.\textsuperscript{55} The first stage involved years where social security would purposefully run a surplus while the baby-boomers were at the height of their productivity.\textsuperscript{56} The second stage involved decreasing rates of contributions and increasing outlays for benefits as baby-boomers retired.\textsuperscript{57} The third stage begins when the baby-boomers have mostly retired and social security needed to withdraw funds from the trust fund to pay benefits.\textsuperscript{58} The fourth stage envisioned contributions and benefit payments evening out as the baby-boomer generation passed away.\textsuperscript{59}

\textsuperscript{52} Trustee’s Report, \textit{supra}, note 1 at 55.
\textsuperscript{53} \textit{Id.} At 44
\textsuperscript{54} Buchanan, \textit{supra}, note 51 at 227.
\textsuperscript{55} \textit{Id.}
\textsuperscript{56} \textit{Id.}
\textsuperscript{57} \textit{Id.}
\textsuperscript{58} \textit{Id.}
\textsuperscript{59} Buchanan, \textit{supra}, note 51 at 227.
Currently, Social Security is nearing the end of the second stage of the 1983 Plan. Trustees estimate that Social Security will have depleted its trust fund in 2033, thereby bringing Social Security into the fourth stage of the 1983 Plan. The problem is that, instead of contributions and benefit pays equalizing, the Trustees estimate that Social Security will not have enough money to meet its obligations beginning in 2033 (the “2033 Problem”). As Social Security transitions out of the second stage, where revenues exceed contributions, and into the third stage, where it needs to begin depleting trust fund assets, it makes sense to take steps in order to ensure the third stage can transition smoothly to the fourth stage.

Unfortunately, there is a deep ideological divide between the two major political parties regarding the future of Social Security. One side wants to increase funding in order to keep Social Security as it was envisioned in 1935 and the other wants to alter social security so that the guaranteed portion is reduced (or eliminated) but individuals are given more freedom to take on risk in search of a bigger reward. These ideological differences have made it hard for the political parties to come together and fix what ails social security. In any event, regardless of one’s political persuasion, there is little-use denying the likelihood that social security either needs to take in more money in the

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60 In 2011, Social Security collected the equivalent of $592.4 billion dollars in taxes and earned $106.5 billion in interest for total revenue of $698.8 billion. Trustee’s Report, supra, note 1 at 6. They paid out $600.3 in benefits and spent $3.5 billion in administration fees, for a total of $603.8 billion. Id.
61 Trustee’s Report, supra, note 1 at 9. In Professor Buchanan’s article, supra, note 51 at 280, he argues that the Trustee estimates may be overly pessimistic and that Congress could easily wait until closer to the beginning of the fourth stage to enact needed reforms if they are not. When he wrote, however, the Trustee’s optimistic scenario showed that it was possible for the program to work exactly how the 1983 Plan envisioned. Id. Now, even the Trustee’s optimistic scenario predicts that benefit payments will not equalize with contributions. Trustee’s Report, supra, note 1 at 8. Given the increased likelihood that the 1983 will not produce the intended results in the fourth stage
63 Id.
64 Id.
future or decrease benefits in the future. If we decrease future benefits then we either need to increase another source of economic security in retirement or risk having generations of elderly people too old to work and too poor to support themselves.

The latter scenario is morally unacceptable. Accordingly, a solution to the social security problem needs to either increase future payroll collections (take in more money) or provide an avenue for more personal savings or higher pensions. Furthermore, the solution needs to be stable, or risk adverse, and it needs to be politically feasible. This paper argues that an expansion of the Research and Development Tax Credit can be at least of part of such a solution.

Part II – The Research and Development Credit

A. The R&D Credit has, Throughout its History, Shown Flexibility by Surviving Many Acts of Congress

The Research and Development Tax Credit (R&D Credit) was passed as part of the Tax Reform Act of 1981.65 Leading up the enactment of the Tax Reform Act investment in technological research and development as a percentage of national income had grown relatively stagnant in America.66 This, especially juxtaposed against rapidly increasing Soviet investment in research and development,67 was a special cause for concern in the United States. So, Congress and President Reagan decided to give a tax benefit to companies who increased their research and development expenditures.68

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67 Id.
The initial credit was incredibly complex because Congress made a decision to only subsidize increases in research and development expenditures as opposed to all research and development spending or activities. This decision had several practical effects but there are two that are most important for our purposes. First, this meant that the credit would need to be changed in the future when Congress decided that it should subsidize more than just increases in R&D expenditures. Second, the complexity of the credit reduced its effectiveness because many small businesses did not (and have not) understand how to become eligible for the credit.

Congress has passed legislation extending or modifying the R&D credit 17 times as of the writing of this article, with the most impacting legislation occurring as part of the fiscal cliff deal in January of 2013. All this legislation essentially created 3 different versions of the R&D credit: the basic credit, the alternative credit, and the simplified credit. The basic credit was the one passed in 1981 and significantly modified to reflect its current form in 1986. The alternative credit was enacted in 1996 and allowed to expire in 2008. The simplified credit was enacted in 2006.

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69 Id.
72 I use these terms instead of the technical names for the credit, which would be, respectively, the credit for increasing research activities, the alternative incremental credit, and the alternative simplified credit. I.R.C. § 41(a), (c)(4), (c)(5).
74 I.R.C. § 41(h)(2)
B. The Different Versions of the R&D Credit Give a Tax Break for Qualified Expenditures Over a “Base Amount”

The basic credit establishes a “base amount” and allows a credit for 20% of qualified expenditures over the base amount.\(^76\) The “base amount” is based on a company’s previous year’s revenue and qualified research expenditures.\(^77\) It differs based on whether the company is a start-up, whether the company has been in business before 1983 or 1989, and how long the company has been in business.\(^78\) The different permutations of the base amount are so varied and hard to determine it is not worth going into each potential calculation in this article. Suffice to say that calculating the basic credit is so complex many small businesses and small accounting firms ignore the credit completely.\(^79\)

The alternative credit was similarly complicated but made an important change regarding the calculation of the “base amount.”\(^80\) The alternative credit allowed taxpayers to opt-into a three-tiered schedule that mitigated the credit’s unavailability to those firms who had low revenues or historically high qualifying research and development costs.\(^81\) Essentially, since the basic credit was only for increased research and development expenditures (or amounts over the base amount) and because the base amount was calculated based on revenue, firms with historically high research costs and/or low revenue weren’t able to take full-advantage of the credit because their base amount was too high. The three-tiered schedule mitigated this effect by changing

\(^{76}\) I.R.C. § 41(a)
\(^{77}\) I.R.C. § 41(c)(1)
\(^{78}\) I.R.C. § 41(c)(3)
\(^{79}\) See Klein supra, note 70.
\(^{80}\) I.R.C. § 41(c)(4)
\(^{81}\) Id.
the way the base amount was calculate but it came at the cost of a decreased credit amount.

The simplified credit is, thankfully, much easier to calculate. Under the simplified credit, if a firm has had qualified research and development expenses in the last three years then the base amount is calculated by taking the yearly average of those expenses, cuts it in half, and then subtracts that number from current year qualified research and development expenses.\textsuperscript{82} The firm is then entitled a credit equal to 14-percent of the resulting number.\textsuperscript{83} If a firm does not have any qualified research and development expenditures then it is entitled to a six-percent credit for all current year qualified research and development expenses.\textsuperscript{84}

C. Firms Can Either Get a Deduction or a Credit for Research and Development Expenditures

Ordinarily expenses for improvements to existing assets and development of new or existing assets are capital expenditures.\textsuperscript{85} Capital Expenditures must be added to the cost of the asset and depreciated or amortized over a period of years.\textsuperscript{86} This means that even though a firm is spending money now, they do not get a full tax deduction for the expenditure and have to spread the deduction out over many years. For R&D Expenses, however, a taxpayer can either the full deduction or take advantage of the R&D credit.\textsuperscript{87}

\begin{itemize}
\item \textsuperscript{82} I.R.C. § 41(c)(5)(A)
\item \textsuperscript{83} \textit{Id.}
\item \textsuperscript{84} I.R.C. § 41(c)(5)(B)
\item \textsuperscript{85} I.R.C. § 1221
\item \textsuperscript{86} Treas. Reg. §1.1221-1(a)
\item \textsuperscript{87} I.R.C. § 174(a)
\end{itemize}
The internal revenue code has both a tax deduction and a tax credit for R&D expenditures.\(^8\) Currently, taxpayers have the basic credit, the simplified credit, and the Research and Development Expense deduction (R&D deduction) available to them to help off-set their tax liability. A tax credit is a dollar-for-dollar reduction in tax liability; whereas a tax deduction is a dollar-for-dollar reduction in taxable income. A tax credit is a more lucrative incentive than a tax deduction and, in this case, the R&D credits are available only for a sub-section of expenditures that qualify for the R&D deduction.\(^8\) Accordingly, it is first necessary to understand which expenses qualify for the R&D deduction before one can understand which expenses qualify for an R&D credit. For the sake of ease and clarity, expenses for which the deduction is allowed will be called “R&D expenses” and, of those expenses, the ones that qualify for the R&D credit will be called “qualified R&D expenses."

A firm can claim a deduction for R&D expenses that are business expenditures directly or indirectly related to the development or improvement of a product under I.R.C. § 174.\(^9\) Additionally, the expenses must be experimental in nature.\(^9\) An expense is experimental in nature if it designed to resolve uncertainty surrounding the development or improvement of a product.\(^9\) So, an R&D expense is an expenditure that is directly or indirectly related to the development or improvement of a product and there is uncertainty regarding whether the process used will lead to such development or improvement.\(^9\)

\(^8\) I.R.C. §§ 174, 41
\(^9\) I.R.C. §41(a)
\(^9\) Treas. Reg. 1.174-2(a)(1)
\(^9\) Id.
\(^9\) Id.
D. R&D Expenses Become Qualified R&D Expenses by Meeting Three Additional Tests

R&D expenses that are deductible under § 174 become qualified R&D expenses and, therefore, eligible for the R&D credit in I.R.C. § 41, when they meet three additional tests. First, the research that creates the expense must be “for the purpose of discovering information . . . which is technological in nature.”94 Second, the information must be “intended to be useful in the development of a new or improved business component of the taxpayer.”95 Third, the research activities that generate the expense must “constitute elements of the process of experimentation.”96

The first test, common referred to as the “technological information test” requires that the taxpayer discover new information.97 The new information does not need to expand, establish, or refute any current principles of biological, physical, or computer science.98 It simply needs to expand existing technological knowledge generally.99 It is important to note that information discovered has to be separate from the product itself.100 That is to say, new information must lead to the development or improvement of a product, as opposed to being the product itself.101

The second test, which is commonly called the “business component test,” requires the product developed or improved be for use in the taxpayer’s business.102 If the taxpayer is engaging in research activities without carrying-on a trade or a business,

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94 U.S. v. McFerrin, 570 F.3d 669, 676 (quoting I.R.C. § 41(d)(1)).
95 Id.
96 Id.
97 Id.
98 Tax & Accounting Software Corp. v. U.S., 301 F.3d 1254, 1262 (10th Cir. 2002)
99 Id.
100 Id.
101 Id.
102 See, McFerrin, supra note 94.
then these expenses do not qualify for the R&D credit. If the taxpayer is engaging in research for another party and does not retain the rights to the newly developed or improved product then the credit is also unavailable. If the taxpayer is engaging in research for another party and gets to retain substantial rights over the newly developed or improved product, however, those expenses may qualify for the R&D credit.

The third additional test for qualified R&D expenses, commonly called the “process of experimentation test,” requires a process of research activities that may or may not lead to a desired result. The process of experimentation may be known at the time and it may a commonly accepted way of experimenting. In order to meet the process of experimentation test, however, the end result of the process must be uncertain when it begins. Essentially, this goes back the I.R.C. § 174 requirement for R&D expenses that the expenditure be experimental in nature. If the process is known and the result is known then no experimentation is needed and the expense cannot qualify for the R&D credit.

Accordingly, if an expenditure improves or develops an existing asset then it will ordinarily be a non-deductible capital expense that must be depreciated with the asset. If an expenditure is an R&D expense, however, then the full amount of the expense may be deducted under § 174. If the expenditure is an R&D expense and meets the three

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103 Treas. Reg. 1.41-2(a)(1)(stating that “carrying on a trade or business” has the same meaning in § 41 as it does in I.R.C. § 162; which allows a deduction for all ordinary and necessary business expenses).
104 Treas. Reg. 1.41-2(a)(3)(i)
105 Treas. Reg. 1.41-2(a)(3)(ii)
106 See, Tax & Accounting Software Corp., supra, note 98 at 1264.
107 Id. at 1265
108 Id.
109 Id.
additional tests necessary then it is a qualified R&D expense and eligible for the R&D credit, according to the formulas mentioned earlier.

If the R&D credit is calculated be more than the firm’s tax liability then the firm can carry the unused credit back one year and forward up to 20 years to decrease any tax liability in those years.\textsuperscript{110} The amount of the unused credit, however, is not refunded to the taxpayer.\textsuperscript{111} This means that new firms or other firms that qualify for the R&D credit and do not yet have much taxable income are left without an immediate benefit from the credit.\textsuperscript{112} Instead they make significant outlays now and hope that they will earn enough revenue within the next twenty years to be able to use the credit.\textsuperscript{113} This practical effect reduces the effectiveness of the R&D credit encouraging firms to engage in R&D activities.

Part III – The Startup Innovation Credit Act of 2013

A. The R&D Credit Needs to be Expanded to be of Any Help to Small Startup Businesses

A bipartisan group of senators, lead by Chris Coons (D-DE) and Mike Enzi (R-WY), have taken note of the R&D credit’s failure to do much to help new companies and introduced legislation to change the credit and make it more start-up friendly.\textsuperscript{114} The bill they have introduced is called the “Startup Innovation Credit Act of 2013” and it was introduced in the Senate on January 31\textsuperscript{st}, 2013.\textsuperscript{115} Senators Coons and Enzi began advocating for the bill in 2013 by acknowledging the important role of Startup

\textsuperscript{110} I.R.C. § 39(a)(1)
\textsuperscript{111} Cf.
\textsuperscript{112} Laura Tyson and Greg Linden, Gauging the Economic and Fiscal Effectiveness of the Credit, 2012 TNT 5-64, (Jan. 09, 2012).
\textsuperscript{113} Id.
\textsuperscript{114} The Startup Innovation Credit of 2013, S. 193, 113\textsuperscript{th} Cong., 201
\textsuperscript{115} Id.
companies in job creation in the United States.\textsuperscript{116} The basic idea is that startup companies employ people to do research and development and other business related tasks.\textsuperscript{117} The companies then owe payroll taxes on the wages paid to those employees but they usually do not owe income taxes because startups do not usually make a lot of money in their first years.\textsuperscript{118}

Accordingly, instead of limiting the R&D credit to only offset income taxes, the new proposal will expand the credit to allow it to offset payroll taxes.\textsuperscript{119} This will make labor less expensive and give startup companies the benefits of the R&D credit sooner than if they had to wait to earn enough taxable income to have a tax liability. According to Coons and Enzi, the credit is “specifically designed for new, risk-taking firms [and] supports all private-sector judgments and decisions that prioritize investment in research and development” as opposed to disproportionately subsidizing the R&D expenses of large, established, and wealthy firms.

The Startup Innovation Credit accomplishes this goal by, first, keeping the credit calculation the same and keeping the expenses that qualify for the credit the same.\textsuperscript{120} Then a qualifying small business may choose to apply up to $250,000 of the credit amount to its payroll tax liability instead of its income tax liability.\textsuperscript{121} A qualifying small business is statutorily defined as a business that (1) has gross receipts of less than $5

\textsuperscript{117} \textit{I}d.
\textsuperscript{118} \textit{I}d.
\textsuperscript{119} See, Startup Innovation Credit, \textit{supra}, note 114.
\textsuperscript{120} \textit{I}d.
\textsuperscript{121} \textit{I}d.
million dollars in the current year and (2) has not had gross receipts in any of the 5 previous years.\textsuperscript{122}

\textbf{B. The Apparent Disadvantage of the Startup Innovation Credit Could More Appropriately be Called an Investment}

The advantages to the legislation are relatively clear. It decreases the cost of labor for the startup companies which hold a unique position as job-creators in America, frees up more capital for investment with the decrease labor costs, helps even the playing field between new companies and established company with regard to the R&D credit subsidy, and encourage more research and development investment. The disadvantage is that it decreases payroll tax collections\textsuperscript{123} which are used to fund social security, which is already in fiscal trouble.

Congress was recently faced with a decision regarding a similar payroll tax cut called the payroll tax holiday.\textsuperscript{124} The payroll tax holiday temporarily cut the rate for social security payroll taxes for employers and employees and was set to expire at the end of 2012 as part of the “Fiscal Cliff.”\textsuperscript{125} Congress chose to let it expire during the fiscal cliff negotiations.\textsuperscript{126} The payroll tax holiday law would have reduced contributions to social security if it were not for a provision that demanded any lost revenue for social security be replaced by general government funds.\textsuperscript{127} Therefore, it seems unlikely that

\begin{footnotesize}
\begin{enumerate}
\item The Startup Innovation Credit decreases all federal payroll tax liabilities of businesses that qualify for the credit including taxes collected for Medicare and Medicaid. This article is just focusing on whether it is advisable to use the Startup Innovation Credit to offset social security payroll taxes. The policy considerations and circumstances surrounding medical expenses are sometimes different than social security which may result in a different recommendation.
\item \textit{id.}
\item \textit{id.}
\item \textit{id.}
\end{enumerate}
\end{footnotesize}
Congress was making a negative judgment regarding decreasing social security contributions.

The problem of decreased payroll tax collections in the short term, however, is mitigated if payroll tax collections in the future are increased. In a sense, lower payroll tax collections now for the purpose of increasing R&D expenses is an investment in increased payroll tax collections in the future because improving or developing new products today means more jobs manufacturing and selling those products in the future.\textsuperscript{128} Simply put, more jobs in the future means more payroll taxes to be collected in the future.

Looking at the Startup Innovation Credit Act as an investment, rather than a siphoning, of payroll tax funds for programs like social security makes the idea more attractive. The question remains whether this particular investment is a smart one for Social Security to make. As mentioned earlier, any solution to Social Security’s financial trouble must well-serve the goals of reliability and stability. It must also be politically possible. Additionally, Social Security is meant to assure financial security in retirement and so any current risk to Social Security should be mitigated with an attempt to increase personal savings or income from pensions. This article argues that the Startup Innovation Credit Act meets those goals.

\textbf{Part IV – The Startup Innovation Credit as an Investment of Social Security Funds}

\textbf{A. The Kind of Investment Social Security Should Consider are Risk Adverse}

The goal of social security is to provide a stream of income to retirees that is reliable in amount and stable through time. To date social security has invested exclusively in treasury notes, which are typically considered to be among the most stable and reliable investments in the market, but not the most lucrative. Ultimately, then, the hallmark of both social security and trust fund investments has been to be risk adverse. Accordingly, any new investment of social security funds should also be risk adverse.

In the context of social security, being risk adverse means that an investment should be well-known, have a successful history, and not have a potentially devastating impact on individual retirement security. Well-known in the sense that the investment opportunity does not present risk stemming from the fact that the idea is an unknown quantity. Having a successful history in the sense that the investment has a stable history of bearing fruit and not characterized by having periods of large losses. Not having potentially devastating impact on individual retirement security in the sense that if the investment does not pay off an individual will likely still have retirement security.

Treasury bonds, for example, have these qualities.\(^{129}\) Government debt is as old as the government itself, which means it is not an unknown quantity.\(^{130}\) Even our current high rates of debt are not unknown or uncommon, specifically in times of war\(^{131}\). The government also has a long track record of paying debt\(^{132}\). The recent debt ceiling political panics may cast some doubt on the government’s willingness to continue that track record but the political fever around the debt ceiling seems to have broken after

\(^{129}\) See, Basenese, *supra*, note 17.  
\(^{130}\) Id.  
\(^{131}\) Id.  
President Obama’s reelection. If the government cannot pay a large portion of its debt then the impact on individual retirement security may, in fact, be devastating. The impact on the overall economy, however, would likely also be devastating and social security might not be saved with any investment.

In sum, a proper investment with social security funds well-serves the policy goals of reliability and stability. This is best done by using investments that are risk adverse. In the context of social security a risk adverse investment is well-known, has a successful history, and does not have a potentially devastating impact on individual retirement security.

B. The Startup Innovation Credit Relies on the R&D Credit, Which is a Well-Known Commodity

Originally a temporary measure to help the United States compete with Soviet investment in research and development, the R&D credit survived the Cold War and multiple sunset provisions to spend 30 years as part of the Internal Revenue Code. Congress is quite familiar with the R&D credit, having passed legislation related to it 17 times since it was originally enacted in 1981. The R&D credit, however, has always been a temporary measure that requires Congress to extend (sometimes retroactively) the credit at regular intervals. The always present sunset provisions in the R&D credit, therefore, give this analysis some pause because, while the credit is well-known, it is constantly subject to whims of the political branches of government. Ultimately,

133 Id.
134 Caroline L. Harris, The Debt Ceiling and Tax Conundrum, 2011 TNT 142-13 (Jul. 25, 2011).
135 Id.
136 See Tyson, supra, note 112.
137 Id.
138 Id.
every statute is constantly subject to the whims of the political branches of government and the R&D credit has proven to be resilient. In other words, the credit now has more of a permanent nature, even though it needs constant renewal.

The new portion of the idea is extending the R&D credit to cover payroll tax liabilities. In some ways this idea is not really new at all. Payroll tax liabilities are still tax liabilities. They still place a financial burden on firms, like the income tax does, and the credit still reduces the burden, like the R&D credit currently does for the income tax. The only question is whether the R&D credit will produce similar results in the context of payroll taxes.

Congress has had a similar experience recently with the payroll tax holiday.\(^\text{139}\) In that experience Congress decided to cut the tax rates for social security taxes as opposed to cutting tax rates for income taxes, which is the more traditional method of encouraging economic expansion.\(^\text{140}\) The payroll tax holiday is generally considered a success at stimulating the economic, like the income tax rate cuts have been known to do. \(^\text{141}\) Indeed, Moody’s Analytics estimates that the payroll tax holiday generated $1.27 for every $1 spent.\(^\text{142}\)

Accordingly, while the R&D credit has never been extended to the payroll tax before, the components of the idea are well-known to policy makers. The R&D credit has a long and resilient history in the tax code. Additionally, payroll tax cuts instead of income tax cuts have been successful in the past. As such, we should consider the Startup Innovation Credit to be a combination of well-known ideas.

\(^{139}\) See Tyson, supra, note 112.
\(^{140}\) Id.
\(^{141}\) Id.
C. The Startup Innovation Credit relies on the R&D Credit, which has a History of Success

The R&D credit is a pretty well-known commodity. It has been a part of the tax code for over 30 years and is widely hailed as a success at increasing research and development activities. It is also generally recognized as a successful economic stimulant. The Center for American Progress looked at many economic studies and found that every dollar spent on the research and development credit created an economic benefit of $.95-to-$2.96. KPMG has also studied the effective of the research credit and determined, in its study, that the long-term economic gains are $2 for every dollar spent on the R&D credit. Many other studies have also confirmed that the R&D has been an efficient and lucrative credit for economic growth. This is the kind of low-risk, high-reward investment that will help grow the economic pie and, by extension, the amount of money available to pay payroll taxes and increase personal savings while not significantly risking the stability of Social Security.

The R&D credit has had success despite its general unavailability to startup firms. Startup businesses are the job creation engine in the country and they have so far been denied access to this very effective subsidy. This has generally been considered to be a hindrance on the credit’s effectiveness in stimulating the economy. The Startup Innovation Credit solves this by allowing firms to take the

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144 Aerospace Indus. Ass’n, A Special Report: Research and Development Tax Credit, 4.
145 E.g. James Brett, Congress Must Extend the R&D Tax Credit for Growth, Mass High Tech (Jan. 2010)
146 See Tyson, supra, note 112.
147 Id.
148 Id.
credit to offset their payroll tax liabilities. Startup firms often do not have a lot of income in their first years but they very often have payroll expenses, including payroll taxes. Allowing them to elect to offset payroll tax liabilities instead of just income tax liabilities will give startup firms immediate access to the economic benefits of the credit as opposed to having to wait until their new endeavors become profitable.

Looking at the Startup Innovation Credit as an investment in future social security payroll tax collections requires analyzing the success in terms of its expected impact on the same. The Startup Innovation Credit will decrease currently payroll tax collections and therefore decrease current contributions to the social security program. The theory behind viewing the Startup Innovation Credit as an investment in future payroll tax collections is that research and development activities lead to new products and new services that will create jobs in the future. As new products and processes are born and old ones are improved, jobs are created manufacturing, selling, servicing, and training others in these new endeavors. When those jobs are created, and when startup firms become successful, the government will be able to collect social security taxes on those earnings.

Of course, the nature of R&D expenses are that they are experimental. This means that there is no guarantee that this proposal will bear fruit. That, however, is the nature of an investment. This particular investment is essentially an investment in the increased productivity of the American work force. Professor Buchanan, in arguing that Social Security was not in dire fiscal condition, said that one of the reasons the Trustee’s report is overly pessimistic is that it did not adequately predict increasing

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149 Id.
150 Id.
151 See Brett, supra, note 145.
productivity.\textsuperscript{152} Considering the worsening financial situation social security is facing entering the third stage of the 1983, this proposal could give increasing productivity a boost.

In sum, the Startup Innovation Credit takes an already successful tax credit and removes a major impediment to its success – namely its inability to provide immediate economic benefit to startup firms. It does this by giving employers a way to reduce their payroll tax liability, thereby decreasing the cost of labor and freeing up more capital to invest in business operations. This results in lower payroll tax collections for social security but it is an investment on future payroll tax collections and increased productivity of the future American workforce.

D. The Startup Innovation Credit Does Not Represent a Potentially Devastating Impact on Individual Retirement Security

Additionally, the Startup Innovation Credit has a chance to encourage both personal saving and national saving.\textsuperscript{153} With regard to personal savings, the Startup Innovation Credit makes labor less expensive and helps startup businesses not only hire more workers but gain a more solid financial starting point during their first year in business.\textsuperscript{154} For many people, their entire personal savings (and their retirement plans) are tied up in business they started themselves.\textsuperscript{155} If we can help increase the success rate of these businesses then we can help encourage personal saving.\textsuperscript{156} In turn, the

\textsuperscript{152} Buchanan, supra, note 51.
\textsuperscript{153} See Part IB
\textsuperscript{154} Id.
\textsuperscript{155} See Jules H. Lichtenstein, Saving For Retirement A Look at Small Business Owners, Office of Advocacy of the Small Business Administration, Mar. 2010.
\textsuperscript{156} Id.
wages and benefits (which may include 401(k) plans) given to employees can help increase their personal savings as well.

National Savings represents the amount of money a nation has to invest in the future. Investment in the future is essential to long-term economic viability.\textsuperscript{157} The national savings rate in an open economy, like the United States, is calculated by taking national income, subtracting consumption and government spending and adding (or subtracting, as the case may be) net exports.\textsuperscript{158} Currently, the national savings numbers in the United States are abysmal and a significant cause for concern.\textsuperscript{159} Creating new products, however, through new research and development will lower the trade deficit and increase national savings.\textsuperscript{160} Additionally, since the R&D credit expansion and the Startup Innovation Credit decreases labor costs and requires that only American companies are eligible, it will encourage American job growth. This, in turn, increases national income; which increases national savings.

E. The Startup Innovation Credit is Also Politically Feasible In the Current Environment

Another key concern is political feasibility. There are many options for fixing Social Security. Policy analysts have suggested increasing the retirement age, increasing tax rates, increasing the amount of money subject to the tax, linking cost-of-living raises in the program to the Consumer Price Index.\textsuperscript{161} All of these options can either save social security by themselves or significantly help save it from financial

\begin{footnotesize}
\textsuperscript{157} See GAO, supra, note 46.
\textsuperscript{158} Id.
\textsuperscript{159} Id.
\textsuperscript{160} Id.
\end{footnotesize}
insolvency. The problem is that each of these options places a burden on retired or retiring groups of people that politicians do not want to upset.

The R&D credit does not place an additional burden on anyone. It is investment, through decreased tax collections, in new and more efficient products, services, and information. The Startup Innovation Credit targets the investment towards startup businesses, where investments are the most politically popular. Additionally, the Startup Innovation Credit is already a bi-partisan effort in both chambers of Congress and a bi-partisan starting point is a political necessity to get things done in the current political climate. In short, while most other options to fix social security will be dead on arrival at the steps of the Capitol, the Startup Innovation Credit has a fighting chance.

**Conclusion**

Ultimately, The Startup Innovation Credit leverages the political popularity of the R&D credit and small business subsidies and combines that leverage with the long history of success of the R&D credit to not only encourage job growth in the present but to create the new products and technologies that fuel future job creation as well. One of the suggested downsides to the Startup Innovation Credit is that it decreases payroll tax collections which may decrease the amount of money available to fund Social Security. This article argues, however, that the Startup Innovation Credit can be a significant part of a cure for what ails Social Security.

The Startup Innovation Credit is essentially an investment of current payroll tax collections in future workforce productivity and payroll tax collections. The funds used to expand the R&D credit to cover payroll tax liabilities of new businesses will be used to aid the country’s most prolific job-creators (startup companies) and their efforts to create
new and improved products and services. Manufacturing, selling, and servicing these new creations will create jobs in the future and those jobs will pay payroll taxes. Additionally, The Startup Innovation Credit makes labor less expensive in America and puts new businesses on more solid financial footing. The increased number of jobs immediately in R&D fields and more successful small business will increase the national and personal savings rates in this country, adding to economic security in retirement.