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Impact Investing

Unpacking the Impact in Impact Investing

A longer version of "When Can Impact Investing Create Real Impact?" from the Fall 2013 Up for Debate feature.

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There has been an increasing realization that, along with philanthropy and government aid, private enterprise can contribute to solving social and environmental problems. At the same time, a growing number of investors are expressing a desire to "do good while doing well." These are *impact investors*, who seek opportunities for financial investments that produce significant social or environmental benefits. However, the rapid growth of the field of impact investing has been accompanied by questions about how to assess impact, as well as concerns about potentially unrealistic expectations that social impact and market-rate returns can be simultaneously achieved.

This article is addressed to impact investors who want to know whether their investments will actually contribute to achieving their social or environmental (hereafter, simply "social") objectives. We introduce three basic parameters of impact: *enterprise impact, investment impact*, and *nonmonetary impact*. Enterprise impact is the social value of the goods, services, or other benefits provided by the investee enterprise. Investment impact is a particular investor's financial contribution to the social value created by an enterprise. Nonmonetary impact reflects the various contributions, besides dollars, that investors, fund managers, and others may make to the enterprise's social value.

The methods for assessing enterprise impact, which are relatively well understood[1] if erratically applied in public policy and philanthropy, are no different in impact investing. The principal contribution of this article is in setting out the concepts of investment impact and nonmonetary impact. The most novel and intriguing question we consider is whether and when investors can expect both to receive risk-adjusted market-rate returns on their investments *and* to have real social or environmental impact: that is, can investors both make money and make a difference? Many impact investment funds claim their investors can.[2] One recent study asserts that most of what it estimates to be a $4 billion impact investing market involves investments producing market rate returns.[3]

We posit that a particular investment has impact only if it *increases the quantity or quality of the enterprise's social outcomes beyond what would otherwise have occurred.* Under this definition, it is readily apparent that grants or concessionary investments (i.e., investments that sacrifice some financial gain to achieve a social benefit) can have impact: by hypothesis, an ordinary investor, who seeks market-rate returns, would not provide the capital on equally favorable terms, if at all.

But if an impact investor is *not* willing to make a financial sacrifice, what can he contribute that the market wouldn't do anyway? We believe that in publicly traded large cap markets, the answer is nothing: even quite large individual investments will not affect the equilibrium of these essentially perfect markets. But the frictions or imperfections inherent in some smaller, private markets may offer the possibility of yielding market returns and achieving social impact; for example, someone with distinctive knowledge about the risk and potential social and financial returns of a particular opportunity may make an investment that others would pass up.[4]

The question of investment impact is of obvious importance to investors who want more than the good public relations or "warm glow"[5] associated with a beneficent act—and who actually want to make a difference. Although we do not reject the possibility of earning market-rate financial returns while achieving social impact, we are skeptical about how much of the impact investing market actually fits this description. This question can be answered only by examining particular investments for both enterprise and investment impact. Our goal here is to create a framework for these studies.

Basic Concepts of Impact Investing

Impact Investing Defined An impact investor seeks to produce beneficial social or environmental outcomes that would not occur but for his investment in a social enterprise. In international development and carbon markets, this is called *additionality*.[6] With this core concept in mind, we define the practice of "impact investing" capaciously, as *actively placing capital in enterprises that generate social or environmental goods, services, or ancillary benefits (such as creating jobs), with expected financial returns ranging from the highly concessionary to above market.*[7]

The adverb "actively" excludes negative investment screens. This is not a judgment about their value, but rather reflects the general understanding that impact investing encompasses only affirmative investments. Within the field of impact investing, we include concessionary investments, which sacrifice some financial returns to achieve social benefits, and non-concessionary investments, which expect risk-adjusted market returns or better.[8]

The Inherent Subjectivity of Goals Different impact investors have different goals—to prevent malaria in Africa, say, or to improve children's nutrition, foster energy efficiency, or promote community development. Investors' goals may sometimes compete with one another: Peter may want to create jobs in Arizona, Paul in California, and Mary in Mexico—even if building a factory in one locale takes jobs away from another.[9] And one investor's valued objectives may be loathed by another; while most people would celebrate a clinic providing low cost eye surgery, some would object to a clinic providing low cost abortions.

In short, the range of possible objectives for impact investing is virtually as broad as the range of those in philanthropy. From a moral point of view, one can argue that some objectives are more important than others and that some are reprehensible. But these questions, which philosophers have debated for centuries, lie beyond the scope of this article. For better or worse, whether an activity has impact in achieving a specified goal is essentially a technical, value-neutral question.[10]

To say that an impact investor's goals are subjective does not mean that you, the reader, must accept all goals as equally valid. You might reject some goals entirely because you think they produce negative social value. And even among goals that you believe have positive value, you may believe that some are more valuable than others—for example, that providing clean water to base-of-the-pyramid (BoP)[11] populations in Africa is more valuable than creating jobs in Silicon Valley.[12] It is, indeed, the inherent subjectivity of goals that allows you to make this judgment.[13]

Intentionality Like philanthropists, impact investors invariably *intend* to achieve social or environmental goals. They are, by definition, *socially motivated*. Their goals may be as specific as providing anti-malaria bed nets to residents of a region in Africa or as general as doing environmental good.[14]

In contrast, *socially neutral investors* are indifferent to the social consequences of their investments.[15] Many endowments invest in a socially neutral manner, as do individuals who invest through money managers or funds whose only mandate is to maximize financial returns.[16] Readers who are dismayed by the very idea of socially neutral investors might consider the extent to which their own retirement fund managers seek to achieve social or environmental goals as well as financial ones. Some do, but many do not.

Perhaps there is a utopia in which all investors are motivated by social as well as financial objectives, and hence where every investment is an "impact investment." Even in such a world, however, as long as investors have diverse social goals, a given investor's socially motivated investment will be made in a market where other investors do not necessarily share the same goals and will therefore be socially neutral with respect to that particular investment.

Whatever an investor's intention, the fundamental question addressed in this article is one of fact: whether an investment actually has social impact.[17] Yet while social impact can be achieved unintentionally, this does not mean that intention is unimportant. For one thing, results can be measured and impact assessed only with respect to a particular goal. Moreover, in business and philanthropy, as in all other spheres of life, people are more likely to achieve results that they intentionally seek.

One consequence of separating impact from intention, however, is that socially neutral investors can unintentionally contribute to impact—whether in terms of their own values or someone else's. For example, socially neutral investors, motivated only by profit, have contributed to the social impact of telecommunications companies in both the developed and developing world.

The Nature of "Impact": The Centrality of the Counterfactual In the remainder of this article we explore the three parameters of impact: (1) the impact of the enterprise itself, (2) investors' contribution to the enterprise's impact, and (3) the contribution of nonmonetary activities to the enterprise's impact.

Having impact implies *but-for* causation, and therefore depends on the idea of the *counterfactual*—on what would have happened if a particular investment or activity had not occurred. The enterprise itself has impact only if it produces social outcomes that would not otherwise have occurred. And for an investment or non-monetary activity to have impact, it must provide *additionality*—that is, it must increase the quantity or quality of the enterprise's social outcomes beyond what would otherwise have occurred. We will have more to say about the relevant counterfactuals in each section below.

Enterprise impact The impact of investors and other actors ultimately depends on the impact of the enterprise they support. An enterprise can have impact in several possible ways. The first two are fundamental:

- *Product impact* is the impact of the *goods or services* produced by the enterprise (e.g., providing anti-malaria bed nets, clean water, financial services, or efficient energy).

- *Operational impact* is the impact of the enterprise's management practices on its employees' health and economic security, its effect on jobs or other aspects of the well-being of the community in which it operates, or the environmental effects of its supply chain and operations.[18] Some of these are often described as *environmental, social, and governance (ESG)* factors.[19]

Product or operational impact can sometimes be multiplied when an enterprise operates in collaboration with others. Hence,

- *Collective impact* is the impact of nonprofit organizations, foundations, government agencies, and businesses working together to tackle a community-wide problem.[20]
- *Sector impact* is an enterprise's impact, beyond its particular mission, on the markets and sectors in which it operates. For example, an enterprise's pilot project in drip irrigation may teach farmers about its benefits, develop demand for a drip irrigation product, and demonstrate the viability of the business; it may also develop supply chains that can be used by other kinds of enterprises. In addition, the very density of entrepreneurs in a region may have positive spillover effects for other businesses.[21] An enterprise is unlikely to have sector impact unless it has product or operational impact.

The theoretical framework that underlies the assessment of enterprise impact makes an essential distinction between outputs and outcomes. An *output* is the product or service produced by an enterprise; the (ultimate) *outcome* is the effect of the output in improving people's lives. Therefore the impact investor must answer two quite different questions:

1. To what extent will the *intended output* (whether a product or operational benefit) occur?
2. To what extent will the output contribute to the *intended outcome*?—where the counterfactual is that the outcome would have occurred in any event.

Consider an investor supporting an organization that manufactures and distributes bed nets with the goal of reducing morbidity and mortality from malaria. The focus of the first question is whether the bed nets were manufactured and distributed. It is answered mainly by looking at the quantity and quality of the organization's outputs.

The second question is whether the bed nets actually reduced malaria in the target population. For example, even if bed nets are generally effective, and even if the intended outcome occurred in the target population, can the reduction in malaria be attributed to the enterprise? Perhaps the reduction was due to a simultaneous vaccination or mosquito eradication program. Or perhaps the enterprise just displaced the outputs of government providers or those of ordinary businesses that did not receive impact-investing subsidies and were therefore less able to compete. The second question is typically answered by employing the same social science methods used in assessing outcomes in public policy and philanthropy—for example, randomized controlled studies, quasi-experimental techniques, econometric analysis, and the like.[22]

The impact investing field has developed standardized metrics for assessing some commonly measured criteria for an enterprise's social or environmental performance: the Impact Reporting and Investment Standards (IRIS) and a rating system known as the Global Impact Investment Rating System (GIIRS). Though IRIS includes some output measures, it is mainly concerned with financial and operational measures. GIIRS ratings are based on a survey spanning five categories: Leadership, Employees, Environment, and Community, which are operational, and Products and Services, which is output-oriented.

Although IRIS and GIIRS provide first steps toward assessing outcomes, they fall short of doing so. For example, suppose that an impact investor believes that jobs in business enterprises can reduce poverty in BoP populations. IRIS and GIIRS can measure how many people an organization employs, but not the social value of those jobs.

With rare exceptions—most notably, the field of microfinance[23] —there have been few efforts to assess the outcomes of social enterprises. Evaluation of this sort is expensive, and it typically has been funded by private foundations and international development institutions such as the World Bank. The superficiality of the current rating schemes may reflect the expense, complexity, and often indeterminate results of evaluations. In this respect, impact investing is not far behind philanthropy, which has not yet succeeded in creating a comprehensive system for evaluating the performance of nonprofit organizations. But the absence of data and analysis makes it difficult for impact investors to assess the social impact of the enterprises in which they invest.

A Framework for Quantifying Enterprise Impact If impact investors applied the same standards to social impact that they do to financial performance, they would not be satisfied with knowing that an investment will have *some* social impact. They would want to estimate *how much* impact it is likely to have. They would want to deploy their capital for the greatest impact in achieving a particular goal and, indeed, might pursue alternative goals if the expected impact was too low. The analysis of the magnitude of enterprise impact thus involves an assessment of costs and social benefits:[24]

Social Value =(Social Benefit)/(Production Cost)

For purposes of enterprise impact, the cost is the cost of producing a unit of the desired social benefit. For example, for a med-tech enterprise performing low-cost cataract surgery, the cost is the cost per person whose eyesight is restored.[25] The social value is a measure of the enterprise's efficiency in achieving enterprise impact—colloquially, its "bang for the buck."

Describing the enterprise's social benefit as "eyesight restored" doesn't answer the question of how much value the investor places on that benefit. Although health economists have developed measures of how disabilities affect the quality of life,[26] for the same reason that investors' social goals are intrinsically subjective, so too are the dollar values that they place on achieving particular goals. Because illustrating this point is complex and somewhat ancillary to the main thrust of the article, we relegate the discussion to an appendix.

We should note that any assessment of enterprise impact ought to consider its net impact, taking into account the enterprise's harms as well as benefits. Imagine a company that manufactures effective bed nets (a good) under poor labor conditions (a bad). An investor who cares about both of these values must, however crudely, estimate how they net out.[27]

As in the case of most social programs, enterprise impact is devilishly difficult to ascertain. Because it has been analyzed at length elsewhere,[28] however, we move on to the two other forms of impact—investment and nonmonetary impact—which have not previously been defined, let alone analyzed. Without enterprise impact, however, neither investment nor nonmonetary activities can have impact. Therefore, in exploring these issues, we will assume that a particular enterprise has sufficient impact to justify the investors' and intermediaries' efforts to support it.

Investment Impact (Capital Benefits) As a foundation for discussing investment impact, it is helpful first to consider the motivations and goals of the investors themselves. As we noted previously, an investor may be *socially neutral* or *socially motivated*:

- The *socially neutral* investor makes investment decisions based solely on expected financial return.
- The *socially motivated* investor values the particular products (e.g., microfinance, clean energy) or byproducts (e.g., jobs in poor neighborhoods) produced by a business enterprise, and is therefore interested in investing in that enterprise in order to increase the quantity or quality of its socially beneficial outputs as well as for its financial returns.

These socially motivated investors fall into two categories:

- *Non-concessionary* investors are not willing to make any financial sacrifice to achieve their social goals.
- *Concessionary* investors are willing to make some financial sacrifice—by taking greater risks or accepting lower returns—to achieve their social goals.

In impact investing parlance, these socially motivated investors are "financial first" and "impact first" investors, respectively.[29] Most "double bottom line" impact investors are non-concessionary. In the context of philanthropy, non-concessionary socially motivated investments are often called *mission-related investments* (MRIs), and are distinguished from *program-related investments* (PRIs), which are generally concessionary.[30]

To have investment impact requires meeting the criterion of *additionality*—that an investment increase the quantity or quality of the enterprise's social output beyond what would otherwise have occurred. Assuming that, at the time of an investment, the enterprise can productively absorb more capital,[31] the investment has impact if it provides more capital, or capital at lower cost, than the enterprise would get without it.

Debra Schwartz, director of program-related investments at the MacArthur Foundation, has alliteratively summarized the kinds of capital benefits that impact investors can provide in terms of five P's,[32] to which we add a sixth, perspicacity:

- *Price.* Below market investments
- *Pledge.* Loan guarantees
- *Position.* Subordinated debt or equity positions
- *Patience.* Longer terms before exit
- *Purpose.* Flexibility in adapting capital investments to the enterprise's needs
- *Perspicacity.* Discerning opportunities that ordinary investors don't see

These capital benefits enable the enterprise to experiment, scale up, or pursue social objectives to an extent that it otherwise could not. The first five are particularly relevant to investments that expect below-market returns. (The extreme case in which an impact investor provides capital benefits is one in which the enterprise would receive no capital whatsoever from socially neutral investors.[33]) The sixth, perspicacity, may hold the key to achieving both market returns and social impact.

Concessionary Investments A concessionary investment sacrifices some financial returns to achieve social benefits. The return sacrificed is, in effect, a charitable donation or grant. Assuming that the enterprise can productively deploy additional capital, a concessionary investment has investment impact virtually by definition, because it makes available capital to which an enterprise would not otherwise have access. Consider three general situations in which impact investors have made concessionary investments.

Supporting nascent enterprises. The early stages of many social enterprises that aspire to become financially sustainable depend on "enterprise philanthropy"[34] and highly concessionary investments that involve higher risks than ordinary market investors would take. This was true of microfinance and of other social enterprises that serve BoP populations, which often depend on innovations in technology and marketing and require significant investments before yielding any financial returns. For example:

- In an effort to reduce obesity, **California FreshWorks** makes grants to support innovative ideas that are not investment-ready, with the aim of bringing healthy food retailers to underserved communities. It is supported by commercial banks, impact investors, and private foundations.[35]
- **Acumen Fund** made a $1.5 million equity investment, taking a greater risk than the financial return would justify, in India's **Dial 1298 for Ambulance**, a service for BoP clients. Combined with technical assistance, this pioneering investment helped Dial 1298 expand operations to new communities and secure investments from market-rate investors.[36]
- **Root Capital** makes loans to early-stage agricultural businesses in Africa and Latin America that fall within the "missing middle" of lenders—too large for microfinance but too small for commercial banks.[37]
- **USAID's Development Innovation Ventures** provides grants to social enterprises for seed funding, start-up and testing, and transitioning to scale.[38]

We should note that, in addition to philanthropists and concessionary investors, entrepreneurs and intermediaries often provide subsidies in the form of *concessionary human capital* by sacrificing compensation with no reasonable hope for recouping the loss.

Subsidizing ongoing enterprises. Some mature social enterprises are not able to cover all of their costs, and thus require the ongoing support of investors who are willing to forgo a degree of financial return for social benefits. For example:

- In 1994 the US Department of the Treasury created Community Development Financial Institutions (CDFIs) to "provide economically depressed communities access to credit, equity, capital, and basic banking products."[39] Subsequently, the Calvert Foundation began offering below-market Calvert Community Notes, which in turn are invested in CDFI-accredited community organizations that provide below-market loans to nonprofit organizations and small businesses in underserved communities.[40]
- **RSF Social Finance** offers the opportunity to invest in loan and investment funds that support a variety of social enterprises in food, agriculture, education, and other domains. Investors can generally expect modest returns.[41] **Grassroots Business Fund** offers similar opportunities in developing countries with similar returns.[42]
- **Aravind EyeCare,** which prevents blindness in India, funds ongoing operations from earnings, but depends on charitable donations for expansion.[43]

One noteworthy form of financing ongoing enterprises involves the *simultaneous layering of concessionary and non-concessionary investments*, with the former intended to encourage the latter. This is the purport of some government subsidies, and private impact investors can provide such subsidies as well.

- The **Community Development Financial Institutions Fund** subsidizes CDFI investments (mentioned above) through tax credits to qualifying community-based organizations.[44]
- Through **USAID's Development Credit Authority**, the government provides concessionary loan guarantees to mobilize commercial market-rate investments in developing countries.[45]
- **The New York City Acquisition Fund** is designed to promote the development of affordable housing by providing flexible capital for developers. The City was joined by the MacArthur, Rockefeller, F. B. Heron, Robin Hood, Starr, and Ford foundations in providing subordinate debt and loan guarantees. More or less non-concessionary investors include Bank of America, JP Morgan Chase, and HSBC.[46]
- In 2012, New York City, together with Bloomberg Philanthropies, Goldman Sachs, and MDRC, established America's first social impact bond, the **NYC Able Project for Incarcerated Youth.** MDRC has contracted with the city to reduce recidivism among youth incarcerated at Rikers Island. With its risk reduced by a grant from Bloomberg Philanthropies, Goldman Sachs invested $9.6 million, which will be repaid by the city on the basis of the project's success. If the reduction of recidivism achieves a certain target, Goldman Sachs will receive a financial return consistent with typical community-development lending.[47]

Some may find it galling that concessionary impact investors should facilitate non-concessionary investors' receiving market-rate returns. But if participating in a layered structure attracts the capital of market-rate investors who would not otherwise have invested, then, galling or not, the concessionary investment has investment impact.

Concessionary investments, serving as subsidies, can have a redistributive function or correct for market inefficiencies—for example, in situations where an enterprise cannot internalize the benefits of public goods that it creates. But the fact that an investment is concessionary is no guarantee that it will create net positive social impact. Subsidies can also mask an enterprise's inefficiencies and crowd out healthy competition. Subsidizing microfinance and community development institutions have been both positive and harmful in different circumstances.

Non-concessionary Investments While it's easy to see how below-market investors can provide capital benefits to an enterprise, it is less clear how and when investors expecting market returns (or better) have investment impact. Yet much of the impact investment space is occupied by funds that promise their investors both socially valuable outputs and at least market returns. For example:

- The UK fund **Bridges Ventures** asserts that it produces "both financial returns and social and environmental benefits."[48] Among its featured investees is The Gym, which "provides low-cost health and fitness facilities in purpose-built gyms which are open 24 hours a day and located mainly in underserved areas."
- **Equilibrium Capital** offers "alpha producing, sustainability driven investment products" in sustainable agriculture, green real estate, and integrated land management.[49]
- **Elevar Equity** offers "outstanding investment returns by delivering essential services to disconnected communities underserved by global networks."[50]

And some institutional investors that are legally required to invest their clients' money at market rates nonetheless make socially motivated investments, which they presumably believe yield both social and market returns. For example:

- Pension funds such as **TIAA-CREF** and **CalPERS** (the California Public Employees Retirement System) invest in enterprises said to deliver socially valuable goods and services while producing market returns. TIAA-CREF has invested $34 million in ProCredit, which provides credit and other banking services to small and medium-sized enterprises in developing countries.[51] CalPERS has invested more than $130 million through its Alternative Investment Management's Environmental Technology Program, which targets clean technologies.

For present purposes, we do not question the fund managers' assertions that their investments have strong financial returns, or the assumption that pension funds like TIAA-CREF make only non-concessionary investments. The immediate question is how such investments might have investment impact. Under our criterion of additionality, the investment must increase the quantity or quality of the social or environmental outcome beyond what would otherwise have occurred—where the counterfactual is that ordinary, socially neutral investors would have provided the same capital in any event. Under the additionality criterion, how can an impact investor expect market returns and still provide capital benefits to the enterprise? After all, if it's a good investment, one would expect socially neutral investors to be in it as well.

Most economists agree that it is virtually impossible for a socially motivated investor to increase the beneficial outputs of a publicly traded corporation by purchasing its stock. Suppose that a socially motivated investor buys stock in a publicly traded enterprise to increase its socially beneficial outputs. Especially if—as is generally the case—stock is purchased from existing shareholders, any benefit to the company is highly attenuated, if it exists at all.[52]

In any event, impact investing typically does not take place in large cap markets, but in domains subject to market frictions. Although some of these frictions may deter socially neutral investors from investing in socially valuable enterprises, impact investors may exploit them to reap both social benefits and market-rate financial returns. These frictions include:

- *Imperfect information*. Investors at large may not know about particular opportunities—especially with respect to enterprises in developing countries or low-income communities in the United States and other developed nations—let alone have information about their risks and expected returns. If socially neutral investors overestimate risks or underestimate opportunities, they will undervalue potential investments.
- *Skepticism about achieving both financial returns and social impact.* Investors at large may be unjustifiably skeptical that enterprises that are promoted as producing social or environmental value will yield market-rate returns.[53] (Of course, conversely, socially motivated investors' enthusiasm for a social outcome may lead them to believe erroneously that an investment is better than it actually is.)
- *Inflexible institutional practices.* Institutional investors have rules of thumb and practices—in effect, institutional heuristics—that simplify decision-making for typical cases but that may exclude potential impact investments, which, for example, may require more flexibility (e.g., longer time horizons) than the fund's practices permit.
- *Small deal size.* The typical impact investment is often small compared to similar private equity or venture capital investments, but the minimum threshold of due diligence and other

transaction costs can render the investment financially unattractive regardless of its social merits.

- *Limited exit strategies.* In many developing economies, securities markets are insufficiently developed to provide reliable options for investors to exit their investment in a reasonable time
- *Governance problems.* Developing countries may have inadequate governance and legal regimes, creating uncertainties about property rights, contract enforcement, bribery, and the like. Navigating such regimes may require on-the-ground expertise or personal connections that are not readily available to investors at large.

We believe that non-concessionary impact investors are especially likely to have investment impact in conditions of *imperfect information*—for example, in social or environmental niche markets where impact investment fund managers or other intermediaries have special expertise or intelligence on the ground. Perfect markets are functionally omniscient, but the impact fund manager says (in the words of David Chen of Equilibrium Capital), "I see something that you don't see."

Socially motivated investors may be particularly interested in identifying these opportunities and thus may be able to have impact even at non-concessionary rates. This is the most likely explanation for the asserted double-bottom-line success of firms like Bridges Ventures, Equilibrium Capital, and Elevar Equity. Even here, though, one might ask whether investments that seem non-concessionary on their face incorporate hidden concessions in the form of risk or extra and costly due diligence that ordinary investors would not undertake.

The Arc of Enterprise Development The ideal outcome for most enterprises that initially rely on concessionary capital is that they eventually yield market returns and attract socially neutral investors. Here, impact investors have done their part in bringing the enterprise to market, the impact-investing story is over, and the enterprise is now supported by customers and ordinary market investors.

Hopefully, this will be the story of the Indian company **Husk Power Systems (HPS)**, which transforms rice husks into electricity. Since its inception, HPS has been funded by prize awards, grants, and concessionary investments.[54] Between 2008 and 2011, the Shell Foundation made four grants to the enterprise, which provided funding for R&D, pilot projects, expansion, and human resources development. In 2009, several social investors, including Acumen Fund, Bamboo Finance, International Finance Corp (IFC), and LGT Venture Philanthropy made below-market loans to HPS totaling $1.65 million.[55] Together with government subsidies for companies providing power to off-the-grid villages, these funds helped HPS grow from a small start-up to an enterprise providing electricity to 200,000 people in communities across India.[56] In 2010, HPS raised $1.25 million from IFC,[57] and in 2012 it secured $5 million in a Series A financing round led by Acumen Fund and Bamboo Finance, in which LGT Venture Philanthropy also took part.[58] The company's management and funders aspire that its stock will eventually be traded on an Indian stock exchange.

The modern history of microfinance tells a similar story for an entire sector, but has multiple endings for different regions and institutions. The story begins with grants to the Grameen Bank, BRAC, BancoSol, and other microfinance institutions (MFIs) to develop and prove the concept, followed by concessionary loans and equity investments for implementation.[59]

Although even today many MFIs depend on subsidized investments, an increasing number now attract market investors.[60] For example, in 2007 the initial public offering of the highly profitable Banco Compartamos was vastly oversubscribed,[61] and some mainstream banking institutions, such as Citigroup, now have a microfinance business.[62] This generally positive story has a dark side as well, however. As MFIs become more financially attractive, they may adopt practices that compromise their social missions— a criticism leveled against Banco Compartamos, among others.[63] We describe several potential solutions to this problem of mission drift in the section on nonmonetary impact.

A Starting Point for Determining Investment Impact To say that non-concessionary investors can have impact in imperfect markets is hardly to conclude that they always do. Socially motivated investors are no less susceptible to poor judgment and fads than their socially neutral peers. Whatever the merits of the clean tech sector, it would be hard to attribute impact to an environmentally motivated investor who elbows his way into a clean-tech fund, pushing out socially neutral investors who otherwise would have fully capitalized the fund.

Fads aside, placing capital in an enterprise that is already heavily invested in by socially neutral investors has less impact than investing in an undercapitalized start-up or evolving enterprise. The preceding analysis does not provide anything approximating a formula, but rather seeks to provide a starting point for case studies of the investment impact of particular transactions.

Nonmonetary Impact Beyond just providing capital, fund managers, together with investors and other actors, can improve an enterprise's social outputs by providing a range of nonmonetary benefits. We describe them in approximately the order of their appearance on the impact investing stage.

1. Improving the enabling environment for social enterprises and investors

2. Finding and promoting impact investment opportunities
3. Aggregating capital and providing other investment services
4. Providing technical and governance assistance to enterprises, and helping them build strategic relationships
5. Gaining socially neutral investors
6. Securing and protecting the enterprise's social mission

Before discussing these activities in detail, we should note that some nonmonetary benefits are closely related to impact investors' financial investments. For example, an investment may signal to other potential investors that the enterprise is worth their serious consideration, or socially motivated investors may gain sufficient control of an enterprise to protect its social mission.

Returning to the role of human capital, we should also note that non-monetary services are sometimes provided at concessionary rates. The employees of impact investment funds or other organizations in the field may in effect subsidize the process by accepting lower compensation than they could receive in purely commercial settings.

1) Improving the enabling environment for social enterprises and investors. We begin with macro-level benefits that flow to a sector as a whole rather than to any particular enterprise. Governments and some foundations provide funding to improve the social, political, and regulatory environments in which social enterprises and their investors operate—essentially a market building activity. In Priming the Pump, Matt Bannick and Paula Goldman of the Omidyar Network describe how "promoting competition, ensuring consumer protection, and promoting entrepreneurship can speed up … the development of industry sectors."[64] For example:

- The **Boulder Institute** has developed scoring and rating models for microfinance institutions, established benchmarking, and introduced an open-source management information system. It has also trained thousands of MFI practitioners.[65]
- The **World Bank**'s work on Governance and Public Sector Management seeks, among other things, to improve the rule of law and reduce corruption in developing countries.[66]

In addition to providing public goods of these sorts, a well-designed set of investments in a sector has the potential to catalyze markets to a greater extent than the sum of random investments in individual investee enterprises. Investments in microfinance institutions have had this effect in many regions.

2) Finding and promoting impact investment opportunities. Impact investment intermediaries are critically important in discovering investment opportunities and bringing them to the attention of investors, thus helping to overcome the information failures previously noted. For example:

- **Agora Partnerships**[67] identifies early-stage impact investment opportunities in communities across Central America, focusing on small and growing businesses that are too large for microcredit support and too small for traditional bank or venture capital financing. Its clients, such as the Draper Richards Kaplan Foundation, engage Agora Partnerships to pursue impact investment opportunities in the region.
- **Villgro**[68] (formerly the Rural Innovations Network) connects seed funders, such as Ankur Capital, the Unitus Seed Fund, and Accion's Venture Lab, to social enterprises working to improve lives in rural regions of India that would otherwise have little access to early-stage funding.
- The Internet is creating new organizations, such as **Kiva**,[69] which facilitates peer-to-peer lending for particular projects; **Microplace**,[70] which facilitates investments in ongoing social enterprises; and **Indiegogo**,[71] which helps provide capital to start-ups.[72]

The value of these activities depends on the quality of the due diligence done in selecting enterprises and, ultimately, on the enterprises' social impact.

3) Aggregating capital and providing other investment services. Fund managers and other intermediaries reduce transaction costs by creating economies of scale. They may also provide technical assistance to impact investors (rather than to the enterprises themselves, as discussed in point 4 below). Examples include:

- **Bridges Ventures, Equilibrium Capital,** and **Elevar Equity**, mentioned earlier.
- **Imprint Capital Advisors**,[73] a San Francisco-based advisory firm, helps foundations and family offices identify domestic and global opportunities for impact investment. For example, Imprint guided several foundations to invest in Southern Bancorp, a US development bank that provides banking and nonprofit services aimed at reducing poverty and unemployment in distressed rural communities.[74] It also helped gain support for Revolution Foods, which provides healthy meals to poor public school students.[75]

4) Providing technical and governance assistance to enterprises, and helping them build strategic relationships. Fund managers and other third parties provide non-monetary benefits, ranging from technical assistance to nascent enterprises to helping more mature enterprises develop relationships with customers, suppliers, and other partners.[76] For example:

- **Endeavor Global** draws on experienced business professionals as well as teams of MBA students to assist promising entrepreneurs in meeting business challenges—from raising financing, to human resource development, to creating and negotiating term sheets.[77]
- **Root Capital**'s Financial Advisory Services are designed to strengthen the business processes of social enterprises with high growth potential in Africa and Latin America. Training modules focus on business and administrative management, financial planning, risk management, accounting, and loan applications. Similarly, alongside its investment fund, **Grassroots Business Fund** has a philanthropically supported arm that provides technical assistance to its investees.[78]
- **CGAP** is an independent policy and research center dedicated to increasing financial access for the world's poor. It provides market intelligence, promotes standards, and offers advisory services to governments, financial service providers, donors, and investors.[79]

5) Gaining socially neutral investors. One of the unfortunate characteristics of imperfect impact investing markets is their inability to attract the large majority of socially neutral investors who demand market returns. Where such returns seem plausible, a respected institution can signal to other investors that a particular investment or an entire sector that others may have thought dubious is actually worthy of consideration. This can prove particularly important in attracting second round financing, once the investment target and market have been validated.

- **The David and Lucile Packard Foundation** made an initial $1 million equity investment, followed by a low-interest $10 million loan, in **EcoTrust**, a sustainable forest management firm. The foundation's general counsel noted, "Our main reason for investing in EcoTrust Forest in this way is to demonstrate that sustainable forest practices can generate a profit so that mainstream investors will become more interested in it."[80]
- **Trillium Asset Management** is an investment advisor devoted to sustainable investing for foundations, endowments, and high net worth individuals and families. Trillium believes that the decision to add several CDFI investments to its list of recommended community investment opportunities led to an increase in such investments by individuals, mutual fund investors, and family offices.[81]

6) Securing and protecting the enterprise's social mission. Enterprises that produce socially valuable products often begin with a social mission. Enterprises whose social value comes from operational impact (e.g., good environmental practices or community benefits) may incorporate that mission from the outset or have it pressed upon them by investors.

In either case, over time an enterprise's management and directors may discover opportunities to increase financial returns at the expense of social impact. For example, the manufacturer of products or services designed for BoP clientele may find it more profitable to market to wealthier customers, or a microfinance institution may screen out the neediest borrowers or drift into predatory practices. The dangers are especially acute as the enterprise scales up and takes on new, socially neutral investors.[82]

There are a number of possible protections against such mission drift, including embedding the mission deeply into the enterprise, contractual arrangements, B Corps[83] and other corporate forms that require or encourage producing social benefits that may compromise market returns, and the continual influence of socially motivated investors.[84] Examples of the last include:

- **Acumen Fund**: Earlier we mentioned Acumen Fund's investment in Dial 1298 for Ambulance in India. As a shareholder, Acumen secured a seat on the organization's board that allowed it to press for changes in the company's business model that successfully increased usage rates among the poorest residents.[85]
- **Embrace** and **Skoll Foundation**: Embrace, producer of the Embrace Infant Warmer, received below-market equity and loan investments from the Skoll Foundation, which encouraged the organization to split into two different entities: a 501(c)(3) non-profit that focuses on distributing Embrace's healthcare products to the world's most impoverished communities, and a separate for-profit social enterprise that manufactures healthcare products for paying customers. The business subsequently raised $5 million in capital from Khosla Ventures, Capricorn Investment Group, and other for-profit investors.
- **Vox Capital** and **Sautil**: Vox Capital is a venture capital firm that invests in businesses serving BoP populations in Brazil. Its investee, Sautil, sells information about free public health benefits to companies, which in turn provide the information to their employees. Recognizing the potential for mission drift because it is more profitable to deal with companies that have relatively high-wage employees, Vox Capital, which is on Sautil's board, has linked its own carried interest to the achievement of social impact metrics based on serving BoP workers as well as to financial metrics.[86]

A Framework for Quantifying Nonmonetary Impact As always, the inquiry into impact begins with the question: does the activity increase the quantity or quality of the socially valuable outputs produced by the enterprise, compared to what would have occurred in its absence?

If so, the question then becomes *how much*? A good starting place for quantifying nonmonetary impact is to consider (1) investors' willingness to pay (WTP) for services such as finding opportunities, doing due diligence, and reducing transaction costs; and (2) enterprises' WTP for technical assistance and the like. However, because some of the benefits of improving impact-investing markets do not directly redound to particular investors and investee organizations, but instead accrue to the sector as a whole, a full assessment must also account for those external benefits that are not adequately captured by the participants' WTP.

Where an intermediary organization secures new investors in a socially valuable enterprise, its nonmonetary impact is measured by the investment dollars that it brings to the table that would not otherwise have been invested. It is worth noting that the nonmonetary impact does not depend on whether the investors assisted are socially motivated or socially neutral. Indeed, subject to the problem of mission drift mentioned above, to the extent that impact investors and their allies attract socially neutral investors to social enterprises producing market-rate returns, they may multiply their impact.

Making Use of the Impact Framework How could an impact investor use the framework developed in this article to determine whether a proposed investment in an enterprise is likely to have social or environmental impact?

First, the investor must identify the social goals he wishes to achieve. Let's suppose that he wishes to reduce poverty in an African country. There are many possible strategies for achieving this goal, including work in health, education, microfinance, or agriculture, and creating businesses and jobs in almost any sector. Existing studies of the relative impact of these strategies do not reveal any single best one, but suggest that supporting smallholder farmers in the region is among the promising approaches. These studies may provide at least a starting point for the investor's estimation of the social value of an enterprise's outputs in this domain.

The investor must then identify which agricultural enterprises have a track record of success in improving the economic well-being of smallholder farmers or, if they are start-ups, have a high likelihood of success. Although IRIS and GIIRS include some agricultural metrics, they do not provide much help in assessing the enterprises' impact.[87] However, the investor may be able to get advice from organizations with on-the-ground experience. Indeed, rather than invest directly in an enterprise, he may seek to overcome information deficits by investing through a fund manager with expertise in the sector. In any event, the amount of effort demanded of the investor depends on whether intermediary organizations can provide some of the nonmonetary benefits described in the preceding section.

Assuming that the investor has identified a promising organization and done due diligence, he must consider what sort of investment—equity, debt, terms, amount—will improve its social outputs, and then predict the expected financial return from the investment.

Estimating the expected financial return from an investment is a difficult but familiar exercise. Estimating social return is intrinsically much harder because of the complexities of placing values on social and environmental outcomes and predicting what outcomes an organization is likely to achieve. Estimating the value of nonmonetary contributions that directly benefit an enterprise is a commonplace task that an organization engages in whenever it hires consultants. Estimating the value of nonmonetary contributions to an entire sector is a far more speculative task.

In contrast to enterprise and nonmonetary impact, assessing a particular investment's additionality in order to determine its investment impact is a novel task that, so far as we know, has not previously been undertaken. In this article, we propose the questions that underlie this analysis. An investor who expects market returns must ask whether his non-concessionary investment is likely to have investment impact, and if so, how much. An investor who is prepared to sacrifice market returns should ask how much concession it's worth making for the social value produced by the organization.[88]

The estimations, assessments, and evaluations described here all involve costs—greater or lesser depending on their degree of rigor. While this article provides a framework for undertaking such analyses, we have no *a priori* commitment to a particular depth of analysis. Our own view is that research and evaluation costs must be justified in terms of their likely benefits in improving the investment decision. In some instances, evaluation—especially of an enterprise's impact—may be of great value to an entire sector of enterprises and to their investors. In these cases, the sector would likely benefit if impact investors paid their fair share of the evaluation costs—something that most philanthropists have not done.

Conclusion: Next Steps in the Analysis of Impact

We have outlined what we believe to be the three basic parameters of impact:

- *Enterprise impact* is the social contribution of the enterprise itself, whether from the enterprise's products or from operations.
- *Investment impac*t is the contribution that investors make to the enterprise's impact by providing capital that it could not otherwise obtain, or by providing it at lower cost.

- *Nonmonetary impact* is the contribution of activities besides the financial investment itself to the social impact of an enterprise or, indeed, to the social impact of a sector.

Whatever information an investor may need for his individual decisions, the field as a whole would benefit from more empirical analysis of each of these. Here are a few areas that we believe are ripe for exploration and improvement.

The immediate pressing need in *enterprise impact* is for robust measures and third-party assessments of enterprises' outputs. As with their analogs in philanthropy, IRIS and GIIRS face the challenges of multiple, complex measures, the costs of measurement, and investors' limited interest in knowing more about impact.[89] GiveWell, the Center for High Impact Philanthropy, Philanthropedia, and Charity Navigator 3.0 are beginning to provide donors with information about an enterprise's outputs, and occasionally outcomes, in the belief that donors will respond to reliable information presented in a clear format. It seems reasonable to believe that impact investors would be at least as responsive to easily digestible information. In the short term, we hope that B Lab, which administers GIIRS, will continue to refine the distinction between (1) products and services versus operational metrics and (2) outputs versus outcomes. Better collaboration between the impact investing community, organizations promoting corporate social responsibility, and groups aiming to assess enterprise impact would likely improve these efforts.

The assessment of outcomes cannot be routinized in the same way as outputs, but will continue to require large scale studies of the sort done by the MIT Poverty Action Lab and Innovations for Poverty Action—studies that, realistically, will be funded only by foundations and international development organizations.[90]

Investment impact and *nonmonetary impact* are less well understood, and are in need of rigorous case studies that examine the impact of activities in a variety of contexts. Questions to be addressed include:

- **Non-concessionary Investment Impact:** Under what circumstances do non-concessionary investors have impact by providing capital that the markets would not otherwise provide? We believe that the investment impact of non-concessionary investments depends on exploiting the frictions that characterize imperfect markets, but it would be valuable to see how this plays out in actual cases.
- **Reducing Frictions:** How can market frictions be reduced so as to attract socially neutral investors to socially valuable enterprises, and who has the incentives to reduce them?

- **Capital Structures:** When are grants preferable to equity investments (and vice versa), when are equity investments preferable to loans (and vice versa), and when are the various forms of support and financing complementary?
- **Nonmonetary Contributions:** How can one monetize the value of various nonmonetary contributions to enterprises and investors, and how can this analysis be useful in prioritizing opportunities for nonmonetary support?
- **Government and Philanthropic Roles**: What are the appropriate roles for government and philanthropy in creating infrastructure, improving the environment in which impact investing takes place, and providing subsidies? And under what conditions do subsidies crowd out market investors or have other counterproductive effects?

With enough case studies and some good luck, addressing these questions would produce useful generalizations that could guide the work of enterprises and intermediaries in the field as well as investment decisions. Our hope is that this article provides a framework for undertaking such projects.

Appendix: The Investor's Utility Function Here we elaborate on the question (raised in the section on enterprise impact) of what dollar value an investor places on achieving a particular social goal. We look at the question first from the perspective of an ordinary philanthropist and then from that of an impact investor.

The philanthropist. Imagine a philanthropist who is considering supporting a nascent organization with clinics that provide vaccinations in rural African communities. The organization is incorporated as a for-profit enterprise, but it needs grants or concessionary investments for its start-up phase. The philanthropist is considering making a $500 gift to help build a clinic in a new village. The fully loaded cost (including allocated capital expenses) of administering a vaccination will be $25. Should she make the gift?

The philanthropist does some research and estimates the social benefit of one vaccination to be $100, taking into account the benefit to the individual receiving it and those indirectly protected from disease.[91] Thus, each dollar of the cost of a vaccination yields a 4X social return. Her gift of $500 will produce a social benefit of $2,000. She thinks this sounds like a good deal, and writes a check.

To understand the philanthropist's utility function, let's see how a modification of this scenario might affect her giving. Suppose that that the social value of a vaccination was only $30, still more than the cost, but vastly short of the 4X return?

Suppose that the philanthropist has an absolutely fixed charitable budget, and that she is going to give away $500 as long as there's any worthy cause.[92] If she has goals that she regards as comparable —say, providing clean water or anti-malaria bed nets to the same communities—then she might look for a strategy with a better social return. But if her only passion is immunization, then she should make the $500 gift.

Suppose, alternatively, that the philanthropist has tentatively earmarked $500 for charity, but might give more or less depending on how attractive she finds the opportunities. In other words, she is willing to trade off charitable giving and personal consumption. Assuming that immunization is her sole passion, the reduced social value of the immunization may lead to a decision to spend the money on herself rather than on the vaccination. In principle, we could draw a utility function to reflect her tradeoffs for different social returns on her donation to the program.

The question is one of opportunity costs—of how the gift would affect her budget for personal and other charitable expenditures—and not only one of social return.

The concessionary impact investor. Now let's replace the philanthropist with a concessionary impact investor asked to make a loan for the same purpose. If the clinic could borrow at market rates, it would have to pay 8 percent, but its director asks the investor for a $10,000 one-year loan at 3 percent interest, thus saving $500. The investor could get 8 percent in the market; thus at 3 percent, he is making a concession of 5 percent, or $500.

Assume that the investor has plenty of cash, so that the loan presents no liquidity problems. He is being asked, in effect, to make the same donation as the philanthropist, and he will take into account precisely the same factors as the philanthropist in deciding how large a gift, if any, to make. That is, he will consider how much social value he is providing and whether alternative uses of his money would produce more value.

This example also suggests that it may be somewhat misleading to characterize the concessionary impact investor as making a "tradeoff" between financial and social return. The only role that financial return plays in the impact investor's decision is that it specifies the amount of the concession—in effect, the size of the gift—that he is making to the enterprise. Perhaps some investors will make a tradeoff between the size of the gift and its social value. But even if one could capture the tradeoff in a coherent utility function, it is not a tradeoff between financial return and social return.

There is, however, one tradeoff the investor should consider: the social benefit of the concession versus the financial return from investing the same amount in the market. Our hypothetical case stipulated that he could get an 8 percent return. But suppose that the market return were vastly greater, so that it exceeded the social benefit of the concession. Then, he may invest the money now, and when the returns come in, he should consider subsidizing the vaccination clinic perhaps even in a larger amount.

It bears emphasis that the preceding analysis does not entail that philanthropists or impact investors who are considering alternative investments should not consider their relative expected social return. For a rigorous analysis of such a process, see Michael Weinstein and Ralph Bradburd, *The Robin Hood Roles for Smart Giving* (2013).

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Notes

[1] See, e.g., Paul Brest, Hal Harvey, & Kelvin Low, "Calculated Impact," *SSIR*, Winter 2009; The William and Flora Hewlett Foundation. "Doing Good Today and Better Tomorrow," June 1, 2009.

[2] See the section on Non-Concessionary Investments below.

[3] http://www.pacificcommunityventures.org/reports-and-publications/market-for-social-impact-investing-by-private-equity-funds-stands-at-4-billion-in-the-united-states/

[4] It is also possible that an investment that seems non-concessionary on its face actually reflects a hidden concession in the form of extra and costly due diligence that ordinary investors would not make the effort to undertake. See the section on Nonmonetary Impact below.

[5] See James Andreoni, "Impure Altruism and Donations to Public Goods: A Theory of Warm Glow Giving," *The Economic Journa*l, 100, no. 401 (June 1990), pages 464-477.

[6] See, e.g., "IFC's Additionality: A Primer."

[7] Cf. Bridges Ventures and Parthenon Group, "Investing for Impact," page 3.

[8] The capital asset pricing model integrates risk and return, and our references to market returns generally mean risk-adjusted market returns. However, some concessionary impact investors disaggregate these factors and are willing to make a concession with respect to risk but not return.

[9] For example, DBL Investors, an impact investing firm, vied with other states to locate Tesla Motors' manufacturing facility in a distressed California community. (Presentation by Nancy Pfund in Paul Brest's course on impact investing at the Stanford Graduate School of Business, October 22, 2012. See generally http://www.dblinvestors.com/) Cf.

http://www.nytimes.com/2012/12/02/us/how-local-taxpayers-bankroll-corporations.html?emc=na&_r=0.

[10] We treat an investor's financial goal of earning a return on his investment as a baseline against which to trade off achieving social goals. (The Appendix sketches the utility function that might govern such a tradeoff.) Why do we separate financial and social goals in this manner, rather than treating all of the goals (including financial returns) as matters for tradeoff *ab initio*? At least in our present culture, this seems to reflect the mental framework of most investors, who begin with financial goals and then consider whether to make financial concessions for social purposes. Moreover, this assumption reflects the pervasive distinction between self-interest and altruism. Unless they hold an extreme utilitarian view of the sort espoused by Peter Singer (in *The Life You Can Save: How to Do your Part to End World Poverty* [2010]) or a prior deontological duty such as a requirement of tithing, it is reasonable for investors to begin by assuming that not only what they own, but what they can earn from investments, belongs to them and that charitable decisions are discretionary and concessionary from that baseline.

[11] The term, coined by C. K. Prahalad and Stuart Hart, refers to the billions of people living on less than $2 a day. http://en.wikipedia.org/wiki/Bottom_of_the_pyramid

[12] Cf. Eric Friedman, *Reinventing Philanthropy* (2013).

[13] However, the inherent subjectivity of goals poses some potential problems for assessing impact. Although the criteria that we develop for impact are applicable to any and all goals, the core criterion of enterprise impact can be applied only to a specified goal; obviously, you can't assess the work of an enterprise aimed at reducing poverty in Detroit by measuring its effectiveness in preventing malaria.

[14] The more general motivation is similar to that of "socially responsible investors," who screen out investments that they believe have harmful social effects. See Paul Brest and Hal Harvey, *Money Well Spent: A Strategic Plan for Smart Philanthropy,* ch. 8 (Bloomberg: 2008).

[15] The characterization of investors as "socially neutral" describes only their motivations or intentions, and does not mean that investment decisions made without regard to social or environmental impact may not in fact have good or bad consequences.

[16] See, e.g., Joe Nocera, "Investing in Guns." When endowment managers asked, in the wake of the Newtown school shootings, why their endowments invested in gun manufacturers, one typical response was that "the core duty of a pension fund or university endowment is to maximize returns. … 'We invest strictly on economic considerations, and we do not take into account social and political considerations.'"

[17] The matter is somewhat more complicated because the investor must predict the expected impact of an investment *ex ante* rather than knowing the actual impact *ex post.* But even a prediction of expected impact in conditions of uncertainty is more a matter of fact than of intention.

[18] Sara Olsen and Brett Galimidi. "Catalog of Approaches to Impact Measurement," Social Venture Technology Group, May 2008:12. (July 10, 2012).

[19] "The Financial Times Lexicon." (July 6, 2012).

[20] See, e.g., John Kania and Mark Kramer, "Collective Impact."

[21] For example, the Monterrey, Mexico-based IGNIA "believe[s] that by providing financial and strategic support to high impact social enterprises we can better enable them to achieve commercial success. Their commercial success will attract eager entrants and will foster the development of new industries." http://www.ignia.com.mx/bop/how-we-help.php

[22] See, e.g., Abhijit Banerjee and Esther Duflo, *Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty* (Public Affairs, 2011), and Dean Karlan and Jacob Appel, *More Than Good Intentions: Improving the Ways the World's Poor Borrow, Save, Farm, Learn, and Stay Healthy* (Penguin, 2011). For an excellent analysis of the role of evaluation in a foundation, see Hewlett Foundation, Evaluation Principles and Practices.

[23] For an example of an exception, see CGAP's 2011 study, *Latest Findings from Randomized Evaluations of Microfinance.*

[24] This is the equation for expected value. It is often applied to social programs funded by governments or philanthropy. One might argue that, when applied to a for-profit enterprise, the denominator should reflect capitalization rather than production cost. In any event, although it is often convenient to speak as if impact were a known fact, the decision whether to make an impact investment requires a prediction of impact *ex ante*. Because the success of most investments is not assured, the equation must be modified to account for the risk of failure. The governing concept is expected return (ER) or social return on investment (SROI), captured by this equation:
SROI =(Social Benefit ×Likelihood of Success)/(Production Cost)
The calculation would actually be more complicated if one applied a discount factor for benefits that occur only in the future.

[25] A complete analysis would take quality into account. To make it simple, this example essentially elides outputs and outcomes.

[26] For a brief overview, see Paul Brest and Linda Krieger, *Problem Solving, Decision Making and Professional Judgmen*t, pp. 376-381 (Oxford University Press, 2010).

[27] An investor might also be concerned that even when it creates a net benefit, an enterprise's provision of certain services, such as electricity or clean water, might give governments an excuse for not providing them more widely.

[28] See note 22 above.

[29] Monitor Institute, "Investing for Social & Environmental Impact" (2009).

[30] Program-related investments are a construct of the Internal Revenue Code, encompassing investments whose primary purpose is to accomplish one or more of the foundation's exempt purposes and where production of income or appreciation is not a significant purpose. IRS, "Program Related Investments," (April 30, 2013). PRIs count toward a foundation's required minimum annual distribution, or payout.

[31] The alternative is that the enterprise is already well capitalized, and that additional resources have limited marginal impact (or merely enrich existing equity investors). We assume that the enterprise makes productive use of the capital for the same reason we assume that it has enterprise impact—to hold these matters constant in order to explore the other forms of impact.

[32] Guest lecture at Paul Brest's autumn quarter 2012 Impact Investing class at the Stanford Graduate School of Business.

[33] But the provision of funds alone does not ensure investment impact. For example, investors might demand such a high return that they compromise the enterprise's ability to pursue its social mission by limiting the amount of capital, or by gobbling up all the available assets as collateral, or by preventing dilutive equity issuances, thus inhibiting the raising of additional capital.

[34] See Harvey Koh, Ashish Karamchandani, and Robert Katz, "From Blueprint to Scale: The Case for Philanthropy in Impact Investing" (Monitor Group, April 2012).

[35] California FreshWorks is modeled on the earlier Pennsylvania Fresh Food Financing Initiative.

[36] Gita Johar and Joanna Harries, "Dial 1298 for Ambulance: Marketing EMS in Mumbai," Columbia CaseWorks. Columbia Business School (April 26, 2010). (May 15, 2012).

[37] Correspondence with Willy Foote, founder and CEO of Root Capital, January 4, 2013.

[38] http://www.usaid.gov/div

[39] US Treasury Department. "Community Development Financial Institutions Fund," (July 10, 2012).

[40] See Rosalie Sheehy and Chris Larson, "Connecting CDFIs to the Socially Responsible Investor Community" Ford Foundation, 2010.

[41] For example, RSF Social Investment Fund's current annualized return to investors is 0.75 on a 3-month note, which is comparable to similar-term bank CDs or money market funds—although the Fund is not insured by FDIC. It has repaid investors 100% during its thirty-year history. Email correspondence with Don Shafer, President and CEO of RSF Social Finance, January 1, 2013.

[42] http://www.gbfund.org/about-us

[43] http://www.aravind.org/. Correspondence with Robert Katz, January 23, 2013.

[44] But see John Carney, "Here's How The Community Reinvestment Act Led to the Housing Bubble's Lax Lending," *Business Insider* (2009).

[45] http://www.usaid.gov/what-we-do/economic-growth-and-trade/development-credit-authority-putting-local-wealth-work. A government subsidy or guarantee makes some investments more attractive than they otherwise would be. Note that an investor enters the market against the background of a particular regime of subsidies or guarantees and considers his expected financial return in that context. Thus the presence of government subsidies does not affect whether a private investment is concessionary or non-concessionary or the extent of any concession.

[46] See Bridges Ventures and Parthenon Group, *Investing for Impact*. We describe the banks' investments as more or less non-concessionary because they are motivated by the institutions' obligations under the Community Reinvestment Act.

[47] Fact Sheet: The NYC Able Project for Incarcerated Youth, August 2, 2012.

[48] See also Bridges Ventures and Parthenon Group, *Investing for Impact,* which describes many "financial first" investments, including some by Bridges Ventures itself.

[49] http://www.eq-cap.com/

[50] http://elevarequity.com/

[51] TIAA-CREF also makes market-rate loans to developers building environmentally friendly, low-income housing. For example, in 2007 it made a market-rate loan of $22 million to ShoreBank of Chicago, which in turn invested in community development (TIAA-CREF, July 9, 2007).

[52] But suppose that a socially motivated investor buys directly from the company, say in an initial public offering. For example, some investors in Google doubtless valued its contribution to an open Internet as well as its potential financial returns. Google's IPO was highly unusual, however, in allowing retail investors to purchase shares directly from the company. Typically, only a limited number of institutional investors participate in the IPO. Of course, their bidding price might be affected by the enthusiasm of the socially motivated people to whom they will sell. Even if so, in today's environment the number of socially motivated people is likely to be a very small percentage of overall investors, and their capital would likely have had far more social impact if deployed elsewhere.
It is worth noting that a socially motivated decision *not* to purchase stock—a practice of "socially responsible investing"—has dynamics inverse to those described here. Though it may have symbolic value, it will not affect the company's outputs. This was apparently true even of the massive campaign undertaken in the latter decades of the 20th century to divest shares of companies doing business in South Africa, though it likely influenced public opinion on the subject. http://www.iop.harvard.edu/does-divestment-work.
As we write, Bill McKibben has been leading a campaign to divest from the fossil fuel industry. See, e.g., http://sojo.net/magazine/2012/11/divest-fossil-fuels-now.

[53] For example, one impact investor told us that he believed that some socially neutral investors were unjustifiably skeptical about the returns from community development projects. Conversation with Michael Dorsey, Westley Group, September 11, 2012.

[54] See "From Blueprint to Scale: The Case for Philanthropy in Impact Investing." (Monitor Group, April 2012), above; Dichter et al., "Closing the Pioneer Gap;" http://startupcentral.in/2012/05/husk-power-in-talks-to-raise-5-10-million-series-a-funding/; Ashden, "Case Study Summary: Husk Power Systems India," 2011: 1, (July 10, 2012).

[55] Ashden, "Case Study Summary: Husk Power Systems India," 2011: 1, (July 10, 2012).

[56] http://www.huskpowersystems.com/

[57] http://www.thehindubusinessline.com/companies/husk-power-systems-raises-5-million-for expansion/article4038431.ece

[58] Existing investors, including DFJ and Cisco, have committed to continue investing in the company by converting their existing investment to equity capital.

[59] "The Impact Investor's Handbook: Lessons from the World of Microfinance," CAF Venturesome Market Insight Series, First Edition, February 2011, pages 9-10.

[60] "Foreign Capital Investment in micro-finance: balancing social and financial returns," CGAP, February 2008.

[61] See, for example, Richard Rosenberg, "CGAP Reflections on the Compartamos Initial Public Offering: A Case Study on Microfinance Interest Rates and Profits."

[62] http://www.citigroup.com/citi/microfinance/

[63] See, e.g., "SKS Under Spotlight in Suicides," *The Wall Street Journal*, February 24, 2012; David Roodman, *Due Diligence: An Impertinent Inquiry Into Microfinance (*2012).

[64] http://www.ssireview.org/blog/entry/sectors_not_just_firms

[65] "The Impact Investor's Handbook: Lessons from the World of Microfinance," CAF Venturesome Market Insight Series, First Edition, February 2011, page 16.

[66] World Bank's Work on Governance & Public Sector Management (GPSM).

[67] Agora Partnerships.

[68] http://www.villgro.org/

[69] http://www.kiv a.org/

[70] https://www.microplace.com/

[71] http://www.indiegogo.com/

[72] Although it is premature to assess the social impact of these particular organizations, there is little doubt that the Internet has tremendous capacity for reducing the cost of intermediation.

[73] http://www.imprintcap.com/

[74] "Southern Bancorp, Inc. receives $11 million investment to help revitalize underserved rural communities," W. K. Kellogg Foundation Press Release (February 3, 2010). (May 31, 2012).

75 John Goldstein of Imprint Capital also points out that where a foundation's grantmaking strategies intersect with the business sector, involving program officers in making investments through PRIs broadens their understanding of a field—a "learning return" that benefits the foundation's ordinary grantmaking as well. Matt Bannick of Omidyar Network reports that its co-investments with traditional investors improve its knowledge of new fields and create valuable relationships.

76 "Bridging the "Pioneer Gap": The Role of Accelerators in Launching High-Impact Enterprises A report by the Aspen Network of Development Entrepreneurs and Village Capital."

77 http://www.endeavor.org/

78 http://www.gbfund.org/. Similarly, Villgro, mentioned above, acts as a social enterprise incubator, helping social entrepreneurs refine their business models, identify and address factors that may impede future investment, and raise their first rounds of financing. See also Village Capital; Dasra Social-Impact.

79 http://www.cgap.org/about. The Center for Financial Services Innovation provides similar services.

80 Stephanie Strom, "To Advance Their Cause, Foundations Buy Stocks," *The New York Times*, November 24, 2011 (accessed August 15, 2012)

81 Conversation with Lisa MacKinnon, Vice President of Marketing, Trillium Asset Management, January 24, 2013. See http://www.trilliuminvest.com/esg-investment/esg-impact/community-investing/; Ford Foundation, *Connecting CDFIs to the Socially Responsible Investor Community.*

82 See, for example, Richard Rosenberg, "CGAP Reflections on the Compartamos Initial Public Offering: A Case Study on Microfinance Interest Rates and Profits."

83 See http://www.bcorporation.net/

84 For a vigorous argument about the necessity and benefits of new corporate forms, see Antony Page and Robert A. Katz, "The Truth About Ben and Jerry's," and letters to the editor in response.

85 Gita Johar and Joanna Harries. "Dial 1928 for Ambulance Marketing EMS in Mumbai," note 36 above.

86 See http://www.voxcapital.com.br/english/; http://www.ssireview.org/blog/entry/aligning_interests_in_impact_investing?goback=%2Egde_2730249_member_249626125.

87 But see http://giirs.org/for-funds/pioneer.

88 See the appendix.

89 A 2010 survey of philanthropists and impact investors suggests that the vast majority are not willing to make any effort to gain information about the actual social or environmental impact of their investments. See http://hopeconsulting.us/pdf/Money%20for%20Good_Final.pdf.

90 Some newer organizations, such as IDinsight, are providing analyses at lower cost. Idinsight.org

91 There are somewhat objective ways of placing a value on the vaccination. See, e.g., http://www.givewell.org/international/technical/programs/immunization#Basicsoftheprogram. But we should note that, just as a philanthropist's (or impact investor's) interests are inherently subjective, so too may be the social value that she places on a vaccination. For example, she may give it greater value than the data suggest because of the memory of a relative's death that a vaccination might have avoided. But we'll keep the example simple.

92 For example, she might be participating in a project such as one sponsored by the Learn by Giving Foundation, or she may have placed the funds in a donor advised fund.

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