

Quantifying impact: measuring and managing effects on people and the planet

Highlights

- Impact investing is growing rapidly, with rising demand for strategies that go beyond traditional responsible investing to produce positive environmental and societal benefits while generating market-rate returns.
- Measuring and managing impact is important to better understand the effect of these investments, but data on impact is inconsistently reported and can be hard to find.
- Implementing effective impact measurement and management strategies yields greater insight and may produce better results for investors, communities and the environment.

Impact investing: pursuing environmental and social benefits alongside competitive returns

Key terms

Impact: Long-term positive and negative social and environmental results. Examples of impact include changes in health outcomes and effects on natural resources.

Impact investing: The intentional pursuit of positive, measurable social and/or environmental impact alongside a financial return.

Impact measurement and management (IMM): The process of setting objectives, establishing targets and using data to assess and manage progress toward those goals.



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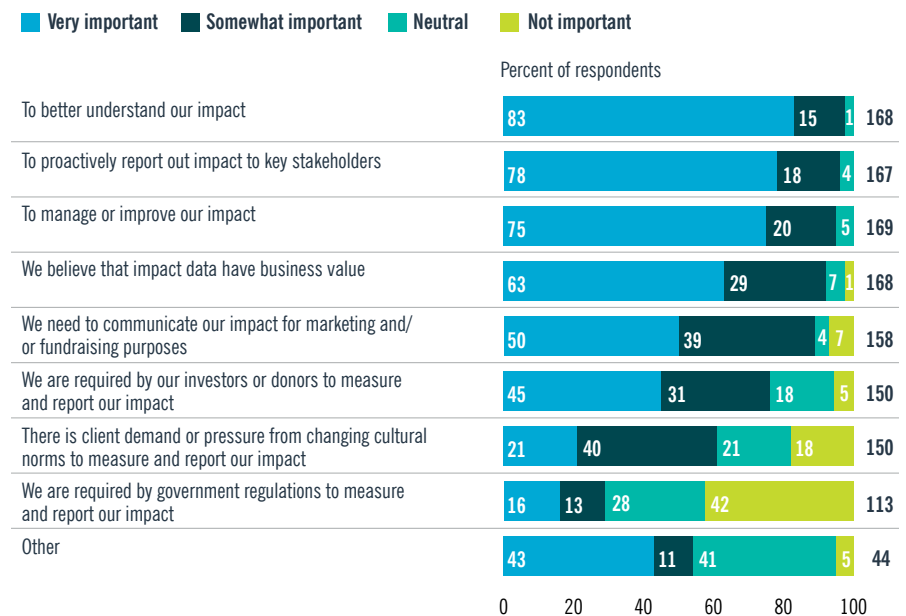
As responsible investing (RI) moves into the mainstream, investors are increasingly looking for strategies that go beyond traditional environmental, social and governance (ESG) principles to produce measurable benefits for people and the planet. In response, many RI approaches are now expanding to embrace what are known as “impact investing” strat-

egies. While traditional responsible investing aims to integrate a range of ESG factors that can mitigate risk and improve performance, impact investing is a distinct approach that seeks specific positive environmental and social benefits in addition to market-rate returns.

While assessing financial returns is relatively straightforward, measuring the social and environmental benefits of an investment is not as clear-cut. Assessing whether the desired outcomes were achieved is critical to managing toward investment and impact objectives.

Although there is no universal process for impact measurement and management, standards are improving, and there are industry best practices that have emerged through organizations such as the

Figure 1: Reasons for measuring and managing impact



Note: Other reasons for measuring and managing impact include helping investees improve their impact, using it as a risk-mitigation strategy and that it is core to respondents’ strategies (such as in the case of mission-led investors like foundations). Source: 2019 GIIN Annual Impact Investor Survey.

Global Impact Investing Network (GIIN). According to a GIIN survey, 83% of impact investors agree that measuring and managing impact is very important for better understanding the impact of their investments (See Figure 1)

How is impact created?

To quantify impact, investors must first understand the logical steps that lead from an investment’s immediate observable outputs to its ultimate long-term results for relevant stakeholders, such as customers, employees and the environment. This chain of events is often depicted in a framework called a “logic model” or a “theory of change,” as shown in Figure 2. In the classical monitoring and evaluation discipline this borrows from, assessing the true “impact” at the end of the chain requires understanding what changes occurred that would not have

otherwise transpired without a particular investment or activity, also known as a counterfactual.

Measuring impact in a data-scarce world

Within the impact investing industry, investors often capture and use data on outputs and outcomes, and some occasionally conduct deeper research into longer-term changes directly attributable to investments. Since it is neither efficient nor feasible to conduct such longitudinal studies for every impact investment, investors can draw from existing evidence and research demonstrating that specific investment or intervention types have led to the broader results they seek to measure. Investors can also use the available evidence base to determine which proxy indicators will give a reliable sense of progress toward impact. They can then use these more direct measures on an ongoing basis during investment management and for regular

reporting to clients and other stakeholders.

Data on proxy indicators for impact is often inconsistently reported and can be hard to find. The first step to tackling this challenge is determining what information is needed. For example, investors seeking to make an impact with their investments by expanding access to basic services such as healthcare, education and financial services must determine which populations need access and how they will know if their investments are reaching those populations. This might require a combination of individual metrics to create a key performance indicator (KPI), such as “number of underserved customers provided access to financial services.” Useful starting points for identifying metrics and KPIs include the targets of the UN Sustainable Development Goals (SDGs) and industry tools such as IRIS+, which is one generally accepted system for measuring and managing impact.

Figure 2: Basic logic model



Beyond revenue: measuring outcomes

Quantifying impact requires going beyond estimates and assumptions, such as revenues from a particular product or service.

For example, if the goal is to increase the share of renewable energy in the global energy mix (per SDG 7):

REVENUE METRIC

Company derives
20% of its revenue
from
renewable energy

IMPACT METRIC

Company created
**100 megawatts of new
renewable energy**
capacity last year.

While revenue data might be helpful to screen for potential impact, it shows only the activities rather than the outputs or outcomes from the energy sales.

Measuring impact across asset classes

Determining the type of information to measure is only part of the equation. Methods of measuring impact must also be appropriate for the investment strategy and asset class, as outlined below.

Private markets

Impact information in private markets is often obtained directly from underlying investments through investor reports and ongoing engagement, which may involve a board seat. In addition, requiring a set of impact KPIs as part of deal documentation can help ensure that relevant information is readily available to effectively manage the investment for both impact and financial returns.

Public fixed income

Impact in public fixed income can be generated by purchasing bonds that finance projects benefiting people and the environment. Issuers of such bonds include government agencies, international development banks and corporations undertaking green or social projects. Investment managers interact with these bond issuers primarily at the time of purchase and must often rely on issuers' publicly available reports for impact information post-investment. However, investors can engage with issuers prior to investing to ensure that credible impact data will be regularly available to monitor progress. In both cases, successful impact measurement relies on rigorous reporting of actual results achieved during a specified time period compared to expectations, rather than reliance on revenue-based assumptions or projections.

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Public equities

Integrating impact considerations in listed equities investments has been a subject of debate in the impact investing industry for some time. Listed companies are often involved in a wide range of business activities — some of which may have positive impact while others could create negative effects. Furthermore, the challenges of efficiently obtaining consistently reported information are heightened by the large number of listed companies in most investor’s portfolios. Yet given the scale and importance of listed equities within investment portfolios, ignoring the potential impact opportunities is not a viable option. Emerging technology and data services may be able to help alleviate the currently labor-intensive process of studying the positive and negative impact of public corporations. The same principles for credibly quantifying impact described above should apply in this asset class,

too – going beyond potential for impact to capture results achieved by companies against targets.

Nuveen’s approach

Regardless of the asset class, impact measurement and management is an ongoing effort throughout all phases of the investment process. Effectively integrating impact measurement and management yields greater insight and may produce better results for investors, communities and the environment.

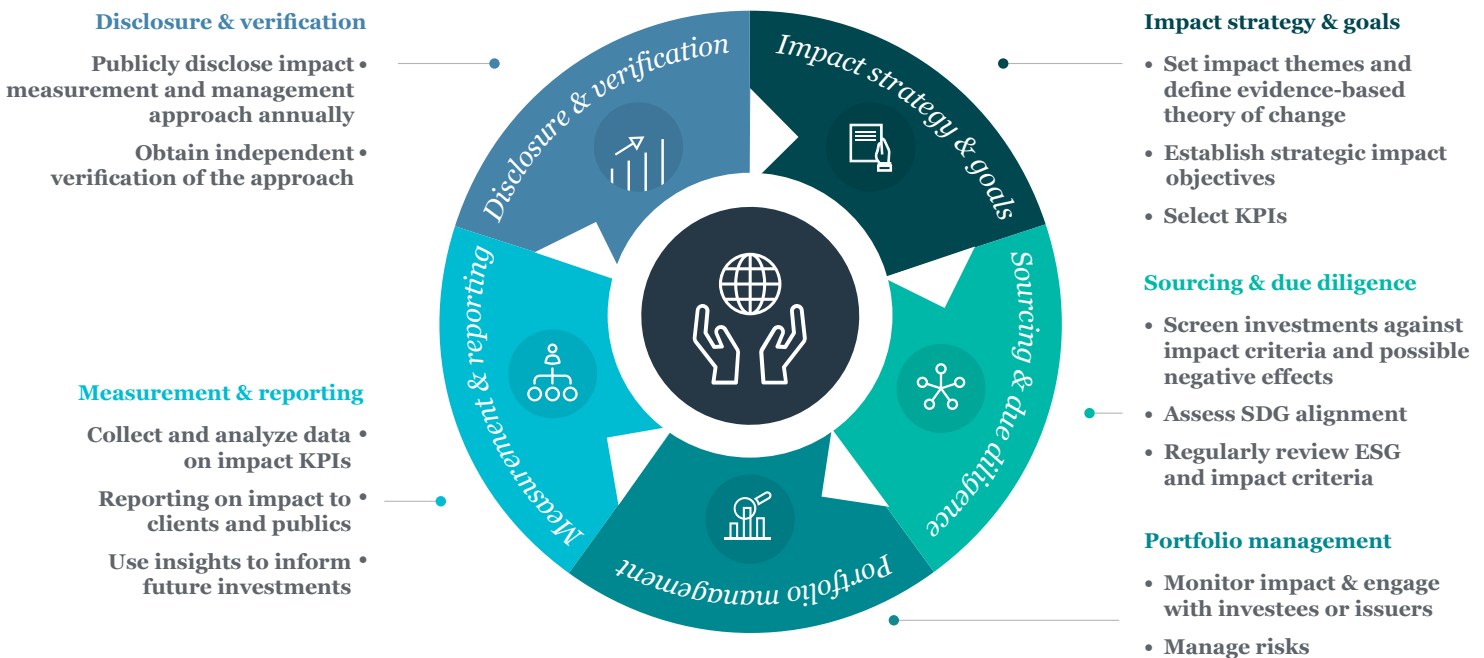
All of our impact measurement and management capabilities adhere to the same high standards, grounded in credible data and aligned with industry best practices. We rely on the five dimensions of impact as defined by the Impact Management Project to help define robust impact objectives and use the resources in IRIS+ to select appropriate evidence-based metrics. In addition, we align our

investments with the UN SDGs, which provide a clear, globally recognized framework, help define the scale and nature of global problems and identify specific targets to work toward.

Nuveen’s tools explicitly consider impact during investment selection, due diligence, ongoing management, and exit. Our impact management system (Figure 3) is aligned with the IFC Operating Principles for Impact Management, of which Nuveen is a founding signatory and member of the Advisory Board.

We are also leveraging new technology and our big-data platform to process unstructured data and build new impact datasets. We find that these practices result in greater insight into impact through analysis that is actionable, useful and meaningful to our investment teams and, more important, to our clients.

Figure 3: Nuveen’s impact management system



Case Studies

Impact investing in action

Case Study 1: Quantifying impact in public fixed income

Sourcing and due diligence

Starbucks issued its first sustainability bond in 2016, for a total of \$500 million. To assess whether this bond fit into Nuveen's fixed income impact investing strategy, our portfolio managers examined the expected use of proceeds and compared it to our impact framework's objectives and criteria. The company committed to elevating positive impacts in its coffee supply chain by using the funds to add 86 new Coffee and Farmer Quality (C.A.F.E.) Practices-verified supply chains; develop a new Farmer Support Center and maintain eight existing centers; and provide loans to farmers across the globe through the Global Farmer Fund.

While tracking the positive effects of our investments is a key tenet of impact investing, assessing potential negative impact is also critically important to avoid undermining any positive impact generated. For example, one of our portfolio managers expressed concern that Starbucks' increased sourcing of organic coffee beans might harm those farmers who are unable to produce organically,

potentially putting them out of business. Starbucks indicated that they planned to mitigate this risk by including the training and financing elements of the program that would help farmers adopt organic and sustainable farming practices. Furthermore, Starbucks' commitment to reducing plastic waste reinforced the idea that the sustainability bonds are not an isolated activity, but rather form part of a holistic strategy to reduce the company's environmental impact.



As a result of our in-depth due diligence, we determined that the activities described above aligned with our Community and Economic Development theme's criteria, and the team decided to purchase the bond. Nuveen's Responsible Investing team—a separate group of experts that partners with our investment teams—reviewed the bond prospectus during its annual review and concurred with the assessment of theme fit.

Portfolio management

Nuveen has gathered social and environmental results data on the Starbucks sustainability bond each year since the 2016 transaction. The company reports on use of proceeds and key performance indicators and obtains a third-party assurance of its use-of-proceeds report. Over the years, Starbucks' reporting has grown more sophisticated. For example, in 2017 the company reported that it had added one Farmer Support Center and operated another eight across Latin America, Africa and Asia. In 2019, it reported the number of farmers trained through these centers, which is a more useful metric for understanding the true reach of the activities funded by the bonds. Nuveen engages with issuers to encourage more useful reporting of results delivered per year. In this case, we discussed the metrics with both the issuer and their underwriters and communicated that we expected their reporting to evolve over time as the projects progressed.

Measurement and reporting

Nuveen's proprietary impact measurement framework for fixed income includes commonly reported metrics for the project types in the portfolio. One such metric is "number of farmers and fishers trained (annually)." We combine Starbucks' yearly results on this metric with others issuers, disaggregated by geography where the breakdown is available, and aggregate it in our yearly reporting to the public and clients (available on our website). These metrics can also act as a window into the effectiveness of a given strategy and can provide insights that have both impact and financial implications over time.

Case Study 2: Quantifying impact in affordable housing

Sourcing and due diligence

In 2018, Nuveen invested \$15 million in Shore Hill Senior Community as a co-investment with a fund led by Jonathan Rose Companies. Shore Hill is an affordable senior housing community located in the Bay Ridge area of Brooklyn, NY. The complex includes 558 studio and one-bedroom rental units. These units are covered by a Housing and Urban Development (HUD) Section 8 Housing Assistance Contract, which means that tenants pay no more than 30% of their income toward rent.

The investment team first assessed the Shore Hill investment for its strategic alignment with our impact thesis, which aims to increase access to sustainable, safe and affordable housing for underserved and low-income communities. Shore Hill scored well on key criteria, such as its ability to achieve impact at scale (500+ units is quite large for an affordable housing transaction) and Nuveen's potential to add value as an investor (for example, by extending affordability

restrictions for another 40 years). The team then assessed the expected social and environmental impact against its key performance indicators. For example, rent costs would be 45% below market rates, which far exceeds the portfolio average tenant rent savings of 25%.

Portfolio management

To manage for impact and add value to this investment, Nuveen works closely with its partner, Jonathan Rose Companies, to preserve affordability and enhance the quality of the living environment for tenants. For example, the property will undergo a green retrofit, including lighting upgrades, air sealing and water-efficient toilets. These upgrades will reduce water and energy use by 21% and at least 11%, respectively.

Nuveen is also piloting an impact rating for its affordable housing portfolio, which synthesizes various impact data into a single number to facilitate comparison. The impact rating helps us understand how well an investment fits our theory of change and enables us to consider impact alongside financial risk and return. It also lets us experiment with benchmarking investments based on impact performance over time and compared to similar deals in the portfolio.

Measurement and reporting

For its affordable housing portfolio, Nuveen collects and reports on several key performance indicators that address several dimensions of impact:

- The scale of the impact: 666 senior low-income tenants housed
- The depth of the impact: housing is affordable for tenants earning 50-60% of area median income
- The duration of impact: affordability will be maintained for 40 years
- Nuveen shares this information with investors and the public via an impact report published on our website.

Responsible exit

Nuveen considers responsible exits both before and after making an investment. For affordable housing in the United States, one of the most straightforward ways to ensure mission preservation is to extend the affordability restrictions on a property and exit to another Low-Income Housing Tax Credit investor, who will be able to utilize the associated tax benefits. For example, Nuveen holds affordable housing investments on average for 5-7 years, but the affordability restrictions it puts in place last for 20-40 years—well into the holding period of the next investor. By measuring the duration for which affordability is guaranteed by regulatory restrictions for a given property, Nuveen can predict how many responsible exits it will achieve and for precisely how long the mission will be preserved.



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Read more about impact investing on nuveen.com and in the following publications:

[Impact investing in public fixed income markets](#)

[Measuring impact in public fixed income](#)

[ESG & impact fixed income strategy impact report](#)

[Raising the bar — impact investing in a changing world](#)

[Read more about impact investing on nuveen.com/impact](https://nuveen.com/impact)

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