Deconstructing Risks in Impact Portfolios

SUMMARY

While many investors select investments based on both financial as well as impact criteria, they may have concerns that elevated risks from impact investments still exist; whether concern of lower performance or higher potential losses.

We believe the maturation of the industry and expanded range of impact investment approaches has resulted in return and risk characteristics for many types of impact investments that are no different than those of their traditional asset class peers. In fact, an impact focus can help identify different types of risk. This is a result of a variety of advancements in the way these investments are constructed, the type and degree of data available, and in some areas, the maturation of different markets. In impact, the risks may be different, but not necessarily greater than traditional investments.

SUSTAINABLE & IMPACT INVESTING CONTINUES TO GROW

Sustainable and impact investing continues to be a growth area for institutional and private investors alike as private capital is currently being called on to solve some of the world’s most pressing social and environmental issues. With more data available on the environmental, social and governance (ESG) activities of firms around the world, more and more investors are taking into account these data points when making investing decisions. According to US SIF (The Forum for Sustainable and Responsible Investment) Foundation, U.S. sustainable, responsible and impact investing is expanding. The total U.S.-domiciled assets under management using impact strategies grew from $8.7 trillion at the start of 2016 to $12.0 trillion at the start of 2018, an increase of 39 percent.

According to a 2017 study by State Street’s Center for Applied Research, 92% of institutional investors surveyed want companies to explicitly identify ESG factors that materially affect performance and 46% of retail investors who want to see more companies reporting ESG performance-related data with the same percentage saying they need more ESG data to make educated decisions.¹


KEY POINTS

In this report we examine a number of factors including:

- The range of sustainable and impact investing approaches as defined by our Chief Investment Office

- The risk and return characteristics of sustainable and impact investing, the similarities and differences from traditional investments and ways that impact investments may help detect or mitigate risk

- The role sustainable and impact investments can play in a larger portfolio strategy and the potential for impact investments to play a diversifying role when used in tandem with traditional investments

- Risk of achieving impact and the importance of monitoring whether the impact is actually realized

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Despite the growth in both assets and reported investor interest, there is still a widespread perception that impact investments are inherently riskier than other assets—common misperceptions include a greater risk of underperformance, loss of capital, or difficulty in exiting a position. Each impact approach comes with its own risks, but with the exception of some impact first investments (see page six of this paper for specific discussion about impact first investments), we believe that the majority of these risks are the same as would be encountered in non-impact investments and some investment based risks could potentially be mitigated in a thoughtfully constructed portfolio.

THE EVOLUTION OF SUSTAINABLE & IMPACT INVESTMENT APPROACHES

To evaluate the risk of different types of asset classes that make up sustainable and impact investing, we segment the landscape into four areas, each with its own unique investment approach. Within each of these impact investment categories there are a range of available vehicles from mutual funds and exchange-traded funds to alternatives, green bonds and social impact bonds. The exhibit below details our impact investment framework and how we classify different sustainable and impact investing approaches.

Exhibit 1: A Spectrum of Sustainable & Impact Investing Approaches

<table>
<thead>
<tr>
<th>Socially Responsible</th>
<th>Sustainable</th>
<th>Thematic</th>
<th>Impact First</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seek entities based on investors preferences</td>
<td>Proactively choose entities that excel at a range of environmental, social and governance (ESG) factors</td>
<td>Investment opportunities that focus on environmental or social themes</td>
<td>Investments dedicated to addressing specific social or environmental concerns using market-based investment strategies</td>
</tr>
</tbody>
</table>

**EXAMPLES**

**Socially Responsible**
- Avoid investments associated with:
  - Environmental harm
  - Tobacco, firearms, alcohol
  - Practices that are in conflict with religious beliefs

**Sustainable**
- Seek investments in companies that:
  - Promote and achieve sustainability
  - Encourage and measure corporate social responsibility
  - Are leaders in fair trade and factory worker safety

**Thematic**
- Target areas of growth in:
  - Green initiatives, such as climate change or water security
  - Gender equality and diversity
  - Healthcare and the global trend toward obesity

**Impact First**
- Pursue investments that aim to:
  - Improve early childhood education
  - Reduce prisoner recidivism
  - Address homelessness

**WHAT IS IMPACTONOMICS®?**

Impactonomics® is a thought leadership series published by the Chief Investment Office (CIO) within Global Wealth & Investment Management that examines the relationship between economic growth, investing for impact and profit, and the measurable social and environmental change it can bring. This publication is the first of two follow-up papers to the original Performance Realities piece published in 2015.

**SOCIALLY RESPONSIBLE INVESTMENTS**

Socially responsible investing is an approach that seeks to exclude certain types of companies, sectors or issue areas. For example, this approach might identify and seek to exclude companies that manufacture armaments or are embroiled in controversies, such as the use of child labor. While generally viewed as starting from a moral or ethical judgment, a “values” based approach to investing that screens out “sin” stocks can potentially address re-pricing by anticipating reputational risk before the market begins to price it in. In addition, the strategy can also be used to identify industries that are in structural decline, as is the case with investors redirecting capital out of coal companies.
Many investors starting out on their sustainable and impact investing journey know areas that they do not want to invest in and use negative screening criteria—where companies are excluded from a portfolio based on the preferences of the investor—to accomplish this. However, in this approach, there is a risk that a portfolio may deliver below market performance due to the elimination of certain sectors or industries. For example, a portfolio that screens out all companies that produce fossil fuels will have fewer stocks for investors to choose from in the utilities, materials and industrials sectors, and may have to exclude the energy sector almost entirely. While advancements have been made to replace the gaps created by these exclusions with stocks that have similar characteristics or techniques to lower the overall risk of being different from the broader market, these strategies may have a lower probability of meeting a market return during a period of rising commodity prices.

This risk is not only related to socially responsible investments, but also one that investors face when they aggressively overweight or underweight certain types of stocks or sectors. While screening stocks is part of any investment process, materially limiting the investable universe or changing a manager's investment strategy by applying additional screens is problematic, which is why many investors prefer the next category called sustainable investing.

**SUSTAINABLE INVESTMENTS**

The movement from socially responsible investing to sustainable investing reflects a change in the philosophy of how an investor's capital has impact. In this approach, the investment strategy not only takes into consideration those types of investments that investors do not want but seeks to select “best-in-class” companies that exhibit industry-leading behaviors when it comes to environmental or social practices. The philosophy of sustainable investing reflects the thesis that these types of companies are believed to be the most successful not only from a societal standpoint, but from a financial standpoint.

For example, good management teams employ a diverse workforce, and have a positive impact on the local economy. An improvement in how a company handles its resources more efficiently can lead to better margin protection, which can lead to increased competitiveness. From a risk standpoint, by selecting “best-in-class” companies, investors could potentially reduce the risk of owning companies that commit fraud or lack control systems that could lead to brand destruction. This process has empowered investors to use their values to uncover value in the companies they invest in.

Sustainable investments integrate ESG data into their investment selection decisions. By taking into account a wider, and different range of factors that can impact investment performance, this approach may lead to results that match, and in some cases, potentially beat broad-market risk and return characteristics. A growing body of academic and investment studies (two of which are discussed below) have found that using ESG data alongside traditional financial data may help to identify companies that are more competitive from a risk and return standpoint.

One study found that a focus on ESG factors may offer some cushion on the downside. Companies with higher ESG scores showed lower residual and ESG-focused indices had modestly lower drawdowns. In the same study they analyzed the relationship between four style factors - quality, low-volatility, value and momentum—and ESG scores. Their findings were that low-volatility and quality both embed a stronger tilt to high ESG scorers, momentum showed modestly greater ties to lower ESG companies and the value factor’s ESG tie is modest but has been rising over time.

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A study published in 2017 by BofA Merrill Lynch (BofAML) Global Research demonstrates the ability for ESG factors to help lower risk and potentially improve risk-adjusted performance. It found that ESG factors may be a better signal for future risk. The analysis showed that ESG analysis was able to isolate non-fundamental attributes that have real earnings impact and may be a better signal of future earnings volatility than any other measures. In fact, recent analysis has shown that stocks with lower ESG scores tend to exhibit higher volatility than those with higher ESG scores, and that large companies within the highest quartile of the ESG framework tended to have consistent lower future price volatility than lower ranked companies and stocks with extreme price declines.3

Exhibit 2: Median increase in earnings per share (EPS) volatility over the subsequent five years based on median ESG score at start of period (2005-2015)*

<table>
<thead>
<tr>
<th>Median overall ESG score range</th>
<th>Median increase in EPS vol over next 5 yrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–33</td>
<td>25%</td>
</tr>
<tr>
<td>33–66</td>
<td>20%</td>
</tr>
<tr>
<td>66–100</td>
<td>10%</td>
</tr>
<tr>
<td>100–125</td>
<td>5%</td>
</tr>
</tbody>
</table>

*EPS volatility assesses the earnings volatility of a company over the prior three years. The median ESG score is based on average of Environmental, Social and Governance scores applied to the universe of ESG-ranked stocks in the BofAML US coverage universe.


Similarly, sustainable approaches in fixed income also use ESG analysis for risk mitigation. In fact, in 2016 Barclays showed that the average spread of high ESG bonds was 38 basis points lower than that of low ESG portfolios using MSCI data. However, investing in top-tier ESG bonds comes with roughly a potential one-notch uptick in credit quality and thereby potentially lower presumed risk.4 This example also effectively translates to an improved ESG profile leading to a lower cost of capital.

While there is obviously a significant amount of research that has been done and is continuing to be published on integrating ESG factors into an investment strategy, it is important to note that of all the impact investing approaches, sustainable investments most closely resembles traditional investments because they are generally structured as diversified portfolios that follow the size, capitalization, geographic alignment and styles of “traditional” strategies.

THEMATIC INVESTMENTS

Whereas sustainable investing seeks to select the “best-in-class” companies across economic sectors, investing specifically with an environmental, social or corporate responsibility focus—called Thematic investing—is also common in impact investing. Thematic investing looks to new sources of economic growth in a single or related set of sectors and is often built around the premise that a particular set of investments requires capital to develop and grow. Thematic investing assumes that investing in a particular issue area, such as healthcare innovation, alternative energy, or educational or financial technologies may pay off in the long term, even if there is a higher potential for swings in performance and heightened company or sector based risks.

3 ESG: good companies can make good stocks. 12/18.2016. BofAML Global Research. BofA Merrill Lynch Global Research is research produced by BofA Securities, Inc. (“BofAS”) and/or one or more of its affiliates. BofAS is a registered broker-dealer, Member SIPC, and wholly owned subsidiary of Bank of America Corporation.
MATERIALITY WITHIN SUSTAINABLE INVESTING APPROACHES

Materiality is a concept within sustainable investing which focuses on those ESG factors deemed to have the biggest potential economic effects on a certain sector or industry. According to a Harvard study, “Corporate Sustainability: First Evidence on Materiality,” by focusing on those factors that could actually affect the price of a company, the investor can potentially reduce their investment risk.\(^5\)

The study found that when companies are mapped using firm-specific sustainability data, classified against the issues that are most important to their industry, firms with good performance on sustainability issues that are material tended to outperform firms with poor performance on these issues.\(^6\) In contrast, firms with strong scores on immaterial sustainability topics do not tend to outperform firms with poor scores on the same topics. While holistic ESG scores may have investment utility, sustainability strategies that simply invest in the highest rated ESG companies or avoid the lowest rated ESG companies may run into other risks, such as the purchase of “good, but expensive,” companies, as ESG factors become increasingly mainstream.

Investors can help to mitigate this risk by thoughtfully combining more “traditional” financial statement based metrics with ESG factors to uncover the specific factors that may contribute to better risk and return characteristics. Those who could identify material ESG factors, collect relevant, timely data, and integrate these factors into their investment process may be able to identify opportunities for potential out-performance in the long run.

We distinguish between impact focused thematic investing and traditional sector or thematic investing because the former is a strategy that is constructed with the intent to create a positive impact. For example, a traditional thematic healthcare fund could allocate capital to pharmaceutical companies that make drug prices untenable to many who need them. An impact-focused healthcare strategy strives to be aware of unintended social consequences, and seeks to identify companies that are developing cost effective and scalable healthcare solutions that offer similar risk-adjusted returns.

Within a portfolio, thematic investments serve to magnify a certain exposure within a broader market and diversified portfolio. Thematic investing has the potential to produce a higher level of growth which could potentially result in a greater level of excess return or alpha when compared to the traditional market. A 2016 whitepaper published by the Alternative Investment Group highlighted that healthcare, energy and technology are three sectors that are commonly tied to thematic impact investing and have a high dispersion of returns.\(^7\) This high dispersion creates a wide range of risk and return profiles across companies within each of these sectors offering the potential for investors to use impact criteria to identify the “best-in-class” companies and invest accordingly.

While the weight of evidence suggests that there are compelling opportunities for growth within thematic investing, the approach still requires deep company analysis and skilled portfolio construction to mitigate company specific risk. For most thematic investments, a long investment horizon is needed to adequately measure success against financial and impact goals. For example, investments in water security schemes or green bonds may take years or even more than a decade to fully play out. Thematic investments can also have higher volatility relative to the broader market because they are derived from an inherently less diverse investment universe, but may offer better long-term performance, as private capital is typically invested in areas of growth and

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innovation—though investor should not assume that all new industries are inherently risky or that all thematic strategies come with a higher level of risk.

Exhibit 3: 2015 Russell 3000 Sector Stock Dispersion (80th to 20th Percentile)

While historically, thematic investors experienced a somewhat limited investment opportunity set, today investors can select from a growing pool of strategies across multiple impact themes to diversify exposure and help reduce overall portfolio risk. Past experience has contributed to a lingering hesitancy, given the experience of some early investors who may have only had choices to invest in portfolios that screened out large parts of the market or where they had to invest in riskier early stage businesses or technologies. Whereas an environmentally aware investor a decade ago may have had strategies limited to removing fossil fuel intensive companies or investing in early stage technology focused clean-tech, today such an investor has access to resource efficiency and retrofitting solutions implemented by mature companies, solar, water and wind focused projects designed to produce stable cash flows and low carbon portfolios that look and feel like a traditional portfolio.

The diversity of opportunities is enhanced by the corporate community’s increased emphasis on the UN Sustainable Development Goals (SDGs). These 17 goals were developed to address specific environmental and social issues, ranging from climate change to poverty alleviation, gender and economic inequality and access to food, water and energy and have been embraced by the private sector, not just governments and nongovernmental organizations (NGOs), so much so that according to the Business and Sustainable Development Commission, achieving the SDGs opens up a $12 trillion of market opportunities.8

Exhibit 4: 12 largest business themes that align with UN Sustainable Development Goals

<table>
<thead>
<tr>
<th>Theme</th>
<th>Value of incremental opportunities in 2030 U.S.$ billions: 2015 values*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobility systems</td>
<td>2,020</td>
</tr>
<tr>
<td>New healthcare solutions</td>
<td>1,650</td>
</tr>
<tr>
<td>Energy efficiency</td>
<td>1,345</td>
</tr>
<tr>
<td>Clean energy</td>
<td>1,200</td>
</tr>
<tr>
<td>Affordable housing</td>
<td>1,080</td>
</tr>
<tr>
<td>Circular economy</td>
<td>1,015</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>835</td>
</tr>
<tr>
<td>Healthy lifestyles</td>
<td>685</td>
</tr>
<tr>
<td>Food loss and waste</td>
<td>665</td>
</tr>
<tr>
<td>Agricultural solutions</td>
<td>365</td>
</tr>
<tr>
<td>Forest ecosystem services</td>
<td>355</td>
</tr>
<tr>
<td>Urban infrastructure</td>
<td>345</td>
</tr>
<tr>
<td>Buildings solutions</td>
<td>740</td>
</tr>
</tbody>
</table>

* Based on estimated savings or project market sizings in each area. Rounded to nearest U.S. $ billion. Source: Literature search; AlphaBeta analysis


While it is difficult to generalize, due to the availability of data, advances in portfolio construction and risk management techniques in the financial industry and maturation of many of these markets, many impact focused thematic investment strategies are not riskier than their traditional thematic counterparts and are designed to provide a unique source of potential portfolio growth as well as a targeted, and in many cases, measurable impact.

IMPACT FIRST INVESTMENTS

Impact first investments are those with a very specific objective: to address specific environmental and social concerns. They differ from thematic strategies because they focus on a specific environmental and social issue and consider if there is a capital market solution for the challenge that will be supported by investors who are willing to prioritize impact over returns. Impact first investments are those where the investor has prioritized the intended impact over the potential financial return. Impact first investors still seek a return of capital, however, the thesis for investment is based on the potential positive impact for which the investor may ultimately receive a range of returns that could be above, at, or below market return.

Impact first investments are not philanthropy. Impact first investments seek a market-based solution for a problem. In some instances, a market already exists; in others a market may need to be created. Philanthropy, in contrast, addresses challenges where no capital market solution exists and where donors (not investors) have no expectation of any financial return on their gift. For example, an investment in the development of a cancer drug could be an impact first investment since there is a potential for monetization, even if the risk is high. This is compared to giving money to cancer research, where there is no built-in way to monetize the effort and the assumption that there will be no financial return on the gift. Impact first investing attempts to bridge philanthropy and investing by creating a structure which catalyzes capital for high impact projects—while this sometimes includes heightened risk or limited returns potential, it does not always.

The impact first space is one of the most vibrant areas of innovation in finance today; impact notes, social impact bonds, social venture funds and women’s empowerment funds have been created to establish new social and community focused capital markets. Public/private partnerships are blending development finance or federal, state or local funds alongside private capital to develop investable markets where investable opportunities had not previously existed.

Assigning a single risk and return profile to classify impact first investments is difficult because of the range of impact investing issues and markets this category addresses. An investment’s risk adjusted return is highly dependent on the impact goal, geography, depth of existing market and asset class. There are also new ways being developed to take an impact investment with below market returns or above market risk and deliver a more market-like risk/return profile. The best example of this is using government or other guarantees to back low-income housing debt instruments. While this kind of investment generally provides below market rates of return in order to keep interest rates low for borrowers, applying a guarantee against the debt helps reduce risk, thereby potentially enhancing the overall risk/return profile.

High returns are also not a disqualifier for impact first investments. In the housing example, if an outsized return is produced, but the investor was willing to take on the risk of the investment at the start, it is still considered an impact first investment because the return was commensurate with the risk and the intent of the investor when first making the investment was to prioritize the impact over the potential return. In fact, a number of industries have been identified by the Business & Sustainable Development Commission for having high impact and high return potential. In a 2017 paper, the Commission reported that investors who take a long-term bet on mobility schemes or insurance programs for small scale farmers in emerging markets could have a material impact on the farmers’ quality of life and the environment, while also having a chance to potentially receive high long-term returns.3

Many impact first investments do have underexplored risks that need to be considered before investing, stemming from the fact that they have new business models that are being used to achieve impact. Impact investors should seek to identify these risks and carefully consider if they are real or perceived. It is also important to note that some impact first strategies, such as social venture funds, carry similar risks to traditional venture funds. Traditional venture capital funds manage the money of investors who seek private equity stakes in early-stage enterprises, while social venture funds target for-profit social enterprises that seek to deliver social impact, in addition to financial returns. Both traditional and social venture capital investments are generally characterized as high-risk/high-return opportunities.

Exhibit 5: A Comparison of Risk and Return Profiles of Impact Investments

<table>
<thead>
<tr>
<th>No Impact Objective</th>
<th>Values Alignment to “Do No Harm” Principles</th>
<th>Values Alignment to Sustainability Trends</th>
<th>Impact Objectives Are Key</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional Investing</td>
<td>Responsible Investing</td>
<td>Sustainable Investing</td>
<td>Thematic Investing</td>
</tr>
<tr>
<td>Negative Return</td>
<td>0%</td>
<td>Below Market Return</td>
<td>Market Return</td>
</tr>
</tbody>
</table>


Impact first investments may sometimes struggle to raise capital because of limited track records or small fund sizes that may keep away institutional investors. Also, once investments have been made, there could be limited secondary market liquidity or exit opportunities for a number of years as the strategy may require a longer time to develop or the number of potential acquirers is limited to market participants who understand these types of businesses.

However, for investors who can take on additional risk, or are attempting to grow the impact space, these risks can potentially be mitigated by an increasing market of less risky investments or new liquidity structures. There is also a growing number of strategies with robust track records and as the universe of impact first businesses grows, so do fund sizes. However, many traditional capital providers - such as institutional investors - may still limit their ownership in a fund, requiring other investors to step in.

Capital from high net worth individual investors and institutions with high risk tolerance can be instrumental in helping impact first strategies become more mainstream by de-risking investments for other investors as well as pushing for more opportunities to create impact in the communities and for society. Individual investors can play a vital role in promoting impact first strategies that have lower return potential or potentially higher risk than more traditional market vehicles because they believe these opportunities complement their philanthropic giving. Many foundations for example have begun using impact investments to complement their grant making and generate a return that can then be funneled back into their mission aligned portfolios as a type of “philanthropic leverage.”

It is worth noting that although strategic impact investors can use impact investing in areas where they see a market opportunity to create the same or more sustainable impact, there are issue areas where philanthropy may be a better choice. For example, donations to regions that just faced a catastrophic natural disaster or regions in which residents encountered a detrimental disease could be more impactful choice than impact investing.
LOOKING AT SUSTAINABLE & IMPACT INVESTMENTS IN A PORTFOLIO CONTEXT

When evaluating investments, investors need to consider the degree of potential impact and balance this with their risk and return expectations. For example, consider the apparent risk associated with two impact first investments:

A microfinance strategy that targets broader access to finance in the developing world by issuing debt to small women owned enterprises.

An equity investment in a U.S. based company that seeks to develop healthy consumer products while employing farmers in developing markets.

While most investors may assume that the second is less risky, in fact, the second arguably has greater downside market risk and the first may have unique portfolio diversification benefits.*

The benefit of total portfolio diversification including microfinance was illustrated in a 2012 study by Symbiotics, where an investor with a balanced equal share of money market instruments, bond obligations, stocks and alternative investments could have considered adding fixed income microfinance investment vehicles into his/her portfolio, both in terms of increased return and reduced volatility between 2003-2011 during the last U.S. and European financial crisis, the microfinance portfolio showed return and risk resilience compared to other investment classes, with low correlations.10

A more recent study by Symbiotics (see exhibit 6) covering the time period during the most recent bull market in equities (2012 – 2016) also illustrates compelling low to negative correlations between microfinance or private debt impact oriented funds as compared to publicly listed or commonly held assets in a total portfolio.11


<table>
<thead>
<tr>
<th>Compound Annual Net Return (5 years)</th>
<th>Private Debt Impact Funds (MR Funds only)*</th>
<th>Microfinance Private Debt</th>
<th>Developed Markets Bonds</th>
<th>Emerging Markets Bonds</th>
<th>Cash</th>
<th>World Stocks</th>
<th>U.S. Stocks</th>
<th>Alternatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.6%</td>
<td>2.7%</td>
<td>3.4%</td>
<td>5.4%</td>
<td>0.4%</td>
<td>8.2%</td>
<td>12.2%</td>
<td>1.6%</td>
<td></td>
</tr>
<tr>
<td>Annualized Volatility (5 years)</td>
<td>0.9%</td>
<td>0.5%</td>
<td>3.1%</td>
<td>7.2%</td>
<td>0.1%</td>
<td>11.2%</td>
<td>10.4%</td>
<td>3.6%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Correlation Table</th>
<th>Private Debt Impact Funds (MR Funds only)</th>
<th>Microfinance Private Debt</th>
<th>Developed Markets Bonds</th>
<th>Emerging Markets Bonds</th>
<th>Cash</th>
<th>World Stocks</th>
<th>U.S. Stocks</th>
<th>Alternatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.00</td>
<td>0.91</td>
<td>0.81</td>
<td>0.45</td>
<td>-0.43</td>
<td>-0.01</td>
<td>0.07</td>
<td>0.10</td>
<td></td>
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<tr>
<td>Microfinance Private Debt</td>
<td>1.00</td>
<td>0.09</td>
<td>-0.00</td>
<td>-0.30</td>
<td>-0.08</td>
<td>-0.11</td>
<td>-0.19</td>
<td></td>
</tr>
<tr>
<td>Developed Markets Bonds</td>
<td>1.00</td>
<td>0.37</td>
<td>-0.12</td>
<td>-0.17</td>
<td>-0.18</td>
<td>-0.13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emerging Markets Bonds</td>
<td>1.00</td>
<td>0.05</td>
<td>0.57</td>
<td>0.44</td>
<td>0.42</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>1.00</td>
<td>-0.03</td>
<td>-0.03</td>
<td>0.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>World Stocks</td>
<td>1.00</td>
<td>0.95</td>
<td>0.85</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. Stocks</td>
<td>1.00</td>
<td>0.83</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alternatives</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sharpe ratio</td>
<td>0.77</td>
<td>1.77</td>
<td>0.48</td>
<td>0.49</td>
<td>-25.45</td>
<td>0.56</td>
<td>1.00</td>
<td>-0.08</td>
</tr>
</tbody>
</table>

*Market Rate Funds

All results from the table (Returns, Volatility, Correlation and Sharpe Ratio) for Private Debt Impact Funds are calculated using five annual observation points (2012–2016) whereas results for all other asset classes are calculated using 60 monthly observation points (Jan. 2012 – Dec. 2016). Returns and volatility for other asset classes were calculated using the following market indices: For Developed Market Bonds, ‘JPM Hedged USD GBI Global.’ For Emerging Markets Bonds, ‘JPM EMBI Global.’ For Microfinance Private Debt, ‘SMX-MIV Debt USD.’ For World Stocks, ‘MSCI World Index.’ For U.S. Stocks, ‘S&P 500.’ For Alternatives, ‘HFRX Global Hedge Fund Index.’ For Cash, ‘Three-Month Libor USD.’

Correlation captures the performance relationship between one investment and another. A value of +1.00 or -1.00 indicates a perfect performance relationship in line with or opposite the comparative security. A value near zero indicates little relationship.

The Sharpe ratio divides the difference of the return of an asset with the risk free rate [the risk free rate is the theoretical rate of return of an investment with zero risk. It is the interest an investor would expect from an investment that has no risk over a specific period of time] by its volatility in order to measure whether that asset favorably outperforms risk free returns given the level of risk engaged. Ratios above 1 report positive incremental return for the risk engaged, ratios between 0 and 1 inform that the risk engaged is too high for the return received, ratios below 0 show poor performance both in absolute terms and relative to risk. The 10 year U.S. treasury bonds are used as the proxy for the risk free rate, currently at 2%.


RISK OF NOT ACTUALLY CREATING IMPACT

The final, and maybe most important, risk that all impact investors should consider is that of being confident that their investment is actually creating the intended impact. Impact investments are the product of a balancing act between risk, return and impact that must be carefully examined and analyzed.

Seeking to ensure that an investment has both the intention and investment approach to create a positive impact is the most straight-forward way to help mitigate this risk. For example, investments that refer to water in their name may not necessarily provide clean water solutions. Investors should look for strategies that specify how they are trying to address water access and infrastructure issues and provide a measurement of the environmental or social impact that the portfolio has or is targeting.

Investors also need to check for alignment between their intent and those of the investment manager—after all, investors may bring differing perspectives on how impact can be created. A good example here would be a fintech company that strives to improve access to credit for those who can't access traditional loans. While some investors might categorize this approach as an impact investment, if the firm focuses on more affluent consumers and fails to create measurable positive impact for the poorest of the world, the positive social impact of these investments could be debated.

Exhibit 7: Balancing risk, return and impact in an investment

Exhibit 8: Impact Investment Risk Factors

<table>
<thead>
<tr>
<th>INPUT</th>
<th>ACTIVITY</th>
<th>OUTPUT</th>
<th>OUTCOMES</th>
<th>IMPACT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Execution Risk</strong> – probability that activities (outputs/outcomes conversion does not happen</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Externality Risk</strong> – the risk of unintended negative consequences for others</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Efficiency Risk</strong> – the risk that an alternative comparable option to achieve the same results is more efficient</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Outcomes Risk</strong> – probability that (even high quality) outputs do not convert to the desired outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Additionality Risk</strong> – probability that intended results would have occurred anyway</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

These challenges drive our belief that impact investors should seek to identify managers and/or due diligence resources to help them assess whether strategies are meeting their
intended impact objectives, provide information to the investor on the specific impact approach of each strategy as well as analyze the potential unintended consequences.

CONCLUSION

As the sustainable and impact investing space continues to grow and more investors embrace the ability to do well while doing good, it is imperative to address misperceptions about the performance and risk characteristics of impact investments head-on. Though institutional investors have been considering ESG factors for many years, the sustainable and impact investing space has expanded and is permeating many aspects of the financial industry, all the way down to the individual investor.

Investors of all stripes should take the time to understand the range of available impact investments—socially responsible, sustainable, thematic and impact first. Careful examination shows that impact investments do not inherently come with more risk, but the risks they pose may be different than those of traditional portfolio holdings.

As investors become aware of the different risk and return profiles associated with these different impact approaches, they can then start to identify ways that impact investments can help them create long-term value that could support their investment objectives and potentially offer a sustainable way to achieve both their financial and impact related goals.

BANK OF AMERICA’S COMMITMENT TO CREATING POSITIVE IMPACT

- **Committed over $445 billion** to financing low-carbon businesses and solutions that address climate change (2007-2030)\(^\text{12}\)
- **Lent $1.5 billion** to community development financial institutions (CDFIs), making Bank of America the nation’s largest lender to CDFIs\(^\text{13}\)
- One of the U.S. institutions participating in the social impact bond (SIB) marketplace
- Issued the first-ever green bond in 2013 and in 2018 announced the issuance of our fourth and largest corporate green bond of $2.25 billion in aggregate principal amount, furthering our commitment to advancing renewable energy generation.\(^\text{14}\)
- **Signatory** to the Principles for Responsible Investment, **listed** on the Bloomberg Gender-Equality and Down Jones Sustainability indices, and **named** Best Global Bank for Corporate Social Responsibility in 2017 by Euromoney\(^\text{15}\)
- **Announced Blended Finance Catalyst Pool**, in November 2018, with an initial allotment of $60 million and the opportunity to stimulate additional private capital to finance sustainable development in emerging and developing markets. This new program is designed as a revolving pool to mobilize additional private capital toward the United Nations Sustainable Development Goals (SDGs).\(^\text{16}\)
- **Issued social bond for $500 million**, highlighting a commitment to deploying capital to address global issues outlined in the SDGs.\(^\text{17}\)

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\(^{13}\) The power to make a difference: Environmental, Social and Governance Report, Bank of America, 2018.

\(^{14}\) The power to make a difference: Environmental, Social and Governance Report, Bank of America, 2018.

\(^{15}\) “New Studies Assess the Risk of Impact Investing and Find It May Help Investors Focus on the Long Term in a Short-Term World”, Bank of America Newsroom, May 17th, 2018. Euromoney ranking is based from 2,395 valid responses from consumers of FX liquidity, representing total FX consumption of $92.9 trillion in the calendar year 2016. “FX Survey 2017: Methodology,” Euromoney, 2017. The ranking or ratings shown here may not be representative of all client experiences because they reflect an average or sampling of the client experiences. These rankings or ratings are not indicative of any future performance or investment outcome.


Index Definitions

HFRX Global Hedge Fund Index: The HFRX Global Hedge Fund Index is designed to be representative of the overall composition of the hedge fund universe. It is comprised of all eligible hedge fund strategies, but with an intentional focus on convertible arbitrage, distressed securities, equity hedge, equity market neutral, event driven, macro, merger arbitrage, and relative value arbitrage. The strategies are asset weighted based on the distribution of assets in the hedge fund industry. Hedge Fund Research, Inc. (HFR) utilizes a UCITS III compliant methodology to construct the HFRX Global Hedge Fund Indices. The methodology is based on defined and predetermined rules and objective criteria to select and rebalance components to maximize representation of the Hedge Fund Universe. HFRX Indices utilize state-of-the-art quantitative techniques and analysis, multi-level screening, cluster analysis, Monte-Carlo simulations and optimization techniques ensure that each Index is a pure representation of its corresponding investment focus.

S&P 500® Index: The S&P 500® is widely regarded as the best single gauge of large-cap U.S. equities. There is over USD 9.9 trillion indexed or benchmarked to the index, with indexed assets comprising approximately USD 3.4 trillion of this total. The index includes 500 leading companies and captures approximately 80% coverage of available market capitalization.

Russell 3000 Index: composed of 3000 large U.S. companies, as determined by market capitalization.

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Impact investing and/or Environmental, Social and Governance (ESG) managers may take into consideration factors beyond traditional financial information to select securities, which could result in relative investment performance deviating from other strategies or broad market benchmarks, depending on whether such sectors or investments are in or out of favor in the market. Further, ESG strategies may rely on certain values based criteria to eliminate exposures found in similar strategies or broad market benchmarks, which could also result in relative investment performance deviating.

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Please keep the following general risks in mind when investing in illiquid private equity funds:

• An investment in a private equity fund involves significant risks and will be illiquid on a long-term basis. Investors may lose their entire investment.

• Private equity managers typically take several years to invest a fund’s capital. Investors will not realize the full benefits of their investment in the near-term and there will likely be little or no near-term cash flow distributed by the Underlying Fund during the commitment period. Interests may not be transferred, assigned or otherwise disposed of without the prior written consent of the manager.

• Private equity funds are subject to significant fees and expenses, including management fees and, typically, a 20% carried interest in the net profits generated by the Underlying Fund paid to the manager (or similarly situated party). Private equity fund investments are affected by complex tax considerations.

• Private equity funds may make a limited number of investments, and such investments generally will involve a high degree of risk and may utilize significant leverage. In addition, funds may make minority investments where the Underlying Fund may not be able to protect its investment or control or influence effectively the business or affairs of the underlying investment. The performance of a fund may be substantially adversely affected by a single investment. Private equity funds may be less transparent than public investments and private equity fund investors are afforded less regulatory protections than investors in registered public securities.

• Private equity fund investors are subject to periodic capital calls. Failure to make required capital contributions when due may cause severe consequences to the investor, including possible forfeiture of all investments in the Underlying Fund made to date.

Social impact bonds are a relatively new and evolving investment opportunity, which is highly speculative and involves a high degree of risk. An investor could lose all or a substantial amount of their investment.

An investment in Green Bonds involves risks similar to an investment in debt securities of the issuer, including issuer credit risk and risks related to the issuer’s business. You should review the relevant offering document carefully before investing.

Mutual Fund Risk Considerations: Mutual funds are subject to investment risks, including possible loss of the principal amount invested. Investment return and principal value will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. For a discussion of the risks specific to a particular mutual fund, please refer to the fund's prospectus.

ETF Risk Considerations: ETFs are subject to certain risks that may affect the price, yield, total return and ability to meet its investment objectives, including: general market risks; a particular asset class risk; the fact the funds in the ETF are typically passively managed; concentrations in a particular industry or region and; market trading risks (e.g., lack of market liquidity and trading at prices at or above their NAV). ETF shares may trade at a premium or discount to NAV and may be subject to management fees, transaction costs or expenses. For a discussion of the risks specific to a particular ETF, please refer to the ETF’s prospectus.

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