

Impact-Financial Integration:

A Handbook for Investors

An initiative of the
Impact Management Project



Partners in the Impact Frontiers Collaboration



With thanks to our funders:



METANOIA FUND



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Executive Summary

After years of framework development, metric definition, and data collection, many investors are increasingly able to anticipate, measure, and manage the social and environmental results of their investments. But for investors to play an even greater role in solving social problems, impact management must leave its silo and integrate with financial management.

The challenge is that financial and impact management methodologies are not designed to be interoperable. Impact specialists at investment funds typically have their own teams with their own vernacular, frameworks, and datasets, all of which exist in varying degrees of isolation from their financial counterparts.

Siloed approaches leave impact, money, or both on the table. Yet investors who wish to integrate financial, social and environmental considerations are faced with a custom job.

To address this challenge, our organizations have participated for the past two years in the [Impact Frontiers Collaboration](#), an initiative of the Impact Management Project (IMP), to pioneer new ways to integrate impact management with financial management.

This handbook presents the methods of impact-financial integration that our organizations developed and implemented, along with examples and lessons learned.

Asset managers can use integrated impact and financial data and analysis to move beyond screening to continuous improvement of impact. Many asset managers that seek to create positive impact conduct impact analysis primarily at the pre-investment or screening stage. They apply a negative impact screen (filtering out companies with socially or

environmentally harmful practices) and a positive impact screen (allowing in only companies that pass a threshold of positive impact). Once prospective investments have passed both impact screens, asset managers typically make investment decisions and construct portfolios purely based on financial considerations.






Beyond screening, few investors or lenders actively optimize both impact and financial performance simultaneously. The methods described here enabled our organizations to go further by actively optimizing for both impact and financial performance in portfolio construction. Additionally, impact-financial integration enables us to communicate all dimensions of our goals and performance internally and externally with greater clarity and transparency.

Asset owners can use these methods to inform capital allocations to asset managers. Asset owners can familiarize themselves with the methods in this handbook to become more discerning and informed consumers of asset managers' impact and financial performance reports, and to allocate capital to those managers that create impact most efficiently and effectively while meeting asset owners' financial goals.

The methods described here are useful both to investors seeking market-rate financial returns, and to investors able to accept less. Investors seeking market rates of financial return can use the approach to increase their positive impact on people and planet while furthering their financial goals. Investors willing to accept a financial concession can use integrated impact and financial data to target those financial concessions to where needs are greatest, and to where capital can be used most productively to address pressing social and environmental issues.

The benefit of greater impact-financial integration for the world at large transcends the benefits for individual investors. It has the potential to change the way financial markets allocate capital to address urgent problems. In an era marked by the coronavirus epidemic, climate change, and historic levels of inequality, building a financial sector that better serves society has never been more important – and more possible.

This handbook is organized as follows:

-  **Chapter 1** introduces the four steps of impact-financial integration, explores the relationships between impact and risk-adjusted financial return, and examines benefits and risks of the approach.
-  **Chapter 2** describes expected impact ratings, and offers guidance for investors that wish to create their own expected impact rating (also see **Appendix 4** for examples)
-  **Chapter 3** presents in more detail the methods that our organizations developed of using integrated data and analysis:
 -  To inform decision-making about individual investments
 -  To set goals and measure and communicate performance of portfolios of investments

Finally, for an organization to implement an integrated approach to impact and financial management, one or more team members will need to become conversant with both impact and financial methodologies, so as to construct the bridges between them. As often as not, this will mean impact management professionals learning the basics of financial valuation. Toward that end, **Appendices 5 and 6** present basic methods of estimating loan profitability for lenders, and of estimating financial concession for multi-asset class investors.

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1. Overview

1. Overview

1.1. Approaching Integration from Different Perspectives




Nuveen is the investment management arm of TIAA and one of the largest investment managers in the world. Nuveen's private markets impact investing team has invested over \$1 billion directly and through funds in private equity and real estate, with the goal of improving low-income consumers' ability to access basic services such as healthcare, education and housing. Investing on behalf of institutional investors, Nuveen is bound by fiduciary duty to seek a competitive risk-adjusted financial return. At the same time, many investors in Nuveen funds are drawn to the firm due to its reputation for responsible investing. In 2018, Nuveen's private markets impact investing team therefore set out to increase the positive impacts of its investments while fulfilling fiduciary obligations.

In contrast, Propel is a single-donor fund focused on creating an economy and democracy that works for all, with a portfolio spread across asset classes and sectors, and across the financial returns continuum. Founded in 2008, Propel's first years of investing were driven largely by the goal of moving capital quickly to fund experimentation in the nascent impact investing field. Self-funded and with a lean team of just two people, Propel had neither time nor requirement to systematically quantify the financial concession implicit in many of their investments, nor to quantify the impact created. But in 2018, Propel set out to do so as a way of taking stock of their first ten years, and setting their future investing strategy.

Like many investors, Nuveen and Propel sought to advance their approaches to measuring, managing, and communicating the impacts of their investments. But their challenge did not stop there. They sought to do so in a way that was aligned with their organizations' respective financial goals and constraints.

Little guidance or best practice existed to support them in this regard. Nuveen and Propel therefore joined eleven other investors in the Impact Frontiers Collaboration, a two-year initiative within the IMP. Inspired in part by the article, "[Toward the Efficient Impact Frontier](#),"¹ participating investors pioneered new ways to integrate impact management with financial management across portfolios cumulatively totaling more than \$15 billion. (See [Appendix 1](#) for participating organizations.)

Each partner in the collaboration undertook a structured process to answer the following questions:

-  Which investments or loans offer more or less expected impact – and how do we know?
-  Which investments or loans offer more or less expected risk-adjusted financial return?
-  How can we use these insights to improve the impact and/or the financial performance of our portfolios?

The process of answering these questions was common to all partners, but the approaches and results developed by each organization were customized to their unique contexts and goals. From these thirteen approaches we synthesized four overarching steps toward impact-financial integration that we believe are relevant for a wide range of investors.

¹Stanford Social Innovation Review, Winter 2016.

Collaborating Across the Returns Continuum

The Impact Frontiers Collaboration brought together investors from across the [continuum of financial returns](#) described by Omidyar Network, ranging from grants on one end to excess risk-adjusted financial returns (i.e., ‘alpha’) on the other. Partners such as Nuveen and Bridges Fund Management, a specialist private markets investor, sought market-rate financial returns. Others, such as Propel and CeniARTH, a single-family office, were individually-funded organizations that additionally had the ability to make concessionary investments and grants when there was potential for especially high impact.

Both sets of investors found impact-financial integration useful in setting and achieving integrated financial and impact goals. In their own words:

“Our investors have given us a financial mandate that includes fiduciary duty, but also an impact mandate. This is our way of implementing both of those mandates simultaneously.”

Hannah Schiff
Nuveen

“We are trying to ‘buy’ outsized impact by taking reduced financial returns across the portfolio. We needed a framework for doing so and for demonstrating that we are achieving that goal.”

Harry Davies
CeniARTH

1.2. Four Steps Toward Integration

In developing our organizations’ approaches, we followed the following steps:

- 1)

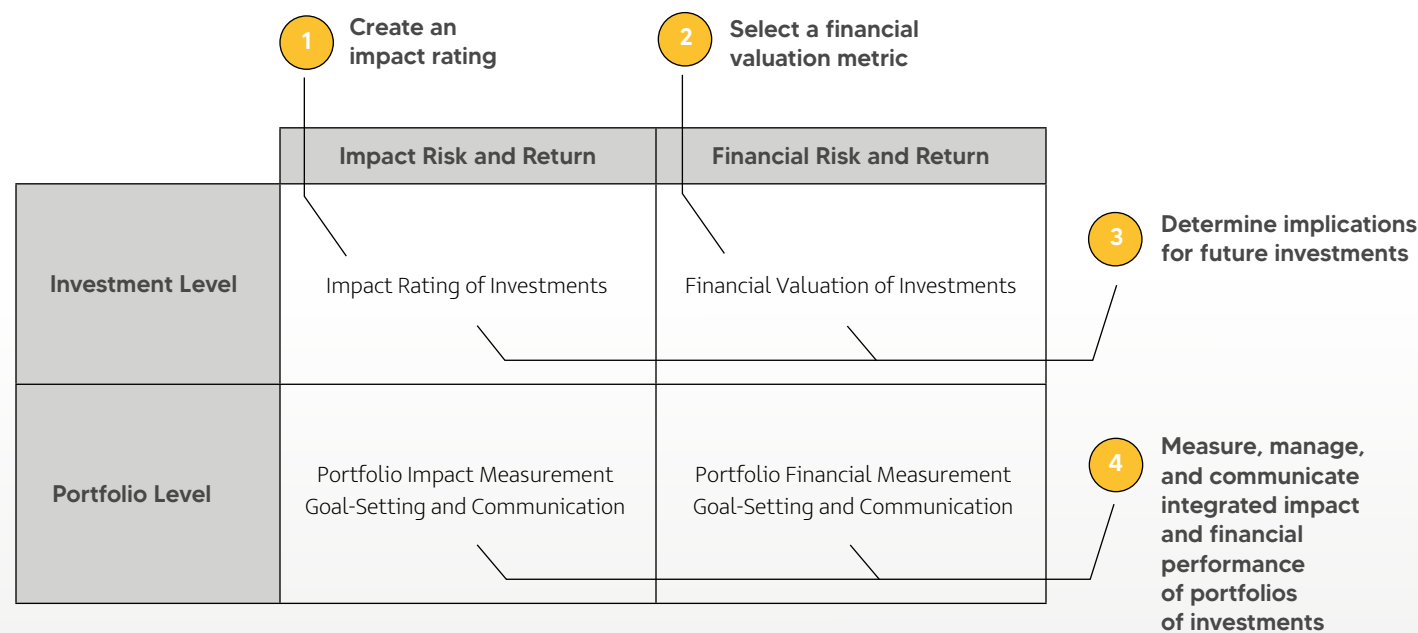
Create an impact rating to distinguish the prospective investments or loans (hereafter simply ‘investments’) that offer more or less expected impact. Apply this rating to investments currently in the portfolio and to prospective investments in the future.
- 2)

Select a financial valuation metric to estimate which prospective investments offer more or less expected risk-adjusted financial return. Apply this metric to investments currently in the portfolio and to prospective investments in the future.
- 3)

Determine implications for future investments by conducting integrated impact-financial analysis.
- 4)

Measure, manage, and communicate integrated impact and financial performance of portfolios of investments.

Four Steps Toward Impact-Financial Integration:



Each of these four steps is covered briefly in this overview, along with benefits, limitations, and tips for practitioners. Each step is then covered in more detail in the remainder of the handbook.

Nothing in these elements of practice prescribes the use of any particular framework or approach to impact management or financial management. Rather, these elements of practice link together investors’ chosen methods of impact and financial management.

Reflections from Collaboration Partners

“Investors are thinking of impact and financial issues separately. They usually have two separate thresholds. Is this a good deal in its financial merits? Check. Does it qualitatively or intuitively seem to meet our impact criteria? Check. Then the deal moves forward.”

Allison Spector
Nuveen

“Usually, the impact is assumed, or described narratively or intuitively. There’s no impact/risk/return integration because the state of impact practice is so nascent.”

Catherine Dun Rappaport
BlueHub Capital

“Many investors are not distinguishing between different levels of expected positive impact -- it's, "I'm going to look for companies in a certain space", but without the tools or criteria to easily determine the highest and best use of impact capital.”

Katya Levitan-Reiner
Propel

“Prior to this process, our impact and financial analysis were in two separate sections of our investment memo, and neither section referred to the other... We seldom talked about finance and impact in the same sentence. Now, we do.”

Loïc Comolli
NESsT

1.3. Creating Expected Impact Ratings

Each of our organizations began by creating an impact rating to distinguish the transactions that offer more or less expected impact.

An impact rating is a weighted sum of indicators that collectively cover multiple [dimensions of impact](#), such as the number of people reached, how underserved those people are, and how much each individual is affected. Impact ratings can also cover environmental impacts such as reduced carbon emissions or avoided deforestation.

Importantly, our organizations' impact ratings encompass two factors. The first is the expected social and environmental impacts of the enterprises we support. The second is the expected contribution of our specific investments toward those impacts. This is variously called investor contribution, investment impact, and additionality.²

The weights applied to each indicator reflect the importance of the impacts to stakeholders, such as consumers, employees, and community members of investees. The weights also reflect investors' impact priorities, such as raising incomes of low-income populations or advancing gender inclusion.

Impact ratings make it easier for investors to obtain a more complex understanding of impact that goes beyond simple scale metrics such as “number of people reached.” Even among a set of possible investments

already screened for positive impact, ratings can help investors to identify the investments with greatest expected impact.

Like any predictive tool, impact ratings are imperfect and subject to the availability and quality of data. They work best as part of a larger approach that includes secondary research and direct feedback from stakeholders. Investors should monitor and evaluate the investments that the ratings help select to verify whether the expected impact occurs.

Though all of us developed impact ratings, other approaches could work, such as [impact monetization](#), which strives to accurately calculate the monetary value of the impact of an investment. Whatever approach investors employ, it should tell them to what extent they should prioritize a transaction based on its expected impact.

Some investors are understandably reluctant to reduce the complexity of impact to a number. The reason to do so is not that quantitative approaches are intrinsically more rigorous than qualitative; they are not. The reason is rather that doing so increases the clarity of organizations' impact goals and the quality and consistency of decision-making. Investors operate in a highly numerate financial context. If impact is to enter the financial equation, it has to enter that equation in quantitative terms.

See [Section 2](#) for more on expected impact ratings, and [Appendix 4](#) for examples of our organizations' expected impact ratings.

² See also “[Investor contribution in public and private markets: discussion document](#),” Impact Management Project, July 2019; and “[How Investors Can \(and Can't\) Create Social Value](#)” by Paul Brest, Ronald Gilson, and Mark Wolfson in Stanford Social Innovation Review, December 8, 2016.

Reflections from Collaboration Partners

“We have decided to go beyond ‘number of people reached’ towards a richer picture of impact.”

Genevieve Edens
WaterEquity

“As an industry we have to get past this idea that assets under management equal impact.”

Tony Berkley
Prudential Financial, Inc.

“We have a broad mission, and there can be a little vagueness about what we mean by mission-aligned. The process prompted us to get more concrete about what we mean by ‘impact’ and to get people on board with that. Also, we doubled in size. This process helped us to be more transparent and explicit about how we defined and assessed impact. This was particularly helpful as we brought new staff into our work.”

Catherine Dun Rappaport
BlueHub Capital

1.4. Selecting Financial Valuation Metrics

Next, each of our organizations selected a financial valuation metric to estimate which prospective investments offer more or less expected risk-adjusted financial return. A counterpart to the impact rating, it is designed to tell the investor to what extent they should prioritize a transaction on the basis of its expected financial performance.

Many of our organizations already had asset-class specific methods of financial valuation. For instance, NESST and other lenders estimate net present value (NPV); Nuveen and WaterEquity use internal rate of return (IRR); and IDB Invest calculates risk-adjusted return on capital.

Some lenders in our group used NPV to quantify the dollar value of financial concession, if any, that was implicit in certain loans. The rationale is that if a loan has a negative NPV to the lender, that loan is economically equivalent in value to a grant in the amount of the negative NPV. It can be thought of as the “price” at which investors are purchasing impact.

Private equity investors such as Bridges Fund Management estimate multiple of invested capital and IRR. Lastly, multi-asset class investors such as Propel compare the rate of return expected of each investment with relevant asset class benchmarks to estimate the value of financial concession implicit in each investment, if any.

Prior to the collaboration, not all investors calculated a single number that represents the risk-adjusted financial value of the proposed investment at the time of approval. Some instead used one or more hurdle rates or ‘screens’ based on credit risk score, transaction size, and other factors. Partners that did not already calculate such a number began to do so during the collaboration.

See [Appendix 5](#) for guidance for lenders on calculating loan profitability, and [Appendix 6](#) for guidance for multi-asset class investors on estimating the amount of financial concession implicit in investments in various asset classes in a comparable way.

1.5. Taking Stock of Our Portfolios

Each of our organizations plotted our existing investments on a scatterplot with our expected impact rating on the horizontal axis, and our expected risk-adjusted financial return metric on the vertical axis. On the following pages are examples of scatterplots from two partners, Bridges Fund Management and Propel.

See [Section 3.1](#) for additional examples of scatterplots from collaboration partners.

“This helps us visualize where the different portfolios are on impact and financials—do we want to change targets or allocations going forward?”

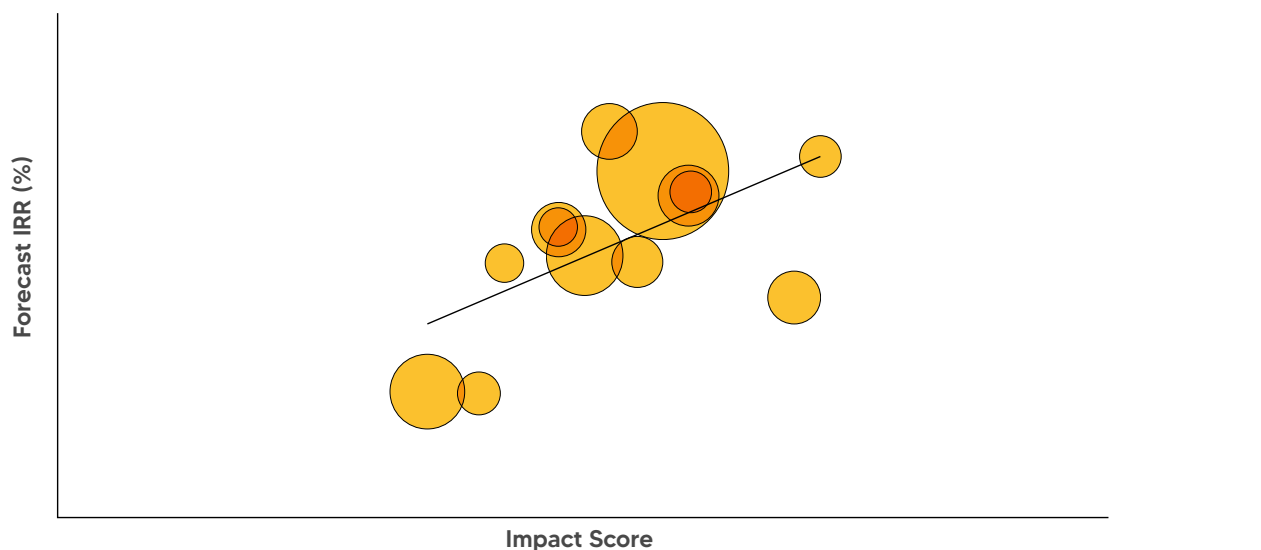
Allison Spector
Nuveen

“The charts provide a way to visualize the portfolio as a portfolio rather than as a collection of unrelated assets. It’s not just topline impact numbers you always see – number of people reached, etc. It’s a way to visualize all of the individual transactions in the portfolio, showing both their impact and their financial performance. I read people’s portfolio reports for a living, but I had not seen this before.”

Tony Berkley
Prudential Financial, Inc.

Example Integrated Impact-Financial Portfolio Scatterplot:

Bridges Fund Management, Property Fund



Commentary from Bridges Fund Management:

At Bridges we continue to incorporate the latest thinking to emerge from the Impact Management Project (IMP) norms into our impact analysis³. Building on our existing Impact Radar methodology, we assess and score the positive or negative effects the investments in our portfolio have on people and/or planet using the five dimensions of impact, and map the scores to the IMP's impact classes of Avoid Harm, Benefit Stakeholders, and Contribute to Solutions. This has led to a clearer and more transparent impact management framework that allows us to assess and classify investments at an asset- and portfolio- level and be more consistent across our investment strategies.

We also use our IMP-aligned scoring system to help us analyse the relationship between impact and financial performance; we are looking for clear alignment between generation of impact and ability to deliver financial returns.

The chart above plots the average impact score of the individual investments within one of our property

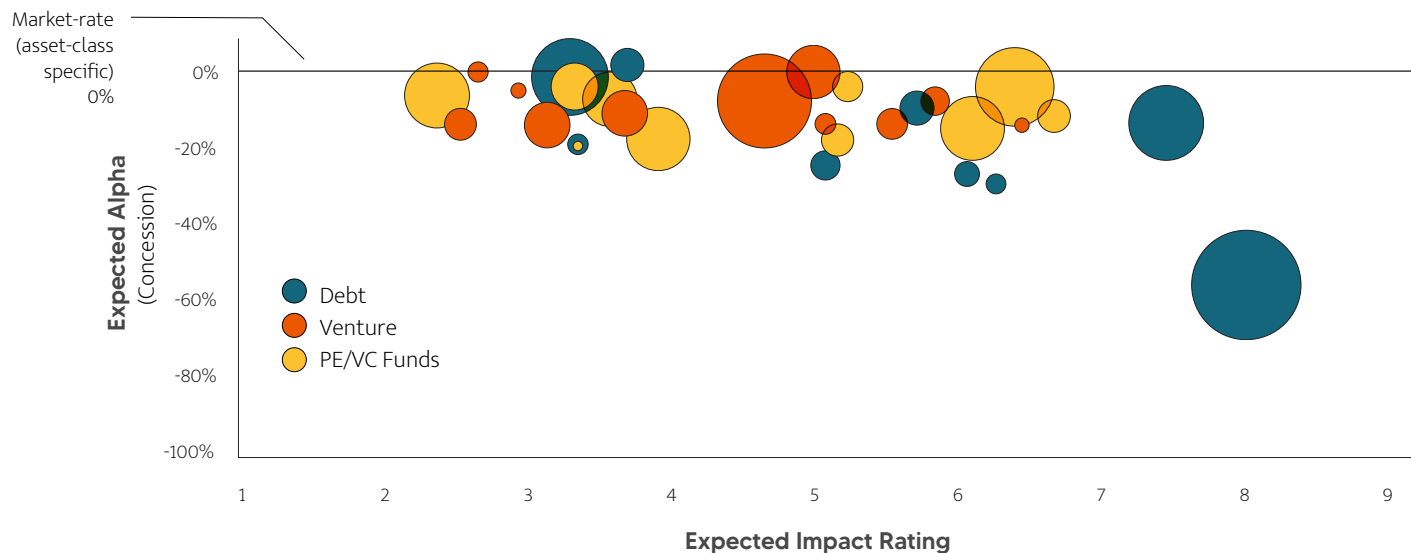
funds versus their forecast IRR (the size of the bubbles reflects the amount of money invested in each one to date). It shows a clear trend-line from bottom left to top right, demonstrating that for these assets, there is clearly a positive correlation between commercial success and impact performance.

“Integration between financial and impact performance has enabled us to have richer conversations with both external and internal stakeholders. Displaying financial alongside impact metrics resonates strongly with investors and has allowed us to compare our different strategies in terms of impact and financial performance. During portfolio reviews, this also help us to monitor impact and financial returns at an asset- and portfolio- level. At Bridges, we are entirely dedicated to investments that Benefit Stakeholders and Contribute to Solutions, and we are now using this as a paradigm to help us screen investments during the origination and diligence process.”

Ivan Rodriguez
Sustainability Director

³ Please see [Bridges Impact Report 2017](#) and [Bridges Annual Report 2018-2019](#) for further information.

Example Integrated Impact-Financial Portfolio Scatterplot:
Propel



Commentary from Propel:

By mapping ten years of our investing in this way, Propel can now more clearly assess the relationship between the financial and impact return of individual investments and identify trends in the portfolio as a whole. In most cases, we found a clear relationship between the level of expected impact and financial concession, but we also see impact ‘stars’ where the expected concession is small relative to impact, as well as investments where we may have overpaid for the level of impact achieved.

See [Appendix 6](#) for more detail on the methods Propel used to estimate the financial concession in each investment.

1.6. Exploring the Relationships Between Impact and Risk-Adjusted Financial Return

As the preceding charts demonstrate, there may be a positive correlation between expected impact and expected financial return, a negative correlation, or no correlation at all.

These correlations differ from one investor to the next, and are driven by individual investors' goals and contexts; the impact indicators selected by investors; and the weightings that the investor applies to those indicators to calculate an impact rating. Our portfolio scatterplots enabled us to quantify and to test our intuitions about the relationships between impact and risk-adjusted financial return in our own portfolios.

We also aggregated and compared our portfolio scatterplots to identify trends across our portfolios. Though preliminary, this cross-portfolio comparison surfaced intriguing hints of the kind of findings that might emerge from analysis of larger datasets in the future.

For instance:

- Some partners seem to face a tradeoff between impact and risk-adjusted financial return, while others do not. Specifically, two partners found positive relationships between the impact ratings and the expected risk-adjusted financial returns of their investments; four found inverse relationships; two found no relationship; and three had insufficient sample size to determine a trend.
- Partners found that different dimensions of impact have different relationships with financial performance. For example, one partner found that scale of impact (e.g., number of people reached) was positively correlated with the profitability of their loans, but the poverty level of the population reached was inversely correlated.
- In comparing their analyses, partners found that a given dimension of impact may have a different relationship with profitability for different investors. For instance, one partner found that greater investor contribution was associated with lower loan profitability, whereas another found the opposite to be true.
- Some dimensions of impact seemed to have little relationship with profitability either way

The larger point is that the relationships between social and environmental impact and financial risk and return can be analyzed empirically and managed proactively by diverse investors. This analysis in turn can improve investors' decision-making with regards to their financial and impact goals.

Reflections from Collaboration Partners

“We have always thought of impact and financial return as not correlated. They are two separate components and we want to be positive on both. If you had asked us a few years ago, we wouldn’t have seen much value in putting them together. Now that we have implemented our Impact Scorecard and shown our team all of the robust analyses we can do with the data – what the relationships between impact and financial return might mean for our portfolio and operational efficiency, what different deals look like compared to each other, what different parts of the portfolio look like – now folks are starting to see the benefit of this analysis and adopting a portfolio-wide approach.”




Caitlin Rosser
Calvert Impact Capital

“I wish we could say that impact drives alpha, but that hasn’t always been the case in our portfolio. It is, however, very fair to say that our best-managed impact fund GPs tend to also have outperformed on returns... perhaps there’s a strong correlation we could tease out over time with a larger sample size.”

Shu Dar Yao
RSF Social Finance

1.7. Informing Investment Decision-Making

We found three ways to use integrated data and analysis to inform decision-making on individual transactions:

-  **Informal Benchmarking to Portfolio Scatterplots:** Several organizations, typically with smaller portfolios, consider transactions' expected impact relative to their expected risk-adjusted financial return, simply by estimating where proposed transactions would fall on their portfolio scatterplot.
-  **Benchmarking Tools:** Calvert Impact Capital and Water Equity created new tools that benchmark financial and impact characteristics of proposed transactions against those of similar transactions already in the portfolio. Investment teams provide these benchmarks as part of the deal proposal to investment committees, who in turn are unlikely to approve transactions that compare unfavorably to the existing portfolio on impact valuation, financial valuation, or both.
-  **Hurdle rates:** IDB Invest and Root Capital articulated impact-financial hurdle rates that defined the minimum impact rating they would require of transactions with a given financial valuation. These hurdle rates are typically on a sliding scale. That is, these two investors are generally willing to provide greater flexibility on expected risk-adjusted financial return for the investments with the highest impact ratings, while requiring greater profitability of investments with lower impact ratings. A hurdle rate can be a hard-and-fast rule, or can be used more as a guideline to which exceptions can be made.

See [Section 3.1.2](#) for examples of benchmarking tools, and [Section 3.1.3](#) for examples of impact/return hurdle rates from collaboration partners.

Reflections from Collaboration Partners

“When we initially presented this idea to the team, the idea of relating impact to financial risk and return was new. The organization was mostly analyzing these two aspects of a deal separately. Individuals were informally assessing impact depth and alignment with an inconsistent range of criteria. There weren’t bad actors but there wasn’t clarity and consistency.”

Kelly Peterson
Community Vision

“Few investments score a perfect ‘10’ in every impact and financial aspect. We want investment officers to be able to construct portfolios of investments that collectively meet our portfolio goals for impact and financial risk and return, even if individual investments make different contributions towards those goals.”

Alessandro Maffioli
IDB Invest

“We diligence for risk-adjusted return and impact at the time of investment, but regularly re-scoring our portfolio allows us to continuously optimize the portfolio. It’s always a joy to double down on our successes, but just as necessary to wind-down investments to make our limited capital as ‘impact-efficient’ as possible.”

Shu Dar Yao
RSF Social Finance

1.8. Enabling Continuous Improvement in Portfolio Construction

As a result of our efforts at impact-financial integration, we expect that in the future our portfolios will demonstrate increased impact, financial performance, or both. This increased performance will take time, as the investments that our organizations made under the new approach will not mature for several years.

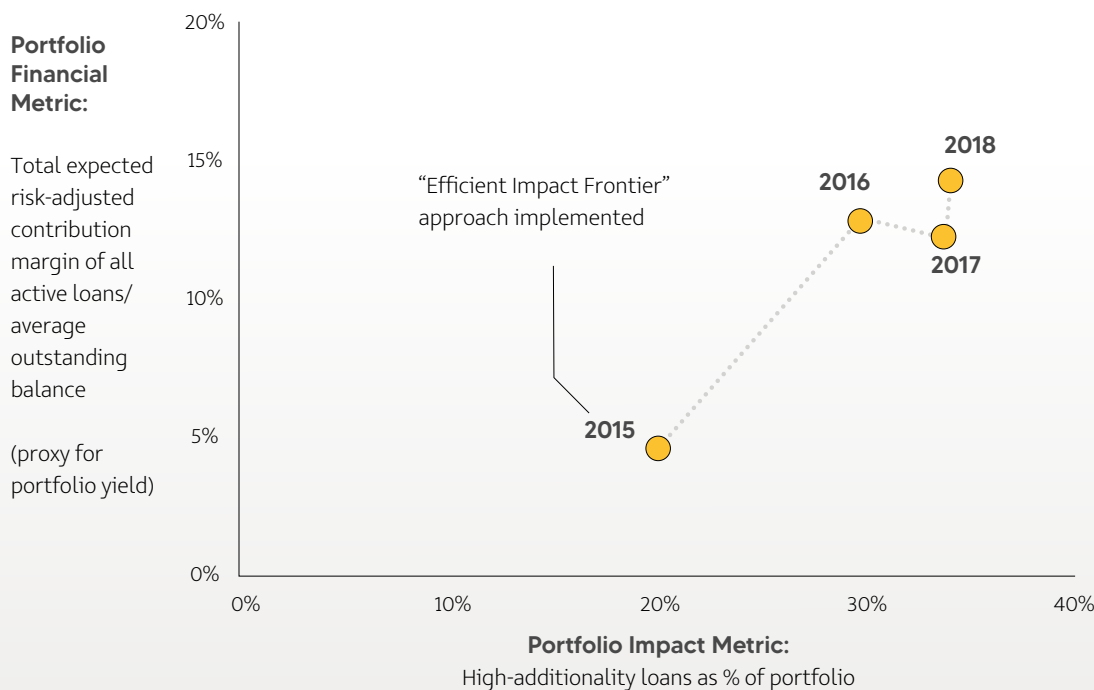
Several of our organizations implemented our impact focus primarily through positive and negative impact ‘screens,’ and hence did not set or manage toward impact targets for our portfolios. Developing portfolio-level impact targets that go beyond unidimensional scale metrics such as “number

of people reached” is one of the most challenging aspects of the approach. Many of our organizations made progress, but in general we feel that more work remains to be done in this regard.

Nevertheless, preliminary results of early adopters are promising. IDB Invest⁴ and Root Capital both implemented the approach by 2017 or before. Since then, both organizations have either improved both the impact and the financial performance of their portfolios, or have improved one while holding the other approximately constant.

See [Section 3.2](#) for examples of portfolio-level impact dashboards and integrated impact-financial dashboards from partners.

Impact and Financial Performance of Root Capital’s Portfolio, 2015 – 2018



⁴ While IDB Invest was launched in 2016 with the consolidation of the IDB Group’s private sector operations into this new entity, its impact management framework builds on an institutional track record of implementing an integrated portfolio approach since 2008.

Reflections from Collaboration Partners

“This approach helps us to communicate with our investment committee and our Board about which investments we are doing and why. Our portfolio has different segments, which make different impact and financial contributions. This helps show how those segments fit together to create a portfolio that achieves the organization’s overall goals.”

Alessandro Maffioli
IDB Invest

“External stakeholders often want to know about widgets – how many units of affordable housing built, small businesses financed, etc. Measuring scale alone puts transactions that are stronger on depth or duration of impact at a disadvantage, but we’ve never had the information we needed on depth or duration of impact consistently across the portfolio. This is one of the main reasons that we were previously reluctant to set impact goals at the portfolio level. With this newer integrated approach, we can assess the impact of our portfolio based on a variety of factors, including scale, examine the relationship between different dimensions of impact, and optimize our lending to manage and improve impact at both the transaction and portfolio levels.”

Caitlin Rosser
Calvert Impact Capital

1.9. Risks and Limitations

Our main concerns going into the collaboration were the risk that a lack of quality data would undermine the analysis (the so-called ‘garbage in, garbage out’ problem), and the risk of implementing additional processes that would over-burden or alienate the investment team.

The completeness and accuracy of impact data in the investment industry is generally uneven. Many of us expressed concern about potentially constructing impact ratings that were poorly thought through, or that were based on inaccurate or incomplete social and environmental data, and then making investment decisions based on faulty data and reasoning. Moreover, our teams shared concerns about whether the approach would add ‘red tape’ to the investment process without improving the quality of decisions.

To avoid these possibilities, we went to lengths to incorporate perspectives from across our organizations to ensure that the right information was included, and to customize tools for ease of use by our teams. We sanity-tested our approaches with one another during peer feedback workshops, and with external advisors, before piloting them. We conducted pilots on segments of the portfolio before rolling our approaches out more broadly. And we revised our data sources, indicators, and methodologies over time. Root Capital developed its approach over approximately four years. Partners in the Impact Frontiers Collaboration worked through the same set of challenges on an accelerated timeline of 18-24 months.

Organizations such as IDB Invest and Root Capital that have been implementing the practices for three years or longer observed that impact management and impact-financial integration are not projects that are ever

finished and put aside. They become part and parcel of how investors do business. As with any mission-critical process, there are always improvements to be made. That said, ongoing improvements generally require less bandwidth than original tool creation.






There are a number of reasons why investors might choose not to integrate impact and financial analysis, as we saw first-hand with those organizations that chose not to participate in this collaboration. The usefulness of financial-impact integration to decision-making is predicated on the possibility of making choices about which investments to make, in order to optimize across impact and financial goals. Investors in the following contexts either lacked the possibility of choice, or the desire to optimize in this way:

- Investors that have more capital than deal flow, and as a result, are under pressure to approve all of the deals that pass their impact and financial screens;
- Investors that are optimizing only for financial risk and return, including both mainstream investors and impact investors that will only ever consider impact as a negative and positive screen; and
- Investors that are not accountable to external stakeholders and hence feel less pressure to demonstrate continuous improvement.

1.10. Organizational Challenges and Benefits

While the technical challenges of impact-financial integration are significant, we found that managing the associated organizational changes was equally demanding – and equally important.

Organizational issues that impact-financial integration touches on include the following:

-  **Process:** where in the investment origination and approval process does the impact rating fit in?
-  **Roles:** for organizations that have in-house impact specialists, does the specialist complete the impact ratings for all proposed investments, or design tools for use by the investment team to do so?
-  **Decision rights:** for organizations that have in-house impact specialists, is the specialist only an input provider to the decision? Or do they have the right to veto investment decisions or escalate decisions to higher levels of organizational approval?
-  **Systems:** How will data about impact be entered, stored, and retrieved?
-  **Incentives:** If the organization offers high-powered incentives for financial performance, does it need to balance these with incentives for impact?


There is no one right answer to these questions. Each of our organizations addressed them in our own way.

We recommend a period of one to two years for development and piloting of the approach, followed by one year of refinement. This is partly because it takes one annual investment cycle to develop an approach

and collect and analyze data. It takes another year to refine the methodology based on lessons from the first year. Of the four elements of practice, we found that the first – creating the impact rating – was generally the most time-consuming, especially for organizations creating one from scratch.

Several of us observed that going slowly and engaging with investment team members and other internal stakeholders early and often was critical to constructing an approach that those team members would later be willing to put into practice.

For organizations embarking upon impact-financial integration for the first time, the challenges may seem daunting. We are encouraged that the benefits have been proportional to the effort we put into it. Beyond improving portfolio performance, we found that impact-financial integration yielded important organizational dividends, including:

-  Articulating more concretely what we mean by ‘impact,’ and aligning our investment criteria and processes with our desired impact and financial goals;
-  Increased efficiency – we spend less time evaluating unattractive investment opportunities – and effectiveness in prioritizing the most attractive proposed investments; and,
-  Improved communication among team members, investment committees, and boards of directors about organizational goals and performance, both impact and financial.

Anonymised Reflections from Collaboration Partners

“It’s been a surprise how much time and effort we have had to spend educating decision-makers. As team members, we can develop a prototype on our own, but beyond that, it has to have senior management behind it.”

“There was never a point when we said, ‘We’re going to give the Impact Frontiers approach a try.’ We don’t use that language internally. If we had, it probably wouldn’t have gone forward for cultural reasons. But we realized we needed an impact rating, and we needed a better way to estimate loan profitability, and then it made sense to put them together.”

“What could be more core to a mission-driven investor than impact and financial risk/return? And we’re saying, hey, here’s how you can do that better! That’s not easy. Especially because our organization is already doing fine. We had to really spend the time to get feedback from people to make the tools something they will believe in and use.”

“The piloting and testing part is really important – having the organization play with it and getting feedback. If we knew in advance what the right end-result would be, we could have gotten to it faster I suppose. But we still would have needed to go through the socialization and piloting phase.”

“We don’t manage external capital, so we don’t have formal external accountability for impact. Figuring out how to establish internal accountability was really valuable for us, even though our culture has always been to lean towards greater impact. It’s difficult when you don’t have external pressure to create internal structures around impact, because it feels like more work and it slows you down. But it makes us sharper.”

“The biggest hurdle, with the investments team, was convincing them that the extra analysis would be worth it. We made the case that impact due diligence is an industry trend and if we don’t raise the bar, we will be left behind. We did it slowly and that benefited us. But what sold them on the idea was that they would have better impact justifications to bring to the investment committee – it would help them make the impact case for their investment proposals.”

“The importance of the visual rhetoric of the tools cannot be overestimated. The charts convey that the impact analytics are now at the same level of rigor as the financial analytics...When you integrate the impact with risk and return you will end up with same clarity and power as people have come to expect on the financial side.”

These are some of the reasons that our organizations cited for choosing to participate in the collaboration:

- "We want to make sure we are at the frontier of best practice on impact, and if we can, push that frontier farther."
- "We have a mandate from our organization's C-suite and Board to advance our practice of impact measurement and management, and this is one way we're doing so."
- "We are a signatory to the [Operating Principles for Impact Management](#), of which the second principle is 'managing strategic impact and financial returns at the portfolio level.' This effort puts us at the forefront of implementing that area of best practice."
- "Impact is a strategic differentiator for us – not only creating impact but the ability to measure, manage, and communicate impact. It is part of our promise to our investors."

Looking back now, we affirm that impact-financial integration has helped us to advance these goals.

We hope that this handbook helps other investors to get started on their own journeys. We know that the methods that we are sharing in this handbook are works-in-progress that we will improve over time, and that can be improved upon further by others. We hope that diverse organizations will take the concept of impact-financial integration, make it their own in ways we cannot imagine or predict, and share what they learn. This is the ultimate goal of the Impact Frontiers Collaboration.



2. Getting Started with Expected Impact Ratings

2. Getting Started with Expected Impact Ratings

2.1. Introduction

All enterprises and all investments have impacts, both positive and negative.⁵ Impact ratings assign a quantitative (but not monetized) value to the positive impact that an investment has, or is expected to have, on people and planet. They are designed to help answer the question, “to what extent should an investor prioritize this transaction on the basis of its impact merits?”

An expected impact rating usually is a weighted sum of heterogeneous measures of impact and is comprised of three elements:

- 1) The factors or topics that the rating assesses;
- 2) For each factor, the metric(s) and data source(s) used to distinguish greater from lesser (positive or negative) impact; and,
- 3) The quantitative weight assigned to each factor in the calculation of the overall impact rating.

These impact ratings comprise the x-axes of the integrated impact-financial scatterplots presented in [Section 3](#).

2.2. How to Create an Expected Impact Rating

For its 2019 [Impact Due Diligence Guide](#), Pacific Community Ventures (PCV) surveyed 38 investors and consultants – including eight of the 13 organizations in the Impact Frontiers Collaboration – on their impact due diligence practices, including impact ratings. PCV synthesized these interviews to outline seven steps by which investors can create their own impact ratings, and we recommend this resource to other investors.⁶

The steps we took to build their own tools generally align with steps recommended by PCV, and are listed below. It is important to note that not all organizations followed all of these steps. Attempting to do so would likely be overwhelming. Rather, this list is intended as a set of options from which investors can pick the subset that make sense for their organizations.





⁵ In this document, the term ‘outcome’ means the result or effect of one or more actions. The term ‘impact’ means the change in outcome (positive or negative) caused by an organisation, directly or indirectly, wholly or partially, intended or unintended.

⁶ See the [Impact Due Diligence Guide](#), Section 1.6, pages 38 – 53 for a more detailed elaboration of each of these steps, along with best practices, examples, and quotes from investors.





Getting started

- First, note that you do not need a dedicated impact management team to do this. Small organizations with lean staff structures have successfully implemented this approach.
- Get buy-in from multiple teams. You will likely need to sell this idea to the board, investment committee, investment officers, and data analysts to ensure this approach is internalized at the organization and becomes more than a side project.
- Consider beginning with a learning project: take a snapshot of your current portfolio and identify any trends. Later, once you have confidence in the tools and data you're using, consider setting targets for portfolio composition based on what you have found.
- Don't get too carried away in creating elaborate frameworks and forget practical operationalization.
- Consider how you will implement integration in practice. How will it fit into your planning process and your reporting cycle? Think end-to-end from the beginning. For instance, if you want to use your rating to track the performance of your investments over time, consider how the tool will allow you to do that.
- Integrate impact data collection into standard investment diligence process, to ensure timely access to data going forward. Consider who will collect the data for each investment and prepare the rating; how and where the data will be stored; and how the data will be communicated with stakeholders when needed.
- Use terminology that everyone in the organization – from investment analysts to investment committee members – can understand and relate to with regards to the mission.

Interview internal stakeholders to define impact objectives

-  Interview your organization's leadership, as well as a cross-section of team members from across the organization, to understand the impacts that they expect or observe. For instance:
 -  What does management think are the most important factors that lead to impact?
 -  What does the organization typically prioritize in regards to impact?
-  The importance of a deep understanding of the firm's strategy cannot be overstated. If you're leading this process but are relatively new to the company, these interviews will be crucial. Even for teams who have worked together for years, there will be differences in opinion that even the most seasoned staff member will need to bring to light and ultimately resolve in the final impact rating.

Conduct a targeted literature review, and explore what similar organizations are doing

-  Conduct a literature review to see whether there is research that supports the impact of the products and services, as well as business practices, of your investee enterprises, and of your own investor contribution strategy.
-  In some cases, enterprises and investors are not able to measure the outcomes or impact experienced by people and planet. In these cases, it is common to use output metrics as proxies for outcomes or impact – but doing so requires a host of assumptions. Reviews of academic and practitioner literature can make those assumptions explicit and, to some degree, test them.
-  The [Navigating Impact Project](#) of the Global Impact Investing Network (GIIN) provides a consolidated survey of field and academic evidence about the outcomes and impacts of various investment strategies.
-  Consider reaching out to peer investors, industry associations, and adjacent actors such as certifiers or civil society organizations to obtain examples of impact scorecards / ratings and impact evaluations.

Interview external stakeholders, especially communities affected by the investments

- Interview representatives of investee enterprises and their stakeholders (e.g., consumers, employees, community members, etc.) to understand the impacts that they desire, observe, or are experiencing, including both positive and negative impacts.
- See **Section 2.4** for more on this topic.

Create a theory of change and / or a logic model, or formalize your organization's existing one

- A theory of change is a written or graphical articulation of how and why you expect that your organization's actions (and those of investee companies) will result in impacts on people and planet.
- Related, a logic model lays out a causal chain that stretches from inputs used to activities; outputs of those activities; outcomes experienced by people and planet as a result of those outputs; and impacts, which represent the difference in outcomes experienced by people and planet and what would have likely have happened in the absence of the investee.⁷
 - It is important to consider, for each link in the chain, whether the causal relationship is proven, or remains to be proven.
 - It is sometimes helpful to create a logic model for the investee enterprises, and then a separate, linked logic model for the investor itself, to show how the investor will affect the enterprise, which in turn will affect people and the planet.
- Some organizations find theories of change and / or logic models clarifying and helpful; others find the opposite. Follow your instincts and take cues from your organization in deciding how much to invest in these approaches.

⁷ For a helpful overview of the difference between theories of change and logic models, see: <https://www.annmurraybrown.com/single-post/2016/03/20/Theory-of-Change-vsThe-Logic-Model-Never-Be-Confused-Again>.

Don't forget to consider your own investor contribution

- **Section 2.8** includes useful resources on investor contribution (i.e., the contribution that the investor makes to enable the enterprise or intermediary investment manager to achieve its impact; also called 'additionality' or 'investment impact').
- Possible indicators for investor contribution can be found in the [Multilateral Development Banks' Harmonized Framework for Additionality in Private Sector Operations](#).




Utilize pre-existing impact metrics to the extent possible

- To identify possible indicators, review standardized indicators (i.e., indicators with commonly-agreed definitions), such as those from the [GIIN's IRIS+](#), the [Global Reporting Initiative](#), and the [Sustainability Accounting Standards Board](#) as well as from industry associations specific to your organization's sector and asset class. Complement standardized indicators with bespoke indicators as necessary.
- Consider external data sources relevant to your impact objectives to reduce the data collection burden for your organization. Examples include local poverty data from the [PolicyMap](#) in the U.S., [Poverty Probability Index](#) outside the U.S., and environmental risk data from international conservation organizations.
- Rather than starting with the IMP's [five dimensions of impact](#) and searching for metrics for each, begin with the theory of change or strategy of the investor. Develop a set of indicators with which to measure the success (and the risks) of that strategy, and then map those back to the five dimensions to see if you might be missing something.
- See **Appendix 4** for examples of impact ratings from collaboration partners.

Assign weights to each indicator to calculate the overall expected impact rating

- Assign weights to indicators based on their importance to affected stakeholders, and on the mission and goals of the investor and investee enterprise.
- In many cases, you may need to create thresholds for, e.g., 'high', 'medium' and 'low' levels of indicators, and then assign weights to those categories – for instance, two points for 'high', one point for 'medium' and zero points for 'low.'
- Consider different ways of calculating the impact rating than simple weighted averages.
 - ▲ For instance, Propel multiplied the total enterprise impact score by the investor contribution score to arrive at a final impact rating.
 - ▲ Others separate out impact risk, first creating an impact score which is a weighted sum of the other dimensions of impact, and then multiplying that sum by an 'impact risk coefficient' which is between 0 and 1.
- Many collaboration members found that their overall scores were clustered around a small range. This happens especially when lots of issues / topics are weighted more or less equally, such that investments' strengths and weaknesses in different areas tend to cancel out on average.
 - ▲ To introduce more variation, try for a scoring system that strongly rewards the best performing in each category. For example, a company could score Good = 0.5, Very Good = 1, and Exceptional = 3.
 - ▲ Or, if your organization's mandate is particularly strong in one area, weight that area much more heavily than other areas in the impact rating. For example, Root Capital has a strong mandate to reach enterprises and farmers that others likely would not, and additionality / investor contribution carries a weight of 66% in Root Capital's expected impact rating.
 - ▲ Don't get too stuck on tinkering with exact weightings, particularly if you have more than 10 metrics in your rating. Odds are, changing a weighting slightly will not have a huge impact on the final scores or ratings. And if a weighting is off, you will discover it once you start testing the tool and looking at results.

Iterate as necessary; engage internal stakeholder(s) early and often








-  Many collaboration partners piloted the rating on a subset of their portfolio, and then revised it, before rating the remainder of the portfolio and rolling out the new approach for use by their teams.
-  Be prepared to work through multiple iterations of the impact rating. But know that you can adjust the impact rating ad nauseam; at some point you should declare the tool good enough (for now), and start using it.
-  You will need to continue communicating results and collecting feedback across the organization to mainstream the tools and maintain buy-in.

2.3. Composition of Partners' Impact Ratings

We compiled and analyzed all of our organizations' impact ratings to identify trends, commonalities, and differences in the topics represented; the number of metrics used; and the weighting of different topics.

The number of indicators included in partners' impact ratings ranged from four to 33, with an average of 17.

We coded our organizations' metrics according to the five dimensions of impact described by the IMP⁸:

-  **What:** what outcomes the enterprise is contributing to and how important the outcomes are to stakeholders
-  **Who:** who is experiencing the outcome and how underserved they were in relation to it
-  **How Much:** how many stakeholders experienced the outcome, what degree of change they experienced, and how long the outcome lasts for
-  **Contribution:** whether the outcomes were likely better than what would have occurred otherwise. This includes:
 -  **Enterprise Contribution** to the outcome, relative to what would likely happen anyway
 -  **Investor Contribution** to the outcome – that is, the specific contribution that the investor makes to enable enterprises to achieve or increase their impact
-  **Impact Risk:** the likelihood that impact will be different than expected

On average, partners covered four of the five dimensions of enterprise impact in their impact ratings. Four partners' impact ratings covered all five dimensions of enterprise impact. In addition, nine of 11 partners for whom data is available included investor contribution in their impact rating.

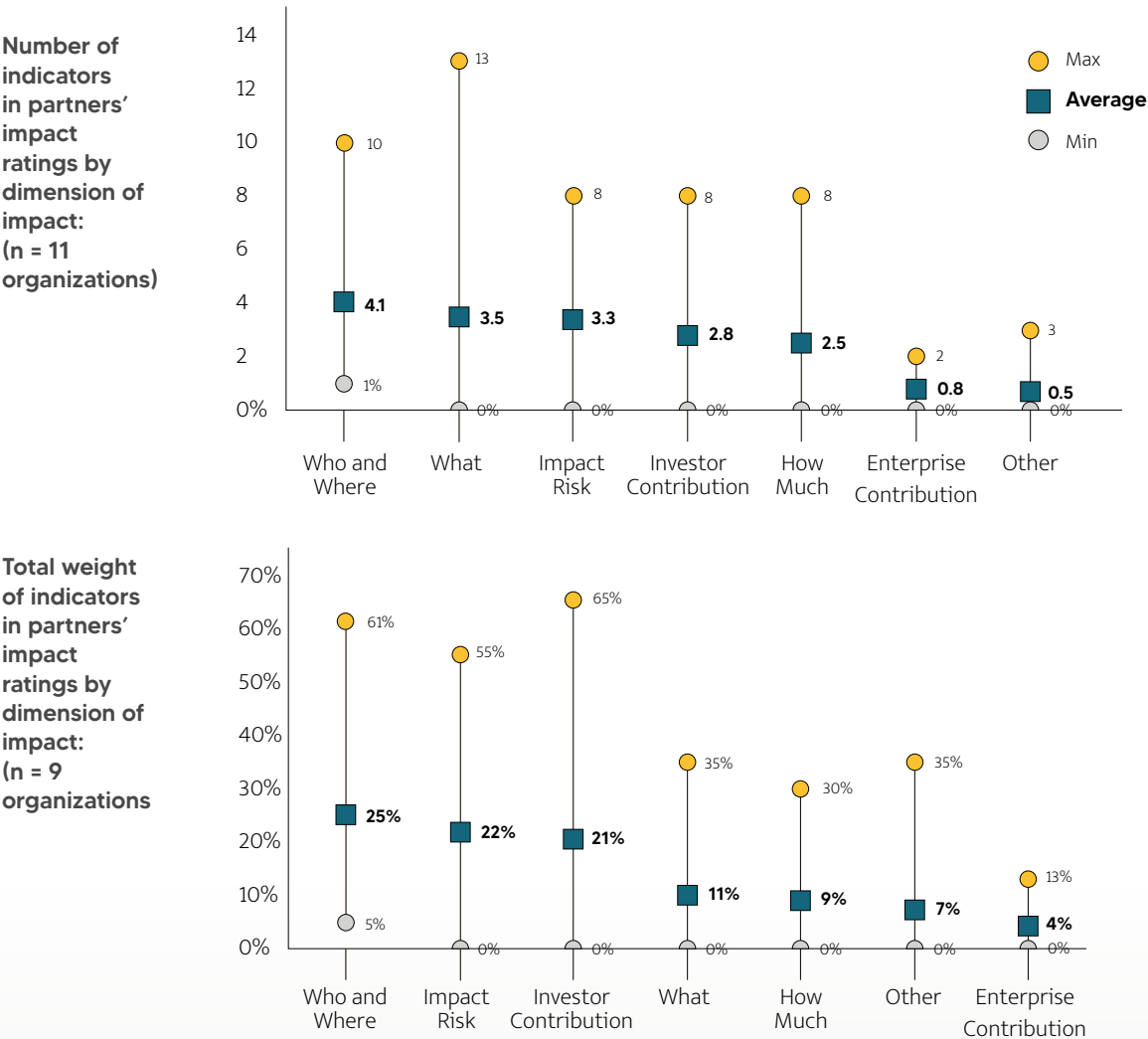
Enterprise Contribution receives the least weight in partners' impact ratings, perhaps because the concept is new to many investors and hence not implemented in their ratings. It is also among the most difficult dimensions of impact to measure, as it implies estimation of the counterfactual of what likely would have happened to people and planet in the absence of the enterprise.

The "Other" category commonly includes measures of fit with the investor's strategy.

The analysis on the following page demonstrates an emphasis among this cohort of investors on the "Who" (i.e., for enterprises that are reaching underserved populations and environmentally threatened geographies) and on "Investor Contribution" (i.e., playing an active role as investors in helping enterprises achieve or increase impact). The "What" and "How Much" dimensions also receive weight, but somewhat less.

⁸ More information on the [five dimensions of impact](#), and on [investor contribution](#) specifically, are available from the Impact Management Project.

Exhibit: Composition of Impact Ratings by IMP Dimension of Impact



This analysis is purely descriptive, not normative. There is nothing to say that 25% is the ‘correct’ weighting of the “Who” dimension in impact ratings in general. As interesting as the trends themselves is the wide variation around the trends, showing the diversity of impact preferences within this cohort of investors, and the flexibility of impact ratings to accommodate diverse impact preferences.

2.4. Involving Stakeholders

The best practice for investors in prioritizing their impacts (e.g., selecting them for inclusion in impact ratings, and weighting them within ratings) is to understand and take into account the preferences and needs of affected stakeholders.

For instance, if the primary intended impact of an investment in an enterprise is that it creates high-quality jobs for recently incarcerated individuals, then the enterprise and the investor would take measures to engage with and understand the perspectives of recently incarcerated individuals. This could be done in a number of ways, including but not limited to focus groups, individual qualitative interviews, and quantitative surveys, in addition to secondary research.

At the same time, investors that do make the extra effort to engage directly with stakeholders should be aware of the importance of doing so in culturally sensitive ways. Stakeholders generally wish to participate and have agency in the evaluation, as opposed to simply being objects of study. Investors should have a clear purpose in the evaluation and the level of inquiry should be thorough but not burdensome.




For more guidance, see entries on “[Participatory Evaluation](#)” in the blog of the American Evaluation Association, as well as Root Capital’s “[A Client-Centric Approach: Impact Evaluation that Creates Value for Participants](#).” Organizations including [60 decibels](#), [Keystone Accountability](#), and [Social Value International](#) are doing innovative work on stakeholder engagement, building on decades of work in qualitative and participatory evaluation (for instance, Catholic Relief Services’ “[Rapid Rural Appraisal and Participatory Rural Appraisal: A Manual](#)”).

See also the efforts of [Accountability Counsel](#) to establish community feedback mechanisms to ensure that those who have been harmed or fear harm from an investment have a predictable way to be heard and seek remedy.

2.5. Verifying Impact Ex-Post

Impact ratings make an ex-ante prediction about the impact that will occur as a result of an investment. Ex-ante impact ratings are the focus of this document, but it is equally important to consider ex-post whether the expected impact came to pass – and relatedly, how investors can use ex-post information to make their ex-ante predictions more accurate in the future.




Few if any investors are able to conduct full ex-post impact evaluations of every investment. Many investors therefore practice some combination of the following:

-  Full ex-post impact evaluations of a small and randomly selected subset of investments
-  Lighter-touch evaluations a larger subset of investments
-  Ongoing impact monitoring during the investment period

Impact monitoring and evaluation are outside the scope of this handbook, but readers are encouraged to see the additional resources in [Section 2.7](#) (in particular [“Impact Evaluation in Practice”](#) by the Inter-American Development Bank and the World Bank), and to search for their own resources.

2.6. Alternatives to Impact Ratings

Though all of our organizations developed impact ratings, investors could use other approaches. The 2019 report [“Creating Impact”](#) from the International Finance Corporation describes two possible approaches in addition to impact ratings:

-  Impact target: single impact indicators that usually measure only one dimension of impact (e.g., scale) but can also be defined so as to encompass multiple dimensions of impact⁹
-  Impact monetization: an estimate of the dollar value of impact created by an investment¹⁰
-  Impact rating: a numerical index which is a weighted sum of multiple impact indicators

⁹An example of a unidimensional impact target would be ‘number of people reached.’ An example of a multidimensional impact target would be ‘number of women living on less than \$4 per person per day, and whose incomes increased 20% or more than likely would have occurred in the absence of enterprises financed by the investor.’

¹⁰For more on impact monetization, see: [“A Guide to Social Return on Investment,”](#) Social Value International, 2012. [“Calculating the Value of Impact Investing,”](#) Chris Addy, Maya Chorenge, Mariah Collins, Michael Etzel, Harvard Business Review, January – February 2019. [“Monetizing Impact,”](#) Greg Fischer, Y Analytics, January 2020. [“Impact Monetization,”](#) Impact Management Project, 2020.

Table: Impact Measurement Framework Archetypes

Archetype	Target	Rating	Monetization
Impact Thesis	Often for investments seeking or limited number of sectors (such as financial services).	Often for investments seeking to deliver on multiple aspects of impact (such as direct project impact and systemic impact, and/or impact across multiple dimensions).	Often for investments seeking impact within certain industries and geographies, with rich data available.
Impact Assessment and Monitoring	Relatively straightforward and cost-effective approach.	Builds extra dimension onto the target framework.	Builds extra dimension onto the target framework.
	Specific impact assessment and monitoring skills may be needed but to a high degree, possible to embed.	The complexity of approach may be scalable, but will include an additional level of sector economic competences and some additional monitoring resources.	Complexity will be high and require significant ex-ante economic competence and analysis, as well as some increased monitoring resources.
Impact Evidence	The stronger the evidence of causality, the stronger the impact's credibility.	The stronger the evidence of causality, the stronger the impact's credibility.	The stronger the evidence of causality, the stronger the impact's credibility.
	Evidence use can be relatively simple and built on a sector's overall Theory of Change.	The multi-dimensional approach and benchmarking requires use of investment and context-specific evidence.	Placing a monetized value on externality requires a very high level of evidence, preferably with a clear, proven Theory of Change.

Source: “[Creating Impact](#),” International Finance Corporation, 2019.

Any of these methods could serve as the investment-level impact component of an integrated impact-financial approach.¹¹ Nearly all of the members of the Collaboration chose the impact ratings method, and so they are the focus of this handbook. There are also hybrids; for instance, IDB Invest’s DELTA combines elements of impact monetization and impact rating.

¹¹For a longer description and strengths and challenges of impact ratings and impact monetization, see Section 2.3 of “[Creating Impact](#),” pages 40 – 54. See also “[Impact Monetization](#)” and “[Impact Ratings](#)” on Managing Impact, an online discussion forum hosted by IMP on the Harvard Business Review IdeaLab platform.

2.7. Going Beyond Impact Ratings

Impact ratings are most effective when employed as part of a larger impact management approach. For those organizations that have already implemented impact ratings and are wondering “what’s next?” the [Operating Principles for Impact Management](#) provide a helpful overview of the component parts of a complete approach to impact management for investors.

Readers may wish to review these principles for a sense of how they might build their impact management





practice over time. Nearly 100 asset managers and owners have become signatories to the Operating Principles. Signatories must publish an annual Disclosure Statement in which they describe how they are implementing each Operating Principle. An analysis of 13 of these disclosures by the consultancy, Tidelive, in its report “[Making the Mark](#)” found uneven implementation of the principles among signatories. Nevertheless, the principles represent a widely-recognized ideal to strive towards over time.

Strategic Intent	Origination and Structuring	Portfolio Management	Impact at Exit
1) Define strategic impact objective(s) consistent with the investment strategy. 2) Manage strategic impact and financial returns at portfolio level.	3) Establish the investor’s contribution to the achievement of impact. 4) Assess the expected impact of each investment, based on a systematic approach. 5) Assess, address, monitor, and manage the potential risks of negative effects of each investment.	6) Monitor the progress of each investment in achieving impact against expectations and respond appropriately.	7) Conduct exits, considering the effect on sustained impact. 8) Review, document, and improve decisions and processes based on the achievement of impact and lessons learned.
Independent Verification			
9) Publicly disclose alignment with the Principles and provide regular independent verification of the extent of alignment.			

Source: [Operating Principles for Impact Management](#)

Impact ratings directly implement Operating Principle #4: “Assess the expected impact of each investment, based on a systematic approach.”

Additionally, impact ratings can help to implement the following Operating Principles:

-  #2: “Manage strategic impact and financial returns at portfolio level” – so long as impact ratings are integrated with financial valuations at the transaction and portfolio level
-  #3: “Establish the investor’s contribution to the achievement of impact” – so long as investor contribution is a component of the impact rating
-  #5: “Assess, address, monitor, and manage the potential risks of negative effects of each investment” – so long as the investor uses the rating to assess potential risks of negative impact, and especially if the investor uses the scorecard to inform monitoring and management of such risks after due diligence
-  #6: “Monitor the progress of each investment in achieving impact against expectations and respond appropriately” – to the extent that the investor gathers impact monitoring data over the course of the investment, uses it to re-calculate each investment’s impact rating each year, and tracks investments’ impact ratings over time

For more information, see the “[Guide to Impact Investing: Operating Principles for Impact Management](#),” and the [disclosure statements of signatories](#).

2.8. Other Useful Resources

(alphabetical by author or organization)

General impact measurement and management resources:

[CDC Impact Measurement Handbook](#), CDC Group, 2019

[The State of Impact Measurement and Management Practice](#), 2nd edition, Global Impact Investing Network, 2020

[Theory of Change Checklist](#), Global Impact Investing Network

[A Guide to Classifying the Impact of an Investment](#), Impact Management Project, 2019

[Using Self-Reported Data for Impact Measurement: How to Use Stakeholder Surveys to Improve Impact Performance](#), Impact Management Project, 2019

[Measuring Impact](#), Impact Measurement Working Group of the Social Impact Investing Taskforce, established by the G8, 2014

[Operating Principles for Impact Management](#), launched by International Finance Corporation, 2019

[Webinar on Impact Measurement](#), Mission Investors Exchange

[Nesta Standards of Evidence](#), Nesta, 2013

[Putting the “Impact” in Impact Investing: The Rising Demand for Data and Evidence of Social Outcomes](#), Jane Reisman, Veronica Olazabal, and Shawna Hoffman, American Journal of Evaluation, 2018

[Situating the Next Generation of Impact Measurement and Evaluation for Impact Investing](#), Rockefeller Foundation (authored by Jane Reisman and Veronica Olazabal), 2016

[Streams of Social Impact Work: building bridges in a new evaluation era with market-oriented players at the table](#), Rockefeller Foundation (authored by Karim Harji, Edward Jackson, Nancy MacPherson, Veronica Olazabal, Carolyn Orians, Robert Picciotto, and Jane Reisman), 2015

[A Client-Centric Approach: Impact Evaluation that Creates Value for Participants](#), Root Capital, 2015

[More Than Measurement](#), Skopos Impact Fund and Bridges Impact+

[Impact Evaluation in Practice](#), 2nd edition, Inter-American Development Bank and World Bank, 2011

Resources on investor contribution:

[How Investors Can \(and Can’t\) Create Social Value](#), Brest, Gilson, and Wolfson, Journal of Corporation Law, Vol. 44, p. 205, 2018-2019

[Investor Contribution in Public and Private Markets: Consensus Document](#), Impact Management Project, 2019

[IFC’s Role and Additionality: A Primer](#), International Finance Corporation, 2009

[Can Sustainable Investing Save the World? Reviewing the Mechanisms of Investor Impact](#), Kölbel, Heeb, Paetzold, and Busch, 2019

[Multilateral Development Banks’ Harmonized Framework for Additionality in Private Sector Operations](#), Task Force of Eight Multilateral Development Banks

Other writing on impact / risk / return integration:

[Social Finance and the Postmodern Portfolio: Theory and Practice](#), Cooper, Evnine, Finkelman, Huntington, and Lynch, *Journal of Wealth Management*, 2016

[Modern Portfolio Theory – With a Twist: The New Efficient Frontier](#), Dunn, Aquillian Investments

[Disagreement, Tastes, and Asset Prices](#), Fama and French, *Journal of Financial Economics* 83, 2007

[A Framework for Managing a Portfolio of Socially Responsible Investments](#), Hallerbach Ning, Soppe, and Spronk, *European Journal of Operational Research*, Volume 153:2, 2004

[Responsible Investing: The ESG-Efficient Frontier](#), Pedersen, Fitzgibbons, and Pomorski, *AQR Capital Management*, 2019

[Integration of Sustainability into Modern Portfolio Theory](#), Peylo, *Journal of Management and Financial Sciences*, 2011

[A Synthesis of Modern Portfolio Theory and Sustainable Investment](#), Peylo, *Journal of Investing*; Winter 2012

[A Portfolio Approach to Impact Investing](#), Saltuk and El Idrissi, *JP Morgan*, 2012

Resources on selecting indicators:

[IRIS+](#), Global Impact Investing Network

[Standards Overview](#), Global Reporting Initiative (GRI)

[Standards Overview](#), Sustainability Accounting Standards Board (SASB)

Other examples of impact ratings:

[Actis Impact Score White Paper](#), Actis, 2019

[Managing Impact at Scale in a Blended Private Markets Portfolio at PG Life](#), Partners Group and Impact Management Project, 2019



3. Integrating Impact with Risk-Adjusted Financial Return

3. Integrating Impact with Risk-Adjusted Financial Return

Having developed and implemented expected impact ratings, our organizations also calculated the expected risk-adjusted financial return of the investments in our portfolio.

For each investment, we calculated the expected risk-adjusted financial return as of the date of investment approval, based on the information we had available at that time, even if more recent performance

data is available. This enables us to compare and benchmark proposed transactions against those already in the portfolio on a like-to-like basis.

See **Appendices 5 and 6** for basic methods of estimating loan profitability for lenders, and for methods of estimating financial concession for multi-asset class investors.

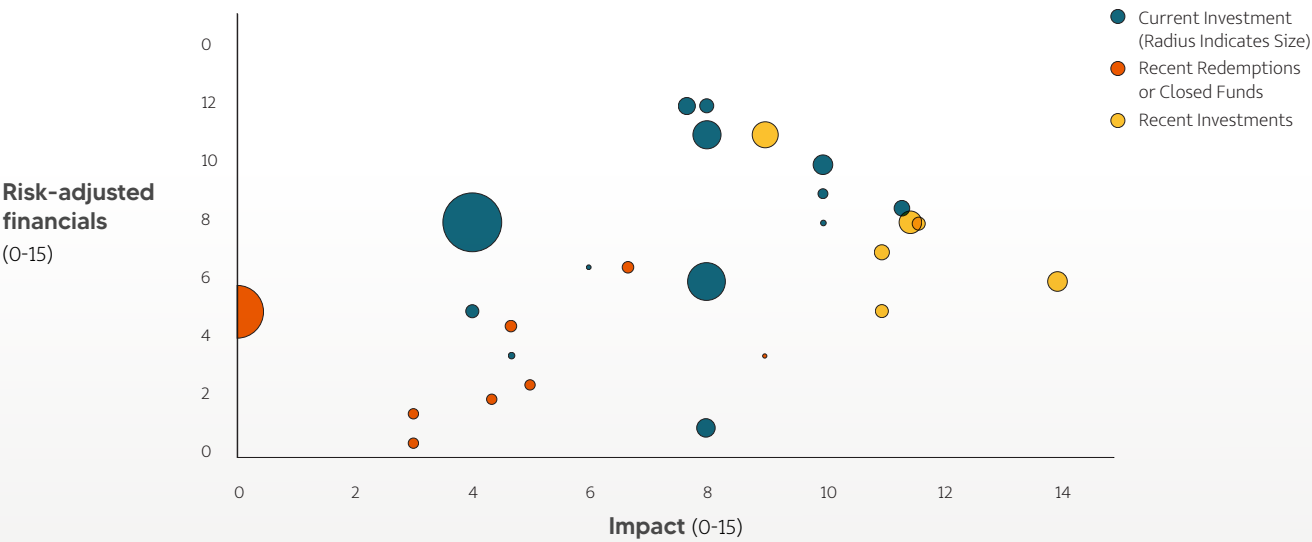
3.1. Informing Investment Decision-Making

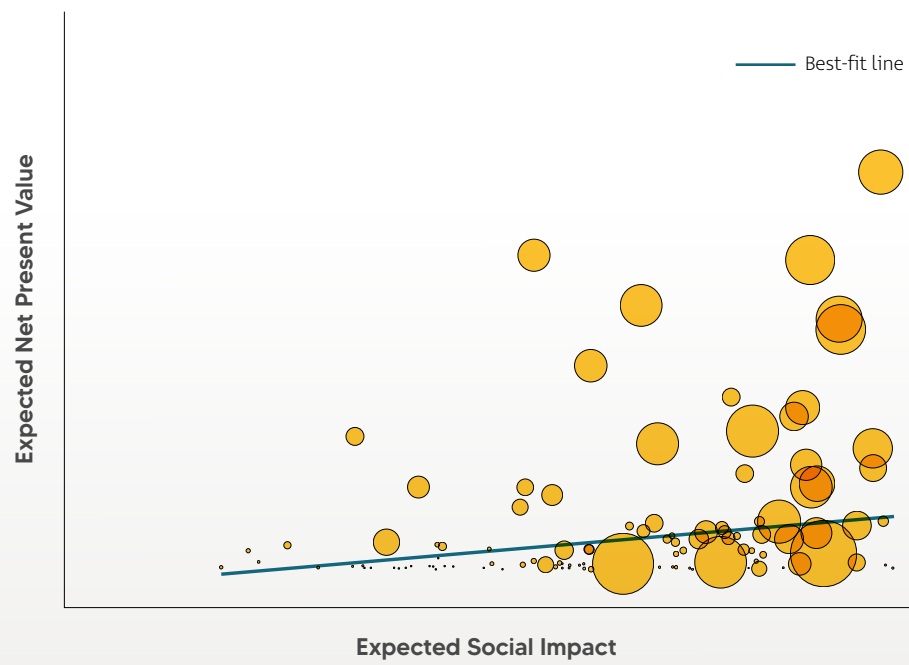
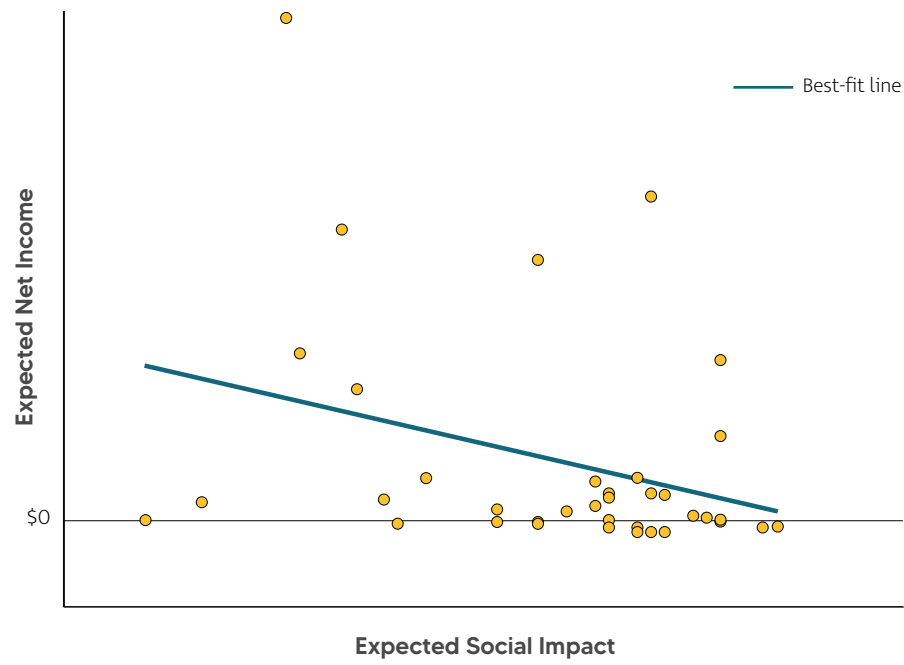
This section describes three methods of comparing the expected impact to the expected risk-adjusted financial return of transactions to inform investment decision-making. These methods are presented in increasing order of prescriptiveness.

3.1.1. Benchmarking Using Portfolio Scatterplots

Several of our organizations, as part of investment due diligence, simply estimated where new prospective transactions would fall on the impact-return scatterplots of their existing portfolio. Proposed transactions that are clearly low on impact, on financial risk-adjusted return, or both, can then be screened out early in the deal origination process.

As examples, following are several anonymized impact-return scatterplots from partners in the collaboration. In each case, the organization’s expected impact rating is on the horizontal axis and the expected risk-adjusted financial return metric is on the vertical axis. To ensure the confidentiality of the organizations, labels have been omitted.





3.1.2. Bespoke Impact-Financial Benchmarking Tools

Calvert Impact Capital and WaterEquity created new tools with which to benchmark various financial and impact characteristics of proposed transactions against those of similar transactions already in the portfolio. Investment teams provide these benchmarks as part of the deal proposal to investment committees, which in turn are unlikely to approve transactions that compare unfavorably to past transactions on impact valuation, financial valuation, or both.

Example: Calvert Impact Capital

Commentary from Calvert Impact Capital:

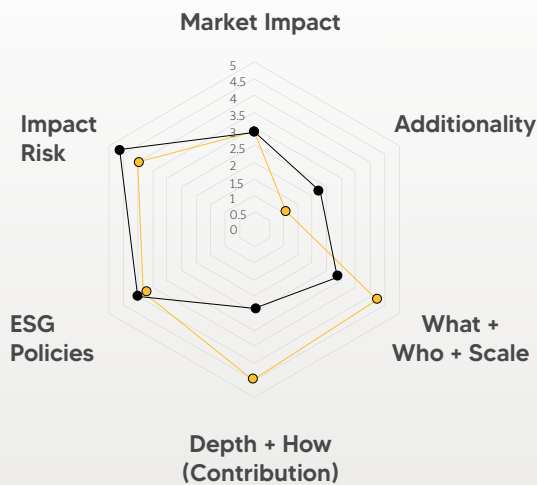
“Calvert Impact Capital utilizes its Impact Scorecard in multiple ways during due diligence and afterwards. Our scorecard has not only allowed us to assess the projected impact of our entire portfolio—roughly 100 loans and investments totaling over \$400 million—but has also allowed us to build robust benchmarking tools for evaluating new loans. For example, when considering a new loan, we can compare the impact score of the proposed loan to a benchmark of other similar loans in our portfolio in the same sector, as shown below.

“The loan being proposed is labeled “Test Borrower” and is shown in yellow. The sector-level benchmark is

shown in black. This is the benchmark to which would compare the Test Borrower on impact, and is composed of the rest of the deals in our portfolio in that particular sector. The graph shows that this Test Borrower would score on par with the rest of the deals in that sector for: Market Impact, ESG Policies, and Impact Risk. The Test Borrower underperforms in terms of Additionality and outperforms on What+Who+Scale (an aggregation of the potential scale of the borrower and the income or poverty level of their client population) as well as Depth+How (how deeply they track their impact in terms of outcomes, how underserved their target client population is, and if they utilize non-lending activities such as trainings to augment their impact).

Borrower Performance Against Portfolio Metrics

- Test Borrower
- Sector Average Benchmark



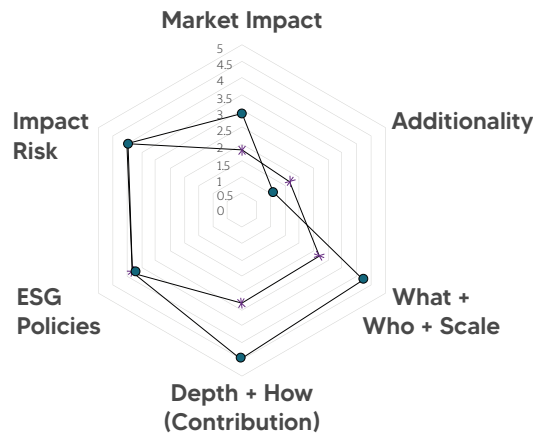
Commentary from Calvert Impact Capital Continued:

“We benchmark proposed investments not only to existing investments in similar sectors, but also to investments with similar rates of financial return, and to investments within the same strategic pillar. For instance, the graph below shows the Test Borrower’s impact scores on each scorecard component relative to a benchmark of loans with similar rates of financial

return. During diligence, we often use net present value to compare potential loans but also use internal rate of return both during diligence and overall portfolio analysis. This graph helps us analyze how much a loan would contribute to “impact return,” as compared to loans with similar financial return.

Borrower Performance Against Portfolio Metrics

- Test Borrower
- * Financial Benchmark (based on NPV level)

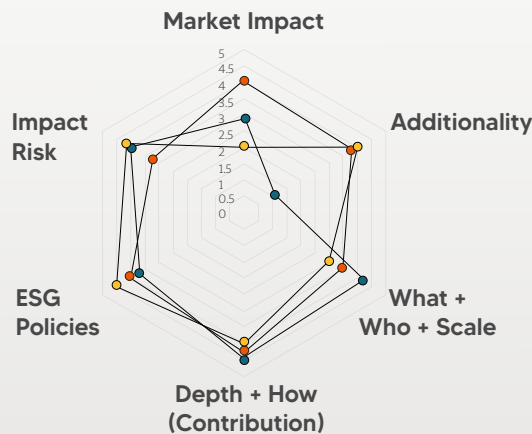


“Finally, we can use the scorecard to compare a proposed loan to similar borrowers currently in our portfolio, as shown below. This is most helpful when we are assessing a potential loan to a borrower with a

niche strategy, such that comparison to a broad sector or strategic benchmark might be less informative, but where comparison to a selected set of peer loans would be helpful.”

Borrower Performance Against Peers

- Test Borrower
- Peer 1
- Peer 2



Example: WaterEquity

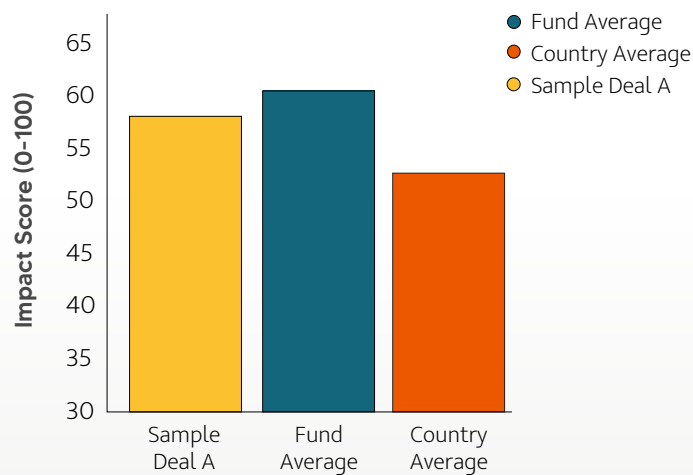
Commentary from WaterEquity:

“In 2019, WaterEquity formalized the integrated approach to assessing potential investments for both financial return and social impact as part of the Impact Frontiers Collaboration.

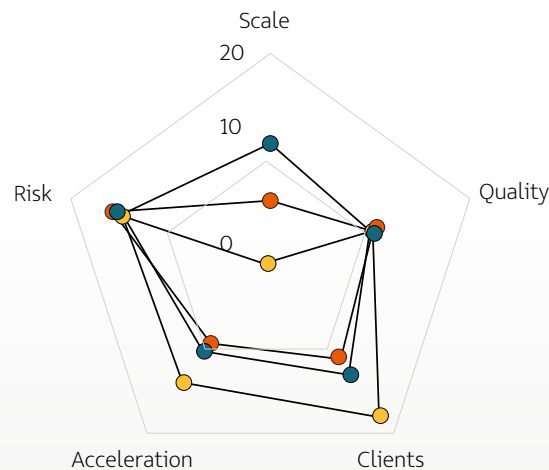
As part of this process, WaterEquity developed an impact score that rates investments on a scale of 100. WaterEquity found presenting this single number for social impact was not as relevant as presenting each dimension of impact alongside portfolio benchmarks such as country, borrower type, and return profile. This was true when both evaluating a potential investment and assessing the investment portfolio.

For example, when considering the sample investment below, WaterEquity recognizes that while the overall impact score is lower than the fund average, the investment outperforms the portfolio average in certain dimensions of impact: “Clients” and “Acceleration”. In other words, WaterEquity anticipates that the investee will excel at reaching the targeted underserved households, and WaterEquity’s investment will significantly catalyze their ability to scale.

Total Impact Score



Dimension of Impact Score

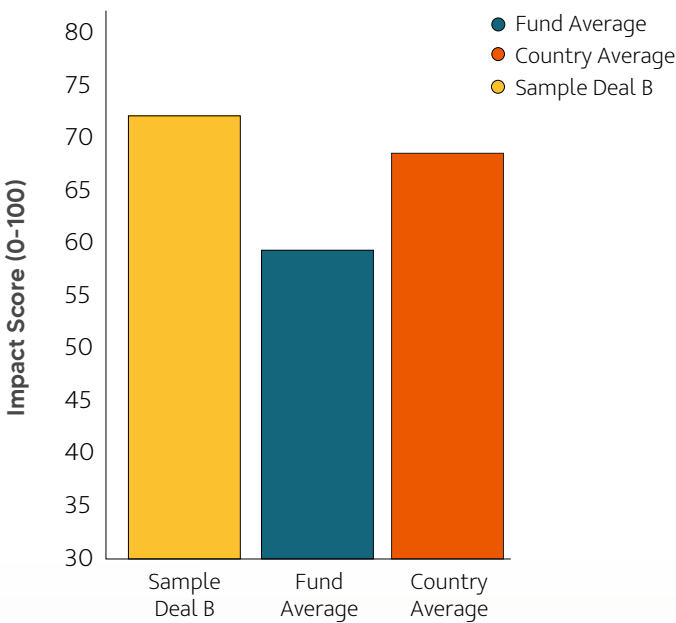


Commentary from WaterEquity continued:

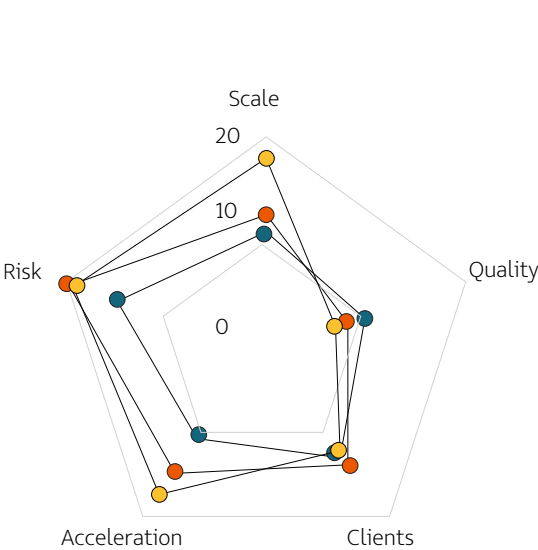
“In another example, Sample Deal B represents a lower financial return (as measured by IRR, not shown) compared to the portfolio benchmark. However, Sample Deal B’s overall impact score is higher than the fund average, in particular on the dimensions of “Scale” and “Acceleration”, both of which are extremely important

to WaterEquity’s investment goals. This benchmarking tool helped identify a transaction where outsized impact justified a lower expected financial return, given its contribution to impact-related portfolio targets.”

Total Impact Score



Dimension of Impact Score



3.1.3. Impact / Return Hurdle Rates

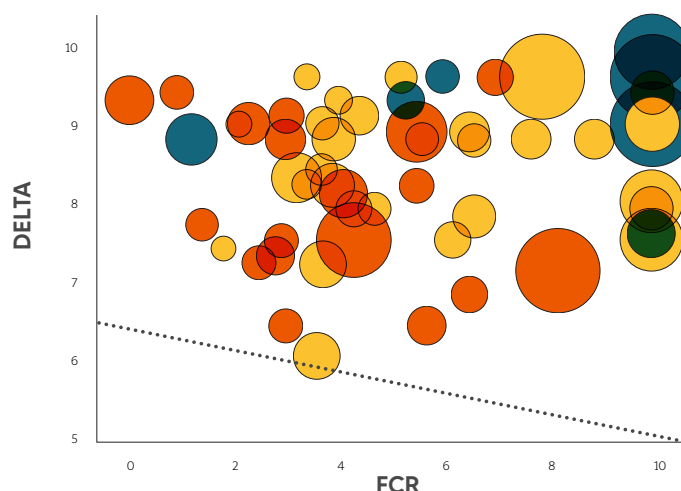
Impact / return hurdle rates quantify organizations' ability and willingness to provide greater financial flexibility for the investments with the highest impact ratings, while requiring greater expected profitability of investments with lower impact ratings. Three of the organizations in the collaboration – IDB Invest, Root Capital, and Propel – developed impact/return hurdle rates.

Example: IDB Invest

Impact Rating (DELTA) vs. Financial Contribution Rating (FCR)

(*simulated data based on IDB Invest's three business segments; hurdle rate shown in gray)

- Financial Institutions
- Infrastructure and Energy
- Corporates
- ... Hurdle Rate



Commentary from IDB Invest:

“IDB Invest’s Impact Management Framework is grounded in a portfolio approach that integrates both impact and financial sustainability into investment selection and portfolio management using two key tools.

First, the DELTA (for Development Effectiveness Learning, Tracking and Assessment), which is a rigorous, fact-based scoring system that assesses the expected positive and negative social, environmental, and economic impact of each investment. At origination, each project is assigned a score ranging from zero to 10, which is tracked and updated throughout implementation. Embedded within this score is an approximation of the economic and social rate of return of each investment, complemented by a stakeholder analysis to ensure that the most important direct

and indirect effects are considered, a sustainability assessment, and an assessment of IDB Invest’s additionality.

Second, the Financial Contribution Rating (FCR), which measures the financial contribution of each operation to IDB Invest, based on the risk-adjusted return on capital (RAROC). The FCR ranges from zero to 10 and is based on the concept of Economic Value Added, which translates the RAROC into a dollar amount.

Proposed investments need to meet predefined impact and financial rating thresholds in order to be approved, with decreasing financial contribution requirements for highly impactful projects. In this way, IDB Invest is able to purposefully build a balanced portfolio across the two dimensions.”

Example 2: Propel

Commentary from Propel:

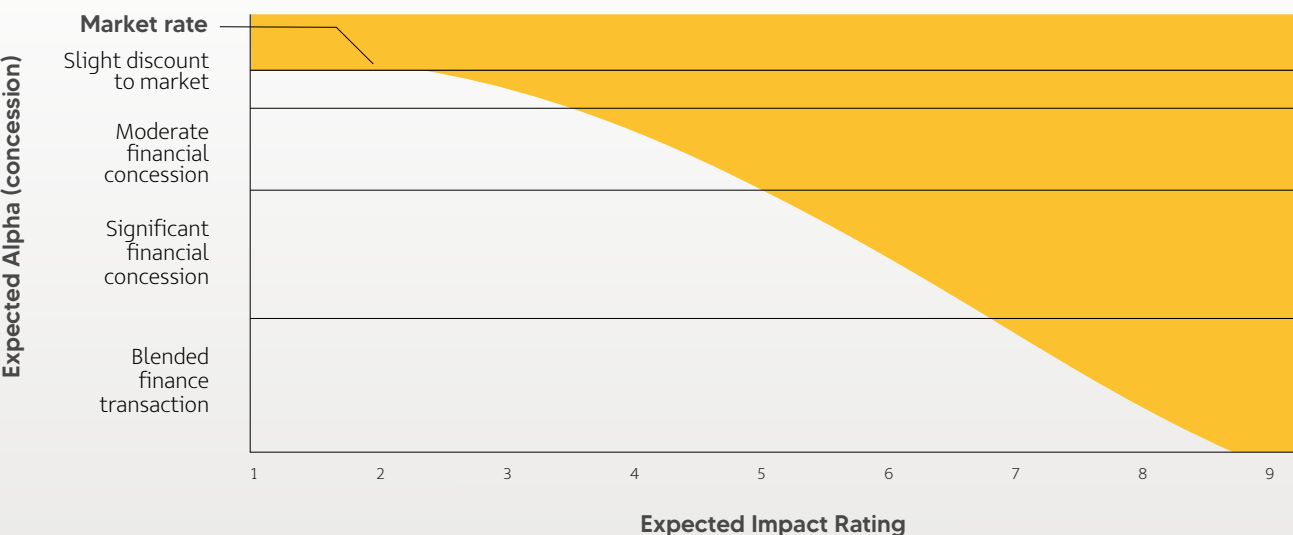
In 2018, Propel estimated the financial concession implicit in each of their investments, using the approach described in Appendix 6. Propel then used this information to categorize their portfolio into five buckets:

- Market-rate
- Slight discount to market: financial concession represents 5% or less of transaction value
- Moderate financial concession: financial concession represents between 5% and 15% of transaction value
- Significant financial concession: financial concession represents between 15% and 33% of transaction value
- Blended finance transaction: financial concession represents more than 33% of transaction value

Propel combined these financial concession estimates with the impact ratings of each investment to take stock of their existing portfolio from a financial and impact perspective. (See Section 1.5 for Propel's portfolio scatterplot.)

Propel also articulated an illustrative forward-looking impact return hurdle rate (see below) with the goal of further refining the actual financial and impact thresholds required for investment. Propel's approach aims to ensure investments requiring greater financial contribution are also those with high levels of expected impact and, on the other end, require market-rate return expectations where opportunities meet only the baseline threshold for impact. (Investments that do not meet the baseline threshold for impact are not considered). In this way, Propel seeks to maximize the impact of its resources and build a balanced portfolio that achieves both financial and impact objectives.

Impact - Financial Returns Hurdle (Illustrative)



Example 3: Root Capital

Commentary from Root Capital:

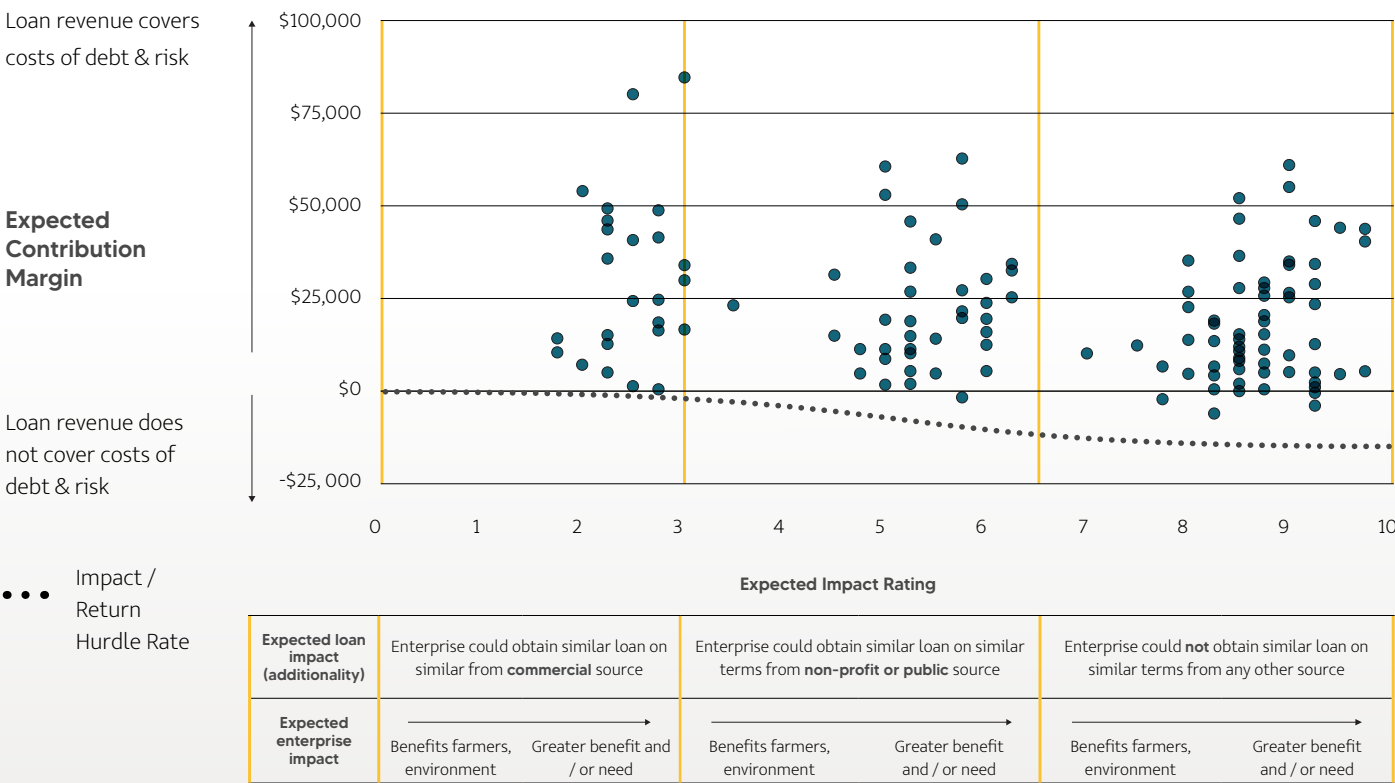
“Root Capital uses an “impact/return hurdle rate” during loan-level decision making to identify which prospective loans meet our impact and financial goals. The hurdle rate takes into account both estimated financial performance, in the form of the expected contribution margin, and estimated impact performance, as proxied by our 10-point Expected Impact Rating (here, 10 is best).¹²

As a lender to underserved agricultural enterprises in developing markets, we recognize that there is often

a financial trade-off if we want to reach businesses without access to finance, as loans to these businesses are often smaller (and therefore generate less interest) and carry greater risk of default. Therefore, our impact/return hurdle rate permits progressively greater negative returns for loans to these “unbanked” borrowers, as shown in the right segment of the graph.

Our Credit and Impact teams review the impact/return hurdle rate for each loan before approval. Proposed loans that fall below the hurdle rate may not proceed.”

Expected Contribution Margin and Expected Impact Rating of Root Capital Loans, 2019



¹² For more information, see “[Toward the Efficient Impact Frontier](#),” Stanford Social Innovation Review, Winter 2017.

3.2. Setting Goals and Communicating Portfolio Performance

This section describes methods of measuring, managing, and communicating impact and financial performance of portfolios of investments in an integrated way.

Prior to the collaboration, the most common practice for reporting impact at the portfolio level among our group was to report on the number, size, and composition of our investments by sector, geography, or impact theme, and / or on the number of people reached by those investments. Less commonly, we reported on the demographics (e.g., gender or income level) of people reached.

During the collaboration, we additionally began to measure and report on the performance of our portfolios along other dimensions of impact such as the type or depth of outcomes achieved; the contribution made by the enterprise to that impact; the specific contribution of our organizations' investments to that

impact; and the impact risk incurred and the extent to which those risks were mitigated.

Methods of measuring and reporting portfolio-level impact vary across the group. Some organizations report on the average impact rating of the investments in each fund, weighted by investment size. Others identify a small number (typically three to six) high-priority impact indicators to measure and report on portfolio-wide.

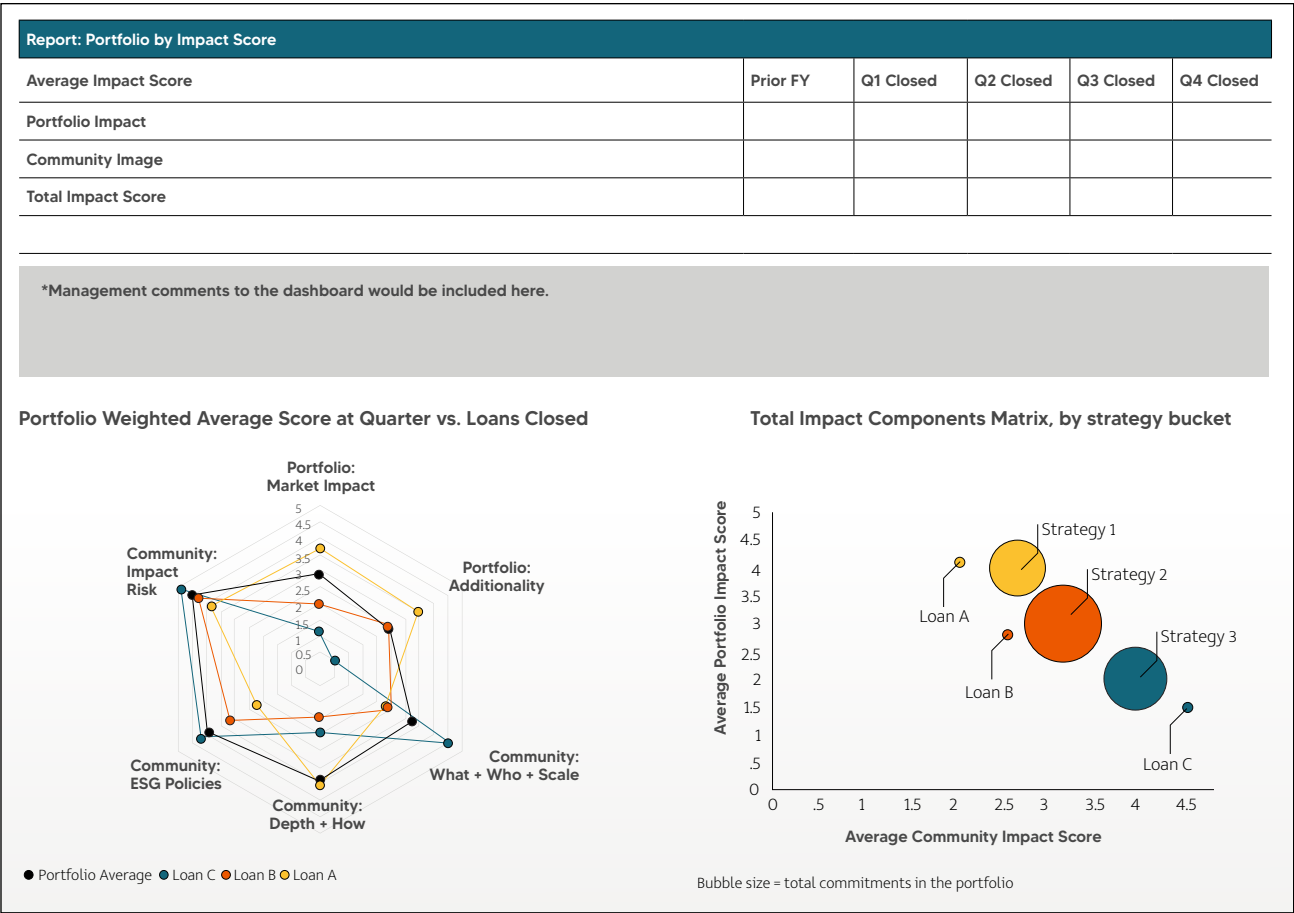
In general, rather than selecting a single highest-priority impact metric and setting hard targets around it, many of us preferred to build integrated dashboards of the most important financial and impact portfolio indicators. We used these dashboards to make sure that key impact and financial indicators remain within acceptable ranges at the portfolio level, while prioritizing one or two measures of impact performance to improve on each year.

Example: Calvert Impact Capital

Commentary from Calvert Impact Capital:

“Below is an example of how Calvert Impact Capital is now operationalizing and reporting on portfolio-level impact. This is an example of an internal portfolio impact report, which also goes to Calvert’s Board of Directors along with the rest of their portfolio reporting. It integrates an overview of the scorecard data across the portfolio, the benchmarking analysis

described further in [Section 3.1.2](#), and a portfolio-level analysis that assesses the two main components of their impact rating across their different strategies and compared to the new loans approved during the reporting period.”




Example: Root Capital

Root Capital tracks impact and financial performance across its portfolio, communicating results to stakeholders through [quarterly performance reports](#) and an [impact dashboard](#). Three years after introducing their integration tools, Root Capital now works toward improving financial performance while maintaining impact performance. If performance in either area were to decline, it would prompt a strategic discussion among management about potential corrective actions.

Example: WaterEquity

WaterEquity integrated its impact scoring system into the financial dashboard that it already used to monitor the financial performance of its funds on a monthly basis. The impact section of this integrated dashboard includes not only scale metrics such as number of people reached, but also the average scores of investments in WaterEquity's two funds, for each of the five sections of WaterEquity's Impact Rating. The dashboard enables WaterEquity to easily track performance against financial and social targets that each fund has set.

(See [Appendix 4](#) for Root Capital's and WaterEquity's Expected Impact Ratings)



Appendix 1: List of Authors and Participating Organizations
Appendix 2: Frequently Asked Questions
Appendix 3: Impact Frontiers Collaboration Origin and Process
Appendix 4: Example Expected Impact Ratings
Appendix 5: Arriving at the Financial Valuation Metric for Lenders
Appendix 6: Estimating Financial Concession for Multi-Asset Class Investors

Appendix 1: List of Authors and Participating Organizations

Organization	Type	Representative(s)
BlueHub Capital	CDFI	Catherine Dun Rappaport , Vice President, Learning and Impact Measurement
Bridges Fund Management	Multi-asset class fund manager	Stefanie Kneer , Head of Impact Management Ivan Rodriguez , Sustainability Director Cristina Spiller , Associate Brian Trelstad , Partner
Calvert Impact Capital	Debt fund manager	Caitlin Rosser , Senior Officer, Communications & Impact
Ceniarth LLC	Family office	Harry Davies , Manager, Program Investments Julia Mensink , Senior Manager, Impact
Community Vision	CDFI	Kelly Peterson , Impact Officer Nate Schaffran , Co-Director of Lending
IDB Invest	Multilateral development bank	Alessandro Maffioli , Chief, Development Effectiveness Belissa Rojas , formerly of IDB Invest Norah Sullivan , Development Effectiveness Officer
NESsT	Loan fund	Loïc Comolli , co-CEO
Nuveen (a TIAA company)	Institutional asset manager	Stephen Lee , Principal, Impact Investing, Nuveen Private Markets Hannah Schiff , Director, Responsible Investing Allison Spector , Director, Sustainability Michelle Zhang , Analyst, Impact Investing
Propel	Multi-asset class fund manager	Katya Levitan-Reiner , COO
Prudential Financial	Institutional asset manager	Tony Berkley , Vice President, Impact Investments
Root Capital	Loan fund	Elizabeth Teague , Associate Director of Environmental Performance
RSF Social Finance	Multi-asset class fund manager	Carolyn Ezelino , Manager, Investments Shu Dar Yao , Head of Investments
WaterEquity	Loan fund	Genevieve Edens , Senior Manager, Social Impact

Appendix 2. Frequently Asked Questions

The following are questions that partners in the collaboration frequently had to answer as they sought impact-financial integration in their organizations. We have compiled our answers to these questions below.

Q: Will this push us towards transactions that are less profitable, or conversely, more profitable?

A: No. This is an approach that investors can use to achieve their own impact and financial goals – whatever those goals are.

Q: What will capital providers think of this? Can we use this to fundraise?

A: Yes, though that is not the primary intent of the approach. This approach will likely help investors to maintain or increase impact performance, financial performance, or both, which can in turn attract external support. The very fact that an organization has created and is using an impact rating tends to make a favorable impression on capital providers. Moreover, impact ratings generate rich data about impact, which in turn is compelling to capital providers. That said, impact-financial integration is a fairly specialized topic, so it is not something that investors would necessarily lead with in mass communication formats.

Q: Do you have any reservations about boiling impact down into one number, as an impact rating does?

A: Yes. We do it not for its own sake, but simply because we need a consistent and scalable way to identify the highest-impact transactions. In large and/or growing organizations, impact ratings can also promote consistency in decision making across investment team members operating in different sectors, geographies, asset classes, etc. Good impact ratings are built on a foundation of strong qualitative / exploratory work on the nature of impact in each investors' portfolio, and with attentiveness to the perspectives and feedback of stakeholders affected by their investments.

As noted in [Section 2](#), impact ratings are one component of a larger impact management practice that can also include ex-post impact studies, secondary research, stakeholder feedback, narrative accounts of impact, and other methods.

Q: My organization's investment strategy is unique. Do we need to use a standard scoring rubric? I don't think any other impact investor or rating agency understands the particularities of our impact.

A: No. While the approach to integration is a standard one across multiple asset classes, the underlying data and analysis will vary based on each investor's strategy. In this case we are not standardizing impact indicators themselves, but rather the analytical approach by which they are used.

Q: How much time does it take to develop an impact rating?

A: It varies from a few months to more than a year. Factors that increase the time necessary include the size of the portfolio and the heterogeneity of the portfolio in terms of sectors, geographies, impact themes, and asset classes.

If the organization already has been collecting multi-dimensional impact data and merely needs to select a subset of indicators and apply weights to those indicators to generate an overall rating, that could be done in weeks. If the organization is starting from scratch and needs to do a theory of change, a quick literature review, a round of internal and external stakeholder interviews, all before beginning to collect data for the first time, it would likely be a year before the version 1.0 was satisfactorily completed and applied to the portfolio, and there would likely be revisions in following years.

Q: Once you have an impact rating and a method of financial valuation for transactions in place, how long does it take you to develop an integrated approach?

A: At this point, the heavy lift is mostly done. Impact/return hurdle rates and/or impact-financial transaction benchmarking tools are not time-consuming to create. However, they do require the attention and judgment of senior management, and also an investment in training for team members that will be using the tools. Tool development, approval, and implementation might take between 2-6 months of elapsed time, assuming people are fitting it in on top of their normal responsibilities.

Q: How can you know if your impact valuations and financial valuations are 'right'?

A: Both the impact and the financial valuation methods are ex-ante predictions. As with any predictive method, they will inevitably be wrong some portion of the time. The question therefore is, how do I know if my chosen methods are making the best possible prediction, given the information available at the time the decision is made?

The only way is to collect information ex-post about what actually happened, and compare it to the prediction that was made at the time of investment. By doing this across the largest sample of transactions possible, you can determine the error rate of your ex-ante predictions, and identify ways to improve them in the future. This is a critical element of the ongoing practice of impact-financial integration.

Appendix 3: Impact Frontiers Collaboration Origin and Process

In 2017, Root Capital, a non-profit lender to agricultural enterprises in Africa, Asia, and Latin America, published an article, “[Toward the Efficient Impact Frontier](#),” describing its efforts to quantify the expected impacts and the expected financial returns of individual loans and of portfolios of loans:

- “We set out to create a toolkit that would support decision-making at the level of either a single investment or an entire portfolio. To do so, we first had to develop a way to integrate data on the financial, social, and environmental (FSE) performance of our loans. We needed a way to view FSE data as part of a single picture—a way to analyze how different FSE goals relate to each other and to identify where trade-offs between impact goals and financial goals might be necessary.”

Root Capital’s approach piqued the interest of many impact investors, but it was difficult to imagine how the approach could be applied by others. For one thing, it was highly customized to a large, relatively homogeneous portfolio of trade credit loans to agricultural businesses. Moreover, Root Capital used the approach as a way of optimizing a portfolio for impact in the presence of tradeoffs with financial return – it was not clear if investors with different financial strategies or those with fiduciary obligations could use this approach.

The approach also came to the attention of the MacArthur Foundation, the Metanoia Fund, and the Omidyar Network – all longtime impact investors and field-builders. These organizations provided funding for a two-year collaboration to support investors in other sectors and asset classes to experiment with the approach.

The learning goals of the collaboration were to identify:

- What elements of the approach are generalizable;
- What elements need to be customized to individual institutions;
- What customization looks like in the sectors represented in the collaboration; and
- What the benefits are for impact investors and asset owners.

In parallel to the development of Root Capital’s approach, another collaborator in the Impact Frontiers initiative, IDB Invest, was consolidating and implementing its end-to-end impact management framework based on the portfolio approach. This entailed systematic integration of impact

and financial contribution rating thresholds into investment selection decisions and portfolio management.¹²

Thirteen investors joined the collaboration, applying the approach to portfolios cumulatively totalling \$15 billion. Two-thirds were non-profit while one-third were for-profit. Two-thirds were lenders while one-third were equity or multi-asset class investors.

Over two years, collaboration partners followed a set of steps based loosely on Root Capital’s example and worked together to exchange ideas and adapt the approach to their particular circumstances. The group met in person every six months for two-day workshops which were structured around a curriculum designed to guide their respective efforts towards integrating impact measurement and financial risk and returns. In between workshops, partners independently advanced their organizations’ approaches, and participated in group conference calls to share work-in-progress and receive peer feedback.

Each partner in the collaboration undertook a structured process to answer common-sense questions that any impact investor faces:

- Which investments or loans offer more or less impact – and how do we know?
- Which investments or loans make more or less money?
- What do these data suggest about the relationships between profitability and the specific types of impact that the investor cares about, in their specific context and asset class?
- How can we use these insights to improve the impact and/or the financial performance?

The process of answering these questions was common to all partners, but the approaches and results developed by each organization were customized to them. Partners right-sized the complexity and time-intensiveness of their approaches to their organizational context and goals.

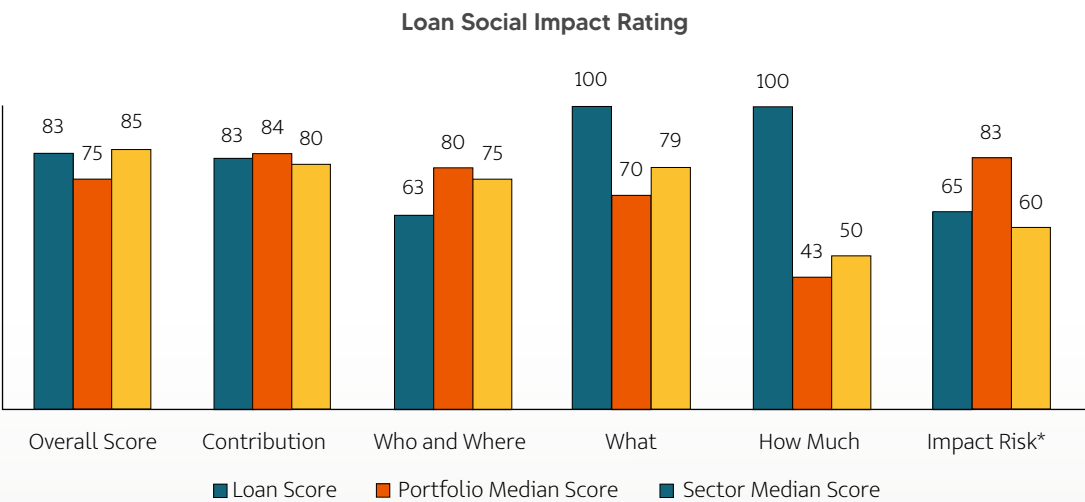
¹²IDB Invest, a member of the Inter-American Development Bank (IDB) Group, is a multilateral development bank that finances sustainable companies and projects in Latin America and the Caribbean to achieve financial results that maximize economic, social, and environmental development for the region. IDB Invest was launched in 2016 with the consolidation of the IDB Group’s private sector operations into this new entity, offering the opportunity to refine its impact management approach in line with its renewed mandate.

Appendix 4: Example Expected Impact Ratings

BlueHub Capital, Social Impact Rating

Note: data shown is simulated for illustrative purposes

Scoring Summary				
Category	Impact Rating	Loan Score	Portfolio Median Score	Sector Median Score
Overall Score	High	83	75	85
Contribution	Moderate	83	84	80
Who and Where	Limited	63	80	75
What	Very High	100	70	79
How Much	Very High	100	43	50
Impact Risk*	Moderate	65	83	60



BlueHub Capital, continued

Indicator	Indicator Name	Weight*	Assigned Score	Point Contribution to Overall Score
A	Contribution	15%	83	12
A-1	Uniquely Beneficial Terms / Structure	50%	100	8
A-2	BHLF Role in Lending	35%	50	3
A-3	BHLF Technical Assistance	15%	100	2
B	Who and Where	30%	63	19
B-1	Support for Economically Disadvantaged Populations	55%	67	11
B-2	Support for African American, Latino, Native American, and/or New Immigrant Populations	25%	67	5
B-3	Facilitating Access to Capital for Borrowers who are African American, Latino, Native American, and/or New Immigrants	10%	100	3
B-4	Support for Seniors and/or Individuals with Disabilities	10%	0	0
C	What	35%	100	35
C-1	Evidence that Borrower will Deliver Targeted Outcome(s)	30%	100	11
C-2	Quality of Program Management and Governance	15%	100	5
C-3	Project Ability to Generate Sustained and Significant Increases in Beneficiary Financial or Physical Well-Being	15%	100	5
C-4	Project Connection to Complementary Services	10%	100	4
C-5	Borrower Nonprofit Status	5%	100	2
C-6	Unavailability of Comparable Products and Services	15%	100	5
C-7	Support from Local Municipality/ Government for the Project	10%	100	4
D	How Much	10%	100	10
D-1	Number of Project Beneficiaries per Year	50%	100	5
D-2	Spillover Effect- Additional Beneficiaries	30%	100	3
D-3	Spillover Effect- Jobs	20%	100	2
E	Impact Risk	10%	65	7
E-1	Risk of Bringing Businesses / Projects not Aligned with Community Member Wants	30%	100	3
E-2	Risk of Misalignment with Local Economic Development Plans	30%	50	2
E-3	Risk of Gentrification and Displacement	20%	100	2
E-4	Project Opportunity Cost	20%	0	0

*Grey cells = category weight; white cells = weight within category

Bridges Fund Management, Property Fund Expected Impact Rating

Commentary from Bridges Fund Management:

“For each investment, in order to understand which effects matter and need to be managed, we assess the five dimensions of impact. We score each dimension on a 1 to 5 scale (1 being low and 5 high); the overall impact score is the simple average of the ‘What’, ‘Who’, ‘How Much’ and ‘Enterprise’s Contribution’ dimensions. This score is data-driven and dynamic: it helps us understand exactly where and how we can improve over time. Based on performance data across the five dimensions, we can ultimately classify the asset’s impact into one of four broad categories: causes or may cause harm, avoids harm, benefits stakeholders or contributes to solutions. This in turn helps us to make decisions to improve our impact, adapt our strategy or re-set our goals – both at an investment and portfolio level.

While we select property investments that are expected to generate targeted positive impact outcomes to the main stakeholder/s (the core impact), e.g. the planet, we also recognise that every investment has the potential to generate other societal and environmental outcomes, both positive and negative. Hence, we also assess the impact on other stakeholders (e.g. occupants, the community, etc..) and score each from 1 to 5, taking various factors into account.

For instance, in scoring the impact on occupants or residents, we assess the quality, affordability and adaptability of the property, and the effect this has on well-being.

Below is the core impact assessment and scoring of an asset owned by one of our property funds. The investment involved the development of lower-cost sustainable residential units, which are contributing to the regeneration of a site in England while also demonstrating real environmental leadership.”

Bridges Fund Management Property Fund, continued

Dimension	Questions	Data Category	Data	Assessment	Bridges Score
What	What outcome(s) do business activities drive?	Description of outcome:	Delivering highly-sustainable low-cost housing is a positive outcome and aligns with SDG #11 Sustainable Cities and Communities; SDT 11.6;	<div> <div>Negative Positive</div> <div>○ ○ ○ ● ○</div> </div>	4.0
	Are the outcomes positive or negative?	Outcome in period	Saved embodied and operational CO ₂ emissions vs baseline (standard construction)		
	How important are the outcomes to the people (or planet) experiencing them?	Threshold for positive	>50% embodied / >35% operational CO ₂ emissions saving vs standard new construction		
		Importance	Business model significant driver of CO ₂ reduction and high-quality sustainable accommodation	<div> <div>Unimportant Important</div> <div>○ ○ ○ ● ○</div> </div>	
Who	Who experiences the outcome?	Stakeholder type/ geography	The planet, UK	<div> <div>Well-served Under-served</div> <div>○ ○ ○ ○ ●</div> </div>	5.0
	How underserved are the stakeholders in relation to the outcome?	Baseline	The planet is in need of urgent decarbonisation		
How Much Contribution	How Much of the outcome occurs in terms of scale, depth and duration?	Scale	Not applicable		3.0
		Depth	Reduction embodied in CO ₂ frame >70% by using Cross Laminated Timber frame construction and 52% lower CO ₂ emissions in operation over standard new construction	<div> <div>Marginal effect Deep effect</div> <div>○ ○ ○ ○ ●</div> </div>	
		Duration	Long-lasting embodied CO ₂ savings, however CO ₂ savings, however CO ₂ savings in operation cannot be assured long-term	<div> <div>Short term Long term</div> <div>● ○ ○ ○ ○</div> </div>	
	What is the enterprise's Contribution to what would likely happen anyway?	Contribution	Increased access to outcomes (CO ₂ savings), better than most (both embodied and operational) and long-lasting outcomes	<div> <div>Limited Contribution High Contribution</div> <div>○ ○ ○ ● ○</div> </div>	3.8

Continued on next page

Bridges Fund Management Property Fund, continued

Overall Impact Score		3.9
Risk	Evidence risk: The buildings are energy efficient and there is a small risk with regards to how occupants will operate the dwellings and the effect of grid decarbonisation on CO2 savings in operation. Part of the property is constructed out of CLT: compared to typical concrete frame construction, this saves the equivalent of the expected annual carbon emissions of the building for its first 30 years of operation (and a 10% reduction on the costs of the frame).	2 Low
Other stakeholders impact		
Occupants (3.5) Residents will live in highly-efficient accommodation which is expected to result in lower energy and water bills. Moreover, the dwellings incorporate good acoustic insulation, indoor air quality and excellent daylighting levels. The development provides amenity spaces such as private balconies, roof terrances with allotments, gardens, cycle storage and car parking spaces for electric vehicles.		Community (3.5) Design proposals were strongly supported by the community (92% of respondents). The regeneration of the site derelict for 40 years, has delivered lower-cost homes for c.800 people (43% of annual new dwelling target for the Borough), apprenticeships and local employment opportunities (2000+ weeks) and commercial space to enable 60 new jobs. Using Cross Laminated Timber has also reduced the number of deliveries on site by 75%, minimising traffic, noise and air pollution.

Calvert Impact Capital Expected Impact Rating

Market and Portfolio Impact		
Investment Purpose, Market Context, Borrower Strategy	<ul style="list-style-type: none"> Market landscape: What is the borrower's place in the market (the specific sector, geography, or other context) given the sector and the geographic context? 	5 pts
Financial Additionality (Contribution)	<ul style="list-style-type: none"> What is the availability of our type of capital in this market? Would the borrower be able to obtain similar financing? Does the borrower require flexible capital? Part of a syndication? Are we catalyzing additional capital? 	21 pts
Non-Financial Additionality (Contribution)	<ul style="list-style-type: none"> Are we signaling to the market that this is an investable opportunity to ultimately attract additional capital? Are we taking a risk that other lenders perceive too high to demonstrate or prove the effectiveness of the model? Are we providing advisory services, technical assistance, or other feedback? 	11 pts
Community Impact		
What is the impact, ToC, metrics	<ul style="list-style-type: none"> What is the borrower's sector strategy? Does their strategy align with our theory of change? 	5 pts
How Much - Scale	<ul style="list-style-type: none"> Primary output metric and comparison to internal benchmark 	5 pts
Who and Where	<ul style="list-style-type: none"> Who is the target stakeholder? 	5pts
How and Depth (borrower contribution)	<ul style="list-style-type: none"> Market access gap and impact of non-lending activities Do they collect outcome metrics? 	15 pts
Impact Risk	<ul style="list-style-type: none"> Evidence, execution, alignment, unexpected negative impact 	15 pts
ESG Policies	<ul style="list-style-type: none"> Does the borrower have internal ESG policies? Do they have formal investment screen (ESG and impact)? Diversity and inclusion policy gender equity on Board and leadership 	12 pts

Commentary from Calvert Impact Capital:

“Our Impact Scorecard is broken into two sections, which are aligned with the 5 dimensions of impact of the IMP consensus. The first section – Market and Portfolio Impact – scores the projected market impact (the value our financing provides to the markets in which we operate) and investor contribution (the added value our capital and other non-financial support provides to our borrowers) we expect through the loan. The second section – Community Impact – scores the impact we project the borrower to have on the community and/or planet (the tangible positive impact on social and environmental challenges), internal policies related to ESG (environmental, social, governance policies) practices, DEI (diversity, equity, and inclusion) practices, gender diversity in senior leadership and on the board, and the anticipated impact risk (the risk that the impact will not be achieved).

Overall, the scorecard has 28 indicators across 10 categories, the scores of which are added together and normalized on a 0-5 scale for comparison. Each metric is scored based on its relationship to how we assess expected impact, aligned with our strategy and position in the market as a private debt provider. Those weights will likely be different for other investors with different approaches, investment strategies, and/or asset classes.”

To see an example of how Calvert uses its scorecard to assess the expected impact of a loan during investment approval, see [Section 3.1.2](#).

Community Vision Impact Rating

Indicator	Definition	Scoring Guidelines	Weight
Impact on Community	Does the community where the borrower or client population is located face barriers to opportunities? Is this an 'underserved' community?		10%
Regional Opportunity	The Regional Opportunity Index (ROI), developed by the Center for Community Change at UC Davis, is an index of community and regional opportunity for understanding social and economic opportunity in California's communities.	Learn more about the UC Davis Regional Opportunity Index here: http://interact.regionalchange.ucdavis.edu/	
ROI People	The Regional Opportunity Index (ROI): People is a relative measure of people's assets in education, the economy, housing, mobility/transportation, health/environment, and civic life.	Scores range from 0 to 4 and correspond to quintiles. Learn more about the UC Davis Regional Opportunity Index here: http://interact.regionalchange.ucdavis.edu/ 4 = People Regional Opportunity score in the bottom quintile; 0 = People Regional Opportunity score in the highest quintile	5%
ROI Place	The Regional Opportunity Index (ROI): Place is a relative measure of an area's assets in education, the economy, housing, mobility/transportation, health/environment, and civic life.	Scores range from 0 to 4 and correspond to quintiles. Learn more about the UC Davis Regional Opportunity Index here: http://interact.regionalchange.ucdavis.edu/ 4 = Place Regional Opportunity score in the bottom quintile; 0 = Place Regional Opportunity score in the highest quintile	5%
Impact on Borrower	Will the loan improve the borrower's effectiveness or capacity to serve its target population?		30%
Borrower overview	How effectively does the borrower serve its target population?		
Staff and Leadership Composition	Does the leadership of the organization represent a significant percentage of the disadvantaged population in which it operates or serves?	2 = 50% of the staff AND 25% of the board of directors are of the gender, race, ethnicity, or come from the disadvantaged group that the organization seeks to serve. (E.g., if the organization serves Hispanic communities, then score 2 if organization is controlled by Hispanics - both staff and board of directors.) 1 = Either 50% of the staff OR 25% of the board of directors are of the gender, race, ethnicity, or come from the disadvantaged group that the organization seeks to serve. (E.g., if the organization serves Hispanic communities, then score 1 if organization is controlled by Hispanics - either staff or board of directors.) 0 = Staff and board of directors are not people of color and do not represent a disadvantaged group, even if they represent their target population. (E.g., if an organization's leadership is white and primarily serves white clients who do not come from a disadvantaged group, score 0.)	2%

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Community Vision, continued

Indicator	Definition	Scoring Guidelines	Weight
Pre-existing Relationship	Has the borrower previously received financing or consulting services from Community Vision?	1 = Yes 0 = No	6%
Impact Measurement	Does the borrower produce a written report on social impact?	1 = Yes 0 = No	9%
Unique Service	Is the borrower's service or process by which it provides a service unique?	1 = Borrower provides services or functions in a way that is significantly different from other peer organizations; 0 = Borrower's services or process by which it provides services are similar to other organizations	2%
Borrower Capacity	Will the financing lead to significant, measurable improvements in borrower's outputs or outcomes?	1 = Borrower explicitly states how Community Vision funding will significantly improve the quantity or quality of their services; 0 = Community Vision funding will likely have an indirect or unmeasurable impact on borrower's outputs or outcomes	11%
Impact on Borrower Clients	Direct impact of borrower's service/project funded/supported by Community Vision loan		50%
Client Base Race/Ethnicity	Are a majority of the clients served people of color?	1 = Yes 0 = No	23%
Client Base Income	For non-housing loans: percentage of clients who are low to moderate income (LMI), i.e., income is at or below 80% of the Area Median Income for the census tract. For housing loans: the percentage below Area Median Income of a majority of residents.	For non-housing loans (Loan officer should assess this based on available information from potential borrower): 3 = 100% of the clients are LMI, i.e., below 80% AMI; 2 = A majority of clients are LMI; 1 = Some clients are LMI; 0 = No clients are LMI. For housing loans: 3 = Majority of residents are extremely low income (<30% AMI); 2 = Majority of residents are very low income (<50% AMI); 1 = Majority of residents are low income (<80% AMI). These income classifications were developed by HUD	23%
Community Multiplier Effect	Are borrower's services targeting a population already served by Community Vision-funded organizations?	1 = An organization in Community Vision's portfolio operates in the same Zip code and serves the same target population 0 = No other active loans in the portfolio made in the same Zip code	5%

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Community Vision, continued

Indicator	Definition	Scoring Guidelines	Weight
Impact of Financing	Is there potential for Community Vision to increase the impact of the borrower as a result of working with Community Vision specifically, and not another lender?		10%
No Other Funding Available	Is other funding available for the project/service on comparable terms?	<p>1 = The opportunity was brought to Community Vision by another CDFI (indicating other financing is likely not available) OR organization demonstrates to Community Vision during underwriting that it could not access another source of funding;</p> <p>0 = Organization has access to other funding sources available</p>	3%
Lessons for the Field	Will the project or its financing provide avenues of learning for the field?	<p>1= The financed project or program is expected to influence the way other organizations operate or finance similar projects or programs;</p> <p>0 = Project follows a predictable and familiar process</p>	2%
Facilitates Additional Financing	Will Community Vision induce or arrange additional financing?	<p>1 = Community Vision financing will likely induce or arrange additional financing for the borrower, project, or program;</p> <p>0 = Loan will not increase involvement or participation from other lenders</p>	2%
Anchor / Essential Investment	If Community Vision does not make this loan, will the project that Community Vision intends to fund likely fail to launch or cease to exist?	<p>1 = Project or Program Community Vision intends to fund likely will fail to launch or cease to exist if Community Vision does not make the loan;</p> <p>0 = Project's vitality is not impacted by loan</p>	3%
Strategic initiatives	Does the borrower provide a service that supports at least one of Community Vision's current strategic initiatives?	<p>1 = Borrower is a healthcare clinic or operates within the healthy food sector, OR Borrower is located in a county within the Central Valley: Butte, Colusa, El Dorado, Glenn, Fresno, Kern, Kings, Madera, Merced, Placer, Sacramento, San Joaquin, Shasta, Stanislaus, Sutter, Tehama, Tulare, Yolo, Yuba.</p> <p>0 = Borrower does provides services supporting Community Vision's strategic initiatives</p>	1%

NESsT Impact Rating

	Indicator	Category Weight	Overall Weight	Max Points
Expected Impact ("What")		35%		
Income increases	Incremental income generated by the enterprise for employees / suppliers / distributors: <ul style="list-style-type: none"> Up to 10% annually (Score = 0) Up to 25% annually (Score = 1) Up to 50% annually (Score = 2) 	60%	21.0%	2
Job security	Improvement in job security through formal contracts for employees / suppliers / distributors: <ul style="list-style-type: none"> Existence of formal contracts (Score = 2) Lack of formal contracts (Score = 0) 	30%	10.5%	2
Environmental	Enterprise produces positive environmental benefits with regards to use of land, water, energy, and other resources: <ul style="list-style-type: none"> Positive environmental benefits (Score = 2) Neutral environmental benefits (Score = 1) Negative environmental benefits (Score = 0) 	10%	3.5%	2
Scale of Impact ("How Much")		10%		
Scale of impact	Number of employees / suppliers / distributors impacted: <ul style="list-style-type: none"> Enterprise will impact up to 100 people annually (Score = 0) Enterprise will impact up to 500 people annually (Score = 1) Enterprise will impact more than 500 people annually (Score = 2) 	100%	10.0%	2
	Women: <ul style="list-style-type: none"> 80% of more of intended beneficiary population is woman (Score = 2) 50% to 80% of intended beneficiary population is woman (Score = 1) Less than 50% of intended beneficiary population is woman (Score = 0) 	15%	4.5%	2

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NESsT, continued

	Indicator	Category Weight	Overall Weight	Max Points
Intensity of Impact ("Who")		30%		
Poverty level	Income prior to engaging with the enterprise: <ul style="list-style-type: none"> Less than 50% of the minimum wage (Score = 2) Between 50% and 100% of minimum wage (Score = 1) More than minimum wage (Score = 0) 	45%	13.5%	2
Disadvantaged status of community	Vulnerable backgrounds of employees / suppliers / distributors: <ul style="list-style-type: none"> More than 80% come from vulnerable backgrounds (Score = 2) Between 70% and 80% come from vulnerable backgrounds (Score = 1) Less than 70% come from vulnerable backgrounds (Score = 0) 	25%	7.5%	2
	Indigenous/ethnic or migrant community: <ul style="list-style-type: none"> 80% of more of intended beneficiary population is indigenous/ethnic or migrant (Score = 2) 50% to 80% of intended beneficiary population is indigenous/ethnic or migrant (Score = 1) Less than 50% of intended beneficiary population is indigenous/ethnic or migrant (Score = 0) 	15%	4.5%	2
	Women: <ul style="list-style-type: none"> 80% of more of intended beneficiary population is woman (Score = 2) 50% to 80% of intended beneficiary population is woman (Score = 1) Less than 50% of intended beneficiary population is woman (Score = 0) 	15%	4.5%	2
Impact Risk		5%		
Evidence risk	Insufficient data exist to know the impact and/or existing data is not good quality: <ul style="list-style-type: none"> Evidence risk is low (Score = 1) Evidence risk is high (Score = 0) 	100%	5.0%	1
NESsT Contribution		20%		
Additionality of NESsT's capital	Enterprise would likely not obtain loan on similar terms from any other source: <ul style="list-style-type: none"> Enterprise has no other loan prospects (Score = 2) Enterprise has loan prospects but on unfriendly terms (Score = 1) Enterprise has a variety of loan prospects (Score = 0) 	70%	14.0%	2
Business assistance	Enterprise would likely not obtain similar business services on similar terms from any other source: <ul style="list-style-type: none"> Enterprise does not have access to similar business services (Score = 1) Enterprise has access to similar business services (Score = 0) 	30%	6.0%	1

Root Capital Expected Impact Rating

Theme	Sub-Theme	Indicator	Points	Data Source
1) Expected Investment Impact / Additionality (up to 6.5 points)		Enterprise likely <u>could not</u> get a loan for this purpose, with similar collateral and for a rate & fee that is not more than 800 basis greater than Root Capital's, and in the same currency, from any other source than Root Capital ¹³	6.5	Loan officer assessment based on discussion with enterprise managers and enterprise financials
		Enterprise likely <u>could</u> get a loan for this purpose, with similar collateral and for a rate & fee that is not more than 800 basis more than Root Capital's, and in the same currency, from a <u>non-profit / public lender</u>	3.0	
		Enterprise likely <u>could</u> get a loan for this purpose, with similar collateral and for a rate & fee that is not more than 800 basis more than Root Capital's, and in the same currency, from a <u>commercial lender</u>	0.0	
2) Expected Social Impact (up to 1.5 points)	Poverty Level (up to 0.5 point)	Extreme poverty country, or region within a country (< \$3.20/day)	0.5	Progress out of Poverty (PPI) databases, Grameen Foundation ¹ . To determine whether producers or employees affiliated with each enterprise are living below these poverty lines, we mapped PPI poverty rates to our clients' sourcing regions and areas of operation.
		High poverty country, or region within a country (\$3.20-\$5.50/person/day)	0.25	
		Moderate poverty country, or region within a country (>\$5.50/person/day)	0.0	

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¹³ The threshold of 800 basis points was chosen to be conservative in counting our additionality. For instance, if we are offering a loan with an interest rate of 11% and a commercial bank is offering a loan with a rate of 19%, we would count that loan as having zero additionality.

Root Capital, continued

Theme	Sub-Theme	Indicator	Points	Data Source
2) Expected Social Impact (up to 1.5 points)	Social Performance (up to 1.0 point)	<ul style="list-style-type: none"> For farmers, paying at least 10% higher than local market price For employees, paying more than 20% higher than the local minimum wage, or more than 10% higher plus health insurance/benefits Providing on-farm agronomic training plus one of following: centralized training, access to inputs, access to on-farm equipment, both to over 50% of farmers Providing or facilitating loans to over 25% of farmers Providing a community service in education, health, access to water, or improved roads or transportation infrastructure to over 25% of farmers Providing income diversification opportunities to over 25% of farmers Youth inclusion policy or program Gender inclusion policy or program 	0.25 each; up to 1.0 max	Enterprise records; if enterprise is certified (e.g., organic or Fair Trade), records of certification audit; loan officer discussion with enterprise managers; spot checks of enterprise operations and discussions with affiliated farmers and employees.
3) Expected Environmental Impact (up to 1.5 points)	Environmental Vulnerability (up to 0.5 point)	<p>Enterprise located in or sourcing from an “environmental degradation hotspot,” defined as a region suffering from ongoing, significant degradation of one of the following natural resources:</p> <ul style="list-style-type: none"> Biodiversity: Region contains exceptional levels of native biodiversity and is currently threatened by significant degradation. Soil: Region is experiencing significant downward pressure on chemical and/or physical components of soil health, with a rating of “degradation or very low [soil] resilience.” Water: Region with “extremely high risk” of water scarcity, based on its evaluation of local water quantity, water quality, and regulatory environment. 	0.25	<p>We used third-party, publically-available evaluations of environmental degradation for each natural resource:</p> <ul style="list-style-type: none"> Biodiversity: Critical Ecosystems Partnership Fund Soil: Land Degradation Assessment in Drylands project of FAO, UNEP, and Global Environment Fund Water: Aqueduct Water Risk Atlas, World Resources Institute <p>To determine whether an enterprise operated in a particular hotspot, we created a map of enterprise operational and/or sourcing regions in Google Earth, and compared this map to maps created by the third-parties cited above.</p>

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Root Capital, continued

Theme	Sub-Theme	Indicator	Points	Data Source
3) Expected Environmental Impact (up to 1.5 points)	Environmental Vulnerability (up to 0.5 point)	Enterprise located in or sourcing from a “climate change hotspot,” in which climate change is expected to severely impact agricultural livelihoods. We classified a region as a climate hotspot if climate change probability maps indicated a 75%+ likelihood that climate change would push the area past either of two bioclimatic thresholds: <ul style="list-style-type: none"> Maximum annual temperatures would flip above a key tolerance threshold for crops (30C); or Length of the crop growing period would decline by 5%+. 	0.25	We used analysis and maps produced by the CGIAR Research Program on Climate Change, Agriculture, and Food Security: <ul style="list-style-type: none"> Ericksen P, Thornton P, Notenbaert A, Cramer L, Jones P, Herrero M. 2011. Mapping hotspots of climate change and food insecurity in the global tropics. CCAFS Report no. 5. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). Copenhagen, Denmark. Available online at: www.ccafs.cgiar.org. <p>To determine whether an enterprise operated in a climate change hotspot, we created a map of enterprise operational and/or sourcing regions in Google Earth, and compared this map to the CGIAR probability maps.</p>
	Environmental Performance (up to 1.0 point)	Enterprise has an active environmental certification, including Aquaculture Stewardship Council, Fair trade (Fair Trade USA, FLO, IMO), Fair Wild, Forest Stewardship Council, Marine Stewardship Council, Organic (IFOAM standards only), Rainforest Alliance, Roundtable on Sustainable Palm Oil, Smithsonian Migratory Bird Council, Utz	0.5	Enterprise and certifier records
		Climate action (0.25 pts each): <ul style="list-style-type: none"> Goal to reduce GHG emissions Sources from diversified agroforestry farms A/reforestation (1000+ trees / year) Agronomic extension on soil conservation training Water conservation Crop diversification/transformation support for 25%+ farmers Low-emissions technology or circular agriculture Weather/crop early warning system Crop insurance 	0.25 each, up to 0.5	Enterprise records and partner records as relevant
	4) Scale (up to 0.5 point)	Enterprise reaches <500 farmers and employees	0	Enterprise records
		Enterprise reaches 500 – 1500 farmers and employees	0.25	
		Enterprise reaches > 1500 farmers and employees	0.5	

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RSF Social Finance Impact Rating

Community Engagement	0	1	2	3	4	5
Clear impact mission		✓	✓	✓	✓	✓
Identification of stakeholders/participants		✓	✓	✓	✓	✓
Regular interaction with stakeholders/participants			✓	✓	✓	✓
Collection of feedback from participants				✓	✓	✓
Defined impact targets					✓	✓
Integration of participant feedback into decision-making						✓
Results-based performance						✓
Outcomes Rigor						
Theory of change (TOC) around impact		✓	✓	✓	✓	✓
Output data gathered			✓	✓	✓	✓
Output data reported			✓	✓	✓	✓
Identification of long-term outcomes				✓	✓	✓
Outcomes data gathered				✓	✓	✓
Outcomes data reported				✓	✓	✓
Repeated impact measurement over time					✓	✓
Integration of outcomes into decision-making						✓
Model Replicability & Change Agent						
Demonstrates proven need and/or addressable market		✓	✓	✓	✓	✓
Track record (measurable performance)			✓	✓	✓	✓
Promotes system-level change				✓	✓	✓
Demonstrates high internal growth or replicability					✓	✓
Inspires/catalyzes external replicability						✓




WaterEquity's Expected Impact Rating

WaterEquity is the first-ever asset manager exclusively focused on solving the global water crisis. In 2018 and 2019, as part of the Impact Frontiers Collaboration, WaterEquity developed an impact scoring tool to evaluate and compare the impact of potential investments. Investment staff use the impact score below to evaluate potential investments in the water and sanitation loan portfolios of financial institutions in emerging markets.

Category	Question	Total Possible Score
Scale -- How many people the borrower can reach		20
SCALE	Total client base	10
	Borrower projection: # loans to be disbursed for water or sanitation improvements	10
Quality -- What type of benefits those people will experience		20
QUALITY	Types of water or sanitation improvements being financed and the likely benefits to end-clients, based on the evidence base	13
	Life of water or sanitation facility(ies) in years	4
	Support to ensure maintenance, repairs, or other ongoing costs	3
Clients -- Who those people are		20
CLIENTS	Percent of clients who are female	6
	Percent of clients with informal income sources	4
	Percent of clients likely to earn below the living wage standard	4
	Proportion of the business operational in regions that are underserved in water or sanitation relative to the rest of the country	3
	Proportion of the business operational in regions that are relatively underserved relative to the rest of the country based on the Multi-Dimensional Poverty Index and Human Development Index	3
Acceleration -- The sustainability and scale of water/sanitation lending, and WaterEquity's contribution		20
ACCELERATION	Projected growth of the water and sanitation portfolio	5
	Water and sanitation product stage	5
	Is WaterEquity's loan the first financing specifically for water and sanitation?	4
	Do the loan covenants require specific operational improvements or changes?	2
	Is the borrower a past or current Water.org partner, or is WaterEquity providing technical support?	2
	Country score for availability of alternative offshore investors	2
Risk -- The risk that impact will not be achieved as expected		20
RISK	Risk that borrower will not meet WaterEquity loan targets	5
	Risk that target end-clients will not be reached	5
	Risk that end-clients utilize loans for non-water/sanitation purposes	10

Appendix 5: Arriving at the Financial Valuation Metric for Lenders

Lenders in the Collaboration used the following methods to estimate the expected profitability of proposed loans:

-  Net Present Value
-  Internal Rate of Return
-  Risk-Adjusted Return on Capital

Other measures, such as interest rate charged the borrower or credit risk rating, were considered but not selected because they represented only one dimension of revenues or costs, and therefore did not give a complete picture of a proposed loan's expected profitability.

Net Present Value

The Net Present Value (NPV) of an investment is “the difference between the present value of its benefits and the present value of its costs...The NPV expresses the value of an investment as an amount of cash received today.”¹⁴ Investments with positive NPVs are profitable. Investments with negative NPVs are unprofitable. They imply a financial concession by the investor, and NPV is one way to quantify the value of the financial concession.

For a lender, the revenues of a loan consist simply of interest and fee payments.¹⁵ The costs fall into three categories:

- 1) Cost of capital: The payments that a lender makes to its own capital providers in return for the use of their money.
- 2) Cost of risk: The cash value of possible future losses of loan principal and interest, based on the amount and probability of possible loss.
- 3) Operational cost: Organizational costs such as employee salaries and benefits, rent, supplies, etc.

To calculate NPV, lenders estimate the revenues and various costs associated with a loan for each time period (typically monthly or quarterly), and subtract the costs from the revenues to obtain a loan net income for each time period. Lenders then discount the estimated net income at each future time period back to present-day dollars, using as a discount rate the cost of capital for the organization as a whole (or of the portfolio or fund of which the loan is part).

The following sections describe each component of loan NPV in more detail.

Revenue

The expected revenues of a loan include upfront fees and interest payments over time. These are often defined simply as a percentage of loan principal or outstanding balance, and are hence not difficult to calculate. A schedule of expected loan payments is part of most loan agreements. If the loan is flexible in amount or duration, it is necessary to estimate what portion of the available amount the borrower will draw down, and for what period of time.

Cost of Capital

The cost of capital for an organization, and / or for various funds within an organization, is typically available from that organization's finance team in percentage form. This percentage can then be applied to the expected outstanding loan principal during each time period to give the cost of capital for that time period.

Cost of Risk

The cost of risk is more challenging to calculate and a full discussion goes beyond the scope of this handbook. Different lenders use different methods, depending on the type of lending they do, the size of the loans and of the portfolio as a whole, and other factors. For the sake of illustration, one simple method and one more advanced method are briefly described below.

The output of both methods is a percentage that is applied to the loan principal outstanding to arrive at a dollar-denominated estimate of the cost of risk. For the purpose of informing decision-making on proposed transactions, the cost of risk can be modeled in the NPV calculation as a one-time expense at the outset of the loan.

Simple method: A lender that is smaller or earlier-stage might create a simple credit risk rating for each borrower or loan. Analogous to an impact rating, this is a weighted sum of observable factors that the lender believes are predictive of greater credit risk.

The lender would then define the cost of risk that corresponds to each risk rating. For instance, borrowers with low risk ratings might be assigned a cost of risk of 2% of loan principal, whereas borrowers with high risk ratings might be assigned a cost of risk of 5%.

¹⁴ Berk and DeMarzo, Corporate Finance, page 54. Pearson, 2007. The term ‘present value’ means the value of a future benefit or cost, computed in terms of cash today.

¹⁵ Guarantees, equity conversion rights, and revenue participation rights can also generate revenue but are outside the scope of this handbook.

Ideally, the identification and weighting of indicators in the credit risk rating, as well as the cost of risk associated with each risk rating, would be driven by quantitative analysis of the past performance of a large number of loans similar to those that the lender intends to issue in the future. However, for small or younger organizations, such data does not exist, and so assumptions must be used.

Advanced method: A lender that is larger, with more past loan data and staff resources available for analysis, might create a more sophisticated model of expected loss (EL):





$$\text{Expected loss} = \text{Probability of default (PD)} \times \text{Exposure at default (EAD)} \times \text{Loss given default (LGD)}$$

The Basel II international banking standard recommends that lenders first calculate PD at the borrower level; assign a risk rating to the borrower based on that PD; separately calculate EAD and LGD for the specific transaction under consideration; and finally calculate EL for that transaction as $\text{PD} \times \text{EAD} \times \text{LGD}$. Lenders often employ predictive analytic techniques such as logistic regression or machine learning methods to estimate probability of default.

Precise definitions of the term ‘default’ differ. Basel II defines “default” as any change to the obligor’s potential or actual ability to pay the loan regardless of whether the bank ultimately restructures or writes down the loan. Given this definition, a loan may go into default but never miss a payment if, for example, the industry undergoes a downturn that casts reasonable doubt on the obligor’s ability to pay, but the obligor manages to remain solvent through the end of the loan. Therefore, while correlated, the PD and LGD are separate pieces of information and should be estimated as such.





In estimating LGD the creditor should take into account not only the value of the loan but also the cost of the “workout,” or how much the loan servicing, restructuring, and potential collection of collateral will cost. It is possible that the loss on a loan can be more than the sum of the principal and interest. This also means that even with a portfolio with few realized losses, LGD can still be estimated as the cost of time required of the lender to monitor and service higher-risk loans.

Inputs to risk ratings: Variables used by most business lenders tend to fall into the following categories:

-  Enterprise characteristics such as age of business, business plan/model, margins and cash flow, business/industry outlook.
-  Characteristics of enterprise leadership such as credit score, tangible net worth, management experience, educational background, etc. These are especially relevant for small business lending.
-  Loan characteristics such as length of loan, size of loan, collateral, seniority.
-  Macroeconomic context such as geography, market cycle.

Operational Cost

Operational costs include:

-  Direct costs of salaries and benefits of team members that work on specific loans. These in turn can be divided into:
 -  Origination costs of evaluating and processing a particular loan application
 -  Monitoring costs of managing and maintaining the loan after approval
-  Indirect costs. These include salaries and benefits of team members that do not work on specific loans but whose work is necessary for the lender to operate, such as senior management, fundraising, and communications. These also include allocations of non-salary costs such as rent, telecoms, and insurance.

Lenders can divide indirect costs by the average number of loans outstanding in a given year to obtain an estimate of indirect cost per loan in that year. (Forecasts of organizational budget and lending volume can be used to forecast indirect cost-per-loan in future years.)

If all of a lender's loans are roughly equally time-intensive to originate and monitor, then direct costs can also be equally divided amongst loans. However, many lenders find that certain types of loans are more time-intensive to originate and monitor than others, and therefore seek to estimate the financial cost of the extra time that employees spend on those loans. Towards this goal, lenders can survey their origination and monitoring staff about which types of loans require what amounts of extra time. Lenders can use the results to build a simple financial model that adjusts origination and monitoring costs allocated to individual loans upwards or downwards from the portfolio average, based on those loans' individual characteristics.

Some smaller lenders exclude operational costs initially, to simplify the calculation.

Considerations when using NPV

The primary advantage of the NPV approach is that it estimates the value of a proposed transaction in absolute dollar terms, considering the various benefits, costs, and risks involved. This can be used to compare and choose from a set of potential investment opportunities. For investors willing to consider incurring a financial concession in exchange for outsized impact, NPV provides a way to quantify the dollar value of their financial concession, which can be useful both for decision-making and for budgeting.

Disadvantages of the NPV approach include the following:

- Less appropriate for comparing loans of different sizes. A loan might have a larger NPV simply because it has a larger principal, not because it is more profitable on a dollar-for-dollar basis.
- Less appropriate for comparing loans of different durations. The profitability of a loan that generates a smaller NPV in a shorter amount of time cannot be easily compared with that of a loan that has larger NPV but with a longer maturity.
- As with any calculation, NPV depends on the accuracy of the inputs. Small differences in the discount rate can result in large changes in NPV, especially for long-term loans. Moreover, organizations' cost of capital can change over time, which in turn can materially change estimates of NPV. It can be difficult to estimate operational costs and cost of risk for loans whose costs and risks are largely unknown.

Internal Rate of Return

The Internal Rate of Return (IRR) is the interest rate that sets the NPV cash flows (i.e., its revenues and costs) equal to zero. It relies on the same inputs for expected revenues and costs as the NPV calculation. The difference is that, whereas the NPV approach uses the discount rate of the firm or portfolio to discount future cash flows to arrive at a net present value, the IRR approach sets the NPV to zero and solves for the discount rate.

Considerations when using IRR

IRRs are simpler to calculate in that they do not require a discount rate, and they are easy to interpret. If an organization has a financial hurdle rate of return that all loans are required to pass, it is convenient (though not always correct) to compare a loan's IRR to the hurdle rate.

IRR and NPV often, but do not always, give the 'same answer.' More specifically, lenders that calculate both the IRR and the NPV for a number of potential investments find that the two methods do not always arrive at the same rank-ordering of investments by profitability. This can be due to differences in investment size (as mentioned above), or if the investment is expected to have unusual cash flows (for instance, several time periods during which net cash flows switch from negative and positive and vice versa). Moreover, unless modified, IRR assumes that cash flows from a loan will be reinvested at the same rate of return as the loan itself.¹⁶

For these reasons, when investment decision rules using IRR and NPV give different answers, lenders tend to use NPV. Many lenders calculate both NPV and IRR, and use the IRR as a supplementary piece of information to the NPV.

¹⁶ There is no general formula for IRR except in simple cases. The best option is to use Excel's IRR(), MIRR(), or XIRR() functions. The MIRR() function allows loan cash flows to be reinvested at a different rate. The XIRR() function allows the timing of cash flows to be irregular.

Risk-Adjusted Return on Capital

Lenders seeking a rate of return calculation without the disadvantages of IRR often employ risk-adjusted return on capital (RAROC). A full treatment of RAROC is beyond the scope of this handbook, and lenders contemplating this option likely already have financial analysts with dedicated expertise. Nevertheless, RAROC is included here to indicate one possible next step beyond IRR and NPV for firms with sufficient data and analytical resources.

In simple terms, RAROC divides the expected net profits of a loan by the amount of capital that is ‘tied up’ by that loan on a lender’s balance sheet.

More specifically, the RAROC formula is:

$$\frac{(\text{interest and fee revenue}) - (\text{cost of capital}) - (\text{expected loss}) - (\text{operational cost})}{\text{capital at risk}}$$


All of the terms in the numerator are in dollar terms, not percentages, and are calculated similarly as in an NPV calculation. In particular, expected loss is calculated using the statistical PD X EAD X LGD approach.

In the denominator, the concept that underpins capital at risk is the distinction between ‘expected losses’ and ‘unexpected losses.’ ‘Expected losses’ are the losses that a lender would expect to occur on average. For instance, in an average year, a lender would expect only a few loans to default, and to be able to recover at least some of the principal for those loans that do default. However, there is also the possibility that the lender will have a worse-than-average year, in which many loans default, and little or no principal is recovered on those loans. These are termed ‘unexpected losses.’

If a lender sets aside only enough capital on their balance sheet to cover ‘expected losses,’ they still face a risk of becoming insolvent in a worse-than-expected year. Therefore, prudent lenders set aside a bit more capital than would be dictated by expected losses alone.

The capital at risk calculation in the denominator determines how much ‘extra’ capital to set aside. It typically is defined as a multiple of expected losses. Different lenders use different methods to calculate this multiple. In addition, lenders differ in their appetite or tolerance for risk. For these reasons, there is no one formula for calculating capital at risk, and the formulas that do exist require more explanation than can be provided here.

Interested readers can learn more in the following resources:

-  [Economic Capital and the Assessment of Capital Adequacy](#), FDIC Supervisory Insights
-  [Between RAROC and a Hard Place](#), Rob Jameson, ERisk.com
-  [The use of economic capital in performance management for banks: A perspective](#), McKinsey Working Papers on Risk, No. 24

Considerations when using RAROC

The primary benefit of RAROC is that it takes into account not only the expected profitability of a loan (as a function of its expected revenues and costs) but also how much reserve capital the lender must set aside on their balance sheet. Capital reserves represent a cost to the lender. As financial consultant Oliver Wyman writes, “RAROC allows scarce risk capital to be devoted to those activities that use it most efficiently to create returns.”¹⁷

The primary concerns about RAROC are the amount of data required (both in terms of number of transactions, and amount of data per transaction) and the technical complexity of applying it. However, for lenders with sufficient data and analytical resources, RAROC is an attractive option.

¹⁷ [Unmasking True Performance Through Corporate RAROC](#), Oliver Wyman, 2009.

Appendix 6: Estimating Financial Concession for Multi-Asset Class Investors

This section includes simple methods for calculating the expected financial outperformance (‘alpha’) or financial concession implicit in investments in direct private equity, private debt, and funds versus relevant market benchmarks.

These methods will likely be most useful to investors with portfolios spread across asset classes and across the financial returns continuum. It is often difficult for such investors to evaluate and compare the relative financial performance of investments as dissimilar as, for instance, a loan to an artichoke-processing facility in Peru, a limited partnership in a first-time social venture capital fund manager in the United States, and an early-stage equity investment in a sustainable textile producer.

For investors with this degree of flexibility, the methods below create a way to systematically and quantitatively estimate answers to frequently-asked questions such as:

- “What is the financial value of the concession I am making in any given prospective investment?”
- “Which of my investments are more or less concessionary?”
- “How much financial concession is in my current portfolio as a whole?”

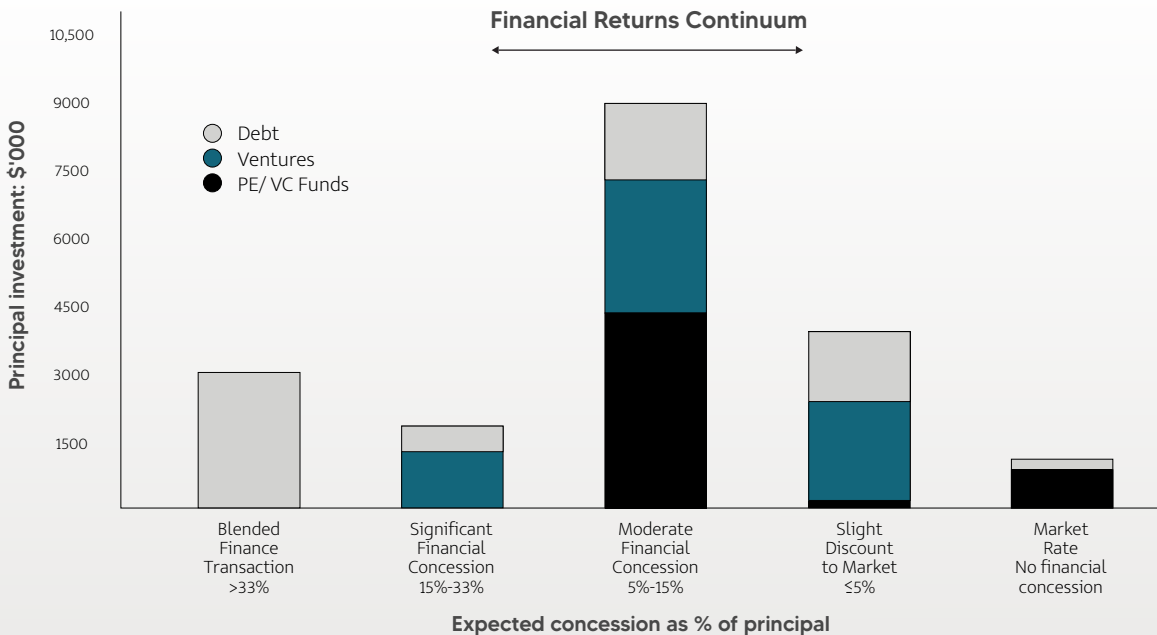
All of the methods proposed below calculate expected alpha or financial concession of an investment by comparing the rate of return the investor expects of an investment with the return an investor believes they could obtain if they instead invested in a socially-neutral investment of similar financial risk, duration, liquidity, and other factors.

This analysis requires many assumptions. The investor’s actual rate of return may not match their expectation, and the most similar available market benchmark may not match the investment’s financial characteristics perfectly. The results therefore have a margin of error that is material for decision-making. These methods will likely not suit investors that need to differentiate between fine gradations of financial risk and return with a high degree of precision.

However, for an investor that operates across a wide spectrum of the financial returns continuum, these methods may suffice to systematically map current and proposed investments onto their approximate positions on that financial returns continuum.

For instance, Propel used these methods to categorize their portfolio into five buckets:

- Market-rate
- Slight discount to market: financial concession represents 5% or less of transaction value
- Moderate financial concession: financial concession represents between 5% and 15% of transaction value
- Significant financial concession: financial concession represents between 15% and 33% of transaction value
- Blended finance transaction: financial concession represents more than 33% of transaction value



Combined with the impact rating approach described in [Section 2](#), this analysis prepared Propel to take stock of their existing portfolio from a financial and impact perspective, and to articulate a forward-looking impact return hurdle rate (described in [Section 3](#)).

Direct Private Equity and Venture Capital

This approach compares the amount that an investor pays for a stake in a company with what a 'socially neutral' investor would have paid for the same stake, given its expected exit value and timing and the market benchmark rate of return.

Inputs

A rough estimate of the financial concession implicit in an investment in an early-stage company can be calculated using four data points as inputs:

- 1) The amount that the investor invested or will invest in the enterprise
- 2) The IRR that socially-neutral investors are using as a benchmark at the time of the investment
- 3) Two of the following three data points:
 - a) The exit value that the investor expects to receive in the future
 - b) The date of the expected exit
 - c) The expected internal rate of return (IRR) of the investment

Given any two of the data points listed under #3, plus the original amount invested, the third can be calculated according to this formula:

$$\text{Original Amount Invested} \times ((1 + \text{Expected IRR})^{\text{years until exit}}) = \text{Expected Exit Value}$$

Methods for determining the valuation of early-stage enterprises at time of investment are outside the scope of this guide.

The exact date of the expected exit is of course impossible to foretell. If investors know in advance approximately when they intend to exit specific investments, they can use those dates. If not, investors can make a single assumption about how long they intend to hold their investments (e.g., seven years for venture capital investments), and apply that assumption to all investments.

Assumptions about the holding period can significantly influence estimates of financial concession. Unless the investor has a reason to expect that holding periods will differ among investments, using consistent assumptions across investments will increase confidence in the comparability of the results.

Calculation Steps and Example

This section illustrates the steps of the calculation, using the example of a \$1 million equity investment with an expected IRR of 8% and an exit period of 8 years.

- 1) If you have not already determined the expected exit value, calculate it as follows:

$$\text{Original Amount Invested} \times ((1 + \text{Expected IRR})^{\text{years until exit}}) = \text{Expected Exit Value}$$

$$\text{Example: } \$1 \text{ million} \times (1 + 8\%)^8 = \$1.85 \text{ million}$$

- 2) Estimate what a socially-neutral investor would pay for that the Expected Exit Value by discounting back to present-day dollars, using the market benchmark rate of return.

In this case, we assume that the investor has reviewed available market benchmarks for investments of similar asset class, size, risk level, and duration, and has settled on 10% as a reasonable market benchmark.

A socially-neutral investor expecting a 10% annual return would have paid:

$$\text{Expected Exit Value} / ((1 + \text{market benchmark return rate})^{\text{years until exit}})$$

$$\text{Example: } \$1.85 \text{ million} / ((1 + 10\%)^8) = \$0.86 \text{ million}$$

- 3) The financial concession is the difference between what the impact investor paid and what a socially-neutral investor would have paid:

$$\text{Financial Concession} = (\text{Original Amount Invested}) - (\text{Amount a socially-neutral investor would have paid})$$

$$\text{Example: } \$1 \text{ million} - \$0.86 \text{ million} = \$0.14 \text{ million}$$

- 4) If desired, the investor can estimate the percentage of the original investment that the financial concession represents (i.e., 'how concessionary' the investment is):

$$\% \text{ Financial Concession} = (\text{Financial Concession}) / (\text{Original Amount Invested})$$

$$\text{Example: } \$0.14 \text{ million} / \$1 \text{ million} = 14\%$$

In this case, the investment can said to be "14% concessionary."

Considerations

This method is subject to the limitations of its inputs, in particular the estimated IRR of the transaction and the selection of a market benchmark.

IRR estimates, like any forward-looking prediction, will likely differ from actual performance. As a result, the actual financial concession will likely differ from the prediction. What matters is not whether the estimated IRR perfectly predicts the future (which is impossible), but rather, whether it is the best prediction possible given imperfect information available at the time of investment.

Direct Private Debt

This approach compares the amount that an investor pays for the future cash flows of a loan with what a 'socially neutral' investor would have paid for the same cash flows, given the market benchmark rate of return for loans of similar risk and duration.

Inputs

This method uses the following data points as inputs:

- 1) The amount of the loan
- 2) The IRR that the impact investor expects to receive, based on the amount and timing of principal and interest payments
- 3) The IRR that socially-neutral investors would expect for a loan of similar risk and duration

To determine the interest rate that a socially neutral investor would expect, the impact investor needs to estimate what credit rating the loan would likely receive if it were rated by one of the major rating agencies, and then find a corporate bond with the same credit rating to use as a benchmark. The interest rate of this bond reflects the price that socially neutral investors are currently charging for that level of risk.

For example, if an impact investor determines that a loan has risk equivalent to an A credit rating from S&P, they can consult published interest rates to determine what socially neutral investors are charging for investments of similar risk (see table below). In the summer of 2019, investors charged an interest rate of approximately 3% for loans with an A credit rating from S&P.

Table 1: S&P Corporate Bond Yield Average from May 28- August 5, 2019

Rating	Definition	Interest Rate
AAA	An obligation rated 'AAA' has the highest rating assigned by S&P Global Ratings. The obligor's capacity to meet its financial commitments on the obligation is extremely strong.	2.70%
AA	An obligation rated 'AA' differs from the highest-rated obligations only to a small degree. The obligor's capacity to meet its financial commitments on the obligation is very strong.	2.72%
A	An obligation rated 'A' is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligations in higher-rated categories. However, the obligor's capacity to meet its financial commitments on the obligation is still strong.	3.01%
BBB	An obligation rated 'BBB' exhibits adequate protection parameters. However, adverse economic conditions or changing circumstances are more likely to weaken the obligor's capacity to meet its financial commitments on the obligation.	3.64%
BB	An obligation rated 'BB' is less vulnerable to nonpayment than other speculative issues. However, it faces major ongoing uncertainties or exposure to adverse business, financial, or economic conditions that could lead to the obligor's inadequate capacity to meet its financial commitments on the obligation.	4.41%
B	An obligation rated 'B' is more vulnerable to nonpayment than obligations rated 'BB', but the obligor currently has the capacity to meet its financial commitments on the obligation. Adverse business, financial, or economic conditions will likely impair the obligor's capacity or willingness to meet its financial commitments on the obligation.	6.38%
CCC	An obligation rated 'CCC' is currently vulnerable to nonpayment and is dependent upon favorable business, financial, and economic conditions for the obligor to meet its financial commitments on the obligation. In the event of adverse business, financial, or economic conditions, the obligor is not likely to have the capacity to meet its financial commitments on the obligation.	11.68%

Source: https://ycharts.com/indicators/categories/interest_rates

It can be challenging to determine the credit rating of a loan. We assume that lenders already have means of assessing credit risk. In sectors where credit rating agencies have published their methodologies for assigning credit ratings, lenders can follow those published methodologies to estimate the credit rating of a loan.

For example, lenders can download [S&P's sector-specific rating methodologies](#). Using data about a borrower's revenue, demand characteristics, competitive profile, EBITDA margin, leverage ratios, and financial policy, the lender can populate the indicators used by S&P, and then apply S&P sector weights for these indicators to calculate the overall credit rating.

Note that the IRRs in these calculations should be net of the cost of capital to both the impact investor and the socially neutral investor. If the impact investor does not otherwise calculate a cost of capital, as a starting place they can use the [interest rate for Treasury bills](#) of the same duration and date as the proposed loan.

Calculation Steps and General Example

This section illustrates the steps of the calculation, using the example of a \$1 million loan with an interest rate of 5% for four years. For the purposes of this example, we will assume that for a loan with similar risk and maturity, a socially neutral investor would charge 10% annual interest. For cost of capital, we assume that the annual interest rate for a 4-year T bill is 2%.

- 1) Forecast the cash flows of principal and interest payments for the proposed loan, and calculate the IRR for those cash flows. The net interest rate the impact investor charges (i.e., the interest rate minus the cost of capital) is $5\% - 2\% = 3\%$. Based on the cash flows, the impact investor's expected IRR is 3%

Unit: \$000	Year 0	Year 1	Year 2	Year 3	Year 4
Principal	\$ (1000)				1000
Interest		\$50	\$50	\$50	\$50
Cost of Capital		\$(20)	\$(20)	\$(20)	\$(20)
Net Interest		\$30	\$30	\$30	\$30
Total Cash Flows	\$ (1000)	\$30	\$30	\$30	\$1030
IRR	3.0%				

- 2) Forecast the same for a socially-neutral investor. Based on the below cash flows, the expected IRR for the socially neutral investor is 8%.

Unit: \$000	Year 0	Year 1	Year 2	Year 3	Year 4
Principal	\$ (1000)				1000
Interest		\$100	\$100	\$50	\$50
Cost of Capital		\$(20)	\$(20)	\$(20)	\$(20)
Net Interest		\$80	\$80	\$80	\$80
Total Cash Flows	\$ (1000)	\$80	\$80	\$80	\$1080
IRR	8.0%				

- 3) Applying the impact investor's IRR of 3% to the principal amount for the duration of the loan gives a future value of \$1.13 million ($\$1 \text{ million} \times (103\%)^4$).
- 4) The socially neutral investor, expecting an IRR of 8%, would be willing to pay \$827 thousand for the same future value ($\$1.13 \text{ million} / (108\%)^4$).
- 5) The financial concession to the impact investor is therefore \$173,000. ($\$1 \text{ million} - \827 thousand)
- 6) This financial concession represents 17.3% of the loan principal. ($\$173,000 / \1 million)

Investments in Impact PE/VC Funds

This approach compares the amount that a limited partner (LP, i.e., the investor in a fund) pays for an investment in a private equity fund with the amount that a 'socially neutral' investor would likely have paid.

Inputs

This method uses the following data points as inputs:

- 1) The amount that the LP invested or will invest in a fund
- 2) The IRR that the LP expects to receive
- 3) The IRR that socially-neutral investors are using as a benchmark at the time of the investment

We assume the LP already has an expectation of the IRR of a potential investment in a fund. This could be based, for instance, on past returns of the same or similar fund managers and/or the targeted IRR announced by the fund manager, perhaps with judgmental adjustments upwards or downwards based on the LP's perspective on that fund manager's strategy, track record, and investment opportunities.

In some cases, an LP may not have articulated an IRR target for their fund investments. In these cases, the LP could simply take their chosen market benchmark, and adjust upwards or downwards from that, depending on the degree to which they expect the fund to outperform or underperform that benchmark.

Calculation Steps and General Example

Assume the impact investor invests \$10 million in an impact venture capital fund. The fund has a 9% expected IRR and a 10-year exit period. Assume that the LP has reviewed available market benchmarks for funds of similar size and asset class, and has settled on 10% as a reasonable market benchmark.

- 1) Calculate the expected exit value:

Original Amount Invested $\times ((1 + \text{Expected IRR})^{\text{years until exit}})$ = Expected Exit Value

Example: \$10 million $\times (109\% ^{10})$ = \$23.7 million

- 2) Estimate what a socially neutral investor would pay for that the Expected Exit Value by discounting back to present-day dollars, using the market benchmark rate of return.

Amount a socially-neutral investor would have paid =
Expected Exit Value / $((1 + \text{market benchmark return rate})^{\text{years until exit}})$

Example: \$23.7 million / $(110\% ^{10})$ = \$9.1 million

- 3) The financial concession is the difference between what the impact investor paid and what a socially-neutral investor would have paid:

Financial Concession = (Original Amount Invested) –
(Amount a socially-neutral investor would have paid)

Example: \$10 million - \$9.1 million = \$900,000

- 4) This financial concession represents 9% of the principal.
(\$900,000 / \$10 million)

Sources of Financial Performance Benchmarks in Private Equity and Debt

Investors should select benchmarks that most closely resemble their own asset class, risk level, and expected exit period. Investors may wish to consider forward-looking return predictions instead of historical average returns, especially if the historical average is from a distant time period.

No market benchmark will provide a perfectly matched comparison for the specific characteristics of any individual transaction. Benchmark rates of return are blunt instruments, calculated by aggregating hundreds or thousands of transactions, companies, or funds, and the unique nuances of each get 'averaged out.' An argument can always be made that any

particular benchmark is not a perfect point of comparison for any particular transaction.

The relevant question for an investor is opportunity cost: "what rate of return do I believe I could achieve if I invested this capital in an instrument of similar risk, liquidity, and other financial characteristics?" Though imperfect, market benchmarks provide a helpful input that can help investors think through this question in a structured and replicable way.

Name	Time Period	Forward or Backward Looking	Asset Classes
ACG	10-year	Forward	Equity, fixed income, commodity, real estate
Cliffwater	10-year	Forward	Buyout and growth equity, private debt, venture capital, private equity
Callan	10-year	Forward	Equity, fixed income, real estate, hedge fund, private equity, commodities
BlackRock	5, 10, 15, 20, 25-year	Forward	Equity, fixed income, real estate, hedge fund, buyout private equity
BNY Mellon	10-year	Forward	Equity, fixed income, real estate, hedge fund, private equity, commodities
Cambridge Associates	1, 3, 5, 10, 15,20,25, 30-year	Backward	Venture capital
Cambridge Associates	1, 3, 5, 10, 15,20,25, 30-year	Backward	Private equity
Cambridge Associates	1, 3, 5, 10, 15,20,25, 30-year	Backward	Buyout and growth equity
Preqin	5-11-year	Backward	Private debt
JP Morgan Asset Management	2019	Forward	Equity, fixed income
Morningstar	1,3,5, 10-year	Forward	Equity, fixed income, commodities
Research Affiliates	1,3,4, 10-year (historical) 10-year (expected)	Backward and forward	Equity, fixed income, real estate, hedge fund, private equity, commodities
Vanguard	1, 10-year	Forward	Equity, fixed income

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