

Expanding the Impact Investing Toolkit with Long/Short Public Equity Strategies

by

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Foreword and Acknowledgement

From 1993 through 2016, I worked as an analyst, portfolio manager, and manager of investor teams as the Director of Research and Head of Equity for some of the largest investment managers in the world such as Fidelity, Prudential, and Columbia Threadneedle. After having the opportunity to guide Columbia Management through the United Nations Principles of Responsible Investment signatory process, to build a global ESG research team and process, and to help design Columbia's first ESG fund, I was drawn to apply my investing experience full-time towards finding innovative ways to help address some of the world's biggest challenges. After leaving my role as Global Head of Research at Columbia Threadneedle, I began to pursue a more focused professional effort on impactful investing. My enrollment in 2017 in the DEL-MEM program was part of that journey. Over the course of 2018, I formed a partnership with two like-minded experienced investors to pursue the creation of a long-short public equity impact fund. I would like to deeply thank Rob Brown and David Lowish for their partnership and consistent collegiality as we worked together at Atlas Impact Partners. While I opted not to continue forward with Atlas to launch, my confidence in the concept and my admiration for Rob and David was solidified through our work together. I thank Howard Fischer and the Gratitude Railroad team for their inspiring work to expand the impact investing field and especially their support of Atlas.

I would like to thank my wife, Martha, and my family for their unwavering support and faith in me through the duration of the DEL-MEM coursework and this project. I thank Dr. Chris Wedding for his patience, encouragement, and guidance during the creation of this paper. Finally, I want to express my admiration and gratitude to the broader impact investing community for its spirit of collaboration and openness in encouraging new ideas, innovation, and the overall growth of mindful and responsible capital markets. I am optimistic that these efforts do make a difference and will only expand in their positive influence on the trajectory of our world.

Abstract

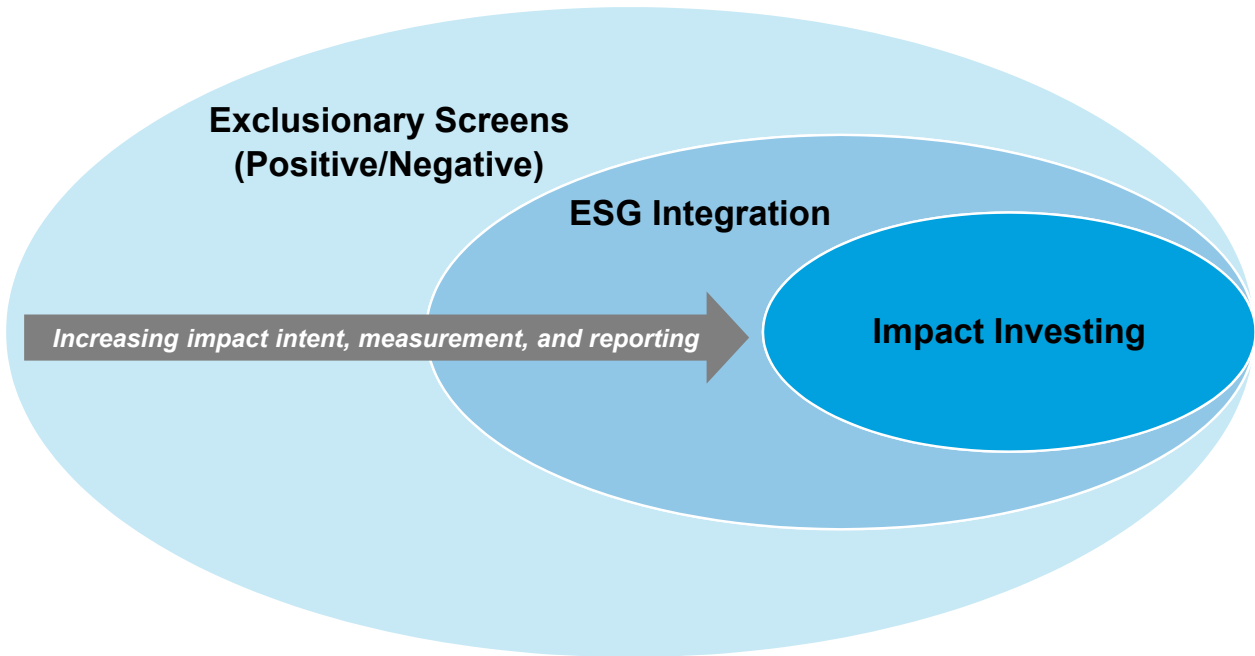
The responsible investing field has been growing rapidly over the last two decades in response to the recognition that commercial solutions must play a major role in solving many of our world's most daunting social and environmental problems. Despite the rate of growth, the range of investment strategies within the field is still quite limited relative to the vast spectrum of traditional investment products. While there have been exciting innovations in several areas, product solutions for sophisticated institutional investors looking to match their historical range of asset allocation options while applying a strict impact investing lens remain limited in several areas. This research project aims to investigate whether a long/short public equity fund with a true impact focus can be a meaningful addition to the return-seeking impact investor's "toolkit". The descriptor of "impact" in this case implies a stricter standard than alternatives used such as "socially responsible" or Environmental/Social/Governance- "ESG" investing. The project will consist of three primary parts: Part One will review the current state of the broader responsible investing landscape and developments within the more concentrated field of impact investing, all against the backdrop of wrenching changes in the overall field of public equity investing as indexing, passive investing, and computer-driven quantitative techniques rapidly disrupt traditional business models. This section will aim to identify areas of unaddressed investor needs. Part Two will identify areas where differentiating innovation from a long/short public equity impact fund might successfully address some of those unmet impact investor needs. Finally, Part Three will provide the framework of key business practices to maximize the odds of success for the implementation of such a strategy. The paper concludes that such strategies can meaningfully expand the impact investing "toolkit" by combining the best practices of the premier return-seeking impact practices that have emerged in private equity and venture capital with the liquidity, accessibility, and scalability of the public markets. However, it is important to emphasize that, while the strategy is viable, delivering optimal results will require unusual levels of skill applied in a disciplined manner.

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Executive Summary

This paper examines whether a long/short public equity impact fund can be a viable and meaningful addition to the options available to sophisticated impact investors. “Impact” investing is defined by the International Finance Corp at the World Bank as: “investments made into companies, organizations, vehicles and funds with the intent to contribute to measurable positive social, economic and environmental impact alongside financial returns (IFC, 2018). Within the spectrum of responsible investing, impact investing sets a higher standard for focus on impact than the exclusionary screening core to SRI (Socially Responsible Investing) approaches or the assessment of business practices and externalities core to ESG (Environmental/Social/Governance) approaches.



(World Economic Forum, 2014)

Impact Investing, with its higher standards for active positive effects, is a small sliver of the overall practice of responsible investing, but it is the most rapidly growing portion of the field (Global Sustainable Investment Alliance, 2016). Within that, the lion’s share of offerings today are in private equity and venture capital offerings. While the range of strategies overall is increasingly credible (even admired), large impact investors, such

as family offices, endowments and foundations need more diversity in their asset allocation “toolkit” to address all of their ambitions and fiduciary responsibilities and to mirror the range of investment asset classes seen in the traditional, non-impact realm. In order to prove to be a viable and meaningful addition to the impact investing “toolkit”, the envisioned long-short public equity impact strategy would need to accomplish and balance multiple goals, primarily:

1. Enhanced liquidity and transparency relative to private equity alternatives
2. A credible methodology and process for assessing and delivering “impact” within public equities
3. Attractive/competitive risk/return characteristics
4. Strategy level characteristics that make it additive to diversity in asset allocation (i.e., uncorrelated to other primary asset classes)
5. The team and process to deliver the strategy must be part of a viable and sustainable business model.

The project analysis concludes that meeting these objectives is possible, if difficult to achieve. The table below summarizes some of the proposed methods to meet the goals as well as the benefits to potential investors.

Issue	Proposed Solution	Benefits to Investors
Enhanced Liquidity/ Transparency	Public equities allow for daily pricing, and structure easily enables quarterly liquidity	Dramatically more liquidity transparency than private equity/VC impact allows
Credible Impact Methodology/ Process	Impact rating system focused on key drivers of revenues for each individual company, not just externalities (“What they do, not just how they do it”). Integrity reinforced by advisory board oversight and review.	Significantly more impact intensity than the norm in public equity ESG investing
Attractive/ Competitive Risk/ Return Characteristics	Experienced team focused in solely in specific smaller cap areas of inherent controversy (inefficiencies). Risk budget allows for stock picking to drive returns.	Goals for through cycle are net returns in excess of broader equity markets with lower than market volatility
Diversifier within asset allocation	Manage construction of low-net long-short portfolio to ensure that at least 50% of risks are idiosyncratic and that correlation to broader markets is less than 0.35	Allows large impact investors to more closely mirror the diversification strategies of cutting edge traditional fiduciaries.
Viable/Sustainable Business Model	Balance necessary staffing for investment success with disciplined cost controls, adequate seed funding, and humility in regards to AUM capacity	Minimizing the “chicken-egg” issues of start-up hedge funds underinvesting in talent or burning through operating capital too soon

Part One: Overview, Background, and Context of Impact Investing

Industry

As a first step in considering product innovation in impact investing design, it is worth examining the industry backdrop. By examining the history and current landscape for responsible investing, the paper will aim to identify areas of unaddressed investor need before going on to analyze and determine whether those areas also represent sustainable commercial opportunities with solvable implementation challenges.

1.1 The History and Growth of Responsible Investing

Our world today faces many daunting social and environmental challenges. The resources necessary to solve these problems are far greater than what philanthropy and government alone can provide. By way of example, the United Nations estimate of the costs necessary to meet their Sustainable Development Goals (SDGs) total between US\$5 to \$7 trillion, with a gap versus current funding sources, in developing countries alone of about \$2.5 trillion (Niculescu, 2017). Private capital and economically sustainable business models must be the ultimate cornerstones for truly durable solutions that can drive self-funding positive change. The growing realization of this fundamental issue has fueled increased focus on how investors can incorporate their ethics and values into their decision making and potentially deliver positive “impact” through their invested capital. The rapid growth in responsible and impact investing demonstrated in recent decades has been encouraging, but as a movement, it is still quite nascent, with the Global Impact Investing Network (GIIN), counting the field’s total assets at \$228 billion, a sum that, while almost certainly understates the effort, does but its relative size in perspective (GIIN 2018). Continued innovation and evolution will be crucial to properly harness the massive potential of human ingenuity and the capital markets to solve the Earth’s most pressing challenges.

The history of socially responsible investing goes back centuries. From the Sharia investing practices of the Muslim world (for example, avoiding investing in money-lenders) to the Methodists following the preaching of John Wesley to avoid profiting at the expense of their fellow man (thus avoiding “sin” investments in businesses such as alcohol, tobacco, or certain weapons production), there have long been investors who tried to align their investing principles with their faiths and/or personal value systems. However, it is worth noting that the implementation of this framework was primarily driven by the avoidance of negative taboos. That framework of screening out negative actors still drives the vast majority of responsible investing to this date (Global Sustainable Investment Alliance, 2016).

The political activism of the 60’s and 70’s sparked a new focus on incorporating ethical values and non-financial risk-assessment into investment decision-making. However, the growth and development of a robust responsible investing sector really took hold during the 1980’s. The ultimately successful divestment movement from apartheid South Africa was a major catalytic factor in focusing corporate leaders and the investing public on the power of their capital allocation decisions as well as the financial risks of investment in unsustainable actors. The 80’s saw the launch of pioneering socially responsible mutual funds, including Calvert and Parnassus. By the 1990’s, the first socially responsible indices were created (Donovan, 2019). In 2005, UN Secretary General Kofi Annan assembled a representative cohort of the world’s largest institutional investors to develop the Principles for Responsible Investment and in 2006, the Principles were formally launched. They are as follows:

Principle 1: We will incorporate ESG issues into investment analysis and decision-making processes.

Principle 2: We will be active owners and incorporate ESG issues into our ownership policies and practices.

Principle 3: We will seek appropriate disclosure on ESG issues by the entities in which we invest.

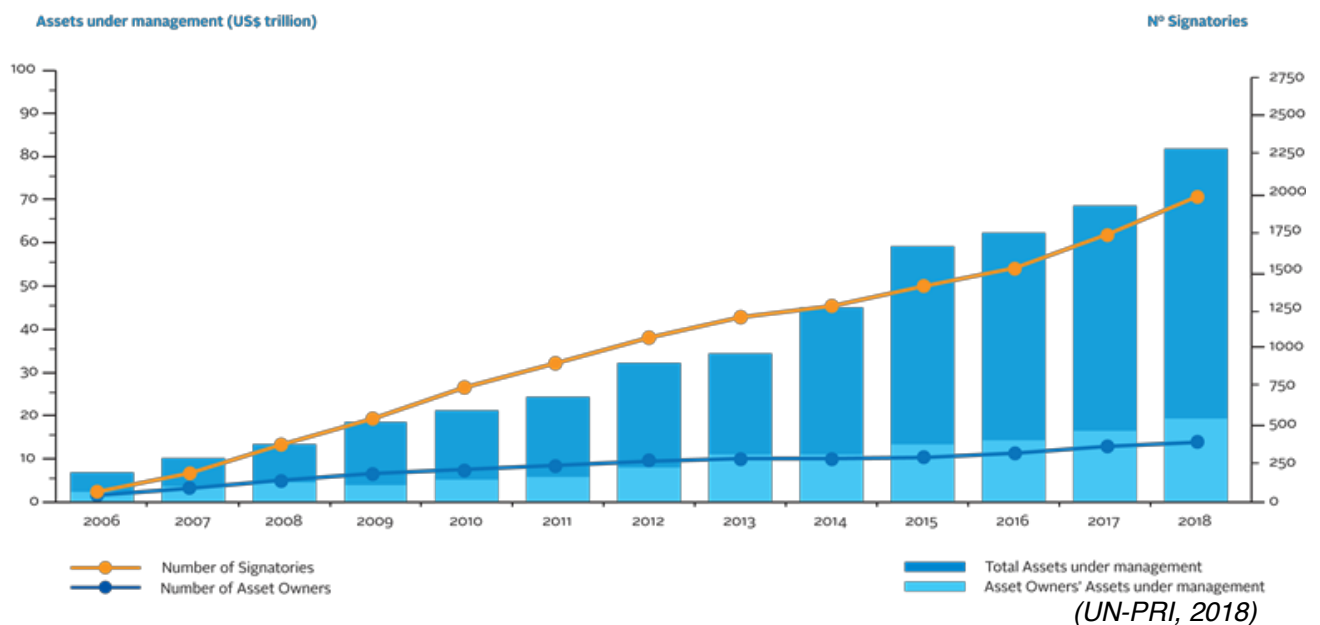
Principle 4: We will promote acceptance and implementation of the Principles within the investment industry.

Principle 5: We will work together to enhance our effectiveness in implementing the Principles.

Principle 6: We will each report on our activities and progress towards implementing the Principles. (UN-PRI 2018)

Around this same period, the acronym term of ESG was coined, standing for Environmental, Social, and Governance as factors to be considered in assessing investment risks and opportunities. The financial crisis of 2008-2009 and rising public awareness of the risks of climate change have only heightened public debate regarding corporate behavior and the need for an incorporation of ethics into investment decisions. This has led to an explosion of interest in responsible investing and, as of the 2018 annual report, declared signatories to the United Nations Principles of Responsible Investing now count over \$89 trillion in assets under management (AUM). While many observers would argue that the rigor demanded of signatories is extremely low, not requiring actual implementation of responsible investment techniques such as ESG, it is definitely clear that responsible and ESG investing have hit mainstream consciousness.

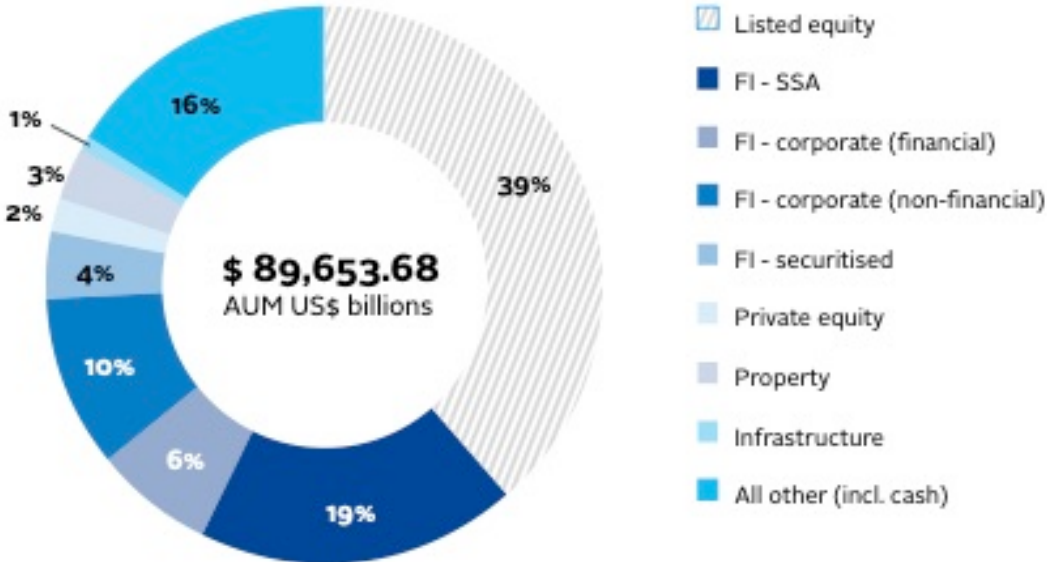
UN-PRI Signatory growth



1.2 “ESG” as the staple of return-seeking responsible investing

If the roots of responsible investing lay in SRI and exclusionary screening techniques, the current dominant technique is ESG investing which involves integrating environmental, social, and governance factors into fundamental investment analysis to the extent that they are material to investment performance (Caplan et al, 2013). There are a vast array of methodologies for how ESG considerations are integrated into investment decisions and the current UN-PRI standards only require some evidence of organizational awareness of their consideration. As can be seen below, the vast majority of the signatory assets are invested in publicly traded securities, where there is a rapidly growing industry of ESG research and ratings providers offering some levels of standardization and comprehensive data for ESG decision-making.

Signatory breakdown by asset and AUM*



(UN-PRI, 2018)

There has been tremendous growth in the breadth and quality of ESG research and data providers such as MSCI, Sustainalytics, Bloomberg, the Sustainability Standards Accounting Board and a variety of other players, many specializing in specific areas of expertise such as carbon footprint, supply chain monitoring, or governance metrics.

These firms all add to the available data and thinking on the externalities created in the course of business. That information can be an extremely valuable part of a research process. Unfortunately, the temptation for many investors is to utilize a third-party rating system as the primary foundation of their process. The appeal is obvious in that it would be awfully convenient to simply filter down an investible universe to the “good” or at least “less bad” companies (Dwyer & Funk, 2018). However, it would be incomplete as the basis of value-added security selection without building on that information with additional proprietary inputs.

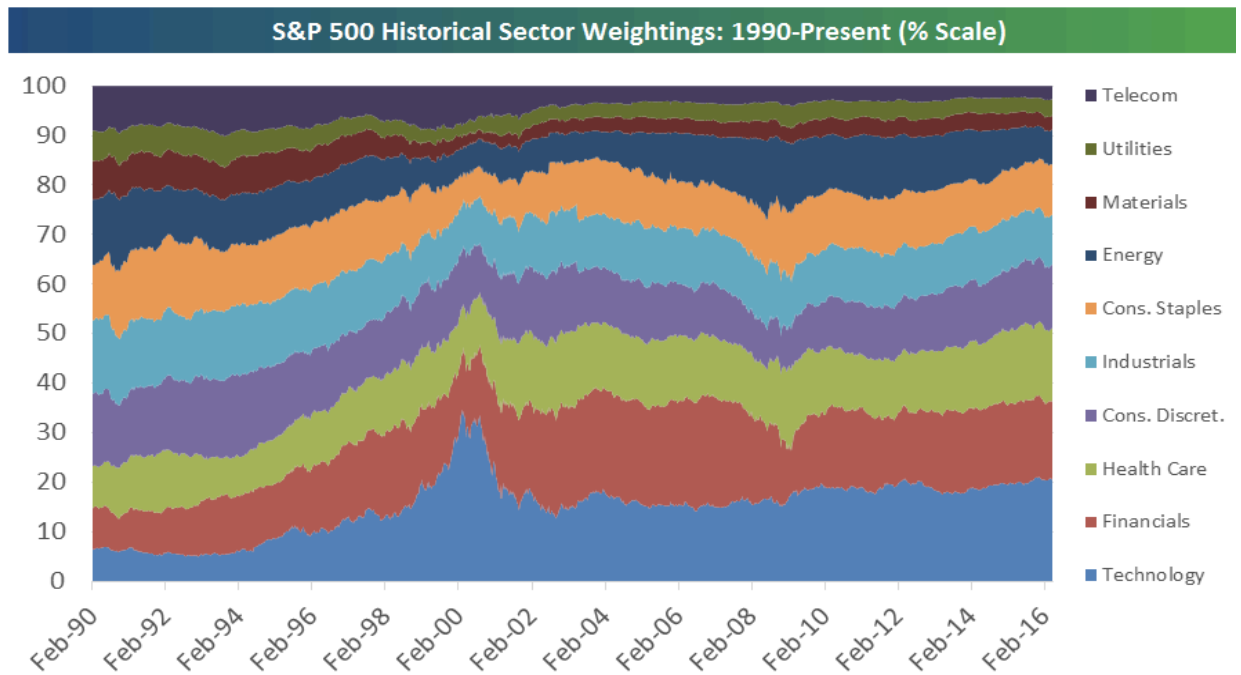
As far as ESG data and research has come, the data itself and its implementation continue to have several shortcomings, some a function of the ongoing growth of the practice, some inherent to the nature of an ESG lens itself, and some a function of commercial interests clouding the authenticity of the effort. A few challenges (beyond the oft-cited lack of universal standardization) worth noting include the following:

1. The roots of the data come from unstandardized corporate self-reporting. While the efforts of organizations such as the Sustainability Standards Accounting Board (SASB) have improved the uniformity of reporting, there are clearly risks inherent in self-reported and usually unaudited data. As noted in a 2018 petition to the Securities and Exchange Commission requesting regulatory oversight of such reporting, sponsored by institutional asset owners with more than \$5 trillion under management, “without a regulatory mandate, the information being produced is often incomplete, lacks consistency, and is not comparable between companies.” (Fisch, J. & Williams, C., 2018). The largest companies have more resources to invest towards their sustainability reporting (and related public relations) and, given a lack of concrete standards of reporting, the potential and incentives certainly exist for companies to present themselves in the most flattering light possible.
2. The forced relative ranking within benchmark driven industries inherent in many ESG rating systems creates misleading signals in terms of the

magnitude of information. Many of the key arbiters of ESG ratings such as MSCI and Sustainalytics rank companies on a relative basis within their industries (MSCI 2018). Given that the spread of ESG differentiation within industries is not uniform, this forced distribution creates room for misinterpretation of the ratings data. In a forced distribution regime, very small differences in data can result in dramatically different rankings. For example, within rather homogenous industries, if Board of Directors' diversity is an input, the addition of one "diverse" candidate might swing a company several ratings notches, from significantly negative to significantly positive. In short, the number of truly material positive and negative outliers may not be equivalent between sectors, but the ratings outputs are, creating potentially false signals for the users. As investment product entities such as Morningstar utilize exposure to these rankings (Morningstar uses Sustainalytics) to rank investment products, the incentives for investors to follow the ranking, regardless of their efficacy, are clear. Further, the underlying data is not readily available to all users. Morningstar Globe ratings (a roll-up of exposure to Sustainalytics ranking relative to benchmark and peers) are available to the public for free. "We really aim to make those as widely available as possible," Morningstar's Tanya Svidler said. "What is not free is access to more detailed, more granular information. So for those clients who are building out investment portfolios and might require a deeper level of information and company-level related statistics--that would actually come at an extra cost." (Brown, 2018).

3. With an increasingly intense focus on measuring and standardizing ESG metrics, the field struggles to measure more qualitative, but intuitively significant issues, particularly in industries with less physical footprint. A growing percentage of the developed world's businesses are driven by intellectual capital more than physical plant and industry standard impact metrics in those instances can be elusive. Measuring the energy consumption, pollution footprint, and worker safety of industrial business is

clearly material, but the non-physical impacts of emerging biotech research companies and software developers is far more subtle. This is increasingly important as seen below, the sector weightings of US markets are increasingly dominated by technology, healthcare, financials, and other businesses based less in physical plant. The fascinating questions regarding the ethics and impacts of emerging technologies such as artificial intelligence and bioengineering are not contemplated in today's ESG frameworks, creating the risk of potentially being a backwards looking field. As was famously written by technology pioneer Marc Andreessen, "Software is eating the world" (2011), correctly noting that corporate value will be increasingly driven by its "brains" more than physical plant across all industries. Today, ESG scoring of software is quite limited, focusing on issues such as power consumption, worker treatment, and management diversity with no regard to the ethics and use cases of what the software actually does. While I understand the concession to expedience and uniformity in finding factors that can be measured consistently across diverse industries, there is clearly significant information left uncaptured.



(Bespoke Research, 2018)

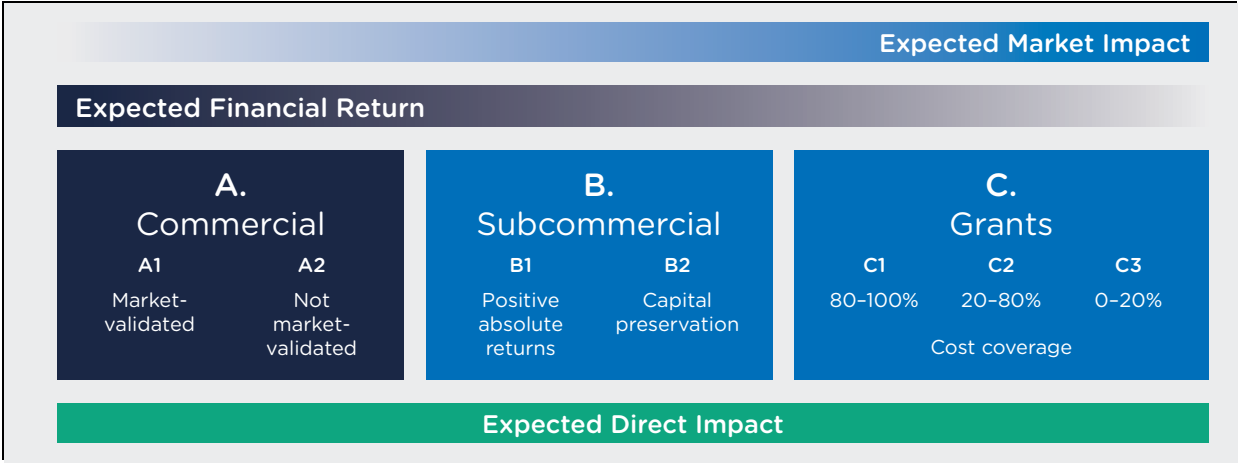
4. Finally, many industry observers have publicly noted the disappointing levels of “greenwashing” (overstating the social and/or environmental benefits of the products), intentional and otherwise, that occur within the practice of ESG investing. In an effort to sell investment product into a potentially growing demand for responsibly managed products, while following a profit motive to invest as little as possible into the manufacturing of those products, too many firms are cutting corners and over-selling the merits of their ESG work. This has not escaped the attention of the public or those vested in the integrity of the movement. The PRI has vowed to crack down and expel signatories who do not adhere to minimum standards of conduct (Professional Pensions, 2017). In a December 2018 Bloomberg Businessweek article titled, “How ESG Investing Lost Its Soul”, it is noted that many products “become little more than an avenue for Wall Street to reap big profits, all while gaslighting the American public.” (Evans, 2018). The article goes on to point out examples of funds labelled as ESG that have Exxon Mobil and Phillip Morris among their largest holdings.

In fairness, there is room for a wide spectrum of products with varying degrees of ESG intensity. A product that duplicates the investment characteristics of a broad index such as the S&P 500, yet has less of certain negative attributes (such as carbon footprint) or more of certain positives (such as diversity in senior management) may well be a valuable (and potentially low-cost) tool to serve some investors’ needs. As long as they are appropriately labelled and marketed, such approaches appear ethically appropriate and a clearly valuable tool for many investors’ asset allocations. Nevertheless, there are clearly some less than authentic actors draping their products in the mantle of virtue and “slightly better than the corporate average” is a low bar. Somewhat more nuanced are the products that arguably incidentally “greenwash” by using very blunt tools for a subtle job. As an example, when one digs into the holdings of several prominent “gender-lens” funds such as the Pax Ellevest Global

Women's Index Fund, one can find large holdings in companies such as Ingredion, a corn syrup manufacturer and Pepsi, companies whose primary products are clearly unhealthy and harmful to women (SEC document on Pax Funds, 2017). While the Pax fund technically does follow a systematic process of investing in companies with female leadership, its underlying holdings arguably don't holistically live up to the promise of its tagline to "Invest in companies that invest in women".

1.3- The Growth and Evolution of "Impact" Investing

While the ESG discipline of reducing the negative externalities of one's investments is appealing, it does have its limits for those who want to go beyond "less bad" or "best practices" to catalyze positive solutions. For those investors looking for an additional step towards driving positive outcomes, there is impact investing. Impact Investing is defined by the International Finance Corp at the World Bank as: "investments made into companies, organizations, vehicles and funds with the intent to contribute to measurable positive social, economic and environmental impact alongside financial returns (IFC, 2018). For the sake of this paper, we will focus on market-rate-of-return impact investing, while acknowledging that, as illustrated in the graphic below from the Omidyar Network (Bannick *et al*, 2017), there is a spectrum of impact investing strategies that includes concessionary returns and structured philanthropy.



While it is difficult to precisely measure the total size of the impact investing field, two key attributes are clear. One, its higher standard of asserting positive solutions rather than the “bigger tent” of ESG, means that it is dramatically smaller than the broader responsible investing field. Two, while smaller, it is growing extremely rapidly. One of the primary industry associations, the Global Impact Investors Network has grown to include \$228 billion in AUM from its founding in 2009 and that number doubled from 2017 to 2018 (GIIN, 2018). Analysis from the Global Sustainable Investment Alliance (seen in the table below) echo these findings. Clearly there is a growing subset of investors seeking a more concentrated and demonstrable payoff in societal solutions, in

part fueled by a feeling that many of their ESG options do not go far enough towards solving the problems they observe in the world.

Asset Levels and Growth of Responsible Investing Strategies

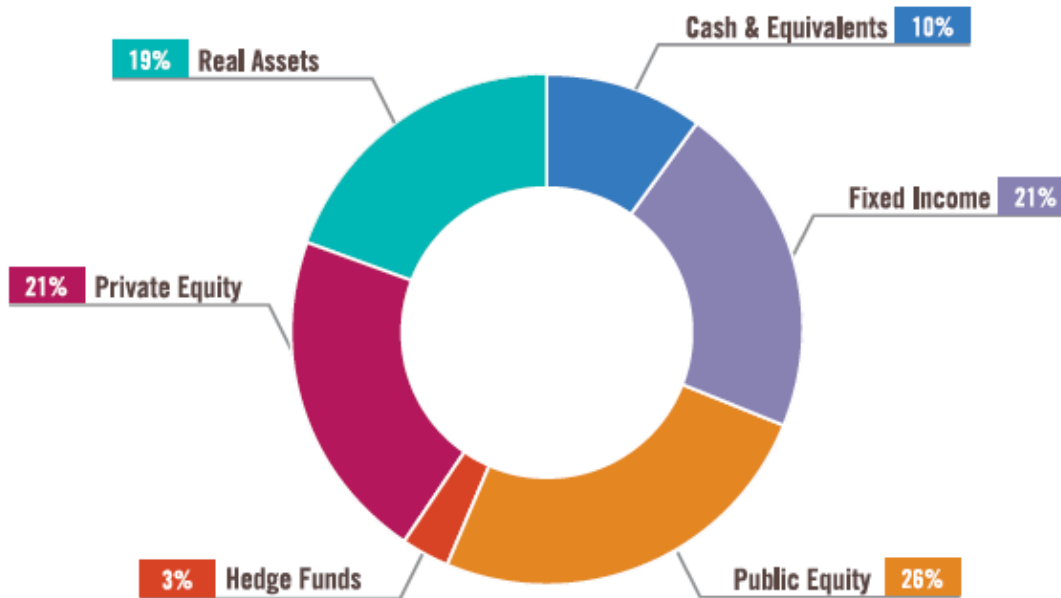
Strategy	2014	2016	Growth	Compound Annual Growth
Impact/Community Investing	\$101	\$248	146%	57%
Sustainability-themed investing	\$137	\$331	140%	55%
Positive/best-in-class-screening	\$890	\$1,030	16%	8%
Norms-based screening	\$4,385	\$6,210	42%	19%
ESG Integration	\$7,527	\$10,369	38%	17%
Negative/exclusionary screening	\$12,046	\$15,023	25%	12%
<i>(\$AUM in billions)</i>				

(Global Sustainable Investment Alliance, 2016)

That demand growth has not gone unnoticed by some of the most influential and sophisticated investment management firms in the world. In the last several years, some of the most prominent private equity and venture capital firms have launched offerings in the impact space. KKR, TPG, and Bain have all had successful sizable launches of impact products. When TPG raised \$2 billion for their first Rise Fund, some skeptics questioned whether they could effectively invest that large a sum. Today, with that fund almost fully invested, they are looking to raise a second fund (De la Merced, 2018). While these long-duration funds cannot definitively point to high returns yet (they have not fully matured), early reports on specific deals are anecdotally encouraging. A Tideline report with a consortium of Impact Capital Managers offers a look into selected (arguably cherry-picked) deals intended to share best practices and demonstrate the

effectiveness at delivering financial returns and societal impact. In their words, the report, “provides clear evidence that impact objectives can actually contribute financial value for fund managers and their investors” (Tideline, 2018).

Whether those metrics persist across the full lifecycle of the funds or not, the emerging field is generating real enthusiasm from the most dedicated impact investors in family offices, foundations, and other early adopting entities. A 2018 UBS report analyzing global high-net-worth family office behavior concluded that 28.3% were already engaged in impact investing. Notably, within that cohort of impact investors, when participants were asked to select the top asset classes they operate within, direct private investment (62.5%), private equity (56.3%) and venture capital (37.5%) were the most popular (UBS). These ratios are echoed in other reports (US Trust, 2017) as well as in my direct experience marketing with Atlas. The annual TONIIC report, whose data surveys their membership of those committed to moving their assets 100% towards impact reinforces this picture, but also comprises more membership from the “merely wealthy” rather than high-net-worth. High net worth individuals represent 57%, while 23% are family foundations, and the remainder are either family offices or investment companies. Of those, 45% of the reporting portfolios are double-digit million dollars in asset size and the largest group represented in the study, followed by single-digit at 42%, and triple-digit at 13%. With the slightly less institutional size assets in the survey, we see a larger allocation to more liquid asset classes, but still a sizable allocation to private equity and real assets.



(TONIIC, 2018)

The report goes on to try to compare this allocation to a more traditional style and reasonably determines that an “endowment model” would be a good comparison. They choose to utilize The National Association of College and University Business Officers’ (NACUBO) annual study of asset allocations for college endowments. Comparing the two, the report notes the primary difference in alternatives and goes on to say, “Hedge funds are typically underweight in an impact portfolio (relative to non-impact portfolios) primarily as a result of there being fewer available impact strategies for these funds. In addition, many impact investors believe that taking short positions is not consistent with the mission of creating positive social and environmental impact with their investments. On the other hand, real assets and private equity afford the impact investor a much more direct opportunity to target and measure the impact they see. This likely explains their relative overweight when compared to non-impact portfolios.” (TONIIC, 2018).

Size of Endowment	Domestic Equities %	Fixed Income %	Non-U.S. Equities %	Alternative Strategies* %	Short-term Securities / Cash / Other
Over \$1 Billion	13	7	19	57	4
\$501 Million to \$1 Billion	20	9	22	42	7
\$101 Million to \$500 Million	27	13	22	32	6
\$51 Million to \$100 Million	33	17	22	22	6
\$25 Million to \$50 Million	37	20	19	17	7
Under \$25 Million	41	24	16	11	7

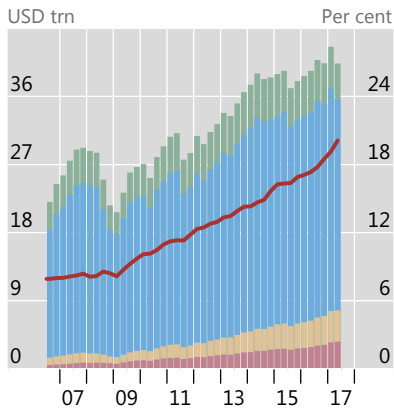
(TONIIC, 2018)

1.4 The Rise of Passive Investing and Challenges for Active Investors

It is important to keep in mind that the rapid growth of the responsible investing industry overall and the impact investing field more specifically is playing out against a backdrop of rapid change in the investment management industry, particularly in the public equity space. The rise of passive and low-cost index products and difficult questions about the value for service from actively managed strategies have driven tremendous change in the money management field. Passive and semi-passive products have gained tremendous amounts of market share in recent years. The dramatic charts below likely understate the magnitude of the gains as their authors note that “the distinction between passive and active fund strategies is fuzzy” as “in many countries the share of “closet indexing” (where weights of securities in equity fund portfolios are not substantially different from those of the benchmark) is more or less the same as that of “explicit indexing”, if not higher.” (Sushko & Turner, 2018).

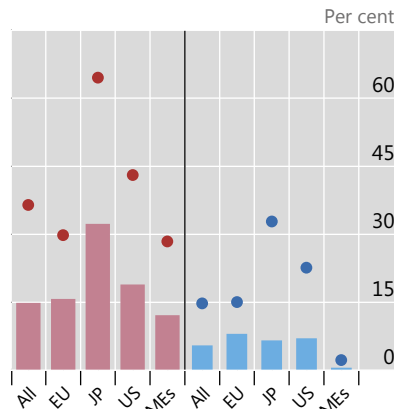
Passive funds' share of the fund management sector rises

Global assets under management by fund type



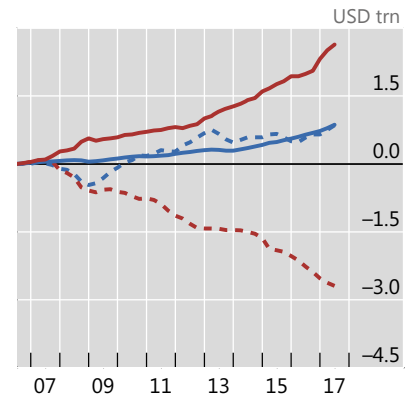
Lhs: ETF, Passive mutual fund, Active mutual fund, Other².
 Passive share (rhs): All assets

Passive funds' share of investment fund assets, by geographical focus¹



Equity: 2007 (red square), 2017 (red circle).
 Bond: 2007 (blue square), 2017 (blue circle).

Cumulative fund flows



Equity: Passive (solid red line), Active (dashed red line).
 Bond: Passive (solid blue line), Active (dashed blue line).

¹ As of end-June for each year. ² Includes investment fund assets of closed-end funds, hedge funds, insurance funds, investment trusts and pension funds.

Sources: Lipper; authors' calculations.

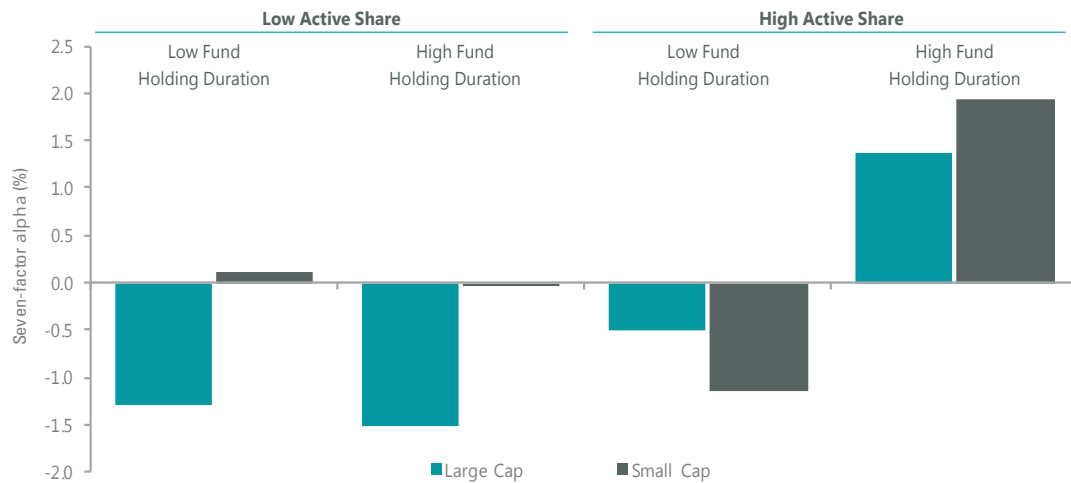
(Sushko, V., Turner, G., 2018)

The impact of these pressures on active investing assets and fees have driven cost cutting to protect margins, a vicious cycle as the resources necessary to make value-added active decisions are inevitably diminished. This has tended to drive more funds towards lower-tracking error, quantitative approaches in an effort to lower risks of underperformance. However, this approach has also served to reduce the chances of distinguishing difference (after fees) from the benchmarks, further fueling the flight towards passive products.

Despite the headlines regarding the difficulty of benchmark-beating stock-picking, third-party research confirms my personal experience in overseeing equity research teams and measuring value-added stock-picking over time, specifically that sustained success at positively differentiated stock selection is not the norm, but does sustainably occur and generally is seen in conjunction with specific characteristics. Some key attributes of successful active stock investors are:

1. Focus. Wise investors are disciplined about sticking to what they know and not diluting their insights by spreading themselves too thin. Studies of sector fund outperformance versus diversified funds within the same investment firms reflect this phenomenon (Scala, 2010). This does have implications for strategy capacity.
2. Pick your battles wisely. Hoping to add value in attacking the areas of the market where there are the most competitors, the most transparent information, and the least variability is a fool's errand. However, in areas of change, emerging technology, political turmoil, or less crowded corners of the markets (small cap), the chances of success for the skilled investor are greater (Fortune 1991, Hoberg *et al*, 2018).
3. Concentration of portfolios. Even the best investors only have so many truly differentiated ideas. Accepting the volatility that may accompany more concentrated portfolios that veer more widely from established benchmarks can be worth the risk and can be dealt with in broader asset allocation decisions (Dayen, 2018).
4. Patience. Capturing value from realized inefficiencies is more effective with longer holding periods (Cremers, 2017). This can be difficult and requires a cultural "pain tolerance" for near-term volatility. As seen below, adding longer holding periods to the benefits of focus and concentration has compounding benefits.

Large Cap and Small Cap Performance by Active Share and Holding Duration (1990-2015)



Source: Cremers 2017, Performance of large cap and small cap mutual funds shown as seven-factor alphas by active share and fund holding duration (1990–2015).

(Dayen, 2018)

The current pressures on active managers have a number of implications for investors attempting to compete effectively in active management strategies. In short, the investing customers are becoming better informed and more apt to leave for underperformance. Active managers have to truly earn their premium fees and do so in ways that cannot be easily automated by lower-cost options. This requires finding exploitable pockets of market inefficiency and/or other services/insights that investors seek which cannot be easily automated. Then it requires developing and protecting methodologies to deliver against those opportunities while managing one's costs in scale with the revenue opportunities. Not a simple business challenge, but one with significant implications for the responsible investing world.

1.5 Responsible Investing as a Microcosm of the Active/Passive Debate

With an ongoing stream of consistent overall outflows from actively managed equity products, the allure of potential growth in the responsible investing space represents a rare opportunity for organic sales growth and has attracted broad attention from the investment managers. A number of different prominent surveys and studies have pointed to the confluence of growing demand for a values-based input to investing

decisions from millennial and female investors and the growing influence of these younger and female investors on driving the overall investment space (Waggoner 2017). Additional academic research into the drivers of investor demand for responsible investing products points to a mix of “intrinsic social preferences and, to a lesser extent, social signaling” along with financial motivations (Riedl & Smeets, 2017, Bauer *et al*, 2018). This opportunity to play in a growing demand pool and potentially differentiate products along lines other than pure cost/ financial performance has drawn in a significant amount of new offerings.

As appealing as the space might look, it has not been as easy as many managers expected to succeed in the responsible investing arena. Effectively executing product launches that balance traditional risk/reward management with the additional variables of ESG risks, has not been the norm. Building truly integrated domain expertise can not simply be a window-dressing exercise. For example, of the eight ESG ETF’s with a greater than ten-year track record through 2017, they all underperformed the S&P 500 over that period. Half actually had negative returns, while the S&P delivered almost 10% annualized returns during the same time period (Crigger, 2018). This was largely a function of thematic “green energy” and “clean-tech” fund underperformance. This demonstrates that simply draping a fund in the mantle of “green” or ESG does not, in and of itself, deliver satisfactory results. Despite some prominent research suggesting that ESG/sustainability inputs deliver outperformance (Khan et al, 2015), the market-based evidence is quite mixed and therefore, it would seem imprudent to assume alpha from ESG inputs alone. However, it would be equally unwise to assume diminished performance. The opportunity comes in wisely interpreting the ESG data and integrating it into other fundamental inputs (Chen & Mussali, 2017). Note that if adding value through active management without incorporating ESG or impact variables is difficult and rare, doing so with this additional variable certainly does not make the task easier.

The implications of this challenge are that a mainstream manager who thinks that they can build a sustainably successful responsible investing franchise by simply screening out some ESG negative outliers and otherwise proceeding as they have traditionally will be unlikely to demonstrate success to customers, either on differentiated values-based inputs or on quantifiable performance. Similarly, firms that have grown out of passion for a mission such as combatting climate change, must realize that expertise on that input alone is unlikely to serve as an adequate foundation for successful risk/return characteristics in an investment product. Again, it is the thoughtful and authentic integration of the two that matters. The challenge is that such integration requires management intensity, expensive resources, and disciplined constraints on the limits of strategy capacity. The temptation is to take a lower cost approach and to create slightly customized passive or “closet index” products that require only rudimentary structuring of quantitative inputs. The hope for many has been that customers will pay a premium solely for the ESG inputs. Unfortunately, that seems extremely short-sighted. The largest and most-efficient providers of indexed products such as Blackrock, Vanguard, and State Street have aggressively moved into this space. Ultimately, simply structured products will succeed or fail on cost, driven by scale, technology, and marketing skill and it is very hard to compete as a sub scale entrant.

Evidence and research suggest that investors will pay significant premiums for distinguished active products and differentiated impact approaches (Apostolakis, 2016, ValueWalk, 2016). The challenge lies in how difficult is to truly integrate differentiated active investing skill with authentic responsible investing inputs and to do so in a commercially viable way given the costs of implementation and need to be disciplined with product capacity. However, it also suggests that if one could do so, the scarcity value of such a franchise might be quite valuable, given the underlying investor demand for product.

1.6 Conclusions Regarding Investor Needs in Responsible Investing

In short, an assessment of the state of the responsible investing industry emphasizes:

1. Demand for responsible investing products is growing rapidly
2. Within that growth, “impact” investing is gaining share as investors seek more concentrated reflection of their values
3. There are gaps in the product offerings between traditional allocations and what is currently seen in the impact investing community
4. Pressures on active equity investment firms are acute as passive strategies gain share and one can observe similar dynamics arising within the ESG field. Impact strategies, driven by significant levels of proprietary qualitative inputs, will not be easily replicated by indices.

Combining these observations suggests that there is demand for more concentrated forms of actively invested impact, especially in underserved asset categories. However, it also emphasizes some of the challenges in delivering such products successfully. However, that difficulty does imply that, if such products could be effectively launched, they would enjoy some scarcity value.

Part Two: Opportunities for Differentiated Innovation via a Long/Short Public Equity Impact Fund

If we accept that conclusions of Part One regarding evolving investor needs in responsible investing as well the premise that a skilled team, approaching markets with discipline and focus can add value in applied stock selection, what are the implications for product development? In Part Two, I will address why a long-short public equity hedge fund focused on impact might be an optimal approach to address these opportunities and challenges.

2.1 Offering Impact with Greater Liquidity and Transparency than Private Equity

As discussed in section 1.2, dedicated impact investors have flocked to the rapidly growing private equity offering in impact. The appeal is clear. The “hand’s-on” nature of private investments allows for direct involvement in funding and building strong management teams in areas such as healthy agriculture, education technology, green energy, and “smart cities”. As noted, a growing array of credible teams are competing in the space. But there are some notable limits to how much investors can solely rely on private equity. The long-term nature of these funds makes them highly illiquid and offers little pricing transparency. A private equity investor’s capital is typically tied up for 10–12 years (Nadauld *et al*, 2017). This puts clear limits on how large a portion of an asset allocation can be made to such investments for any entity that may have calls on its capital (virtually all but the largest endowments). Given that, as documented in section 1.3, the impact investing community is already heavily weighted towards private equity, venture capital, and private asset plays, the need for additional strategies that can deliver appealing impact with attractive returns as well as enhanced liquidity is clear. Some research suggests that, at least from a risk and returns standpoint, the

characteristics of private equity can be replicated synthetically through the use of public securities and leverage (Stafford, 2016). Thus, perhaps it is worth considering the concept of a public equity hedge fund that could offer far greater liquidity than private equity alternatives and far more frequent marks to market, all while diversifying the “alternatives” bucket for sophisticated asset allocators.

2.2 A Deeper Shade of Green in Public Equity Impact

In section 1.2, we discussed some of the concerns expressed regarding the ESG sector including the quality and biases within the data, the lack of differentiation within many sectors, the inability of current ESG rubrics to assess many intellectual capital driven businesses, and the general prevalence of “greenwashing” in the sector. In short, ESG research focuses on “how” a company does business, but too often ignores “what” it does and the direct impact of the business on customers. A focus on capturing externalities can miss the non-financial direct impact of the products and services on the world. By way of example, when assessing the relative virtues of software companies, the leading ESG ratings processes consider leadership diversity, energy consumption, and some measures of historical data security. They do not ask and assess the value of what the software itself does. Is its primary use case to improve education outcomes or to manipulate customers to part with more money at casinos?

The opportunity is to create a process that looks to delineate between public companies whose primary business line is exceptionally beneficial to society or harmful to society, ignoring the vast, grey middle of businesses of more neutral net direct impact.

Assessing the direct benefit or harm to customers *and* additional stakeholders per unit of revenue and profit feels like a significant step towards impact and beyond the “less bad” approach of much ESG research. By several counts, less than 5% of ESG assets are even managed on a “positive inclusion” basis versus the predominant negative screening and loose integration (Kamphius & Meulemans, 2018). A process that seeks

to invest in companies whose products catalyze downstream ESG behaviors would appear to take significant step further towards driving potential impact. An example we used at Atlas Impact Partners was that we would not invest in a company because it installed high efficiency LED lighting in their facilities. We might consider investing in the company whose primary business line was designing and selling the next generation lighting systems that enabled such behavior from their customers.

2.3 Freedom from the Tyranny of Benchmarks

The rise of increasingly sophisticated risk models over the last twenty years has vastly improved portfolio manager awareness of the risks that they were assuming, both intentional and residual. This development was largely a good thing, allowing for far more precision in decision-making. However, there was something of a dark side to that technology-aided evolution in risk awareness. Risks are almost always measured relative to a benchmark and a culture of risk measurement tended to drive the equity investment management community towards greater and greater “closet indexing”, where risk control veered into risk avoidance in a practice where managers were being paid a fee to deliberately assume intentional risks. A significant benefit of a hedged, long-short strategy is the focus on absolute returns as opposed to the relative-to-benchmark approach in that a portfolio manager may utilize their risk budget more completely in the areas where they have the greatest confidence in differentiated insights. If experience demonstrates that research sources lack insights in a certain sector, an absolute return manager does not need to spend time worrying about how to hedge risks versus benchmarks in that space. He/she can simply ignore that sector and spend their energy and capital where they find the greatest density of opportunity. Given the relative scarcity of consistent insights in broadly covered investment universes, this is hugely powerful. Devoting focus exclusively to areas where you believe you have skill/insight and the best current opportunity for inefficiency significantly improves the odds of investment success.

The benefit of freedom from the vast “deserts” of opportunity in many broad benchmarks also have implications for the ESG sector. Managers who focus on investing relative to a broad benchmark such as the S&P 500 often spend an inordinate amount of time working to solve process challenges such as parsing out which mega-insurance company to own to avoid unnecessary tracking error in the large financials sector, ultimately choosing one over the next based on very marginal and arguably immaterial differences. Again, there would appear to be an opportunity to focus more completely on the outliers of impact creation (or destruction) rather than wasting energy and capital on the undifferentiated middle, particularly when aiming to serve a more passionate (and more rapidly growing) impact investing audience.

Such an opportunity to focus only in the areas of greatest investment opportunity (inefficiencies) and impact opportunity goes a long way towards improving one’s odds of mission success. As discussed in section 1.3, there are a few demonstrated areas to consider when aiming to deliver value-added results as an active stock picker. The first three all revolved around various forms of focus. An absolute return process enables such an approach by allowing one to stick to areas of domain expertise, to choose which controversies to pursue, and to make the resulting bets in a concentrated manner with an eye on the intermediate to long term realization of the inefficiency being recognized.

The exciting opportunity for investors focused on impact is that the sorts of areas where one would look for pricing inefficiencies such as early-stage technologies, sectors facing regulatory controversy or industries undergoing disruptive evolutionary changes are also areas of greatest interest from a potential impact standpoint. Therefore, adding an impact lens to the research hunt for inefficiencies is not a hurdle, but can serve as a distillation function essential for necessary focus.

2.4 Shorting and the Leverage Inherent in a Hedge Fund as Benefits for Impact

As noted in section 1.3, there are some market observers who have questioned whether shorting stocks fits within an impact mission. However, there are clear opportunities to address issues of significant importance not easily dealt with solely through long-only investing in public equities. A powerful example is wealth inequality, an issue that is exceptionally prominent in political debate today. A prominent impact research firm issued a report on the subject in which the recommended investor actions included buying community investment notes supporting small businesses in low income communities and affordable housing private equity funds. Within public equity, it suggested buying companies that support living wages and excluding financial institutions with predatory lending practices (Cornerstone Capital, 2018). That approach is unsatisfying on a few levels. One, simply buying companies paying a fair wage is indirect and could result in owning a tobacco company that pays its employees well. Second, rather than just excluding predatory lenders, why not consider them for shorts? Payday lenders and rent-to-own furniture companies are not only usually unethical in their business practices, but can also be aggressive with their balance sheets. If they are overpriced relative to their risks, why not short them and (within compliance rules regarding promoting one's ideas) work to highlight their insidious practices? Potentially raising the cost of capital for bad actors and actively raising awareness of negative behaviors seems additive to the overall practice of impactful investing.

The potential benefits of shorting as an added weapon in the impact investor's arsenal go beyond this however. A thoughtfully hedged portfolio might have multiple dollars invested for every dollar of investor principal without adding to the overall portfolio volatility or risk (given the offsetting factor exposures of a neutral or low-net structure). A portfolio with 200% up to 300% gross exposure, implying \$2-3 of impact exposure for every dollar invested is fairly conservative by comparison to the broader hedge fund industry and can be managed without increased risk relative to an un-levered long-only portfolio (as measured by characteristics such as portfolio volatility).

Part Three: Key Aspects of the Business Plan to Maximize Odds of Success in Implementation

When describing the premise of an envisioned long-short public equity impact fund to potential investors, the consistent responses from the most experienced and sophisticated investors were enthusiastic regarding the concept and structure, but often expressed their greatest concerns around the level of difficulty in execution. As the leader of one multi-billion-dollar family office said, “Running a good fundamental stock picking long-short hedge fund successfully is very rare these days. Running one with impact on top of that sounds extremely hard”. While conceding that this concept requires unusual skill, thoughtfully applied, and there is never any guarantee of success in investing, the following is a streamlined summary of the structures and processes that should give such a product a strong chance of success.

The proposed product design would be a low-net, long-short public equity impact fund delivering:

- \$2+ of authentic social and environmental impact for every \$1 invested
- Low correlation to broad equity markets, macro-economic factors, or other prominent asset classes
- Net return goals competitive with long term equity market results (8-10%)
- Volatility through cycle below that of the equity markets

3.1 Building an Impactful Investment Universe

As discussed in sections 1.2 and 2.2, there is not an existing rating system that rates individual companies based on their own specific business mission and that mission’s direct impact on customers. The approach we pursued at Atlas requires the labor-intensive first step of combing through a broad universe to find companies whose businesses are directly focused on delivering commercial solutions to the world’s

challenges (and conversely, businesses that inherently cause harm or exacerbate those problems). Our experience in sorting through the broadest indices of the developed Western world (such as the Russell 3000 in the United States) was that 5-10% of companies would fit our criteria, creating a more than adequate diverse universe of securities to build a portfolio from.

In determining how to sort through this vast universe, a logical starting point lies with the UN Sustainable Development Goals as a broad framework for impact (UN, 2018).

The 17 sustainable development goals (SDGs) to transform our world:

GOAL 1: No Poverty

GOAL 2: Zero Hunger

GOAL 3: Good Health and Well-being

GOAL 4: Quality Education

GOAL 5: Gender Equality

GOAL 6: Clean Water and Sanitation

GOAL 7: Affordable and Clean Energy

GOAL 8: Decent Work and Economic Growth

GOAL 9: Industry, Innovation and Infrastructure

GOAL 10: Reduced Inequality

GOAL 11: Sustainable Cities and Communities

GOAL 12: Responsible Consumption and Production

GOAL 13: Climate Action

GOAL 14: Life Below Water

GOAL 15: Life on Land

GOAL 16: Peace and Justice Strong Institutions

GOAL 17: Partnerships to achieve the Goal

As we sorted through the primary revenue drivers for thousands of businesses, we looked for clusters of companies in themes of interest. After collating what we had discovered, the Atlas framework was built around the primary investable themes as follows:

1) Digitization as an enabler

- Technology solutions which improve customer welfare, enhance outcomes, and reduce resource intensity

- Focus on predominant use cases (powerful tools can be used for good/bad)
- Ethical use of data (i.e., is cost of knowledge fair/consensual for consumer and other stakeholders)

2) Modernizing Capital Infrastructure

- Modern Capital Infrastructure which enables manufacturing/logistics/habitation and transportation to occur in a way which significantly reduces environmental and social externalities.
 - Environmental externalities refer to energy and material usage - with a strong focus on carbon emissions. Social externalities refer specifically to positive health outcomes and increased equality.
 - New capital infrastructure must represent good commercial opportunity and cannot rely on state subsidies for an extended period of time
 - New infrastructure should be accessible to all and not a luxury for the few

3) The Future of Healthy Food/Sustainable practices

- Production of food & consumer products that is healthy, fairly priced, and appropriately sensitive to externality impacts to other stakeholders
- Solutions should drive healthy eating habits at an accessible price, while reducing waste and environmental footprint, together in a balanced and complimentary manner.

4) Access to Healthy and Productive Living

- Caring for the Vulnerable
 - Providing solutions to the needy, specifically elderly, addicted, children, and the poor, in a manner that is respectful and non-exploitative, yet economically sustainable.
- Precision Healthcare
 - Harnessing rapidly advancing technological resources to cure disease, reduce suffering, lower system costs and improve healthcare accessibility
 - Focus on proactive/holistic health for prevention and cures, rather than parasitic symptom managers
- Education as an Enabler

- Improving educational outcomes and providing broader access to quality education while reducing costs and enhancing classroom efficiency at all levels of education
- Constructive Entertainment
 - Positive and non-exploitative entertainment with an emphasis on creative, inclusive and active engagement at an accessible price

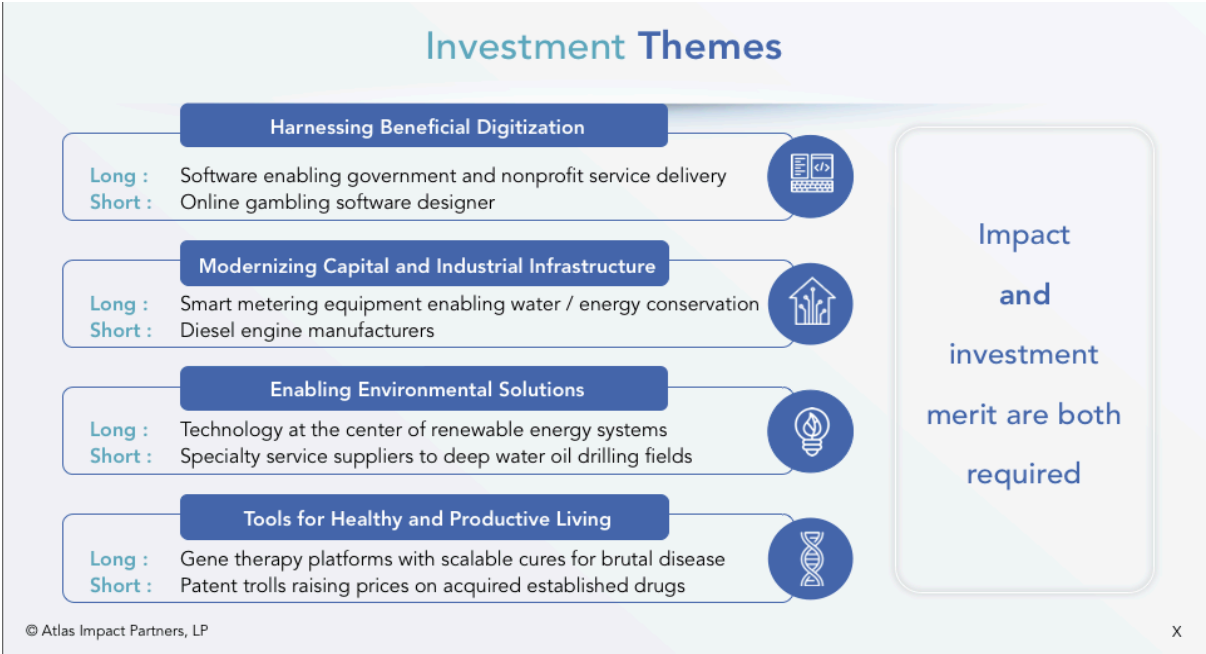
5) Financial Services as a Tool for Good

- Financial services which provide a fair opportunity to improve lifestyles through appropriately and fairly priced access to capital and transparent value-added advice and services

6) The Environment

- Clean Water
 - Enabling the cost-effective delivery of clean water and water saving technologies in a scalable manner.
- Sustainable Energy
 - Enabling the widespread adoption of cost-effective and accessible renewable energy across the planet. The use of renewable energy with a “fuel input cost” of zero is the most cost effective and environmentally sustainable way of serving the long-term energy needs of the whole planet.

Some thematic examples of long and short ideas within this framework are pictured below:



(Atlas Impact Partners, 2018)

After making an initial analytic sweep of the potential securities, the next step in our process was a more formal impact rating and committee approval of names eligible for investment utilizing a 7-tiered system. A 1-rated name would have the highest direct impact, a 7-rated name would cause the greatest direct harm and a 4-rated name would be neutral, with no significant direct impact inherent in the model. The covering analyst would nominate a name to our investment committee, presenting the case for impact and a framework for monitoring that impact as in the example below:

Company Name	Thematic area	Description	Impact description	How do we propose to measure impact	Impact assessment 1-7
Quad Graphics (QUAD)	Evolving Industrial Practices/ Harnessing Beneficial Digitization	Marketing company with roots in printing and newspaper inserts	QUAD business is rooted in newspaper inserts and junk mail printing. While they do offer some marketing consulting, their area of expertise is in the invasive and environmentally wasteful practice of printed marketing materials.	Monitor share of business from printed marketing materials and the amount shared with consumers in unwanted forms (junk mail and inserts)	6

A name and its rating would have to be unanimously approved by the committee to be eligible for investment. Each approved name would have to be re-confirmed within 12 months of initial approval with an update on the highlighted issues/metrics to monitor.

3.2 Impact Measurement and Monitoring

There is a movement within impact investing to measure downstream impact thoroughly under the directionally reasonable assumption that “what gets measured gets done”. However, I feel strongly that, in a diverse impact portfolio, an inordinate focus on precision in measurement can be harmful to the process. As discussed in section 2.2, regarding some of the challenges of ESG metrics, a quest for widely applicable measurement can lead to a lowest common denominator and miss innovative practices, particularly in emerging fields and new technologies. As Jerry Muller put it in his book *The Tyranny of Metrics*, “Because belief in its efficacy seems to outlast evidence that it frequently doesn’t work, metric fixation has elements of a cult.” (Muller, 2017). As this fixation on metrics relates to impact measurement, I admire the thoughts of Andrew Beebe, the managing director of Obvious Ventures, an impact venture capital firm with an impeccable track record, who pointed out in a recent interview:

“We don't require hard metrics in sustainability or impact from our portfolio company for specific reasons. First, it's super hard. When you ask a vegan cheese company, "Please tell us your positive impact each month," how do you figure that out? Is it how many cows didn't have to get milked? Is it how much methane from each cow that didn't get produced? But then, of course, you'd have to offset that with the emissions from your delivery trucks. It's just too hard.” (Kongs, 2018).

So, without precise metrics, how might a team ensure integrity in impact delivery for this hedge fund process? A few key guiding principles:

1. A robust, but flexible framework. If names do not fit a pre-determined thematic framework they would not be eligible.
2. Credible and high integrity team. Investors need to trust their managers, so a track record of high integrity in the impact field is key. Given the need for unanimous investment committee approval of impact ratings for investment eligibility, a strong team should be a comforting safeguard.
3. Trust, but verify. In helping to design a social bond fund for an earlier employer, my team created a partnership with a leading third party ESG firm to sign off on the integrity of our ESG framework and to monitor the resulting portfolio for an annual approval of results. At Atlas, we were following a similar process, assembling a highly respected external impact advisory board to ensure the robustness and intellectual honesty of our process as well as an annual impact audit.
4. Transparency. Ultimately, impact investors will vote with their assets and a commitment to as much portfolio transparency as possible (with security safeguards in communication/disclosure to avoid hostile trading conflicts) allows investors to judge for themselves whether the business held long and short are delivering clear impacts. As we will discuss in portfolio construction, our process would demand significant impact “spread” between the long and short portfolios, based on our ratings. While some investors might quibble with an individual name or two (impact being in the eye of the beholder), an essential priority would be to make intuitively clear that there was a wide impact gap between longs and shorts. The portfolio would be managed and monitored to ensure that the bulk of longs are “1” and “2” rated on impact and that the bulk of shorts are “6” and “7”.

3.3 Identifying Long-Short Stock Ideas Within an Impact Universe

While creating a robust impact universe in the style described above is challenging and somewhat labor-intensive, it is not the most difficult part of the process to deliver the

contemplated fund. A rigorously selected impact universe does not generate returns by itself. Impact alone is not an investment thesis. Establishing an impact universe is just the first step of a process. Identifying stock mis-pricing within that universe is a function of ruthless stock picking based on fundamental business drivers and valuation assessment.

As discussed in sections 1.3, successful stock pickers need to be focused in areas of potential inefficiency density to maximize their chances of success. As described in section 2.2, this more rigorous definition of impact may be a helpful filter to identify those pools of stock controversy and opportunity for a differentiated forecast. By applying finite stock picking resources exclusively in areas of smaller cap securities facing issues such as technological disruptions or regulatory change, the goal would be to create a greater opportunity for skilled investors to excel in their craft. Also, as one studies these sorts of impact pools, one begins to see subsets of exploitable investment themes. One notable current theme is that among certain companies with negative impact and risks of disruptive new technologies, many have tried to offset flagging growth prospects with financial leverage during the recent period of historically low interest rates. For example, one short we identified was a helicopter transport company that serviced offshore oil exploration and production rigs. Given a proprietary forecast of declining rig counts and an analysis of potential risks to revenue and in turn, debt coverage that was more dire than the market consensus, there was an opportunity for a fruitful short investment.

Focusing on a well-stocked pool of potential investment inefficiencies is only helpful if you have a team of investors with demonstrated skill and specific domain expertise analyzing those opportunities. While we will touch on a staffing structure later, the individuals within the team must have a proven ability to add value picking stocks within the relevant industries and themes in question as well as a demonstrated ability and willingness to work as part of a high-functioning investment team, such that the whole is even greater than the sum of its valuable parts.

Part of being a high-functioning team is the ability to communicate and integrate ideas smoothly. It is important that team members can speak a similar language to appropriately calibrate the convictions of their ideas and the fundamental forecasts underlying those conclusions. As such, the proposed strategy would require that the investment team reflect their ideas in the form of 12-month price targets and to be expected to be transparent with their assumptions for what “normal” business conditions are for the company in question as well as the path to that normal state. While different situations and perspectives might focus on different metrics or catalysts, a common language and disclosure of some core forecast assumptions allows for stronger debate and team synergies. Also, price targets can be probability weighted to adjust for varying levels of risk and conviction. For example, in the analysis of the helicopter transport short mentioned previously, part of the reason for a price target dramatically below the current price was the fairly low probability, but high severity of bankruptcy risk. Conversely, long ideas in the solar equipment space emerged as the sector declined severely as a result of an announced freeze in Chinese installations, US-China tariff wars, and severe oversupply from Chinese manufacturers. As difficult as the current environment appears, stronger players with well-cushioned balance sheets appeared overly discounted, based on an eventual return to more balanced sector economics. A thoughtfully crafted and curated collection of price targets expedites disciplined portfolio construction.

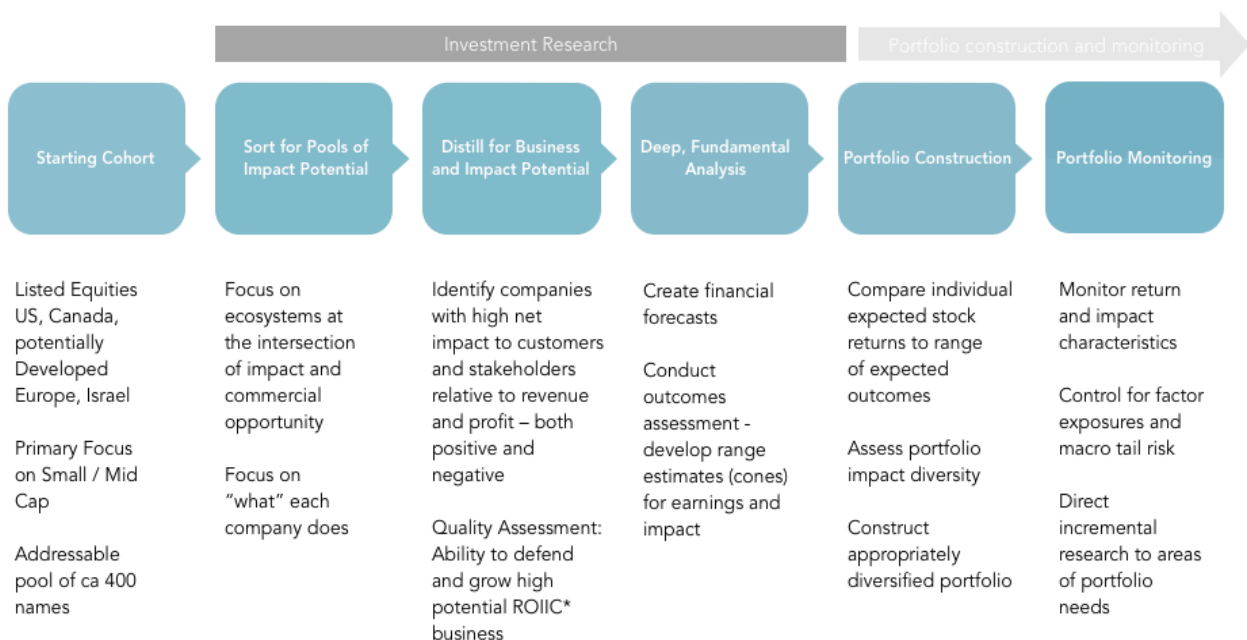
3.4 Portfolio Construction and Risk Monitoring

Managing a long-short portfolio to achieve the diverse stated goals of this product requires managing and balancing the following major issues:

- Maximize exposure to the greatest long stock upside to price targets and conversely short stock downsides within the context of a portfolio with 20-35 long names and 30-50 short ideas
- Ensure adequate diversity of themes (no one industry or impact theme exceeding 35% of gross portfolio)
- Ensure that the majority of portfolio risk stems from idiosyncratic risk (stock-picking), rather than factor or sector risk

- Ensure that even within this context, the majority of factor and sector risk is intentional, rather than residual
- Ensure that the low-net (market-neutral leaning with some flexibility go up to 30% long) portfolio has no greater than 0.35 correlation to the relevant equity indices (such as the Russell 3000)
- Ensure that gross exposure is managed to allow for adequate volatility/risk budget to meet portfolio return goals at achievable Sharpe ratios. Believe that 200-300% gross exposure would be more than adequate (Feghali *et al*, 2015, Alliance Bernstein, 2012)
- Ensure that the impact “spread” (net weighted average impact rating difference between shorts and longs) exceeds 3.5.

Investment Process

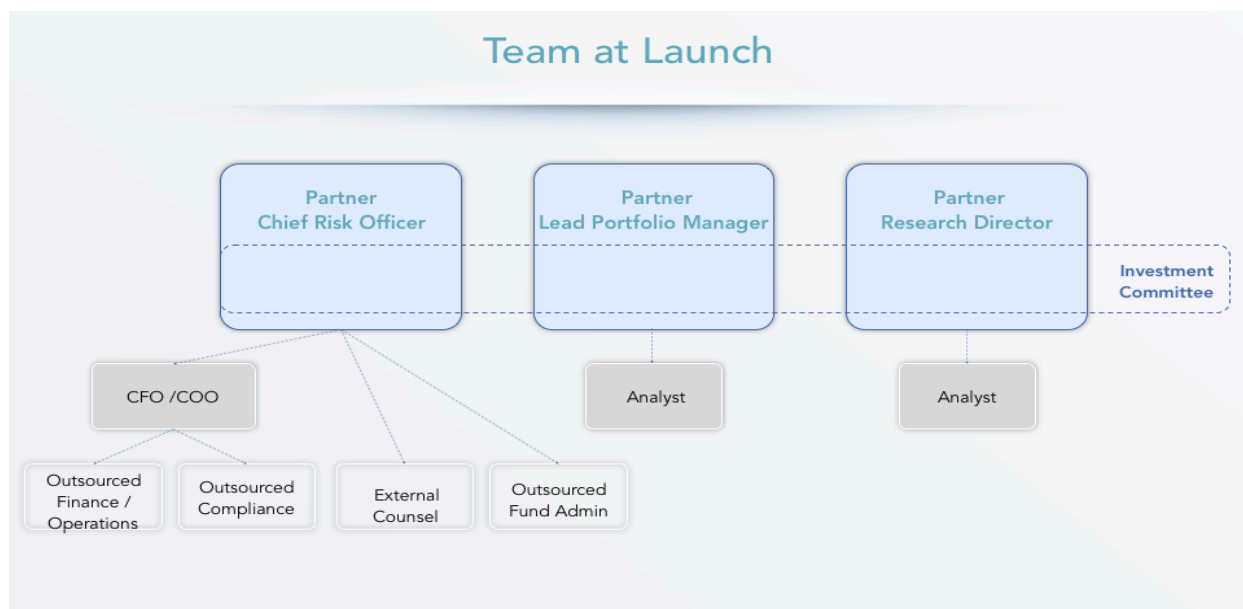


Atlas Impact Partners 2018

The key goal of this process is for the product to be additive to the end investor’s allocation by providing concentrated exposure to impactful companies in a format uncorrelated to other parts of their holdings. The success or failure of performance results should be driven by the skill of the manager they hired rather than broader markets or macro factors, exposures that already exist in most investors’ entire asset allocations.

3.5 Managing Firm Resources and Economics to Maximize Odds of Success

Launching any new hedge fund is challenging, but one driven by the labor-intensive process of fundamental stock picking as well as impact assessment is particularly challenging. In order to deliver the investment insights necessary to deliver performance and attract assets, the firm needs to invest in adequate stock picking resources. Balanced against that is the need to keep costs lean during the early stages while the firm is building a track record and working to attract assets under management. This “chicken/egg” dilemma has been exacerbated in recent years by the increased expectations of investors regarding compliance and processing standards and new fund firm creation has lagged, particularly in fundamental long-short equity. Given this challenge, it is crucial that firm design maximizes the share of resources available to be invested towards stock insight/domain expertise while still meeting investor expectations for operational integrity. Given the need for domain expertise and analyst focus, ideally each analytic team member would monitor no more than 75 securities, with detailed coverage of no more than thirty at one time. Given the size of the impact universe discussed in section 3.1, this implies that at least four and optimally five or more experienced investors are needed at launch. A basic proposed organizational structure is pictured below.



(Elements similar to Atlas Impact Partners, 2018)

Initial operating capital as well as fundraising and seed capital must be able to support adequate staffing to execute the mission for at least eighteen months and ideally for more than two years before the operation is economically self-sustaining.

One final crucial element to consider is that of fund investment capacity. Given the need to manage a concentrated portfolio, focused in areas of controversy and volatility, likely in smaller-capitalization companies, in order to find the necessary intersections of impact and exploitable potential market inefficiencies, the strategy would need to be conscious of not getting ponderously large. Therefore, establishing clear frameworks for capacity limits from the start is crucial. This is another reason why the established incumbents in public equity management appear to be opting for the lighter touch ESG strategies as they view capacity-constrained approaches (even ones that could be highly incrementally profitable) as too small to “move the needle”.

Conclusion

In conclusion, I believe that there is demonstrated need and demand for innovation in the responsible investing space. A long-short public equity impact strategy can be a significant addition to the options available in the space. Such an approach can combine the attributes of intensity of potential impact and returns delivered by leading private equity providers as well as the ease-of-use seen in public equity ESG products. Such a product, appropriately risk-managed, can also offer diversifying asset allocation options to dedicated impact investors. While the successful execution of such a product is challenging, it is entirely achievable, given a strong team that can offer both demonstrable impact and the scarce demonstrated skill set in value-added public equity stock-picking and long-short portfolio management, organized in a strategic, efficient, and disciplined manner. A successful launch of such a product would serve the additional purpose of further demonstrating that investing in impactful ways does not necessarily mean sacrificing financial returns, even in the complex domain of hedge funds.

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