Honors Thesis Proposal

For

The Cost of Feeling Good

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Introduction

Most people who enjoy positive cash flows probably pursue two goals with their excess wealth. First, they probably desire a secure future, which necessitates purchasing investments. Secondly, they probably desire to "give back" to society by donating to charities. The goal of investing is to maximize the investor's wealth while the goal of donations is generally to support social concerns. Historically, the two goals have been mutually exclusive, but recent innovations in the financial markets have at least begun to merge them together. These innovations are generally referred to as "Socially Responsible Investing/Investments (SRI)".

Steve Schueth (2003) defines SRI as "the process of integrating personal values and societal concerns into investment decision-making." People invest in SRIs for two distinct purposes: to enhance their values and objectives and to see an increase in the potential for the world. Yet, neither purpose is directly related to the purpose of investing – wealth maximization. Rather, these two purposes are more consistent with charitable donations than with investing. So his arguments imply the purpose of SRI's is to merge the goal of charitable donations with the purchase of investments. Moreover, his arguments imply a dual definition of wealth: economic wealth and social wealth. So for purposes of this study, "economic wealth" or "financial wealth" will be used to refer to a person's level of financial assets they own, and "social wealth" will be used to refer to a person's level of satisfaction that comes from furthering their social concerns. Further, a "charitable taxpayer" will refer to a person who is subject to income tax and desires to increase their social wealth.[1] All of this begs the question, are investors better off keeping these two goals separate, or combining them through SRI? Thus forms the motivation for this study. But what exactly are SRI's?

SRIs are measured by three factors: "result on investor activism, effects on society, and financial performance" (Camey, 1994). For example, SRI's do not include investments made according to political

[1] As opposed to a charitable person who is not subject to taxation or a person who is subject to taxation, but does not desire to support charitable causes. That is, to increase their social wealth.

agendas, or investments made that pair social factors and financial returns. In terms of pension funds, social factors should be considered as secondary factors after returns have been made for the shareholder (Salisbury, 1983). According to Schueth the first party wants to "feel good" about their investments, while the second are the social change catalysts that enable the advancement of society. The personal goals of the investor determine which types of investments they are most likely to choose. The personal values investor may invest in a fund that excludes alcohol, while the "social change" investor chooses to support a fund that would have screened out investments in Africa during the apartheid (Schueth, 2003). There is minimal research at this time to explain whether SRIs generate more returns if an investor is self-value focused or social change focused; although, the first requires more reporting on the manager's part which may lead to additional expenses on the part of the investor (Schueth, 2003).

Socially responsible investment funds fall into three categories based on the level of interaction the investor is looking to seek. These include:

1. Screening
2. Shareholder activism, and
3. Impact investing,

listed in increasing order of investor engagement and social returns. Screening can either be inclusionary(positive) or exclusionary(negative) (Hernandez & Hugger, 2016). Positive screening consists of looking for companies that are women and minority owned, practice fair trade, practice Corporate Social responsibility or do a multitude of other positive things for society. Negative screening does just the opposite. This type of investment allows investors to refrain from things such as companies that violate basic human rights, tobacco and gambling companies (Hernandez & Hugger, 2016). Research has not been fulfilled on whether or not positive or negative investment screenings generate higher financial returns and/or have greater risk; however, it is important to note that positive screenings involve continuous updates and company checks and generate higher social returns.

The second level of investor involvement is shareholder activism which consists of shareholders being actively engaged in the decision making process. This type of SRI consists of voting proxy and shareholder resolutions. For example, from 2012-2104, 175 institutions filed shareholder's resolutions along with 27 managers, and many successes emerged (USSIF, 2014). One of the most well-known was the 2015 resolution that requires BP to report its climate change data- thereby becoming more transparent (Hernandez & Hugger, 2016). Pension plans and unions operate in this space.

The third level is impact investing, referred to by some institutions as community investing. This is where SRIs mainstream is incredibly apparent. Fixed Income SRIs- social impact and green bonds- are those that offer low risk debt. According to ImpactBase 2016, there are 397 impact funds, 85 of which look to financial improving access to finance and 22 with environmental and housing implications (Impact Base, 2014). These two types of investments enable small business growth and affordable housing. This category totaled $45 billion in assets in 2014, according to Eyes on the Horizon: The Impact Investor Survey (Saltek, et al., 2015). Within impact investing, social impact bonds provide a new opportunity for businesses to be funded outside of the government, green bonds promote energy and environmentally efficient practices, equity investments provide increased returns for generating impact, and real estate investments provide for job growth and housing projects. Impact investments generate the greatest social returns, and involve the most active investors (Hernandez & Hugger, 2016). Also included in this category is faith based community development funds (Social Investment Forum Foundation, 2015).

The purpose of this study is to determine if merging the goals of investing and charitable donations into socially responsible investments – or more specifically, impact investing - generate both higher financial returns and social returns for an individual investor than pursuing both goals separately. To begin the analysis, a history of SRIs is presented for perspective. Of particular interest is their methods used to test their returns and risk compared to both international markets and non-SRI funds, and recent changes in SRI demand. For the purpose of this study, I'll use the term SRI to explain "Social, responsible, impact" investing - "Putting investment capital to work toward creating a truly sustainable future; owning shares of the most responsible companies; while making money and having a positive impact—all at the same time (USSIF, 2014).

Next I will analyze the tax incentives in the tax code for the tax benefits available to taxpayers as a result of charitable contributions. This is necessary because investments in SRI's (not counting SRI's in the taxpayer's retirement plan) do not provide an immediate benefit, but contributions to qualified charities do. It will also be a key variable in my investment model.

After identifying the relevant tax benefits to charitable donations, I will develop an investment model useful to taxpaying investors to help guide their SRI investment decision. As a simple example: a charitable taxpayer has excess wealth in a give month of $1,000 and has two choices. First and more traditionally, they could invest let's say $900 into an investment and contribute the remaining $100 to charity. Their second choice is to invest the entire $1,000 in an SRI that is consistent with their charitable intentions. Which decision maximizes their joint goal of wealth maximization and supporting social concerns? The answer to this forms the motivation for this study.

After building the model, descriptive statistics for historical SRI returns will be compiled and analyzed against various benchmarks including outputs from my model. Finally, my model will be used in a scenario analysis to determine under what circumstances, if any, investing in SRI's would outperform traditional joint cash outflows of investing and charitable donations. The rest of the study proceeds as follows. Section II presents a brief history of SRI's and Section III will summarize the academic literature on SRI's and returns. Section IV briefly reviews the charitable contribution part of the tax code and Section V will present a decision-making model for investors. Section VI will present a discussion and summary.

II. A Brief History of SRI's

Pre-1960's Religious Roots

Socially responsible investing is a term that originated among the Jewish faith. In the 12th century, Jewish scholar Rabbi Moses ben Maimonides states, “the highest form of tzedakah [charity] is entering into a business partnership or giving a person a job so that he or she can become self-sufficient (American Jewish World Service).” There is also evidence from the Old Testament that highlights the concept of money usage centuries ago. Proverbs 3:9 state “honor God from your wealth,” which means to use your money to provide for the improved well-being of people and enable them to succeed and study the word (Zion, 2013). This view of money can be seen in both the concepts of impact investing and community investing- providing capital for the development of low income housing and business development in low-income communities (Schueth, 2003). Arguably, this places socially responsible investing in higher religious regard than donating money to people on the streets or charities that do not provide their clients with a way to become self-sufficient. The Qua’ran and Islamic teachings guide Halal Investments and focus on the concepts of social justice and “riba”-interest (USSIF, 2014). Islamic Halal investments screen out these companies by the 5% rule- meaning more than 5% of the business profit is from forbidden investments, as well as many funds donate a portion of their mutual fund returns to charity as part of the Zakah practice.

Scholars note that the movement of these values investments into the “new world” began with the immigration of Methodist and Quaker peoples (Schueth, 2003). The Methodist movement followed John Wesley’s message in his “The Use of Money” sermon in their investment practices (USSIF, 2014). Wesley noted "The love of money," we know, "is the root of all evil;" but not the thing itself. The fault does not lie in the money, but in them that use it” (Berry, 2013; Wesley). A practice that was later practiced by the Quakers’ in 1758, Fiduciary Friends of 1898 and later a group in Boston. The Quakers remove all investments that support slavery and war, and those that promote “peace, simplicity, integrity, and justice” (Berry, 2013). The first public offering SRI was the Pioneer Fund in Boston, Massachusetts in 1928 (Knoll, 2002). This fund was built to avoid sin industries (Knoll, 2002).

B. 1960’s -1980’s SRI’s Expand beyond Religion

Until the 1960s, socially responsible investments were simply those that didn't include tobacco, slavery, drugs, liquor, gambling, firearms, alcohol, human rights violations, environmental concerns, nuclear energy and other deemed "sin" investments (Schueth,2003). This term is also interchanged for the words "vice stocks" and represents investments that fall into the seven deadly sin categories including greed, lust, sloth, wrath, lust, envy, and vanity. From the 1960s forward, SRI investments focused on social movements and political interests that were dominating the social sphere. The most noted events during the 1960s were women's equality, civil rights, the Cold War and the Vietnam War (Schueth, 2003).

The divestment movement led by students of the 1960s brought major concerns about wars and the apartheid into government focus, and showcased the power of socially responsible investments in changing political agendas (Altbach & Cohen, 1990). One example scholars look to is a picture of a nine-year old girl running after being burned by napalm, a chemical generated by Dow Chemicals, in the Vietnam War E.N. Brant stated that the number of Dow Chemical shareholders fell from 95,000 to 90,000 and in 1969 Dow Chemicals ceased its production of napalm (Berry, 2013). This is a guiding example that the power of the student generation and negative protest can cause a company to lose money, potential new employees, and sales from boycotts. What began with civil and human rights concerns in the 1960s turned into concerns over climate changes and the apartheid in Africa (The Ethical Partnership). In the 1970s, working conditions and nuclear power came to the forefront of investment decisions. At the same time, the Pax World Fund and the Third Century Fund were created.

The 1980s brought investors' attention to South Africa. The apartheid- white minority rule in Africa was creating a social ruckus. The United Nations stepped in to place embargos on specific goods. As the government began to restrict trade in certain regions and African governments were corrupted, the Sullivan Principles were created. In 1976, Reverend Sullivan intended for these investments to shine a positive light on companies that increased opportunities for workers and improved social conditions (Knoll, 2002). Instead it caused a $625 billion dollars of screened investments to exclude South Africa from their funds (USSIR, 1999). It wasn't until Nelson Mandela reaffirmed the United Nations of the new state of South Africa, that the scare of an end to social responsible investing occurred. According to The Social Investment Forum, after South Africa, only $162 billion in assets continued to be screened (1995). As explained further, this did not bring an end to SRIs, but in turn brought more social issues into the light for companies and investors. The power of investment dollars in cases like the Apartheid and Dow Chemical crises is insurmountable because the retraction from African markets brought about the end of apartheid and accelerated business regulation reform. Socially responsible investing is the opposing factor to this avoidance of sin investments and social issues.

C. Post-1980's

After the 1980s, issues such as global warming, the Exxon Valdez environmental scare, human rights, health, and school safety came to the forefront of socially responsible investment practices (Schueth, 2003) (Hernandez & Hugger, 2016). Through either Screening, ESG Integration, Shareholder Engagement, or Community Impact Investing, or a mixture of any two or more, companies, institutions, and individuals invest their money in companies that are generating positive profits and social returns. Investors contribute capital to impact organizations that support social companies and they in turn create financial returns.

Environmental, social, governance, or ESG investments is a common term that is interchanged with SRI, but it simply means that the institutional investors focus on the environmental factors associated with the company's outputs, as well as the corporate social responsibility model of the company and its management structure (Discovery Investment). In 1986, Trillium Asset Management paired with US SIF and other leaders in the SRI space to form the first exclusive ESG investment fund (Berry, 2013).

Twenty years ago, most of the fund managers running SRI- both mutual funds and other securities "had no interest" in managing these investments, and simply entered into the space due to client requests – indicating this is a "consumer-driven" industry (Schueth, 2003). Schueth notes that women entering the workforce, education and increased access to information, along with a greater understand of how SRIs can compete with other "top-performing" assets have enabled the growth of this industry to be almost double that of the market during the period from 1995 to 1999. During the 1990s, investors also began to see a "mainstreaming" effect in the market of SRIs. Since 1995, there has been a 929% increase in socially responsible investments (USSIF, 2014).

As of 2014, 6.6 trillion dollars were invested in SRI investments (Hernandez & Hugger, 2016), a 76% increase over a two-year span. In 1999, these investments only totaled $2.16 trillion dollars (USSIF, 1999). As of 2014, there were 181 US mutual funds, 39 exchange traded funds, and various other forms of investment vehicles that practice SRI (Huang, 2016). A graph published by the US SIF Foundation models the fast paced increase in the quantity of socially responsible investments over a ten-year period (US SIF, 2014). From 1995- 2014 SRI investments grew from under $1,000 billion dollars to $6,500 billion dollars. The growth in SRI's clearly indicates increased interest in socially responsible investing even though institutions, pension funds, foundations, and college endowments are the biggest contributors to SRI funds according to Kiplinger Personal Finance (Huang, 2016).

D. Religious Implications

As of October 2012, there were over $30 billion in mutual funds relating to religion (Kathman, 2012). The Interfaith Center on Corporate Responsibility is the leader in organizing faith based funds for the purpose of advocating for communities and organizing investment in low-interest loans that can "increase liquidity and contribute to development (Social Investment Forum Foundation, 2008). An example of this includes the 1978 Adrian Dominican Community Investment Fund, which manages 3.14 million in assets and 317 investments that promote "social, environmental, and economic justice." This is just one of many faith based investment funds that contribute to the increase in opportunities for business owners, housing, and communities. Some other instruments used by community development fund initiatives (CFDI) include, low income housing, community development banks, credit unions, and community venture capitalists. The Jewish community is the only religion that fails to have a socially responsible investment fund because of many reasons. These include the fact that there is no central Jewish hierarchy that sets the Jewish values, and many SRIs promote divestment from Israel, and philanthropy and finance are not to be mixed in the Jewish faith (Hammerman, 2013).

In 2014, the Reform Investment Board approved the Jewish Values Investing Principles which lay on ESG protocol and support Israel and the Jewish beliefs; however, it is clear that this fund is not an SRI (RPB, 2014). The Protestant community holds the largest amount of these religious investments and takes many approaches to creating the faith based funds. These include funds that follow the Protestant values (not SRI), and those that promote shareholder advocacy and values based screening restrictions (Kathman, 2012). Many religious funds follow their own created "socially responsible beliefs" and give negative screening to issues such as abortion and Planned Parenthood such as the more than $1 billion worth of Ave Maria Christian funds (Kathman, 2012). This leads to a potential concern that a socially responsible investment may not be deemed socially responsible by all investors and could bring about difficulty in measuring the dollar value and growth of the SRI sector. Further research can be done to indicate which religion's SRI investment funds generate the most returns, or a comparative study to indicate if the returns generated from religious funds are greater than non-religious based SRIs.

E. European Perspective

The term, "European Perspective," as well as the progress of European Socially Responsible Investment markets, has not been defined as well as that of US SRI funds. Although the first SRI fund in Europe was formed in 1965 in Sweden Aktie Ansvar Myrberg, the continent didn't see growth in this asset class until the 2000s. Because of the Earth Summit (1992), United Nations-backed Principles for Responsible Investments (2006), and EUROSif (2002), SRI investments in Europe had growth rates of 22.6% and 132% for sustainability themed and impact investments since 2011. 41% of these professionally managed assets in Europe are based upon Exclusions, with ESG investments carrying 11% of the total. 2013 data from Spain exemplifies the overall European markets with 92.4 billion euros invested in exclusions; however it has one of the lowest amounts of SRI investments.

According to the GIIN, governments are also providing support for SRI investments. The British government grants investors a 30% tax relief on social investments; while the EU established European Socially Responsible Funds which invest 70% or more in social business. The G8 leaders also created the Social Impact Investing Forum to focus on impact measurement and development.

F. Overall Growth and Prospects

Overall, the market for socially responsible investing has been growing for numerous different reasons in both Europe and the United States. As seen with the transform of simply the definition of SRI over history, the composition of assets under management and returns have changed tenfold. Socially responsible investing has seen a 22% increase from 2009 to 2011 and in 2011, 11.23% of assets under professional management were social and responsible in nature (USSIF, 2012).

The term SRI traditionally refers to mutual funds; however, recently socially responsible ETFs have started to be created. "As of early 2014, nearly one out of every six dollars under professional management in the United States was involved in some form of sustainable and responsible investing—nearly 18% of the $36.8 trillion in total assets under professional management in the U.S. tracked by Cerruli Associates (PNC Capital Advisors, 2015). According to JP Morgan, pension funds and families make up the majority of these investors at 22% and 17%, respectively (JP Morgan& GIIN). These assets, in general, are primarily split between private equity and debt (68%) and appealing to mature and growth stage companies (JP Morgan & GIIN).

SRI Conference author Steven J. Schueth, President of First Affirmative Financial Network, LLC, accredited this increase to information, climate change, performance, availability, values and authenticity, corporate scandals, women, and finally millennials. With millennials – "America's youth born between 1982 and 2000 that now number 83.1 million" -(U.S. Census 2015) receiving an estimated 41 trillion dollars over the next several decades and a top interest in social impact, there is potential for millennials to transform the social impact asset class (Sorenson, 2016).

Although, SRI investments have grown exponentially in the recent decade and are estimated to receive exorbitant new interest in the coming decade, research suggests differing results as to whether or not the returns and risk for these investments is comparable to that of conventional investments. This forms an implication for this study. While primarily focused on whether SRI's should take the place of a combination of traditional investing with charitable contributions, the methodology of this study will show that traditional benchmarks for evaluating investment performance may not be appropriate for SRI.

III. SRI's and Investor Returns – Prior Literature

In a report titled "From the Stockholder to the Stakeholder," researchers gathered data from more than 200 sources and determined that 80% of the studies show that there is a positive correlation between sustainability models and investment returns. The study indicates a flow from focusing on sustainability practices leading to better "operational performance" leading to better cash flows. The latter proved to be correct in 88% of the studies. Better operational performance is also correlated with reduced risk in the study. It is also apparent from this research that "90% of the studies show that sound sustainability standards lower the cost of capital for investors (Clark, Feiner & Viehs, 2015). This is because the focus on sustainability and ESG criterion within a company affects the risk, performance, and reputation of the organization.

According to a meta-anaysis performed by Clark, Feiner, and Veihs, there is cause to support that strong governance generates more positive returns; however, studies have yet to prove if governance or an external factor affects the program. A study by Flammer in 2013 indicated that stocks with "eco-friendly events" experience a stock price increase of on average 0.84% while firms with "eco-harmful events" exhibit a stock price drop of 0.65%. Galema, Plantinga, and Scholtens (2008) also pointed towards the impact that book to market values has on the potential of investments; however, stating that the low ratio value inhibits the company from creating maximum wealth.

These specific research findings look to screening and shareholder activism when determining their hypothesis and results. Impact investments are not highly considered in the study. When analyzing the ESG criteria of the firm (see Table 1), the "portfolio comprised of the best '100 Best Companies to Work for in America" the alpha from 1984-2011 was 2.3% above the industry average (Edmans, 2012).

In an article similar to this study titled "Does it really hurt to be responsible," researchers looked at the book to market values, as well as the risk analysis using Jensen's alpha, standard deviation, and exclusions in order to create two hypotheses. One being that investment returns decrease as more negative screened companies are excluded and returns increase as more positive screens are included.

The study indicated that because of a few factors, the negative screens on SRIs did nothing to the overall returns of the portfolio because there are only ever 10 truly sin stocks in the S&P 500; and therefore, they do not have the power to generate any significant increase or decrease in returns, as prior studies debated (Humphrey, 2013). The study concludes that there are no significant results or risk from screening at the mutual fund level; however, there is distinctive risk that may be present in large funds. The results showed that the average returns for both funds was .01, indicating no extreme difference in positive and negative screens.

Most current investment research looks to mutual funds for analysis; however, there is opportunity to further return and risk research in other investment vehicles and in industry or "social impact" funds because of their relation to charitable contributions. It is also pertinent to know that even with the Global Reporting Initiative of 2009, companies still don't have well-defined rules as to what socially responsible investing is and what criteria should be included in the screening process, as that makes it incredibly difficult to create an impact across many social and investment platforms (Rhodes, 2009). This highlights an implication of this study, to propose a new benchmark for SRI.

VICEX versus SRI

Previous SRI research shows varying results between the effects of SRIs on company cash flows, portfolio risk and cost of capital for investors. Due to the numerous SRI benchmarks and rules that exist currently, it is unclear whether or not items like governance and negative screening have any real effect on portfolio returns. It is also unclear as to whether or not these factors have a consistent effect through market cycles. This section analyzes different studies that have measured the financial risk and return of SRI/ SMRF and vice investments compared to conventional investments across various measures.

In studies concerning non-SRI investments versus SRI investments over economic recession and expansion periods, the VICEX fund- composed of vice stocks outperformed the SRI investments during expansionary periods. A vice, or sin stock is a stock in an alcohol, tobacco, animal testing, oil, armaments, nuclear energy and some fur companies. It also includes companies whose operations contribute to global warming, intensive farming and human rights issues (Wall, 2013). The VICEX-Mutual Barrier Investor fund, in particular, holds 80% of its assets in tobacco, defense, gambling and alcohol industries. The SMRF Fund did not experience this behavior. This Socially Responsible Mutual Fund is one that provides investors both social and financial returns. These funds typically focus on: corporate governance, workplace, environment, product safety, community impact and human rights. The study indicates the difference in performance for the SRMF and VICEX funds. The VICEX funds annualized performance was 3.60 to the SMRF's -2.91; however, during recessionary periods, the VICEX fund returns were much lower at -17.60. During all periods, the SRMF experiences negative returns. The data from 217 SMRF funds suggests that the performance of SRMF during all cycles is relatively zero (Soler-Dominguez, 2016).

In a meta-analysis of the financial performance of SRI of 190 experiments, performance of SRIs was compared to that of conventional investments via effect sizes. The SRIs are compared to conventional index funds, conventional mutual funds, and conventional portfolios to analyze differences. The results noted that there is no real benefit or loss to investing in SRI, but that it is up to the fund manager to increase interest in these types of investments and diversify the portfolio. Companies will thus have an incentive and more financial capital will be available in the future for ethical corporations (Revelli & Viviani, 2015). Again, this study fails to recognize that SRIs are different in scope to conventional investments in its numerical calculations.

Another comparison study used the Jensen ratio, Sharpe ratio, multivariate analysis, and descriptive returns are used to analyze the conventional versus SRI investments and Islamic indices, and discovered that SRIs underperform. The study also discusses the idea of co-integration in stating that Islamic indices focus their attention on the same moral standards as SRIs and therefore prove to be very similar. The study points to this relationship as a way of creating new diversification efforts (Charfeddine, 2016). An analysis of ETFs that fall in the SRI category highlighted positive returns to green funds; yet, these were not significant (Sabbaghi, 2011).

In Junkus and Berry's 2015 analysis of SRI's they touch on numerous points worth discussion. Previous studies examine conventional versus SRI investments using the Sharpe ratio and the four-factor Cahart model. The discussion- covering Dutch, UK, and German funds- concludes that whether SRI investments underperform, over-perform, or are neutral, a slim majority have proven to be statistically significant at all (Junkus & Berry, 2015).

Other research indicated that SRI funds had increased management oversight to ensure ethical behavior, and therefore performed better. Perhaps the most relevant in this study was an analysis on the effects of different percentages of portfolios being allocated to SRIs in a portfolio. The study found that the increased cost of screening and decline in "investors choices," limited the success of SRIs (Geczy, 2005). But, were the benchmarks for performance used in these studies appropriate?

Studies looking at SRI indexes versus market benchmarks fail to come to one single conclusion concerning risk and return of SRIs as management factors, market factors, and benchmark adjustments were made (Junkus & Berry, 2015). One particular study worth highlighting analyzed 29 SRI indexes and found that overall, the 29 indices were riskier than conventional investments; however, their returns were not significantly greater.

Another study analyzed the differences between risks and returns of SRI and traditional investments using a six factor model as opposed to a four factor model – small, large, value, growth. The model included both the TBS (top-bottom factor) and AMS (accepted shunned factor) criteria and analyzed the differences in alphas and betas for both investment vehicles using the content betas and fund betas. The TBS criteria is the difference between returns in the top third and bottom third of companies ranked by 5 different criteria. The AMS is the difference in returns accepted and shunned. The study found that the alphas for the four factor model were converted into the betas for the six factor model. It also found that there is an overall lack of a difference in risk and return because investors tend to prefer funds with both high TBS and AMS, which balance each other out and prove to not be statistically significant (Statman and Glushkov, 2015).

SRI indices are vast in extent and include different background and criteria. Some funds focus on eliminating sin investments, while others capitalize on creating positive sustainable impact. Religious funds often shun some common sin investment and refrain from shunning alcohol. This difference in beliefs and criteria limits the ability to analyze the returns of an impact investment. For the purpose of this study, we will utilize the Parnassus Fund as a benchmark. Kiplinger noted iShares MSCI USA ESG Select Index, Calvert Equity Fund (CSIEX), and Walden Equity (WSEFX) as diverse indices in this sphere that represent a breadth of fund ages and criterion for content. A key complication in these findings is the current difficulty in creating criteria to measure the social and financial returns of SRI investments.

Nofsinger also created this approach; however, he noted that economic and risk management factors outweighed any social concerns investors may have had (Nofsinger, 2013).

Upon analysis, it appears that too much emphasis has been placed on comparison of conventional versus SRI investments which are comprised of two very distinctly different objectives, the latter being that the investor has two objectives to meet when selecting the investment. So in this study, I will first develop a model that combines both investing and charitable activities intended to identify the optimal combination of these activities. Then, I will demonstrate that this model can serve as a more appropriate benchmark for evaluating SRI's than traditional benchmarks.

IV. Tax Code Incentives for Charitable Contributions

In the traditional combination of investing and charitable donations, donations contribute towards economic wealth via the tax benefit of such activities. In recent decades, charity has fallen into the hands of the federal government (Archer, 2014). Because of recent tax incentives for state determined charitable constitutions, charities must maintain compliance with federal regulation and rules in order to remain eligible for these tax breaks. Before filing, an investor must check whether or not the charity of their donation choice is on the list of charitable organizations. Usually, charitable taxpayers donate nominal amounts of their income in cash, so the items are reported on Schedule A of their Form 1040. However, individuals may be required to file an 8283 or Form 1040 to accurately account and itemize all charitable contributions (IRS, 2011). Further, investors can make the decision to donate using cash donations, pulled income funds, gifts in funds, or donor-advised funds. Regardless of the exact form of the contribution, their will almost always be a tax benefit to the taxpayer for supporting qualified charities, although the details can vary. This study is not concerned with the intricacies of the tax code, but with the resulting tax benefit. Therefore, all of the details inherent in the tax code are not necessary to address.

So, looking past the complexities, charitable contributions are almost always beneficial to investors in reducing the cost of the contribution. But, Stanaard-Stockholm correctly points out that "you cannot legally structure a charitable gift so that the donor receives a net increase in their wealth"

(Stannard-Stockholm, 2008). This is an interesting statement because it refers to a person's economic wealth, and is correct in this context. However, the donor does (or should) receive a net increase to their social wealth. Accordingly, when this joint goal of increasing both economic and social wealth is considered, the implications of most (if not all) prior studies changes because they only consider one goal, or the other. This is the primary addition of this study to the existing literature.

For the purpose of this study, we will use the estimated tax rates for the 2016 year according the IRS and adjusted for inflation. Along with the noted tax rates, limitations on charitable deductions also factor into the returns an individual receives for making charitable contributions. The IRS limits an individual's charitable deductions to up to 50% of a persons adjusted gross income; however, certain private foundations only qualify to be deducted up to 30% of a person's adjusted gross income (IRS, 2011).

As noted, the tax benefits to individuals play an important role in their decision to make a charitable contribution. Because of the positive and social benefits of charitable contributions to investors, the percentage of their income donated to charity has an impact on the returns they seek to obtain from their investments in the market. For the purpose of this study, we will utilize the percent of an individual's portfolio given to charity as well as their tax bracket to determine the returns needed if the investor was to invest in a traditional mutual fund versus an SRI. The model below further explains the applicable allocations and returns for specific investment decisions.

V. A Model for Socially-Responsible Investing

In order to create the optimal portfolio of impact investments as opposed to the joint investments in traditional mutual funds and charitable investments, I will model different allocation amounts. These allocations will demonstrate the risks and returns of portfolios within a given tax bracket. Because of the higher tax benefits, the model will prove that the lower the assumed tax rate, the less the SRI has to perform to remain in the same financial position. This modeling will allow me to find the indifference point that suggest how much an investor should donate to charity or invest.

The purpose of this study is to enable investors who care about both the world and generating revenue to optimize their portfolios to maximize their economic and social wealth.-From a financial perspective, by donating money to charity, an investor is already at a loss. Thus, the change in a person's financial wealth as a result of the donation can be written:

(1) $W_f = -D(1-t)$

where W_f is the change in the person's financial wealth, D is the value of the donation and t is the taxpayer's marginal tax rate.

By contrast, when a person purchases a non-SRI investment (i.e. a traditional investment), their social wealth does not change, but their financial wealth is expected to change by:

(2) Ws = SAT

where Ws is the increase in their social wealth and SAT is the person's subjective satisfaction that comes from the donation. For the purpose of this study, we will also quantify the social impact made by the financial decision.

By contrast, when a person purchases a non-SRI investment or a traditional investment, their social wealth does not change, but their financial wealth is expected to change by the net present value of the future cash flows:

(2) $W_f = \frac{\sum CFt}{(1+n)^\wedge t} - p$

where W_f is the change in financial wealth, CFt is the future cash flow at time t, r is the appropriate discount rate, t is a future point in time and P is the current amount of the investment. Where the summation of cash flows is calculated from time zero to time t.

Charitable tax payers that wish to maximize their total wealth ($W_t = W_f + W_s$) should be measured in the following manner:

(4) $Wt = W_f = \frac{\sum CFt}{(1+n)^\wedge t} - p - (D(1\text{-}t)) + SAT$

where all of the variables are consistent with equations (1) – (3).

By contrast, when a person purchases an SRI investment, their social wealth and financial wealth change by the net present value of the future cash flows:

(5) $W_t = \frac{\sum CFt}{(1+n)^\wedge t} - p + SAT$

It is important to note that this formula does not factor in tax rates. This is because the investor has chosen to invest all of their money in an SRI fund and donates nothing directly to charity. In this model W_t is the change in total wealth, r is the appropriate discount rate for the SRI investment, CF_t is the future cash flows at time t, P is the current amount of the investment and SAT is the stated social satisfaction return from the SRI investment. This number will be quantified in the discussion to show the true economic impact of an SRI investment in relation to that of a charitable investment.

Measuring Impact

In order to analyze the social returns of SRI investments and charitable donations, it is necessary to quantify the impact made by these two financial decisions. Utilizing the B Impact Investment Reporting Structure and GIIRS report, we can measure the social return of the impact investment. When analyzing the returns of charitable donations, many corporations release an impact statement each year. Because reporting is not consistent for either financial decision's social impact, I will simply utilize examples of SRI and charity impact reports to validate the statement that both decisions create social returns (Ogain, 2012).

In the model, I will determine if an SRI loses significant value, will the investor remain better off than if they invested in the traditional market and donated to charity.

For the purpose of the study, the S&P 500 will be utilized to represent traditional investments and a portfolio will be constructed based off of the level of investment in S&P 500 and charitable donations to the investors choice of funds. To replicate an investment in an SRI fund, the study will look to the Parnassus Core Equity Fund(PRBLX). Currently managing $12924.5M in assets, this SRI fund has the highest financial returns. This is an equity large cap fund that goes through multiple levels of ESG screening before it is incorporated into the fund. These levels include exclusionary screening and screening on environmental, social and governance factors performed internally. The year-to-date return on these investments is 3.76% (USSIF, 2014). The Fund, established in 1984 by Jerome L. Dodson was created to "own good businesses at attractive valuations (USSIF, 2014)." This fund is used in comparison to the returns shown in Table 4 below. Upon completion of this analysis, Table 4 was created to portray a basic optimum portfolio structure.

This chart presents a preliminary example of the minimum SRI performance necessary to generate the same financial returns as an SRI investment. Column 1 presents a sample of potential S&P 500 returns in 5% increments. Column 2 presents the assumed allocation that an investor would donate to charity. Column 3 presents the investors assumed marginal tax rate and column 4 shows the minimum SRI performance necessary to make the investor indifferent between investing in the S&P 500 and donating to charity, or simply investing in an impact fund. Column 4 is calculated by finding the performance of the portfolio split between S&P 500 investments and charitable contributions and finding the comparable performance needed in an SRI fund to make the investor indifferent. This is to say that in order for a split portfolio -charity and traditional- would need to generate a 10% return in order to match a 1% return on the SRI fund. The study found that if the S&P 500 generated a 20% return, assuming a 10% allocation to charity and 20% tax rate, a portfolio with 100% SRI investments would need to generate a 10% investment. In the event that the S&P 500 remains neutral, the SRI portfolio can decrease in value 8% and still provide the same return to investors. In the event the S&P 500 falls 20%, the SRI fund can generate a negative return of 26%. In all cases, with a 10% allocation to charity and in the 20% tax bracket, the investor will be more likely to earn a financial return if the markets decline and they hold 100% of their wealth in SRI investments. If the market were to fall 50%, the SRI fund would be worth 50; while, the S&P500 would only be worth 45 if split with a 10% donation to charity. To analyze the effect of tax rates and allocation to charity on the ability to fail, another model will be built. Some countries also utilize the Social Investment Tax Relief protocol and provide benefits to investors that invest in SITR claimed businesses.

According to Table 4, a compilation of the study's outputs, it is clear that as allocation to charity increases, SRI funds do not have to perform as well to generate the same returns as the S&P 500 and charitable contributions distribution.

able 1.

P Performance	Assumed Allocation to Charity	Assumed Tax Rate	Minimum SRI Performance Necessary
20%	10%	20%	10%
15%	10%	20%	5%
10%	10%	20%	1%
5%	10%	20%	-4%
0%	10%	20%	-8%
-5%	10%	20%	-13%
-10%	10%	20%	-17%
-15%	10%	20%	-22%
-20%	10%	20%	-26%

sri	sp	cc	
100	90		10
0.1	108		2
0.055	103.5		2
0.01	99		2
-0.035	94.5		2
-0.08	90		2
-0.125	85.5		2
-0.17	81		2
-0.215	76.5		2
-0.26	72		2

Table 2.				sri		sp		cc	
SP Performanc	Assumed A	Assumed Ta	Minimum SRI Performance Necessary		100		80		20
20%	20%	20%	0%		0		96		4
15%	20%	20%	-4%		-0.04		92		4
10%	20%	20%	-8%		-0.08		88		4
5%	20%	20%	-12%		-0.12		84		4
0%	20%	20%	-16%		-0.16		80		4
-5%	20%	20%	-20%		-0.2		76		4
-10%	20%	20%	-24%		-0.24		72		4
-15%	20%	20%	-28%		-0.28		68		4
-20%	20%	20%	-32%		-0.32		64		4

Table 3.				sri		sp		cc	
SP Performanc	Assumed A	Assumed Ta	Minimum SRI Performance Necessary		100		50		50
0.2	0.5	0.2	-0.38		-0.38		60		2
0.15	0.5	0.2	-0.405		-0.405		57.5		2
0.1	0.5	0.2	-0.43		-0.43		55		2
0.05	0.5	0.2	-0.455		-0.455		52.5		2
0	0.5	0.2	-0.48		-0.48		50		2
-0.05	0.5	0.2	-0.505		-0.505		47.5		2
-0.1	0.5	0.2	-0.53		-0.53		45		2
-0.15	0.5	0.2	-0.555		-0.555		42.5		2
-0.2	0.5	0.2	-0.58		-0.58		40		2

Table 4. Analysis of SRI and S&P 500 optimal portfolios using varying tax rates and percentage of income donated to charity.

VI. Discussion and Summary

Sorenson in Rethinking Philanthropy, suggests the potential of the millennial generation to invest in SRI Impact Investments and change the way money can impact society. With 41 trillion dollars being channeled into SRI investments, the millennial generation can cause big business to have to find channels of social responsibility and impact (Sorenson, 2016). With 70-90% of Americans already giving charitable "gifts," this new investment model could be very appealing and wealth generating.

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