THE NET INVESTMENT INCOME SURTAX: IS ONE OF THE NEWEST MEDICARE TAXES NEGATIVELY AFFECTING INVESTMENT ACTIVITY IN SMALL BUSINESS?

by

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Approved: _____
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The Net Investment Income Surtax is an additional income tax that was primarily implemented in 2013 to raise funds for the Patient Protection and Affordable Care Act of 2010. It accomplishes this by charging an additional 3.8% tax either an individual's Net Investment Income or on their Modified Adjusted Gross Income less a threshold deduction. However, this surtax may have the unintentional side effect of negatively impacting investment activity in small business, specifically in regards to Initial Public Offerings held by businesses looking to expand, and this study looks to identify any correlation between the Net Investment Income Surtax and annual IPOs.

In this study, the key economic variables that a business must consider before launching a successful IPO have been isolated and examined. This is because these variables must be favorable before a business will decide to launch their IPO. With these variables, this study has created a multiple regression model that tracks the number of IPOs each year from 1985 to 2012, from which a regression formula was created. The regression formula was then used to isolate the effect that the Net Investment Income Surtax had on the number of IPOs launched after its initiation in 2013.

The result of this study was that the NII surtax does not have a significant influence, negative or positive, over small business investment activity. Instead, the results suggest that favorable market conditions are much more important to businesses looking to have an IPO. That being said, this does not necessarily mean that the NII surtax will never significantly affect small business investment activity, so we must remain vigilant towards it and other taxes and economic impositions that target specific demographics.

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Introduction

Taxation holds a wide scope of influence over the everyday economic actions performed in our country. This is because people are driven to save as much of their earned income as possible, and therefore have a natural tendency to avoid what taxes they can. Activities that increase the value of the nation as a whole can be encouraged through deductions and credits, while activities that decrease it can be discouraged through tariffs and higher tax rates. Knowing this relationship, the U.S. government can exude a surprising amount of effect over the decisions of the general populace through tax legislature.

That being said, it is possible for new taxes to have influences that were not intended or not foreseen, and it is also possible for these influences to have a negative impact on the national economy. The Net Investment Income Surtax (NII), a relatively new tax that applies to investment income, is an example of a potentially negatively impactful tax, specifically in regards to its influence over the number of Initial Public Offerings (IPOs) held each year. This is because placing additional taxation on an activity tends to discourage it, since the tax is an additional expense that cuts into profits and cannot be avoided, so it stands to reason that the NII surtax would reduce investment activity in general.

Additionally, the NII surtax targets individuals who have high amounts of overall earnings, and the fact that these individuals are more likely to invest in IPOs than any other demographic creates an issue. This is because these wealthier individuals are guaranteed to have all of their investment income subject to the NII surtax, including any dividends and capital gains earned from IPO investments, and the

additional cost of the surtax may cause these individuals to decrease their level of investing activity since investments are now not as profitable for them as they once were. And since wealthier individuals are the primary IPO investors, a significant drop in their investment activity would lead to a significant drop in the demand for IPOs. This in turn would lead to a reduction in the number of IPOs, as the lack of demand would cause small businesses to conclude that current market conditions were unfavorable for a successful IPO launch.

All of these interactions would not be so concerning if they did not result in an economic detriment. Launching an IPO is the best way for a small business to quickly gain capital and expand its economic scale, allowing it to compete with larger, more mature companies. If IPOs are discouraged and their numbers diminish, then there would be a decrease in new large businesses, which would cause stagnation in the market as preexisting companies would experience fewer competitors and a reduction in their drive to innovate and improve. Additionally, a large business will provide substantially more jobs and tax revenue than a smaller business, so discouraging IPOs and expansion also brings about more widespread economic stagnation as less wealth is produced and distributed.

In summary, the NII surtax targets a specific demographic that happens to be the most active in IPO investing, and by discouraging such investing through the taxing of dividends and capital gains the surtax may be negatively influencing the investment market and the economy as a whole. In order to determine the existence and extent of such an influence, this study utilized a multiple regression model created using data from before the inception of the surtax to predict the number of IPOs that should have

been launched after the NII surtax was initiated. Next, these predictions were compared to the actual number of IPOs launched each year, and if a significant difference existed between the two values then that difference would be attributable to the influence of the NII surtax. The result of the application of the prediction model was that there is no significant correlation between the NII surtax and the number of IPOs launched annually, which strongly suggests that the surtax is not influential enough to dissuade small business investing activity.

A History of the Net Investment Income Surtax

The Net Investment Income Surtax was first brought about to generate income for a specific piece of legislature. On March 23, 2010, the Patient Protection and Affordable Care Act (PPAC) was signed into law by Barack Obama, an action that spawned its affectionate (or derisive) nickname "Obamacare." The PPACs primary objective, amongst other things, was to provide quality, affordable health care for all Americans, which in turn could be broken down into two plans of action. The first plan focused on immediate improvements, and included the extension of the dependent coverage to age 26, ending lifetime limits on coverage, the institution of copayment-free preventive health services, and other short-term goals. The second plan looked towards the future and long-term health insurance market reform, which would involve major changes to the role of public programs, the prevention of chronic disease, the health care workforce, and more. In a nutshell, the PPAC wanted to make healthcare more flexible, stable, and clear for all U.S. citizens, and wanted to provide a kind of base health coverage that would reach all citizens regardless of their private insurance status.

It is obvious that this was and is no small undertaking, and it was equally obvious that the PPAC would require a substantial amount of funding to reach its goals. In fact, its inherent costs was an issue that was taken seriously, as the Senate Finance Committee spent 31 meetings and over 60 hours debating how the PPAC's $900 billion budget should be covered. Though some revenue streams were built into the act itself, such as the 40% excise tax applied to insurance companies whose annual premiums exceed the $8,500 single and $23,000 family coverage thresholds, it became apparent that the PPAC would need additional funding from another source. As a partial solution, the NII surtax was created.

With a 3.8% surtax upon investment income, the NII surtax was meant to (and does) provide a significant portion of the funding required to run the PPAC. It is worth noting that the NII surtax was instituted exclusively to help pay for the PPAC, so it serves an incredibly specific function within the Internal Revenue Code (the tax code for the United States). This does not automatically make it an outlier, however, for there was precedence of other funding-specific taxes long before the NII surtax drew its first proverbial breath. The Federal Insurance Contributions Act tax, for example, has remained in the Internal Revenue Code (IRC) since its induction in the 1930s under Franklin Roosevelt's New Deal, where its varying rates have helped fund Social Security and Medicare over the decades. Just about everyone has received at least one paycheck where the amount removed for this tax is listed, and these revenues go directly to funding federal benefits for the elderly and unemployed. Another example can be found in the gift tax imposed in 1932; the desperate post-Depression government needed to generate more funds in order to jump-start the stagnate economy through

large public works projects, and part of the solution they employed was to use the gift tax to offer substantial tax breaks to individuals. As a result, a large quantity of wealthy individuals chose to transfer portions of their estates to their descendants immediately (instead of waiting until said estates transferred normally at their death) in order to capitalize on the lower tax rates, which in turn provided much needed tax revenue to the country sooner rather than later.

The moral of these examples is to show that a tax is not unnecessary simply because it is highly specialized, nor is it necessarily indicative that a specialized tax will significantly harm the members of society that it targets. Looking back at the example of the gift tax, for instance, the wealthy families that were targeted actually benefited from the initiation of the tax, because it offered them lower overall tax rates if they transferred their estates pre-mortem, all while the federal government was benefiting from the immediate increase in cash. It was a win for everyone involved. In the case of the Federal Insurance Contributions Act, too, we can see that the individuals paying the tax are (arguably) not unreasonably harmed financially by it, and in fact can garner benefit from it alongside those who are not liable to pay the tax. Not everyone has to pay it, but almost everyone can benefit from it.

However, a specialized tax should still be cause for objective scrutiny, and the NII surtax is no exception. The surtax has a number of rules and exclusions that lead to potentially worrisome lines of thought, especially in regards to the growth of small business. After all, investment through stocks and other equities are a means of capital that small businesses heavily rely on when attempting to break into the big leagues, and

ensuring opportunities exist for these small businesses is parallel to ensuring the validity of capitalism.

The real possibility that the NII surtax is unintentionally discouraging this type of investment in small business since its installment in 2013 is the scope and reason of this study, where the surtax will be analyzed on all the levels of its influence so its correlation with small business investment activity, whether positive, negative, or nonexistent, can be discovered.

Important Definitions

Through the Looking Glass (of the IRC)

Before any sort of legitimate analysis can take place, however, it is first necessary to define the terms used in this study. Foundational definitions and definitions unique to this study will be included in this section, while further explanation of the tax code and its related terms can be found in the attached appendix[1]. IRC quotes will be utilized, and will be duplicated in different areas for the sake of clarity. With that in mind, we shall begin with the Net Investment Income surtax itself.

Net Investment Income Surtax

As previously mentioned, the NII surtax is a 3.8% tax that is applied to the yearly investment income of a taxpayer, and can be found in the IRC to be defined as follows:

> In the case of an individual, there is hereby imposed (in addition to any other tax imposed by this subtitle) for each taxable year a tax equal to 3.8 percent of the lesser of—
>
> **(A)** net investment income for such taxable year, or
>
> **(B)** the excess (if any) of—
>
> **(i)** the modified adjusted gross income for such taxable year, over
>
> **(ii)** the threshold amount.

Looking at this definition, we can see that the NII is a surtax applied to either an individual's investment income or the amount of the modified adjusted gross income that exceeds a certain threshold amount. The individual has the option to choose between the options, and will take the option that provides the lowest tax liability. The

[1]Found in Appendix Section A.1

3.8% surtax will therefore apply to the lower of the individual's annual net investment income or their MAGI less their associated threshold amount, which is determined from filing status. It is possible for an individual to have no NII surtax liability if they have either no investment income or if their MAGI is lower than their related threshold. A summarization of the different thresholds and the calculation of the surtax are as follows:

Group	Filing Status	MAGI Threshold
1	Married Filing Jointly	$250,000
1	Surviving Spouse	$250,000
2	Married Filing Separately	$125,000
3	Single	$200,000
3	Head of Household	$200,000
3	Trusts and Estates	$200,000

Table 1: MAGI Threshold Reference Table

Gives the threshold value associated with each filing status.

If Net Investment Income < MAGI – Threshold Amount:
NII Surtax Liability = Net Investment Income x 3.8%

If Net Investment Income > MAGI – Threshold Amount:
NII Surtax Liability = (MAGI – Threshold Amount) x 3.8%

Figure 1: Calculating NII Surtax Liability

Summarizes process for computing NII surtax once net investment income, MAGI, and the threshold amount are known.

Small Business (In a State of Transition)

Now that the IRC definitions are out of the way, we can focus on the economic vocabulary of this study. "Small business" is a term that is thrown around more and more frequently these days, as local mom-and-pop businesses are gaining more prevalence and sympathy in the face of conglomerates. But what exactly is the cut off point for being considered a small business? According to the Small Business Administration (SBA), a small business is one that:

- Is organized for profit
- Has a place of business in the US
- Operates primarily within the US or makes a significant contribution to the US economy through the payment of taxes or use of American products, materials or labor
- Is independently owned and operated
- Is not dominant in its field on a national basis

The SBA then goes on to supply an incredibly in-depth rubric for determining whether or not a business is small based on their annual receipts, or revenues.

For this study, however, the definition of small business is a little less stringent when it comes to revenue and a little more focused on the growth phase the business finds itself in. When a business is first created, it is primarily funded by whatever the founders are able to put into the company through loans and their own personal finances.

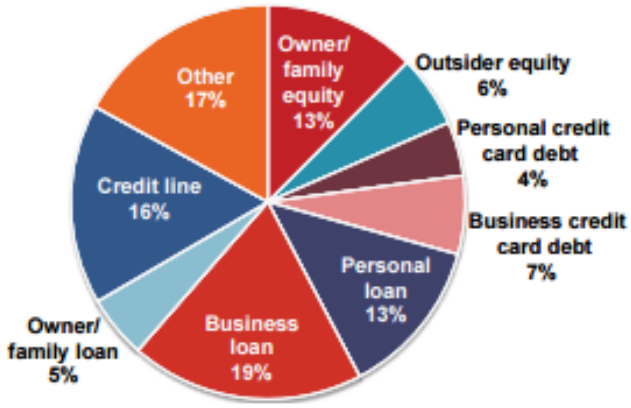

Figure 2: Share of Small Business Financing Dollars for Young Firms

SBA data from 2014 showing the average distribution of small business financing

Angel investors, who specifically look for promising new businesses to invest in, occasionally provide significant sums to new businesses, but by and large they are mostly on their own in the beginning. This large degree of self-reliance in regards to funding leads to major difficulties in moderate to quick expansion. Sometimes this is a perfectly adequate arrangement; small businesses that are not looking to expand beyond their current scope any time soon would be content to self-fund.

However, sometimes businesses have something special, like a great product/service or a flashy new business model that sets them apart from their competitors and leads them to believe that they can successfully compete with the larger firms that are dominant in their field. When this happens, the small business in question wants to be able to expand as quickly as possible so they can participate on the same scale as their established competition. In order to do this, they must procure substantial funding, and while loans and personal finances can go a long way, issuing stock is by far the most effective way to gain large amounts of capital.

Proof of the relationship between expansion and funding method can be found within the SBA's 2014 analysis of small businesses in the U.S. Small employer firms (or businesses that employ anywhere from one to 1500 employees depending on the industry) have 66% of their number listed as C- or S-Corporations, which is in stark contrast to the 87% of nonemployer small businesses that are sole proprietorships.

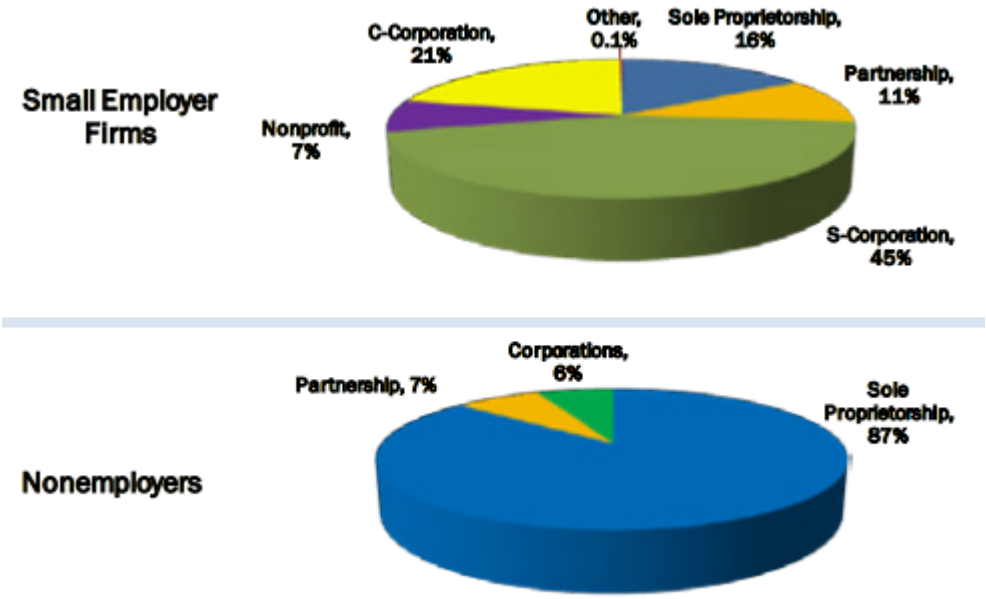

Figure 3: Types of Small Employer Firms and Nonemployers

Details the percentage distribution of the varying types of small businesses in 2014

This is important because, while there are some key differences between C- and S-Corporations, both of these types of businesses are able to issue shares in the company as stock while a sole proprietorship cannot. Sole proprietorships fall under the category of largely self-reliant and loan-based funding that was mentioned earlier. As a result, we can see a trend: small employer firms are dominated by businesses that can issue stock, while nonemployers are dominated by businesses that cannot, which means that the vast majority of businesses that switch from being nonemployers to employers must

also be switching to a funding model that allows the issuance of stock. Considering that acquiring employees is an obvious first step of expansion, and that nonemployers have a turnover rate that is three times higher than small business employers, we can see that there is a reliance on stock issuance when small businesses are determined to not only persist but also thrive.

However, this study takes the examination of the stock issuance stage a step further because there is a very significant difference between C- and S-Corporations in regards to stock issuance and small business expansion. S-Corporation is short for qualified small business corporation, and as the name suggests, S-Corporations must meet certain conditions in order to be categorized as such. These conditions are provided by the Internal Revenue Service (IRS), where the company in question must:

- Be a domestic corporation
- Have only allowable shareholders
    - May be individuals, certain trusts, and estates and
    - May not be partnerships, corporations or non-resident alien shareholders
- Have no more than 100 shareholders
- Have only one class of stock
- Not be an ineligible corporation (i.e. certain financial institutions, insurance companies, and domestic international sales corporations)

S-Corporations are great for early growth amongst small businesses because they allow for the avoidance of double taxation. Usually, income from a business is taxed first when it is earned by the business and again when it is distributed to shareholders, because both groups are considered taxable individuals. Under an S-Corporation, an owner-employee has their normal wages from the company taxed, but the remaining

company income paid to the owner-employee (called a distribution) is more often than not tax-free. This model allows small businesses more free capital to reinvest in the company, and it also encourages more investment initially since owner-employees can take advantage of the tax break.

It is important to recognize, though, the limitations that are placed on S-Corporations by the IRS. S-Corporations are powerful tax avoidance tools, and the IRS does not want them to be too widely applicable. Not being able to have more than 100 shareholders, for example, limits the amount of shares that an S-Corporation can issue, which leads to less capital generation from stock and also makes future issuances of shares after the initial offering difficult or even impossible. Additionally, being limited to individuals, certain trusts, and estates for shareholders is more constraining than it may appear at first glance. A study conducted by the Journal of Finance found a direct correlation between the sales growth of a company and the percent of its total assets it had invested, meaning that successful, larger firms had by far the most cash invested in other companies. Knowing this, we can see that S-Corporations inability to issue stock to other corporations causes them to miss out on a huge potential pool of capital.

These two limitations are even more restraining when considered together: an S-Corporation can only have 100 shareholders, none of which can be a substantial singular source of funding. After all, while individuals, estates, and trusts can certainly be wealthy, they only in very outlying circumstances have the same financial clout as corporations. Therefore, S-Corporations are required to garner support from a limited pool of investors, which automatically excludes the wealthiest and most active type of investor. It is no wonder, then, that most if not all dominant companies are C-

Corporations. C-Corporations face none of the restrictions listed above for S-Corporations, and while they are subject to more taxation they also have access to a much wider selection of investors, which provides the capital necessary to become a strong nation- or world-wide player in an industry.

That being established, the definition of "small business" in this study is specifically small businesses that are looking to transition into a state of funding that allows them to expand and compete with larger competitors, primarily by becoming a C-Corporation. The reason this particular transitional period has been chosen is because: One, it is the pivotal period where a relatively small business can become reasonably competitive with established industry titans, and two, there is evidence that suggests the NII surtax is making investing in these expanding small businesses less attractive to a significant section of its target demographic.

Investment Activity

The next issue, then, is deciding how to measure the level of investment activity associated with transitions to C-Corporations, particularly in regards to the issuance of stock. Fortunately, a measure that fits this description already exists, and it is an initial public offering, or IPO. An IPO occurs when a company first moves from the private sector to the public sector within our economy (or from a sole-proprietorship, partnership, or S-Corporation to a C-Corportation) and is marked by the first wave of stock issuance in the company's history. In moving from private to public, a few major changes occur for the company in question: first, the company transitions from having one to a hundred owners to having hundreds or thousands of owners. Whenever anyone purchases a share of the company's stock, no matter how small a percentage of the total

value of the company that share may represent, that person effectively becomes a partial owner. They are entitled to dividends that vary in frequency and amount, and they hold the right to attend shareholder meetings where they can vote for board of director members and on some company decisions (assuming that the individual holds common stock, not preferred stock, which gives consistent dividends at the cost of voting rights).

Second, the company is considered to be public instead of private. When public, a company is held to a higher degree of scrutiny, and is required to make detailed financial statements available to the general population for the sake of transparency. The company's stock options also become tradable in second-hand transcations on exchanges like the New York Stock Exchange. Once a company is public, it is likely to remain public for a long while, if not indefinitely. It is possible to return to the private sector by repurchasing all outstanding shares of stock, but this is a huge undertaking that requires a substantial amount of cash to pull off, and is most often only performed for takeovers and acquisitions. This is not inherently an issue, but it does add extra weight to the decision to go public, because once a company jumps in it is not easy to get back out.

But why would they ever want to back out? After all, as we saw earlier, stock issuance is an excellent way to raise a large amount of capital relatively quickly, and it seems to have no real negative trade-off to it. This sounds great on paper, but there are other factors that must be considered. The division of ownership that goes along with stock issuance, for example, means that the original founders of the company will no longer have de facto rule over the direction the company takes because they have a legal and ethical obligation to make their shareholders happy. This is because shareholders

who own the stock of a company expect the executives to be "putting their money to work," or creating a monetary return on the shareholder's investment, a right they are able to claim since the shareholders are considered partial owners of the company. Therefore, the founders will have to sit on or work with a board of directors elected by the shareholders in order to ensure the shareholders are content, and while the founders may still possess the majority vote the process invokes a level of bureaucracy that will slow down decision making. Additionally, the founders may find that the board has a different vision for the company's future than they do.

More importantly, having a stock value associated with your company is a double-edged sword. Stock provides a market value for a company, or what investors think the company is worth, and it is a great benefit when the value is high. When your stock value is high, investors perceive your company to be doing well compared to your competition, your shareholders are happy because you are generating additional wealth with their investments, and via extension you are happy as well. When your stock value is low, however, things can get shaky quickly. Investors become worried about the risk-reward payout of investing in your company, and begin to scrutinize your every move in an attempt to judge if this is a temporary lapse or the sign of a downfall. Shareholders become discontented and eventually frustrated if the problem persists, because you are not providing the return that they were expecting. And you become increasingly anxious that everyone will deem your company a lost cause and jump ship financially, effectively dooming your company to stagnation and eventual decline.

The issue of the public perception of a company's stock value is magnified ten-fold during a company's IPO. The company needs to have a successful IPO and a good

initial stock price if it wants to be able to take off, and having a poor showing at such an early and vital stage is incredibly detrimental. If the IPO fails, the company will face difficulty expanding any further and will also have a negative investment connotation associated with its name, meaning that even if it eventually found success it would always have that dark past that would make investors uneasy. Furthermore, the company will want to be able to sell as many shares as they need to at their IPO in order to meet their expansion goals, and that is much harder to do when buying a share is not considered an attractive option.

It is because of the importance of the success of an IPO that small businesses will wait to go public until the environment is ideal. Obviously the company will wait until it has a strong or promising showing of income, so that investors will believe that they have a solid chance of receiving a good return, and the company will also wait for a time when it is ready to expand. But the company must also consider the factors that are outside its sphere of influence. For example, recessions in the economy lead to overall decreases in the level of disposable income, so in general there is less money being put towards investments. Therefore, it is not surprising that we will find the lowest numbers of annual IPOs over the past twenty years occurring during 2008 and 2009, when the housing market crash caused the largest recession of that time frame.[2] This is due to small businesses looking at the state of the current market and deciding that it was a poor time to have an IPO, since investing activity was being negatively affected by a factor that they could not control, and any offering they initiated during those years would provide inherently lower amounts of capital.

[2] Supporting data found in appendix section A.3

Following this line of logic, it stands to reason that if businesses looking to have an IPO consider external factors beforehand, they must at least subconsciously consider all factors that affect potential investors. In the specific case of this study, the NII surtax affects the investment activities of its target demographic by making investing in riskier, newer companies (like ones that issue IPOs) more costly and less attractive through taxation. Therefore, because the NII surtax has an impact on investors, it must have at least a subconscious impact on a company's decision to have an IPO, which means the surtax should also have an impact on the number of IPOs released after its inception. These relationships, whether subconscious or not, are nonetheless existent, and they are why small business investment activity in this study is being measured via the number of IPOs released each year.

At this point, the reader may notice that there is a flaw in the logical flow illustrated above: a company does not necessarily have to fit within this study's definition of a small business in order to release an IPO, so it is therefore a little presumptuous to assume that IPOs are a good measure of the investing activity associated with small business. After all, Facebook™ was amongst the top competitors for social media sites for years before its IPO in May of 2012. However, it is important to note that the vast majority of IPOs do fall within the definition of small business given above. A 2015 study by WilmerHale found that between 2007 and 2014 83% of IPOs that occurred qualified as "emerging growth companies" under the JOBS Act. The Jumpstart Our Business Startups Act defines "emerging growth companies" as businesses that are not dominant in their field, that are looking to expand, and that have total revenues of less than $1 billion.

As we can see, this explanation almost perfectly matches this study's definition of small businesses that are looking to expand in order to compete with larger, more dominant firms. And if $1 billion seems like a large amount of revenue, consider that dominant players like Mcdonald's™ and Apple™ brought in $27.4 billion and $182.8 billion in revenues in 2014, respectively. The $1 billion cap still very much represents relatively small businesses. Therefore, the number of IPOs remains a reasonable measurement of small business investment activity, since any change in the annual number of IPOs will affect the small business IPOs first and foremost.

Why Does the Influence of the NII Surtax Matter?

With all of the necessary definitions complete, we can finally address a very important question: why does it matter if the NII surtax is influencing investing activity in small businesses? First of all, it matters to this study because it is already a pertinent issue to small businesses. In a 2015 survey, the National Federation of Independent Business found that 21% of small businesses stated that tax was their number one most important issue. This was topped only by government regulations at 22%, and in 2014 tax was the most common answer at 24%. While the survey used a very vague definition of tax, one that most likely includes taxes directly targeting small businesses and taxes that affect them indirectly, it still shows that the level of concern amongst small businesses is relatively high.

SINGLE MOST IMPORTANT PROBLEM

January 2015

Problem	Current	One Year Ago	Survey High	Survey Low
Taxes	21	24	32	8
Inflation	3	3	41	0
Poor Sales	13	14	33	2
Fin. & Interest Rates	2	2	37	2
Cost of Labor	5	4	9	2
Govt. Regs. & Red Tape	22	22	27	4
Comp. From Large Bus.	7	8	14	4
Quality of Labor	11	8	23	3
Cost/Avail. of Insurance	10	8	29	4
Other	6	7	31	2

Table 2: Single Most Important Problem of Small Businesses

Lists the percent frequency of answers given when small businesses were asked to identify their single most important problem.

Additionally, upon examining previous years of this same survey, we can see that the level of concern associated with tax had a downward trend starting around 2000 (with the exception of a quick and singular spike that occurred in 2007), until around 2008 a slight upward trend originated that was accelerated from 2012 onward. Furthermore,

for most of the 2000s tax was beat out for the contender of top concern by either insurance issues, government regulation, sales numbers, or all three until 2012, when tax surpassed both insurance and sales and became neck-and-neck with regulation.

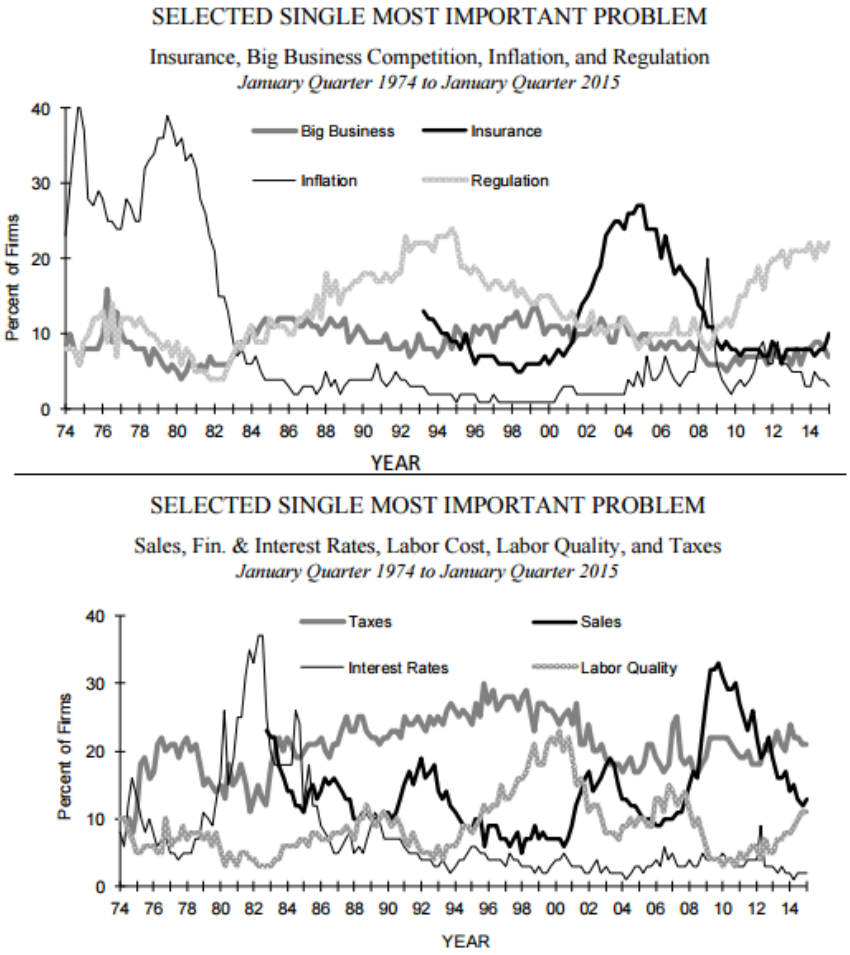

Figure 4: Selected Single Most Important Problem of Small Businesses

Historical graph detailing the concern levels for each subject each year.

The above examples illustrate how small businesses are more concerned with taxes now than they have been for several years. And though it is true that taxes other than the NII surtax could be influencing the data, it is unlikely a coincidence that the upward trend accelerates at the same time that the NII surtax was being hashed out and implemented

from 2012 to 2013. The surtax must have at least some influence over this increase in concern about taxes, and if the small businesses are concerned about the tax then we should be, too.

We should share the concern because small businesses play a vital role in our nation's economy, especially when they seek to expand. Small businesses that stay small are important, too, because they meet niche needs and markets that bigger companies avoid due to their lack of large-scale profitability. But small businesses looking to break into the big leagues are the embodiment of the American Dream; individuals who are struggling to work from the bottom to the top. The ability to transcend the economic ladder is a keystone of capitalism, because when these new businesses finally do break into the realm of big business they bring fresh ideas and practices with them. If this influx of new participants is stemmed, it leads to a directly correlated stagnation for the country, as the preexisting large companies continue to do what works. This leads not only to stagnation in industry, but also to a delay in all branches of scientific advancement and discovery, and overall leads to a U.S. that is no longer running at peak efficiency. Our country has always had an economy that supported the survival of the fittest, and this mindset has allowed us to go from a simple colony to a world power in only a couple centuries, but if the best ideas are discouraged simply because they are new then our advancement will slow considerably.

The consumers in our economy suffer from this stagnation, as well, for with fewer competitors large companies have more freedom. They feel less constricted by pricing structures if no one new with a better production model can swoop in and underprice them. They feel less pressured to innovate if no new products or ideas are

entering the global market. This leads to a consumer who is quite possibly paying too much for a mediocre product, with little knowledge or choice of other options. Faced with such a situation, consumers have little choice but to accept what is given to them or take considerable time and effort to hunt down options presented by smaller businesses. Such a process is facilitated by the internet, but still, allowing too many barriers of entry to exist for small businesses will only result in negative effects for the nation's economy.

That, in summary, is why the NII surtax's influence over investment activity in small businesses is important. If the NII surtax's influence is negative, then it is discouraging its target demographic from investing in small businesses looking to expand into larger markets, and is therefore also creating a stagnation of economy and of the advancement of ideas and practices.

Why The NII Surtax is a Potentially Negative Investing Influence

At this point, we have established how the NII surtax began, what it currently is, and why its influence is important, all of which provide important background information. Now, we can move on to exploring why the surtax's influence could be significantly negative. There are several pieces of evidence found within the IRC that provide information on the target demographic, as they were intended to do, but these lines of code also provide insight into some issues that could be causing a negative correlation with investing activity.

Let us look first at the demographic targeted by the NII surtax, which is individuals whose MAGI exceeds the threshold amount. As was mentioned earlier in the surtax definition, several forms of investment income that are subject to the NII surtax are also subject to other forms of income tax, causing the income to be purposefully taxed twice. This is true for dividends, or income generated from stock investments, which are taxed at different rates depending on the nature of the investment. Ordinary dividends that are received from most stock are taxed at an individual's normal amount of income tax, which is derived from the individual's taxable income:

Rate	Single Filers	Married Joint Filers	Head of Household Filers
10%	$0 to $9,275	$0 to $18,550	$0 to $13,250
15%	$9,275 to $37,650	$18,550 to $75,300	$13,250 to $50,400
25%	$37,650 to $91,150	$75,300 to $151,900	$50,400 to $130,150
28%	$91,150 to $190,150	$151,900 to $231,450	$130,150 to $210,800
33%	$190,150 to $413,350	$231,450 to $413,350	$210,800 to $413,350
35%	$413,350 to $415,050	$413,350 to $466,950	$413,350 to $441,000
39.6%	$415,050+	$466,950+	$441,000+

Table 3: 2016 Tax Brackets

Table detailing the estimated income tax rate associated with taxable income for 2016.

Qualified dividends, which must be kept for a certain holding period surrounding the dividend date, are instead taxed at a capital gains rate, which is either 0%, 15%, or 20% depending on the individual's tax bracket.

The rates do not matter so much, though, as the fact that both types of dividends are considered investment income in the IRC, and are therefore both included in the calculation of net investment income and MAGI. Dividends are just one of the many types of investment income that the NII surtax applies to. As mentioned earlier, net gain on the disposition of stock is also an investment income, and like dividends are taxed at either the individual's income tax rate if current (sold within the year) or the capital gains rate if long-term (held for more than a year). Therefore, the tax implications of potential stock investments must be considered when weighing stock investment options. This is not a relevant issue to individuals whose MAGI is well below the respective threshold, however, for if a single individual has a MAGI well

below $200,000 adding a couple thousand more dollars of investment income is not going to make a big difference; they are still excluded from the surtax.

But what about the individuals that have a MAGI above the threshold even before investment income is considered? Any investment income they produce will be liable under the surtax, which means that they are faced with an additional 3.8% expense that they must consider when choosing whether or not to invest in stock. Unlike most other investment expenses, however, the NII surtax does not provide them with a benefit or an increase in their returns. Hiring a financial advisor, for example, is an up-front cost that can increase the profitability of investment activities and is an option that trades a cost for a potential benefit. Meanwhile, paying the NII surtax is an unavoidable cost with no benefit, other than the surtax itself being much cheaper than breaking federal law.

Therefore, the individuals that will always qualify for the surtax are faced with an inescapable additional expense for most types of investments. For them, investing in general becomes less attractive because it now produces lower returns, and conversely funneling excess capital back into the company or spending more on luxuries suddenly becomes a bit more attractive. In other words, the NII surtax encourages wealthier individuals to invest less and save more. The situation is even more unappealing for stocks, since both dividend income and capital gains are considered investment income, essentially double taxing the individual for a single investment action. A situation is created, then, where individuals with high MAGIs experience a subtle yet persuasive pressure to move away from stock investments.

Such a situation could lead to a noticeable decrease in investment activity because individuals who are guaranteed to qualify for the NII surtax represent a substantial number of investors. The Federal Reserve found that in 2013, 93% of households within the top 10 percentile of annual household income had stock holdings with a median value of $281,900, and that these stock holdings accounted for 55.7% of that percentile's total financial assets.

[Median value in thousands of constant (2013) dollars (38.2 represents $38,200). All dollar figures are adjusted to 2013 dollars using the "current methods" version of the consumer price index for all urban consumers published by U.S. Bureau of Labor Statistics. Families include one-person units; for definition of family, see text, Section 1. Based on Survey of Consumer Finance; see Appendix III. For definition of median, see Guide to Tabular Presentation]

Age of family head and family income (constant (2013) dollars)	Families having direct or indirect stock holdings [1] (percent)			Median value among families with holdings			Stock holdings share of group's financial assets (percent)		
	2007	2010	2013	2007	2010	2013	2007	2010	2013
All families	**53.2**	**49.8**	**48.8**	**38.2**	**31.1**	**35.8**	**53.6**	**46.8**	**51.3**
Under 35 years old	41.6	39.8	38.6	7.3	7.5	7.1	45.6	39.2	46.5
35 to 44 years old	55.9	50.0	53.9	28.1	21.2	23.5	54.7	50.5	53.6
45 to 54 years old	63.1	57.9	54.9	50.5	40.3	44.0	53.4	48.4	55.9
55 to 64 years old	60.8	59.7	57.2	87.6	60.8	60.0	55.4	48.2	51.5
65 to 74 years old	53.1	45.5	49.2	62.9	81.4	117.4	55.5	44.1	49.0
75 years old and over	40.2	41.9	34.5	50.5	58.5	81.4	47.8	43.9	48.3
Percentiles of income: [2]									
Less than 20	14.2	12.3	11.4	6.7	5.4	6.6	39.0	40.9	31.8
20 to 39.9	36.4	31.0	26.7	9.1	7.8	10.0	34.6	30.9	33.6
40 to 59.9	53.0	51.4	49.3	20.2	12.9	14.0	39.9	37.3	41.4
60 to 79.9	73.3	68.2	69.4	37.1	22.8	28.0	53.1	41.6	43.5
80 to 89.9	86.2	82.3	81.8	72.1	62.6	68.8	49.6	44.7	49.6
90 to 100	91.6	90.4	93.0	248.1	285.6	281.9	57.7	50.6	55.7

[1] Indirect holdings are those in pooled investment trusts, retirement accounts and other managed assets. [2] See footnote 8, Table 1184.

Source: Board of Governors of the Federal Reserve System, 2013 Survey of Consumer Finances, *Changes in U.S. Family Finances From 2010 to 2013: Evidence from the Survey of Consumer Finances*, Federal Reserve Bulletin, Vol. 100, No. 4, September 2014. See also <http://www.federalreserve.gov/econresdata/scf/scfindex.htm>.

Table 4: Stock Ownership by Age of Head of Family and Family Income

Table showing the relationship between family attributes and level of stock investment.

Remembering that the threshold amount per household is either $200,000 or $250,000 (since individuals filling as married filing separately would be considered one household), and learning that $200,000 is in the 6% of household incomes and $250,000 in the 4%, we can see that the findings of the Federal Reserve show that the target demographic of the NII surtax not only has the highest median amount invested but also has the highest percentage of their total wealth invested.

These households that are guaranteed to be affected by the NII surtax have invested the most into stocks; the other percentiles combined do not even come close to investing the same median value as the top 10%. They have the most household capital invested relative to any other demographic, so whatever influences they experience should therefore have a noticeable impact on the investing environment as a whole. Considering this, it is not unreasonable to assume that any negative impact on the attractiveness of stock investment, such as the NII surtax, that specifically affected the top percentile would lead to a recognizable decrease in investment activity. This line of reasoning also holds true for the investments of corporations. As stated earlier, it is the most successful companies that invest the largest percentage of their assets, and since they are subject to the NII surtax as well they will also see investments in stocks become less attractive.

With the entire stock market becoming less appealing to the dominant demographic of investors, small businesses looking to expand face increased difficulty. As mentioned earlier, a company ideally wants good market conditions when launching their IPO, but if the top group of investors are actively being discouraged from trading stock then the market is going to take a hit. Seeing these lowered conditions, many small businesses may be scared away from an IPO, instead choosing to wait for a more favorable market, resulting a net decrease in the number of annual IPOs.

Even if and when the market does adjust, however, growing small businesses would still experience an issue associated with the NII surtax: the wealthy individuals who most acutely experience the influences of the surtax are also the individuals most likely to hold investments in IPO stocks. Now, then, there is a situation where stock

investments are discouraged in the demographic that invests most heavily into small businesses, so even if a smaller company did find the general market condition to be agreeable they would still find fewer investors willing to purchase their new stock. Annual IPO values would fall as a result, and since the current NII surtax will always target these active small business investors this problem would persist regardless of the ups and downs of the market.

These issues of overall investing discouragement and the specific targeting of the demographic most likely to invest in IPOs could very well result in a decrease in small business investing activity, a negative influence that could be felt for years because it stems from a mandatory and reoccurring cost. If such a negative correlation does exist, then the NII surtax itself would need to be seriously reconsidered, as discouraging expansion and competition harms the entire nation.

Hypothesis

After familiarizing ourselves with the arguments laid out above, we can see that it is certainly logical and possible that small business investment activity could be affected by the specific nature of the NII surtax. Upon examining this evidence myself, I believe that it is not unreasonable to claim that a negative correlation between the NII surtax and small business investment activity does exist. After all, there are several instances where exemptions for the surtax encourage investors to avoid investments in fledgling C-Corporations and instead invest in alternatives like larger C-Corporations, S-Corporations, or trusts. Therefore, I expect to see a decline in small business investment activity from 2013 onward due to the influences of the NII surtax.

Methods

Multiple Regression Model

In order to discover the validity of the claim of negative correlation, it is necessary to construct a way to not only determine the influence the NII surtax has over small business investment activity, but also a way to isolate and exclude the variables that we do not want to affect the results of this study. This is a very important detail, because we cannot assume that any change in investing activity is automatically attributable to the NII surtax, as there are several other variables that can contribute to the change. For example, an increase in the sparrow population of an area could be contributable to a number of reasons: a decrease in predators, an increase in food supply, warmer temperatures in the winter that encourages migration, an increase in favorable mating and child-rearing locations, to name a few. Knowing these potential influences, it would be foolish to assume that an increase in the sparrow population had a direct correlation with a decrease in predators; the population could have changed due to any of the aforementioned variables, while there could actually be no substantial change in the number of predators.

This study faces the same issue when looking at small business investment activity influence. The NII surtax could be a factor that significantly affects investing activity, but it is certainly not the only one, so assuming that any and all change in investing activity is attributable to the NII surtax is a fatal error. Therefore, this study has utilized a multiple regression model to isolate the variable in question, the NII

surtax, and effectively remove the other relevant variables in an attempt to reasonably estimate the influence the surtax holds over investing activity.

Multiple regression models exist to discover the affect multiple variables have on one dependent variable, and typically adhere to the following format:

$$Y = A + B_1X_1 + B_2X_2 + B_3X_3 + \ldots + B_nX_n$$

Where Y is the dependent variable, A is a constant value, the X's are the various independent variables affecting Y, and the B's are the degrees to which each variable X affects Y. By following this formula, the user seeks to primarily discover the B values, which show how much each independent variable affects the dependent variable, in an attempt to better understand what drives a change in Y. The final result of the model is a formula that draws a line of best fit for the dependent variable, where entering in independent variable values for an instance will return a Y value that is similar to the actual value associated with the dependent variable for that same instance. In the specific case of this study, Y will be small business investment activity and the X's will be the market variables that affect investing activity (which will be detailed shortly). The multiple regression model will also be used slightly differently, for in this situation the goal is to discover the influence of only one independent variable: the NII surtax.

Therefore, a multiple regression model will be made that specifically excludes the NII surtax as a variable and is constructed from market data taken from 1985 through 2012, the year before the surtax was initiated. This will create a formula that, assuming all other significant independent variables are included, should provide an accurate estimation of investing activity. Then, the same formula will be applied to data from 2013 to 2015 in order to obtain estimates of what investment activity would have

been for these years without the influence of the NII surtax. If these estimations vary significantly from the real investment activity, i.e. greater than a standard deviation, then it must be because another variable that was not included has an effect on investment activity, and since the NII surtax is the only potentially significant variable not included, it must therefore be responsible for any differentiation.

This somewhat complicated process must be utilized simply because the effect of the NII surtax is an ethereal concept. Many of the arguments listed in this study contain elements of subconscious individual decision-making and the general mindset of the market, both of which can take years of surveying and studying to measure, if they can be measured at all. Finding an accurate measure for the NII surtax's influence to use in a regression formula is difficult at best, and it is therefore much simpler to reverse-engineer the model in the way previously detailed.

Dependent Variable

As per mentioned above, the dependent variable in this study will be small business investment activity, which has been defined as the number of IPOs launched each year. The data for this variable was gathered and published by Professor Jay R. Ritter of the Warrington College of Business, and contains information from 1960 through 2015.[3] From this data, the net number of IPOs will be utilized, as it provides a more restrictive definition for an IPO that closely resembles the focus of this study. Additionally, the IPO value for each year will be put through a logarithmic transformation before the regression model is run, which will then be reversed so the IPO values estimated can then be compared to the actual values. This is done to

[3] Summarization of data can be found in appendix section A.3

provide a measure of consistency to an otherwise scattered set of data, and allows a better line-of-best-fit to be created without significantly skewing the results.

Independent Variables

The independent variables that will be utilized in this study have been chosen because they are all measures of market conditions that will affect the number of IPOs released each year, excluding taxes. More specifically, the variables represent investment opportunities that are alternatives to purchasing the stock of an IPO. Since the primary goal of this model is to discover if the NII surtax has any influence over small business investment activity, all other influences over the number of IPOs must first be accounted for to ensure that the end result is not skewed by influences outside the focus of this study. These influences must be accounted for, or else any change in attractiveness of an option due to normal market fluctuations could easily be confused with a change associated with tax.

For example, one of the independent variables is the percent per year return on 5-year government bonds. These are a reasonable substitute for a new stock purchase for an investor, and therefore if they are made more attractive then it stands to reason that more capital will be diverted into the bonds and away from IPOs. However, if the normal economic influences that affect the bonds are not taken into consideration, such as the housing crisis of 2008 that caused an economic recession, then the standard ups and downs of capitalism could mistakenly be assumed to be caused by an outside factor, which in this case would skew the calculated NII surtax influence.

This is why data has been gathered for these variables that stretches back from 2012 to 1985; this way, a trend of influence for each of these alternatives can be

created, so when the formula is applied to the years after the NII surtax the results should not be affected by fluctuations associated directly with the independent variables.

GDP Growth

Gross Domestic Product (GDP) growth has been included because it is an excellent measure of the overall state of the nation's economy. The GDP growth data used in this study was taken from the records of the U.S. Department of Commerce's Bureau of Economic Analysis. GDP is defined by the Bureau as: "the value of the goods and services produced by the nation's economy less the value of the goods and services used up in production." In other words, it is a sort of net income for the entire country that more or less displays the country's wealth. High GDPs are typically held by economically prevalent, wealthy nations, and there tends to be a positive correlation between GDP and the standard of living. GDP is also an accurate measure of economy because, due to the nature of its calculation, it automatically accounts for inflation and deflation, since it is calculated using the market value of the goods and services used and produced.

GDP is included in this study because the more wealth that a country has, the more time and money its populace has to devote to luxury activities, such as eating out, buying fashionable clothing, and investing. Investing "excess" capital is especially popular in the U.S., as our mentality of needing to "put your money to work" drives us to invest substantial portions of our extra cash. Therefore, it stands to reason that an increase in GDP would lead to more cash and also more investing, while a decrease would lead to the opposite. GDP is a necessary independent variable, then, for it is not

beneficial to allow its inherent influence over all investing activity to affect the results of this study.

Wilshire 5000

The Wilshire 5000 is summed up by the Wilshire firm quite nicely:

> "The Wilshire 5000 Total Market Index^{SM} is widely accepted as the definitive benchmark for the U.S. equity market, and measures performance of all U.S. equity securities with readily available price data. Named for the nearly 5,000 stocks it contained at launch, it then grew to a high count of 7,562 on July 31, 1998. Since then, the count fell steadily to 3,776 as of December 31, 2013, where it has then bounced back to 3,818 as of September 30, 2014. The last time the Wilshire 5000 actually contained 5,000 or more companies was December 29, 2005."

As the quote details, the Wilshire 5000 is a sort of stock portfolio that is designed to create a general status of the stock market by averaging the returns of thousands of stock options from a variety of industries. The company is most well-known for their total market full cap index, which compares the current state of the Wilshire 5000 to its date of founding in 1980 via a point system.

Figure 5: Wilshire 5000 Total Market Full Cap Index

Compares current state of Wilshire 5000 to that of its creation in 1980.

For this study, however, the Wilshire 5000 return will be utilized instead of the index. The return measure represents the average return on investment if all of the thousands of stocks in the portfolio were to be combined, and more or less shows if the entire stock market experienced a gain or a loss during the year. This is more relevant than the index because this study is focused on what affects investors and therefore IPOs the most. The index, while useful, is just comparing the current market to what it was in 1980. It may look nice to see that the market is doing 50 points better than it was 30 years ago, but this does not really provide substance for most investors. Instead, being able to see that the entire market had a return of 16% or a loss of 11% seems much

more applicable, because the return on investment is the number one thing investors are concerned with.

The reason the Wilshire 5000 is included at all is because, like GDP does for the entire nation, there needs to be a control that limits the affect that the volatile stock market has on the results of this study. And since the Wilshire 5000 is a reliable indicator of the equity market as a whole, it is being used to fulfill said purpose of stabilization. After all, if the market is seen to be healthy more investing will occur and vice-versa, so the effects of the general market condition must be controlled.

However, the Wilshire 5000 is actually being included as two separate variables: the return of the current year and the return of the previous year. This is because while decision making should ideally be focused on the here-and-now, it is in our nature to examine the past and try to discern patterns that will aid our decisions in the future. Therefore, investors will frequently look at the trends of the past year in an attempt to predict current trends on top of examining current trends as the occur. Both variables have a similar yet separate level of influence over the number of IPOs, which is why they are both included. The return data utilized by this study was all acquired from the historical database of Wilshire.

Shiller Price-Earnings Ratio

The first of the substitutes to investing in an IPO would be investing in a pre-existing C-Corporation. Of these pre-existing options, the most attractive are often the largest, since they have the most consistent returns. This is assuming that the investor seeks consistency, of course, but as discussed earlier there is trade-off between risk and reward, and if the investor seeks consistency in their portfolio they will almost certainly

look to established firms, especially if they are made more attractive through outside influences. The Shiller Price-Earnings Ratio, then, will be utilized in this study to ensure that any decrease in IPOs found in the model is not due to an increase in attractiveness of large corporations caused by general market trends, specifically those that affect the upper echelon of the equity market.

The Shiller P/E Ratio accomplishes this firstly by providing a measure comparing the investment to the return. A price-earnings ratio is found by dividing the amount invested in the stock in question by the earnings per share, typically those accumulated over the past four quarters. This creates a value that represents what an investor must pay in order to expect a dollar of returns. For example, a price-earnings ratio of 20 means that each investment of $20 should provide an annual return of $1. Following this description, a larger price-earnings ratio typically makes a stock less attractive.

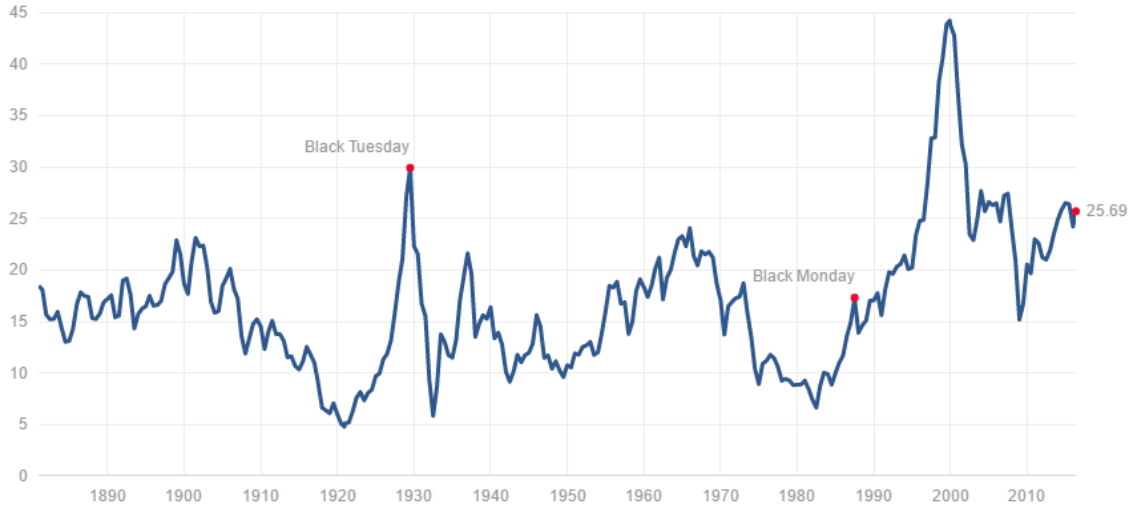

Figure 6: Shiller P/E Ratio

Shiller P/E Ratio for the S&P 500, with specific events marked

Normally, price-earnings ratios are applied on an individual basis, but the Shiller P/E Ratio instead combines the results of all the companies from Standard and Poor's 500. The S&P 500 is a portfolio representing 500 of the largest C-Corporations, and has been a trusted representation of the top stocks since its inception in 1957. The Shiller P/E Ratio, then, averages out the price-earnings ratios for these 500 large companies, effectively creating a measure of how attractive conservative investing is at any given time. If it increases, larger corporations are made less attractive, and if it decreases the reverse occurs. The Shiller P/E Ratio will be used to remove the influence the fluctuations of the upper market have on investor decisions, so that any change in attractiveness between large C-Corporations and IPOs found can be attributable to the NII surtax.

Government Bonds

Now that the larger, pre-existent equity market has been accounted for, it is necessary to eliminate the unwanted influences of another type of substitute: bonds.

Starting first with government bonds, we have an incredibly stable investment that historically provides relatively small returns. This stability does not, however, remove government bonds from the list of viable substitutes. Therefore, the fluctuation of the attractiveness of government bonds that is attributable to conditions outside the scope of tax, however gradual, must be taken into consideration. To accomplish this, data will be taken from the U.S. Treasury on bonds, more specifically on the percent per year return on 5-year government bonds.

This variable has been selected for two reasons: one, the percent per year return is the number that is most intriguing for investors, as it lays out how much they can expect to make from investing in these bonds. Two, the 5-year bonds provide a solid middle ground for all of the different types of government bonds, and also parallels the investing activity of IPOs. After all, an individual who invested in a new C-Corporation would most likely hang on to the stock for several years before selling it to allow the value time to increase, so if they are already planning on a long-term investment a 5-year bond seems to be the most comparable substitute.

Corporate Bonds

Next, there are corporate bonds to consider, which are practically identical to government bonds except they are less stable and therefore provide higher rewards. Corporate bonds are always a substitute for investors seeking relatively stable investments that provide higher returns than government bonds, and the fact that their low-risk nature is their selling point causes the bonds for larger corporations to be more attractive, further drawing capital from upstart IPOs. As the yield on bonds increase, they inherently become more attractive when compared to stock investments, especially

since the yield on a bond has to do with interest rates and credit rating and can increase while the stock value for the same company remains relatively constant.

Therefore, in order to ensure that any fluctuation specific to bonds does not skew the results of this study, Moody's Seasoned AAA Corporate Bond Yield will be utilized to adjust for the trend of bond yields.

Figure 7: Moody's Seasoned AAA Corporate Bond Yield

Net yield of all bonds given an AAA rating by Moody's Investors Service.

Moody's Investors Services has created a system that combines the yields of all AAA corporate bonds that reflects the overall status of the market. AAA bonds are rated so because there is a very high chance that the company issuing the bond will be able to pay the bond amount and any accumulated interest, which is relevant to this study since the primary allure of bonds when compared to stock are the advantages of consistency

and low risk. By using this data as a variable, high interest rates and company credit history will no longer affect the tax-influence results of this study.

Regression Model for NII Surtax Influence

Now that the dependent and independent variables have been identified, the multiple regression model for this study can be laid out as such:

$$\text{Number of IPOs} = A + B_1\text{GDP Growth} + B_2\text{Current Return on Wilshire 5000} + B_3\text{Previous Returns on Wilshire 5000} + B_4\text{Shiller P/E Ratio} + B_5\text{Percent Per Year Return on 5-Year Government Bonds} + B_6\text{Annual AAA Corporate Bond Yield}$$

Figure 8: NII Surtax Influence Multiple Regression Model

Regression model used for this study, with all variables detailed.

This is the model that will be run in order to calculate a formula that can accurately estimate the number of IPOs released each year given the independent variable information. The formula will then be used to acquire estimates for the years after 2013, which will be compared to the actual IPO numbers for those years, and if any significant deviation occurs then the NII surtax, as the only excluded variable, must be responsible.

Results

Regression Model Summary, 1985-2012

ANOVA					
	df	*SS*	*MS*	*F*	*Significance F*
Regression	6	2.490492715	0.415082119	6.276604068	0.000674993
Residual	21	1.388764435	0.06613164		
Total	27	3.879257149			

Table 5: ANOVA Table for Regression Model

Details level of significance for multiple regression model. The complete summary output can be found in appendix section A.4.

The first and most important result of the multiple regression analysis is that the formula created from the independent variables is indeed significant. Looking at the Significance F, a confidence interval of 95% is standard for this type of model, and we can see that the provided significance of 0.068% is well within the 5% limit. This means that there is a very significant correlation between the formula the model created and the number of IPOs, which in turn means that the formula is a good predictor for small business investment activity.

The independent variables varied widely in their significance. Following the same 95% confidence interval, the Previous Return on Wilshire 5000 is significant with a p-value of 0.0180, while the Current Return on Wilshire 5000 and the Shiller P/E Ratio come close with respective values of 0.0732 and 0.0516.[4] However, the Percent Per year Return on 5-Year Government Bonds, the Annual AAA Corporate Bond Yield, and the GDP Growth were all not significant with values of 0.3076, 0.6937, and 0.6893.

[4] Complete information from the regression analysis can be found in appendix section A.4.

This means that the first three variables mentioned are reasonable predictors of IPOs, while the second three do not possess the influence that was previously assumed. Regardless of these individual results, however, the formula itself still proved to be significant, and can therefore be used to estimate IPO values for 2013-2015. This argument is further strengthened by the fact that for 21 of the 28 years from 1985 to 2012, the estimated IPO value was less than one standard deviation away from the actual IPO value.[5]

Regression Model Summary, 2013-2015

Utilizing the multiple regression formula created using the pre-NII surtax data, estimates for what the IPO values would be for the years 2013-2015 without the influence of the surtax were created.[6] For all three years, the estimates provided by the regression formula were within one standard deviation of the actual IPO value, and since the variables did not change the same significance applies. The standard deviation turned out to be somewhat substantial, resulting in a somewhat broad span of acceptable prediction, but the strong significance showed by the regression formula suggests that it is still accurate.

[5] These results are laid out in detail in appendix section A.5. Standard deviation is approximately 0.2572 as per ANOVA table in appendix section A.4.
[6] These results are laid out in detail in appendix section A.6. Standard deviation remains the same.

Conclusion

The Influence of the NII Surtax

After examining the results listed above, it becomes clear that the NII surtax has no substantial influence over small business investment activity in the form of IPO launches, since the estimated IPO values from 2013 onward all fell within one standard deviation of the actual values. This could in part be due to the wide limits created by the standard deviation, but for all three years in question the actual IPO value fell close to the center of the distribution, suggesting that the estimation is in fact quite accurate. Additionally, even if the standard deviation is a bit large, it is highly unlikely that the NII surtax alone would have enough influence to swing the IPO value past the line of significance, especially since that would mean that the surtax would have to hold more influence over IPO values than variables like GDP and the condition of the equity market.

Furthermore, it is interesting that two of the potential substitutes, corporate and government bonds, as well as GDP were found to be not significant as individual variables. The logic behind their potential influence seems sound, but perhaps there are other factors at play that were not considered, such as disposable income levels or the maturity time for bonds. Otherwise, the regression formula proved to be a relatively accurate predictor of yearly IPO values, and although no significant correlation between the NII surtax and IPO numbers was found, other useful information was still garnered. For example, the low p-values of both the Previous Return on Wilshire 5000 and the Shiller P/E Ratio suggests that last year's stock market performance and the

performance of the top 500 companies are influential factors that young C-Corporations consider when they look to hold their IPO.

Overall, though, it would appear that taxes, at least the NII surtax, are not yet on the list for influential issues amongst growing small businesses. The subconscious influences caused by the NII surtax that were previously detailed, such as the favoring of S-Corporations and the unbalancing of risk vs. reward, are apparently not significant issues when compared to the overall state of the stock market. When choosing to have an IPO, it would seem that small businesses are more concerned with the general state of the market than they are with the potential negative influence of substitutes.

Issues Potentially Affecting Results

Lack of Data on S-Corporations

In the spirit of full disclosure, there were a couple of issues plaguing this study that could have had a significant impact on the results. First of all, although investing in S-Corporation stock is clearly an alternative to investing in any C-Stock, including an IPO, this study was unable to find data substantial enough to create an independent regression variable for S-Corporation stock influence. No data on the total amount of capital invested in S-Corporations nor the average returns of S-Corporation stock could be found, as they are not publicly listed companies and therefore are not required to post their financial information for public access. There was a promising lead through the IRS that listed the total number of S-Corporations that filed a tax return each year, but that data only provided values for the years of 1985 through 2012. Considering that this

omitted the three most important years, the ones after the institution of the NII surtax, this data was unfortunately unusable.

Therefore, the fluctuations of the market valuation and investment activity in S-Corporation stock could have skewed the results, as any changes that occurred in that sector could have been lumped in with being attributable to the NII surtax. Fortunately, accurately representing S-Corporation investments would only lower the influence the NII surtax has over small business investment activity, which would have no impact on the conclusion of this study.

Assumed Linearity of Independent Variables

Another potential issue lies within the assumptions one makes when performing a multiple regression analysis. One of the assumptions made is that all of the independent variables have a linear relationship with the dependent variable, but in this study and in economics in general that is hard to prove. It is possible that the low significance calculated for GDP and the bonds is due to a nonlinear relationship between the variables and IPO numbers, where the model took a possibly exponential or logarithmic relationship and forced it into a linear one, causing correlation to be skewed.

Again, though, this should not substantially impact the resulting conclusion, as the formula itself still returned a significant correlation value and the estimated IPO ranges were very promising when compared to the actual values.

Nature of Unrealized Gains

The nature of unrealized gains also created a problem for this study. When an asset, such as stock shares, changes in value, the gain or loss is not recognized as being taxable until the asset is sold. This prevents individuals from constantly needing to calculate the gain and loss on their investments in order to compute their investment income. As a result, the turbulent ups and downs of the stock market will not affect the investment income, and therefore the tax liability, of an individual unless they sell some of their shares.

It is important to note, however, that the dividends paid by stock investments are still included in investment income, and since IPO stocks typically do not pay dividends for a relatively long time, sometimes years, they are essentially tax-free stock options until they are sold. This potentially makes them more attractive than the stock of more mature C-Corporations, since they almost always pay consistent dividends and therefore incur higher tax liabilities. Considering this delaying of tax liability, it is possible that any effect that the NII surtax holds over IPOs would not be felt until the options are sold, which could occur several years after the initial purchase date, depending on the success of the company.

This does not mean that the arguments presented earlier have no merit, but it does mean that the time frame this study had to work with was not large enough. Due to the deferred nature of unrealized gains, the tax consequences of the NII surtax will not entirely be felt until the IPO shares are sold a second time, and the time that has passed since the installment of the surtax in 2013 simply may not be long enough for these effects to manifest. Significant influence may be found to exist once the IPO

shares issued after the NII surtax are finally sold, and after the market is allowed time to adjust to the new variable, but at this point it is perhaps too early to tell. This uncertainty does not nullify the validity of this study, though, as the possibility that the potential future effects have not yet been accounted for by investors and small businesses is low; after all, it is the responsibility of the smart investor to plan ahead. It is much more likely that the taxation of unrealized gains has already been considered and adjusted for by the overall market, and that (as this study supports) the NII surtax simply does not hold significant influence over small business investment activity.

Data Range Limitations

The last issue was one of technicality in regards to practice, but is an issue nonetheless. Typically in running a multiple regression model, the more data samples one can acquire the better, but usually a number around 50 is considered the bottom limit of adequate, depending on the subject. However, this study had to unfortunately cap its samples at 28 (1985-2012) simple due to the nature of our economy. Being a capitalistic nation, our economy and the rules that govern it change quickly and often, which often proves to be a good thing as it provides a flexible market that can shift and evolve. For academic purposes, though, it can be problematic; going back any later than 1985 would bring substantial risks of data skewing, as the practices and laws of just a few decades ago were so different from what they are now that comparing the two would be impractical. This leads to the potentiality of results being skewed simply because the sample size is relatively small, but as long as we consider said results with a grain of salt they can still provide useful information.

The second part of this issue of range limitation comes from the fact that it has only been three tax years since the NII surtax was initialized in January of 2013. While the data provided for these three years is promisingly consistent, this does not necessarily mean that the trend will continue. After all, it is possible that the effects of the tax are just not being felt yet, as the patterns of investors are sometimes slow to change. Regardless of this limitation, though, is the knowledge that this study supports the claim that the NII surtax has had no immediate negative effects on small business investment activity.

Where Does This Leave Us?

After all of that defining, examining, and regressing, we can finally say with no small amount of confidence that the NII surtax has held no significant influence over small business investment activity since its inception in 2013. This does not necessarily mean that it never will, though. The U.S. economy and stock market is constantly changing, and it is possible that the effects of the surtax will not be felt until years down the line as investors and therefore growing small businesses become increasingly more aware of it. This is not meant to be scare tactic; the moral of this nagging is to remind us that we, as a nation, must carefully consider and weigh the implications of laws and taxes that target specific demographics of consumers. Subconscious persuasions and attractions should never be underestimated, for they hold a substantial amount of power over our economic choices.

The government has a hard enough job as it is trying to write, plan, and execute laws and taxes like the NII surtax, so it is understandable that they may not consider all effects of a piece of legislature before it is ratified. It is up to us, as the ones who live in

and around these laws, to examine them through our own individual lenses of perception in order to ascertain their true potential or disadvantage. It is our right and our duty to scrutinize all governmental legislature in order to accelerate the betterment of our nation, from the largest ground-breaking legalization to the smallest 3.8% surtax.

Appendix

A.1: Definitions

Taxable Individual

This definition is necessary because it is a frequently used and slightly confusing vernacular in the IRC. When the code refers to an individual, what it is really referring to is a taxable individual. This distinction is important because, in tax, an individual is different from our normal usage of the word as a single person. According to the definitions found in section 7701 of the tax code, an individual refers to any entity that is taxable, including "a trust, estate, partnership, association, company, or corporation," and also married couples who choose to file jointly. Basically, the word individual is used to refer to one tax form and one report of income, regardless of the number of separate people present in the group or company, whether it is one or one thousand. It is used as a blanket surrogate for all of the different types of people and organizations that pay taxes in order to avoid confusion and to limit the word count of the code.

Surtax

The NII tax is classified as a surtax because it is incurred in addition to any previous taxes that are applied to the same income. Most of the forms of income that are utilized to calculate net investment income have already been included in the individual's taxable income, so the 3.8% of the NII is added onto the tax rate the activity in question is normally subject to. For example, long-term capital gains on investments that are held for more than a year are usually taxed at 0%, 15%, or 20% when performing normal tax liability calculations. However, if an individual also

qualified for the NII surtax, they would be paying the extra 3.8% on top of the normal rates, changing the effective rates to 3.8%, 18.8%, and 23.8%, respectively. Situations like this do not occur often in the IRC, as the code is often very careful about preventing double taxation. Here, though, it is done on purpose since the NII surtax was always intended to be an additional tax on investment income, because it is believed that those who qualify for the surtax are best suited to pay it.

Gross Income

Several forms of income are utilized in the description of the NII surtax, so it is necessary to distinguish between them all before further analysis of the code can occur. Gross income has, by far, the least complicated definition: it is the total amount of cash made from an activity. Period. For example, if you sold ten widgets for $3 each, your gross income would be $30, regardless of whatever expenses you incurred during the process. For tax purposes, gross income or gross amounts are usually used as starting points for calculating taxable income, before deductions and/or liabilities are added or subtracted.

Net Income

Net income is what you arrive at after altering gross income. Using the same example from above, let's say you once again sold ten widgets for $3 each, but in doing so you had to spend $20 making and selling them. Your gross income would still be $30, but your net income would be $30 minus the $20 of expenses, so $10. Net income is considered to be a more accurate depiction of how much money an individual actually made, because it factors in expenses as well as other gains and losses. In taxes,

net income is usually the gross income derived from an activity less the amounts that are not considered taxable by the IRC, or the deductions. So, again, net income is a more accurate model in taxes as well, because it shows the amount of income that an individual is actually liable to pay taxes on.

Trusts

The following definitions for trusts and estates are included for the sake of clarity, since they will be referenced in this study. In its purest form, a trust is an amount of funds that is set up and managed by one person, known as the custodian, for the fiduciary benefit of another person, or the beneficiary. In actuality, however, the custodian can be a group of individuals or even an investment company, and there can be a large number of beneficiaries who have invested capital into the trust. The custodian focuses on finding investments or other opportunities that will generate income for the beneficiaries, and usually prepares annual or quarterly reports for the beneficiaries in order to showcase the status of the trust. There is a second economic definition of a trust, which is a coalition of companies that agree to work together, primarily to discourage the appearance of new competition, but that definition is not relevant to this study and is actually currently an illegal practice.

Estates

An estate, according to Mirriam-Webster, is "a person's property in land and tenements…the assets and liabilities left by a person at death." Even more simply, it is essentially everything an individual owns. In tax-land, estates are most pertinent when they are associated with the second half of the dictionary definition, the death of the

property holder. When this occurs, and the estate is passed on in whatever way the deceased desired, an estate tax is applied to whatever property is received.

If the amount with respect to which the tentative tax to be computed is:	The tentative tax is:
Not over $10,000	18 percent of such amount.
Over $10,000 but not over $20,000	$1,800, plus 20 percent of the excess of such amount over $10,000.
Over $20,000 but not over $40,000	$3,800, plus 22 percent of the excess of such amount over $20,000.
Over $40,000 but not over $60,000	$8,200 plus 24 percent of the excess of such amount over $40,000.
Over $60,000 but not over $80,000	$13,000, plus 26 percent of the excess of such amount over $60,000.
Over $80,000 but not over $100,000	$18,200, plus 28 percent of the excess of such amount over $80,000.
Over $100,000 but not over $150,000	$23,800, plus 30 percent of the excess of such amount over $100,000.
Over $150,000 but not over $250,000	$38,800, plus 32 percent of the excess of such amount over $150,000.
Over $250,000 but not over $500,000	$70,800, plus 34 percent of the excess of such amount over $250,000.
Over $500,000 but not over $750,000	$155,800, plus 37 percent of the excess of such amount over $500,000.
Over $750,000 but not over $1,000,000	$248,300, plus 39 percent of the excess of such amount over $750,000.
Over $1,000,000	$345,800, plus 40 percent of the excess of such amount over $1,000,000.

Figure 9: Estate and Gift Tax Rate

The tax for a transference is found by locating the amount given in the left column and then performing the associated formula in the right column.

As was mentioned earlier in overarching terms, the estate tax is very similar to the gift tax, the only real difference being a flat exclusion amount that is applied to the gift tax. This allows an individual to gift another individual an amount up to a certain annual limit (which changes every year to accommodate inflation and the Consumer Price Index) without incurring any sort of transference tax, therefore making the gift tax the more attractive option.

Net Investment Income

> Net investment income is defined in the IRC as:
>
> the excess (if any) of—
>
> **(A)** the sum of—
>
> **(i)** gross income from interest, dividends, annuities, royalties, and rents, other than such income which is derived in the ordinary course of a trade or business not described in paragraph (2),
>
> **(ii)** other gross income derived from a trade or business described in paragraph (2), and
>
> **(iii)** net gain (to the extent taken into account in computing taxable income) attributable to the disposition of property other than property held in a trade or business not described in paragraph (2), over
>
> **(B)** the deductions allowed by this subtitle which are properly allocable to such gross income or net gain.

It is important to note early on that the tax code is written to be completely accurate and bulletproof in any sort of legal situation. It is meant to be enforceable and accurate, not readable. Therefore, we will break this definition down line-by-line in order to make it manageable. The first two lines are fairly simple, where "the excess" and "the sum of" are referring to the mathematical process followed to arrive at net investment income: NII = (i) + (ii) + (iii) – (B). Written out like that, we can see that all we have left to do to solve this formula is define the subheadings.

> **(i)** gross income from interest, dividends, annuities, royalties, and rents, other than such income which is derived in the ordinary course of a trade or business not described in paragraph (2),

Subheading (i) is the starting point of the net investment income formula because it is essentially listing all of the most common sources of investment income. Interest from loans or investment accounts, dividends received from stock ownership, income from annuities, royalties from intellectual property, and rents from physical property are all pretty standard transactions that occur when an individual owns stock and/or property.

The second part of subheading (i) is worded in a convoluted manner, but it is a relatively simple concept stating that income derived from the activities listed above is not included in the calculation of net investment income if it is obtained through the ordinary course of trade or business and if it is not described in paragraph (2) (a paragraph that covers the impact passive activities and financial instruments have on net investment income that will be explored shortly). The phrase "ordinary course of a trade or business" is referring to the activities that an individual performs normally in order to generate income. For instance, the U-Haul™ Corporation stands to make a substantial portion of its revenue renting trucks out to customers, as that is the primary service the company offers. Because, in this example, the activity is the primary source of income generation for the person or company, it is considered to take place during the ordinary course of trade or business, and is therefore not included in the calculation of net investment income even though it fits within the previously defined parameters of investment income, which in this case is income from rented physical property.

This exclusion occurs because the net investment income is intended to encompass investments, not normal working income. It would be unfair to individuals who make most of their money from a specific type of investing activity if said activity was included in net investing income, as it would lead to the majority of their income being subject to the additional 3.8% NII surtax. This would economically depress individuals who already existed in markets like U-Haul's™, and would further discourage new entrants, causing stagnation in the field. The ordinary course of trade or business exclusion was implemented in order to avoid such unnecessary taxation.

It does, however, come with some limitations. The exclusion applies only to those activities that fall under the ordinary course of trade or business. Returning again to the U-Haul™ example, if the company chose to lease out one of its buildings or to give out a loan to another company, it would not be able to exclude the rent or interest income it would receive from these activities, as these are not investing activities that it regularly participates in under its current normal business model.

> **(ii)** other gross income derived from a trade or business described in paragraph (2), and

Moving on to subheading (ii), we find a more or less direct reference to a section mentioned later on in the code: paragraph (2), which reads as follows:

> **(2)** Trades and businesses to which tax applies
>
> A trade or business is described in this paragraph if such trade or business is—
>
> **(A)** a passive activity (within the meaning of section 469) with respect to the taxpayer, or
>
> **(B)** a trade or business of trading in financial instruments or commodities (as defined in section 475(e)(2)).

In other words, the individual will take all of the gross income they received (if any) from the sources listed in paragraph (2) and add it into their net investment income. But before they can do this, they must know what their passive activities and financial instrument or commodities trading income is.

> **(A)** a passive activity (within the meaning of section 469) with respect to the taxpayer, or

A passive activity according to the IRC is any activity "in which the taxpayer does not materially participate." There are certain deductions associated with passive activities that taxpayers seek to take advantage of, and since the classification of a passive activity can be nebulous the IRC implemented very specific rules regarding what

constitutes material participation. The details are not incredibly relevant to this study, however, so it is only necessary to know that material participation is basically participation on a regular, continuous, and substantial basis. For example, if an individual is a partner in a company and actively acts as an owner (making decisions, interacting with employees, etc.), then any income they receive is treated normally. However, if an individual is a partner who does not actively participate, but still receives a share of profits, than their income is treated as passive and is therefore counted as investment income.

Additionally, the IRC states that any rental activity (other than rentals associated with real estate) is treated as a passive activity, which means that our earlier U-Haul™ example no longer applies; the truck rental is treated as a passive activity, and therefore income associated with it would be included in the net investment income calculation. Taking both subheadings (i) and (ii) into consideration, a better example of a type of income that would not be included in net investment income is the interest that a bank earns off of a loan issued to a member. In this situation, because the bank participates materially in the activity (i.e. the issuing of the loan) and because it is in the business of loan issuance, the interest income obtained would be exempt from net investment income calculations in order to avoid the type of double taxation mentioned previously.

After figuring out what income was passive and what was not, the individual must then search for any income derived from the trade of financial instruments or commodities.

> **(B)** a trade or business of trading in financial instruments or commodities (as defined in section 475(e)(2)).

Financial instruments and commodities are intangibles that represent equity and liability holdings, and are usually represented as stock, loans and/or bonds. As previously mentioned in subheading (i), interest and dividend income from such sources are frequently included in net investment income, but if the financial instrument is sold any profit made is included as well. For example, if an individual sells shares in a stock that they own for a profit of $100, then that $100 will be included in their net investment income on top of any dividends they received from that stock during that year.

Subheading (ii) is included primarily to encapsulate all forms of investment activity, and can be summarized as follows:

> Subheading (ii) = Passive Activity Income + Financial Instruments and Commodities Trading Income

We are now ready to move on to subheading (iii):

> **(iii)** net gain (to the extent taken into account in computing taxable income) attributable to the disposition of property other than property held in a trade or business not described in paragraph (2)

This section focuses on the disposition, or selling, of property, more specifically property that is not "held in a trade or business." This, according to the IRC, includes anything that is not inventory, a copyright or trademark, a United States government publication, or something that is held primarily for sale to customers. In other words, this subheading is focusing on property sales that are not normal business transactions. For example, if a car manufacturer sells a car, it would not be included in the calculation because it is a normal product of the company. If the manufacturer sold a machine used in its factory, however, that would be an extraneous and unusual property disposition that would be included, since the company is not in the business of selling

machinery. Therefore, the income from that disposition would be included in subheading (iii).

Additionally, it is important to note that the phrase "net gain" is utilized in this subheading. Gain is the amount of profit the individual made on disposition of property, and it is calculated by subtracting the sale amount from the book value of the asset. Book value is an accounting term that refers to the current owner's valuation of the property, and is equal to the original purchase value minus events that lowered the value of the property (like depreciation, amortization, or damage) and plus events that raised the value (like improvements or additions). Book value is always relative to the owner of the property, and it therefore almost always differs from the market value of the same property, resulting in a gain or loss upon sale. In tax, gains on the disposition of property can be offset by losses in order to decrease tax liability, and the resulting value is the net gain or loss. A net loss has no tax events associated with it, while a net gain is taxable both as short- or long-term capital gains income and potentially again as investment income, which is why it is included in subheading (iii) of net investment income calculation. If an individual found themselves with a net loss on the disposition of property, then they would have no income to report for subheading (iii). Following these explanations, subheading (iii) can be defined as the sum of all gains from all dispositions of property that are not part of the individual's normal business, less any disposition losses:

Book Value = Purchase Price + Value Additions – Value Subtractions
Gain = Sale Price – Book Value (if value is positive)
Net Gain = All Gains – All Losses (if value is positive)

The final step of calculating net investment income, subheading (B), requires the individual to subtract from all of the investment income gathered the related investment expenses that are deductible under the IRC.

> **(B)** the deductions allowed by this subtitle which are properly allocable to such gross income or net gain.

This includes interest accrued from loans borrowed to fund investments, amortization of bond premiums, and certain expenses of producing the investment income, such as attorney fees, fees to buy or sell, and even safety deposit box rental costs. Basically, as long as the expense was necessary to facilitate the production of investment income it can be included as a deduction against said income, a facet that was implemented in order to make investing activities slightly more appealing in the face of the inherent risk that accompanies them. There are limitations to this incentive, however, as most of them can only be deducted by the amount of the expense that exceeds 2% of the individual's adjusted gross income.

After wrapping up subheading (B), we finally have everything we need to cohesively define the calculation of net investment income. Recalling the earlier quoted IRC definition of net investment income, we know that the term can be summarized as NII = (i) + (ii) + (iii) – (B). This translates to net investment income being equal to income from "standard" investments (interest, annuities, dividends, and rents not derived from normal business activities), plus income from passive activities and income from the trading of financial instruments and commodities, plus the net gain on the disposition of property not held in a trade or business, minus the related investment expenses that are eligible for deduction.

Net Investment Income = (i) Standard Investment Income + (ii) Passive Activity Income + Trading Financial Instruments and Commodities Income + (iii) Property Disposition Income − (B) Investment Expense Deductions

(i) Standard Investment Income = Interest + Annuities + Dividends + Rents (not from normal business activities)

(ii) Passive Activity = Individual did not materially participate
Financial Instruments and Commodities = Equity and debt holdings

(iii) Property Disposition Income = Net Gain = Disposition Gains − Disposition Losses (not from property held in a trade or business, if value is positive)

(B) Investment Expense Deductions = Allowable deductions on necessary investment expenses.

Figure 10: Net Investment Income Formulaic Definition

Summarization of the process through which an individual arrives at their net investment income.

Knowing the net investment income of an individual is an important first step for determining their NII surtax liability, because liability is calculated by choosing the lower of two options. Their net investment income for the year is the first option that the surtax can be applied to, while the second option is their modified adjusted gross income less a threshold amount, which we will be the next stop on our list of definitions.

Modified Adjusted Gross Income

In the case of an individual, there is hereby imposed (in addition to any other tax imposed by this subtitle) for each taxable year a tax equal to 3.8 percent of the lesser of—

(A) net investment income for such taxable year, or

(B) the excess (if any) of—

(i) the modified adjusted gross income for such taxable year, over

(ii) the threshold amount.

Looking again at the IRC definition of the application of the NII surtax, we can see that the next logical step after calculating net investment income is to find the individual's modified adjusted gross income, or MAGI. MAGI is derived from AGI, however, so in order to do that we must first provide the more in-depth look at AGI that was promised earlier on.

As stated earlier, AGI is an individual's gross income earned throughout the year less specific deductions. These deductions are detailed and numerous[7], but the important aspect of them is not what they are exactly, but why they are not included. Every deduction made against gross income is used because the government wants the cost of the related activity to be offset in some way, therefore encouraging the activity. For example, retirement savings are included as a deduction for AGI because if an individual has a comfortable retirement plan, then they will be less reliant upon Social Security benefits. Another example is higher education expenses and the interest on education loans, both of which are deductible because it encourages individuals to continue learning, which raises the intellectual level of the country.

Every single deduction available associated with AGI reflects an activity that the government believes strengthens the individual or country as a whole, and they provide an incentive for performing these activities via a break on taxable income. Therefore, AGI can be summarily defined as the income the government believes to be the baseline for taxation; the income sources that will begin to be considered taxable, versus those

[7] The AGI deductions are listed in the appendix under section A.2

that are not. This is one of the ways that the IRC, intentionally or not, influences the economic actions of individuals.

With AGI better defined, we can move on to MAGI and what modified adjusted gross income really means in the context of the NII surtax.

> **(d) MODIFIED ADJUSTED GROSS INCOME** For purposes of this chapter, the term "modified adjusted gross income" means adjusted gross income increased by the excess of—
>
> **(1)**
>
> the amount excluded from gross income under section 911(a)(1), over
>
> **(2)**
>
> the amount of any deductions (taken into account in computing adjusted gross income) or exclusions disallowed under section 911(d)(6) with respect to the amounts described in paragraph (1).

The actual formula to determine MAGI is pretty straightforward: adding the amounts in subheading (1) and (2) to the individual's AGI. As a result, MAGI is always greater than or equal to AGI, because the process adds in some situational income that is normally excluded from AGI.

Subheading (1) is referring to the foreign earned income of an individual, or the income earned in some country other than the U.S. Normally, this income is excluded from tax calculations because the government does not consider foreign income to be within their jurisdiction. The amount is added back into AGI, but not before it is reduced by the deductions referenced in subheading (2), which are deductions that are normally not allowed since they are associated with income that is not taxable; you cannot take a zero income value and make it negative. Some of the deductions that apply to foreign income are similar to the AGI deductions, such as the expenses paid for

a trade or business, while others are unique, like the credit acquired from paying taxes to another country.

The reason that the foreign incomes and deductions are added back is because the government wished MAGI to be a better comprehensive representation of an individual's income. Yes, the foreign incomes are not normally taxable, but in calculating the NII surtax we shall soon see that it is necessary to get a good gauge on the individual's economic status, and to do so all income sources are needed. This is because the NII surtax is targeted at individuals who either participate in a sizeable amount of investing activity or are fairly wealthy, and not the individuals who do neither.

In order to accurately differentiate between the target and non-target demographics, a threshold amount was implemented for application to an individual's MAGI.

> (b) Threshold amount
>
> For purposes of this chapter, the term "threshold amount" means—
>
> (1) in the case of a taxpayer making a joint return under section 6013 or a surviving spouse (as defined in section 2 (a)), $250,000,
>
> (2) in the case of a married taxpayer (as defined in section 7703) filing a separate return, 1/2 of the dollar amount determined under paragraph (1), and
>
> (3) in any other case, $200,000.

This threshold amount, determined using the system above, is then subtracted from the MAGI to provide the second option for determining the NII surtax. The dollar amount of the threshold varies depending on the individual's filing status, and there are three main groups that the varied filing status' are combined into: the first is married filing jointly and surviving spouse, the second is married filing separately, and the third is

single, head of household, and trusts and estates (which, as discussed earlier, can have their own income, and must therefore file a tax return). The three groups and their associated MAGI thresholds are laid out in a more comprehensive manner in the following table:

Group	Filing Status	MAGI Threshold
1	Married Filing Jointly	$250,000
1	Surviving Spouse	$250,000
2	Married Filing Separately	$125,000
3	Single	$200,000
3	Head of Household	$200,000
3	Trusts and Estates	$200,000

Table 6: MAGI Threshold Reference Table (Appendix)

Gives the MAGI threshold amount related to each filing status.

The MAGI threshold exists in order to prevent the NII surtax from affecting individuals' whose income does not fit within the target demographic. If their total income under MAGI does not exceed the threshold designated to their filing status, then they are effectively exempt from the surtax. While this exemption certainly helps the control and fairness of the surtax, it is perhaps too targeting, an issue that we will explore in the next section of this study.

Calculating the NII Surtax

Through careful and detailed definition, we have finally amassed enough information to explain the method for calculating the NII surtax.

> In the case of an individual, there is hereby imposed (in addition to any other tax imposed by this subtitle) for each taxable year a tax equal to 3.8 percent of the lesser of—
>
> **(A)** net investment income for such taxable year, or
>
> **(B)** the excess (if any) of—
>
> **(i)** the modified adjusted gross income for such taxable year, over
>
> **(ii)** the threshold amount.

Once again recalling the IRC layout of the surtax, we can see that the first step is also the first option of income that the 3.8% surtax can be applied to. This is the individual's net investment income, and can be recapped as such:

> **Net Investment Income** = Standard Investment Income + Passive Activity Income + Trading Financial Instruments and Commodities Income + Property Disposition Income – Investment Expense Deductions

Next, the individual's MAGI is calculated by taking their AGI (which is gross income less specific deductible activities) and adding in foreign income and deductions. Then, the threshold amount respective to the individual's filing status is subtracted from their MAGI. This gives them their second option of income.

Which option the individual chooses depends on which option provides a smaller value, as lower income leads to a lower tax liability. The 3.8% mentioned in the IRC will then be applied to whichever option is chosen. Therefore, the NII surtax an individual can expect to be held liable for can be summarized by the following explanation:

If Net Investment Income < MAGI – Threshold Amount:

NII Surtax Liability = Net Investment Income x 3.8%

If Net Investment Income > MAGI – Threshold Amount:

NII Surtax Liability = (MAGI – Threshold Amount) x 3.8%

Figure 11: Calculating NII Surtax Liability (Appendix)

Summarizes process for computing NII surtax once net investment income, MAGI, and the threshold amount are known.

As the reader may have already noticed, the process of having a constant threshold amount means that it is possible for an individual to have a zero or even negative surtax liability if the threshold exceeds their MAGI. Both instances would result in no tax liability, even if the individual did have investment income. This is, once again, because the NII surtax is designed to target wealthier individuals who also participate in investing activities, which is why individuals whose income does not surpass the threshold are excused from the tax.

Applying the NII Surtax to Trusts and Estates

(2) Application to estates and trusts

In the case of an estate or trust, there is hereby imposed (in addition to any other tax imposed by this subtitle) for each taxable year a tax of 3.8 percent of the lesser of—

(A) the undistributed net investment income for such taxable year, or

(B) the excess (if any) of—

(i) the adjusted gross income (as defined in section 67 (e)) for such taxable year, over

(ii) the dollar amount at which the highest tax bracket in section 1 (e) begins for such taxable year.

Recalling our definition of a taxable individual, we can see that trusts and estates can also be liable under the NII surtax. They, however, are given a slightly different means

of calculation, which begins with finding gross income. Referring back to the previously mentioned definitions of the two, we can see that finding income from a trust is relatively easy, as it is just the amount that the beneficiary made from the trust that year. Estate income is also fairly straight-forward, as it is the value of the property that is transferred. However, there are several other instances of income for both trusts and estates other than the prime examples:

> **(a)**APPLICATION OF TAX The tax imposed by section 1(e) shall apply to the taxable income of estates or of any kind of property held in trust, including—
>
> **(1)** income accumulated in trust for the benefit of unborn or unascertained persons or persons with contingent interests, and income accumulated or held for future distribution under the terms of the will or trust;
>
> **(2)** income which is to be distributed currently by the fiduciary to the beneficiaries, and income collected by a guardian of an infant which is to be held or distributed as the court may direct;
>
> **(3)** income received by estates of deceased persons during the period of administration or settlement of the estate; and
>
> **(4)** income which, in the discretion of the fiduciary, may be either distributed to the beneficiaries or accumulated.

All of these incomes are also included in the calculation of gross income derived from trusts and estates. In summary, these four points detail how trust and estate income can still be taxable even if the beneficiary has not actually received it yet, or even if they are yet to be born. This is because many forms of income are taxed when they are accumulated, not when they are received, and trust and estate incomes are no exception.

It is important to note, though, that all of the sources above only provide gross trust and estate income, and in order to find the amount that is taxable as investment income the individual must first follow the steps laid out in the section, which provides two options that the individual is free to choose.

(A) the undistributed net investment income for such taxable year.

Option one is to take the gross income from trusts and estates and subtract out any related expenses and costs in order to arrive at the net income. These expenses can include fees for legal counsel, maintenance costs for estates, and even a salary or stipend for the custodian. There are several other examples of deductions, but in summary they must be relevant to the trust or estate and vital to its upkeep. Once all of the deductions are known, the calculation of the trust and estate net income is fairly simple:

T&E Net Income = T&E Gross Income – Relevant Deductions

The second option is a bit more complex. Here, the individual must first transform their trust and estate gross income into adjusted gross income (AGI).

(B) the excess (if any) of—

(i) the adjusted gross income (as defined in section 67 (e)) for such taxable year, over

(ii) the dollar amount at which the highest tax bracket in section 1 (e) begins for such taxable year.

Adjusted gross income, as we now know, is gross income less specific deductions such as business expenses, retirement savings, and alimony payments, to name a few. The important distinction between net income and AGI is that net income exists to show the true bottom line after all relevant expenses, whereas the purpose of AGI is to allow the individual to reduce their tax liability based on what the government believes they should be taxed on.

Next, the individual subtracts from their AGI a threshold amount that is provided in the IRC, and exists to avoid additional taxation on trusts and estates that do not provide much income.

If taxable income is:	The tax is:
Not over $1,500	15% of taxable income.
Over $1,500 but not over $3,500	$225, plus 28% of the excess over $1,500.
Over $3,500 but not over $5,500	$785, plus 31% of the excess over $3,500.
Over $5,500 but not over $7,500	$1,405, plus 36% of the excess over $5,500.
Over $7,500	$2,125, plus 39.6% of the excess over $7,500.

Figure 12: Trust and Estate Threshold

The rubric for calculating the threshold amount to subtract for adjusted gross income.

In the specific case of calculating net investing income, the threshold amount is defined as "the dollar amount at which the highest tax bracket…begins for such taxable year," which, in this case, can be seen to be $7,500 (found at the bottom of the left column). In other words, the second option for calculating net trust and estate income can be written out in this formula:

T&E Net Income = T&E Adjusted Gross Income - $7,500

With the two options defined, we can now finally move on to completing the definition of this section. As stated earlier, the individual has the option to choose whichever option they please, but is assumed that they will always choose the option that gives them the lowest net investment income, as that in turn will give them the lowest tax liability. That being said, which option should be chosen can be boiled down to an if/then scenario that is similar to the NII surtax calculation described earlier: if the trust and estate AGI is less than $7,500, then the individual will choose option two, since the tax liability would be zero. If the trust and estate adjusted gross income is greater than $7,500, but the adjusted gross income less $7,500 is still smaller than the trust and estate net income, then option two will again be chosen. However, if the AGI less

$7,500 is still greater than the net income, then option one will provide a lower tax liability. This scenario is illustrated here using a formulaic outlay:

If T&E AGI < $7,500 = Option Two
If T&E AGI > $7,500 and T&E AGI - $7,500 < T&E NI = Option Two
If T&E AGI > $7,500 and T&E AGI - $7,500 > T&E NI = Option One

Where:
Option One = T&E Gross Income – Relevant Deductions
Option Two = T&E Adjusted Gross Income - $7,500

Figure 13: Calculating Trust and Estate Net Investment Income

The logic pattern followed to determine the amount used as net investment income form trusts and estates.

This section detailing NII surtax application to trusts and estates can be summarized as whatever outcome the individual arrives at when following the logic pattern laid out above, and the final amount for trust and estate net income that is computed is then subject to the 3.8% tax. This separate definition is relevant because, as will be covered later, the fact that trusts and estates are also liable to the NII surtax creates more situations where the surtax could be harming small business investment activity.

A.2: AGI Deductions

(Complete information can be found in Internal Revenue Code 62)

-Trade and Business Deductions

-Certain Trade and Business Deductions of Employees, including:

-Reimbursed Expenses of Employees

-Certain Expenses of Performing Artists

-Certain Expenses of Officials

-Certain Expenses of Elementary and Secondary School Teachers

-Certain Expenses of Members of Reserve Components of the Armed Forces of the United States

-Losses from Sale or Exchange of Property

-Deductions Attributable to Rents and Royalties

-Certain Deductions of Life Tenants and Income Beneficiaries of Property

-Pension, Profit-Sharing, and Annuity Plans of Self-Employed Individuals

-Retirement Savings

-Penalties Forfeited Because of Premature Withdrawal of Funds from Time Savings Accounts or Deposits

-Alimony

-Reforestation Expenses

-Certain Required Repayments of Supplemental Unemployment Compensation Benefits

-Jury Duty Pay Remitted to Employer

-Moving Expenses

-Archer MSAs

-Interest on Education Loans

-Higher Education Expenses

-Health Savings Accounts

-Costs Involving Discrimination Suits

-Attorneys' Fees Relating to Awards to Whistleblowers

A.3: IPO Annual Data

Year	Total Gross IPOs	Total Net IPOs
2015	170	105
2014	292	206
2013	252	157
2012	179	94
2011	180	81
2010	197	96
2009	75	41
2008	54	21
2007	249	159
2006	255	157
2005	280	161
2004	303	174
2003	132	63
2002	160	66
2001	132	80
2000	424	381
1999	544	476
1998	392	283
1997	612	473
1996	845	675
1995	566	457
1994	568	403
1993	627	509
1992	509	411
1991	367	287
1990	172	110
1989	204	110
1988	227	102
1987	630	284
1986	953	392
1985	507	186

Table 7: IPO Annual Data

Gathered and published by Professor Jay R. Ritter of the Warrington College of Business. Full database contains the years 1960 through 2015.

A.4: Regression Model Summary Output

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.801250573
R Square	0.642002481
Adjusted R Square	0.539717476
Standard Error	0.257160727
Observations	28

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	6	2.490492715	0.415082119	6.276604068	0.000674993
Residual	21	1.388764435	0.06613164		
Total	27	3.879257149			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	1.581699934	0.613053853	2.580034242	0.017462135	0.306784653	2.856615216	0.306784653	2.856615216
Percent Per Year Return on 5-year Government Bonds:	0.104664769	0.100101482	1.045586612	0.307638688	-0.103507658	0.312837197	-0.103507658	0.312837197
Annual AAA Corporate Bond Yield:	-0.053445396	0.133824637	-0.399368888	0.693653974	-0.331748964	0.224858171	-0.331748964	0.224858171
GDP Growth:	-0.000132735	0.000327382	-0.405444843	0.689251572	-0.000813564	0.000548093	-0.000813564	0.000548093
Current Return on Wilshire 5000:	0.005619026	0.002979887	1.885650425	0.07325242	-0.000577989	0.011816041	-0.000577989	0.011816041
Previous Return on Wilshire 5000:	0.008765665	0.003414374	2.567282725	0.017954916	0.001665084	0.015866245	0.001665084	0.015866245
Shiller P/E Ratio:	0.015754465	0.007633769	2.063785923	0.051613676	-0.000120827	0.031629757	-0.000120827	0.031629757

Table 8: Regression Model Summary Output

A.5: Variable Data and Estimation Results for 1985-2012

Year:	Percent Per Year Return on 5-year Government Bonds:	Annual AAA Corporate Bond Yield:	GDP Growth:	Current Return on Wilshire 5000:	Previous Return on Wilshire 5000:	Shiller P/E Ratio:	Net IPOs:
1985	10.12	11.73	306.00	32.56	3.04	11.72	186
1986	7.30	9.02	243.50	16.09	32.56	14.92	392
1987	7.94	9.38	280.00	2.27	16.09	13.90	284
1988	8.48	9.71	382.40	17.94	2.27	15.09	102
1989	8.50	9.26	405.10	29.17	17.94	17.05	110
1990	8.37	9.32	321.90	-6.18	29.17	15.61	110
1991	7.37	8.77	194.40	34.20	-6.18	19.77	287
1992	6.19	8.14	365.30	8.97	34.2	20.32	411
1993	5.14	7.22	339.40	11.28	8.97	21.41	509
1994	6.69	7.96	430.10	-0.06	11.28	20.22	403
1995	6.38	7.59	355.30	36.45	-0.06	24.76	457
1996	6.18	7.37	436.10	21.21	36.45	28.33	675
1997	6.22	7.26	508.30	31.29	21.21	32.86	473
1998	5.15	6.53	480.70	23.43	31.29	40.57	283
1999	5.55	7.04	571.40	23.56	23.43	43.77	476
2000	6.16	7.62	624.20	-10.89	23.56	36.98	381
2001	4.56	7.08	337.00	-10.97	-10.89	30.28	80
2002	3.82	6.49	355.70	-20.86	-10.97	22.90	66
2003	2.97	5.67	533.20	31.64	-20.86	27.66	63
2004	3.43	5.63	764.20	12.62	31.64	26.59	174
2005	4.05	5.24	818.80	6.32	12.62	26.47	161
2006	4.75	5.59	762.20	15.88	6.32	27.21	157
2007	4.43	5.56	621.70	5.73	15.88	24.02	159
2008	2.80	5.63	241.00	-37.34	5.73	15.17	21
2009	2.20	5.31	-299.90	29.42	-37.34	20.53	41
2010	1.93	4.94	545.70	17.87	29.42	22.98	96
2011	1.52	4.64	553.50	0.59	17.87	21.21	81
2012	0.76	3.67	637.40	16.12	0.59	21.90	94

Net IPOs:	Estimated IPO:	Lower Limit:	Upper Limit:	Within Limit:
186	233	129	422	YES
392	277	153	501	YES
284	177	98	320	YES
102	181	100	327	YES
110	325	180	588	NO
110	242	134	438	NO
287	203	113	368	YES
411	261	144	471	YES
509	147	81	266	NO
403	165	91	297	NO
457	246	136	445	NO
675	459	254	830	YES
473	454	251	821	YES
283	567	313	1024	NO
476	547	302	989	YES
381	291	161	526	YES
80	90	50	163	YES
66	54	30	98	YES
63	89	49	161	YES
174	202	112	365	YES
161	151	84	273	YES
157	179	99	323	YES
159	164	91	297	YES
21	42	23	76	NO
41	54	30	97	YES
96	147	81	266	YES
81	82	45	148	YES
94	66	37	120	YES

Table 9: Variable Data and Estimation Results for 1985-2012

GDP growth measured in billions of U.S. dollars.

A.6: Variable Data and Estimation Results for 2013-2015

Year:	Percent Per Year Return on 5-year Government Bonds:	Annual AAA Corporate Bond Yield:	GDP Growth:	Current Return on Wilshire 5000:	Previous Return on Wilshire 5000:	Shiller P/E Ratio:	Net IPOs:
2013	1.17	4.24	507.90	34.02	16.12	24.86	157
2014	1.64	4.16	684.90	12.07	34.02	26.49	206
2015	1.53	3.89	598.90	-0.24	12.07	24.21	105

Net IPOs:	Estimated IPO:	Lower Limit:	Upper Limit:	Within Limit:
157	136	75	246	YES
206	167	93	303	YES
105	87	48	158	YES

Table 10: Variable Data and Estimation Results for 2013-2015

GDP growth measured in billions of U.S. dollars.

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