

The Best Available Charitable Option

Measuring Social Returns

Social venture investing,¹ almost by definition, believes that there have to be more cost-effective ways of achieving social value than the traditional philanthropic approaches. Acumen Fund seeks to prove that small amounts of philanthropic capital combined with large doses of business acumen can build thriving enterprises that serve a vast number of the poor. Just as venture capital funds seek out opportunities for disproportionate financial returns by investing in disruptive new technologies or business models, social investors believe they can achieve higher “social returns” by backing talented entrepreneurs with innovative and scalable approaches to solving social problems. But unlike venture capital investments—where the measure of return is purely financial, comparable across industries and geographies—finding a standard metric to measure the success of a social investment has been a vexing challenge for this field.

Many people and institutions have dedicated years of work to develop tools, such as Jed Emerson’s “Blended Value Proposition” and the “social return on investment” (SROI) methodology,² that would define an absolute standard with which to compare various social projects. TechnoServe is currently completing a comparative analysis of “double bottom-line”³ approaches to small and medium enterprises (SMEs) in low-income countries. A number of Acumen Fund’s peers have developed their own tools that drill towards the cost-effectiveness of their social impact, such as E&Co’s “Triple Bottom Line.”⁴ It seems there is a constant struggle to balance being practical, comprehensive and comparable across institutions and issue areas (i.e., comparing a clean water project to an HIV/AIDS treatment program), particularly in the face of a growing multitude and diversity of institutions seeking social returns.

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¹ An entire paper could be dedicated to defining “social venture investing.” For more information on Acumen Fund’s approach, please refer to our website (<http://www.acumenfund.org/>). In this paper, we use “social venture investing” to encompass the fields of social entrepreneurship and venture philanthropy.

² Refer to www.blendedvalue.org and <http://www.redf.org/results-sroi.htm>.

³ The “double bottom line” strives to measure both social and financial outcomes. For more on TechnoServe’s approach, refer to www.technoserve.org.

⁴ Refer to http://www.eandco.net/tbl_table.php. The “triple bottom line” includes environmental as well as social and financial outcomes.

Acumen Fund's Approach

Rather than seek an absolute standard for social return across an extremely diverse portfolio, Acumen Fund looks to quantify an investment's social impact and compare it to the universe of existing charitable options for that explicit social issue. Specifically, this tool helps inform investors where their philanthropic capital will be most effective—answering the question “For each dollar invested, how much social output will this generate over the life of the investment relative to the best available charitable option?” This methodology, which we call the BACO ratio (for “best available charitable option”), is a useful starting point for assessing the social impact and cost-effectiveness of each of our investments. The point of the analysis is to inform our portfolio decision-making with a quantifiable indication of whether our social investment will “outperform” a plausible alternative.

Whenever possible, the BACO is based on existing charities providing similar goods and services to those of Acumen Fund's investment. For example, consider our \$325,000 loan to A to Z Textile Mills in Tanzania. With the loan, we sought to transfer an innovative technology from Sumitomo Chemical for long-lasting insecticide-treated bednets (LLITNs)⁵ to a local manufacturer and to expand their capacity to produce these nets. It is plausible that instead of making a relatively risky loan to A to Z, Acumen Fund could have made a zero-risk grant of

\$325,000 to UNICEF or an international NGO to distribute traditional insecticide-treated bednets. In cases where a viable local comparison does not exist, we try to develop realistic hypothetical options based on other geographies or from plausible “what if” scenarios.⁶ In general, our BACO analysis typically aims for a narrow and least common denominator of output provided—individuals with improved housing, people years of clean water, or patients on ARV treatment.

In our experience, the BACO calculation is essentially driven by three factors:

- + **Financial leverage:** since Acumen Fund seeks a return of capital through loans and equity, our investments' net costs are typically lower relative to grants. If Acumen makes a loan of \$325,000 at a 6 percent annual interest rate, repaid over five years, we expect a return of \$422,500, while grants are a sunk cost. (See Table 1 below.)
- + **Enterprise efficiencies:** because many of the BACOs are public sector or nonprofit delivery models, it is our belief that private sector cost structures and incentives will enable Acumen's investees to show 50 to 100 percent cost recovery in the implementation of a social project. For instance, a number of Acumen's investees use a business-minded franchising strategy to impact low-income populations on

INSECTICIDE TREATED NETS

Table 1: Cost Analysis	BACO	Acumen Fund investment
Committed funds	\$325,000	\$325,000
Cost of disbursement & management ⁷	\$65,000	\$130,000
Expected return	\$0	6% annually for 5 years
Return [principal + interest earned =] (financial leverage)	\$0	\$422,500
Net revenue (Cost) [return - disbursement - costs =]	(\$390,000)	(\$32,500)

⁵ The Olyset LLITN has unique properties with time-release pesticides that have been proven to be effective at killing malaria-bearing mosquitoes for up to five years.

⁶ If we find ourselves stretching to come up with an even remotely plausible BACO, we'll conclude that the ratio is “not applicable.”

⁷ In calculating the net cost of an investment, we assume that our investments will incur greater disbursement and management expenditures than traditional charitable models, given the complexity of our financing and our hands-on approach to supporting investments.

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a greater scale. In the example below, the bednet factory was able to reach economies of scale and keep costs low for higher outputs. (See Table 2 below.)

- + **Technology leverage:** in many cases the invention of a new product or business system can fundamentally transform the output per unit. For example, the anti-malarial LLITNs in this investment are proven to last five times longer than regular insecticide-treated nets (ITNs) that dominate the charitable marketplace in Sub-Saharan Africa. New product innovation can typically show higher social output for each dollar invested and, therefore, a higher BACO ratio, even assuming the same cost structure.

BACO ratio

The BACO calculation ultimately conveys the net cost per unit of social impact. The figures in Table 3 below are taken from Tables 1 and 2.

Upon making the investment in A to Z, we could estimate that it would cost Acumen Fund less than \$0.02 to protect one individual from malaria for one year, compared to \$0.84 through the BACO. In other words, Acumen Fund's investment in this scenario is 52 times more cost-effective than the best available charitable option.

Table 2: Social Impact Projections		BACO	Acumen Fund investment
Comparable product cost		\$3.50	-
Total output	bed nets	92,857	2,000,000
Investor share of output ⁸		100%	20%
Investor output (enterprise efficiency)	bed nets	92,857	400,000
Impact factor	persons protected / bed net	2	2
Social impact [total output * impact factor =]		185,714	800,000
Bottom Of Pyramid (BOP) Penetration ⁹	% customers in BOP	100%	50%
BOP impact [social impact * BOP Penetration =]		185,714	400,000
Product efficacy (technology leverage)	# of effective years of malaria protection	2.5	5
Total social impact [BOP impact * product efficacy =]	person years of malaria protection	464,286	2,000,000

Table 3: BACO Ratio		BACO	Acumen Fund investment
Net cost	[cost - return]	\$390,000	\$32,500
Total social impact	person years of malaria protection	464,286	2,000,000
Net cost / Unit of social impact	\$ / person year	\$0.839	\$0.016
BACO Ratio	cost-effectiveness multiple		52

⁸ Acumen discounts its social impact based on what percentage of the company's output can be credited specifically to Acumen's financing (we assume that the scale of impact is roughly proportional to the capital invested as a percentage of the enterprise's total capital base).

⁹ Acumen further discounts its social impact based on how effective the solution is at reaching the BOP (i.e., what percentage of the customer base is in the BOP).

Qualifying Our Results

In order to reach the most realistic estimate of cost-effectiveness, Acumen Fund’s metrics team follows the above process for a number of different scenarios, varying its projection of financial leverage and social impact. The BACO cost calculation is, therefore, completed against a range of three financial scenarios—assuming:

- (1) Full return on investment (principal plus interest);
- (2) Return of only the principal; and
- (3) Complete loss

Similarly, the social impact forecasts are broken down into three scenarios:

- (A) Initial projections: from the original investment plan;
- (B) Conservative projections: developed by Acumen Fund portfolio team, based on moderate growth plans;
- (C) Revised projections: updated on a real-time basis using actual impact data

As seen in Table 4, these layers of analysis enable Acumen Fund’s metrics team to triangulate the most appropriate BACO ratio estimate. The above calculation (Tables 1, 2, and 3) is therefore based on a scenario in which Acumen Fund earns a

full return on investment (1) and uses conservative projections of social impact (B).

The above example is given for illustrative purposes. In actuality, Acumen Fund generally takes the more conservative “center” value as the most appropriate BACO estimate—in this case, showing Acumen Fund’s investment in A to Z as 16 times more cost-effective than the best available charitable option.

Conclusion

Acumen acknowledges that the BACO methodology has limitations, the most pressing of which we wish to highlight here. First, it captures neither the long-term impact of our work – beyond the five- to seven-year investment period – nor the more qualitative “system change” that may result (i.e., enabling local African production of life-saving anti-malarial bednets and demonstrating that African manufacturing can be as efficient as production in Asia). A successful investment will have on-going impact after the loan is fully repaid (or the investment is exited), but this “terminal value” is something we don’t know how or whether to calculate.

Second, the entire BACO methodology depends on choosing the right charitable alternative. When aid organizations or local NGOs are providing similar goods and services, it makes the

Table 4: Scenario Analysis

SUMMARY of BACO Ratio Results				
		Financial Return		
		(1) Return of principal + interest	(2) Return of principal only	(3) Complete loss
Social Output	(A) Initial projections, 2003	90	23	6
	(B) Conservative projections, 2004	52	16	4
	(C) Revised projections, 2006	28	7	2

BACO a more meaningful comparison. The challenge for the Acumen Fund metrics team occurs when either no comparable option exists, or when the business model of the comparable effort is so divergent (say, comparing our investment in bednets with a grant to research a malaria vaccine) as to be inapplicable to the exercise. We are constantly looking to strengthen all our assumptions and use the most prevalent charitable comparables, in order to make the BACO methodology as credible and useful as possible.

Third, BACO faces the challenge of comparing “apples to oranges.” Using BACO ratios, we can compare efficiencies across investments—i.e., Acumen Fund’s investment in malaria bednets was 16 times more cost-effective than the charitable alternatives, while the low-income housing investment is only twice as cost-effective as the alternatives. However, this does not tell us which investment is more cost-effective at impacting poverty more generally. We cannot use BACO to determine whether providing a low-income family with bednets will have a greater social impact than supplying them with a safe and reliable home. Many attempts at quantifying and comparing social value in this way are unreliable and sometimes ethically problematic. The BACO serves a very discrete function for Acumen Fund and its investors, which is complemented by comprehensive quantitative and qualitative data.

This is Acumen Fund’s first step in sharing the BACO methodology more publicly in the hopes of contributing to the greater field of social impact measurement. Each of the BACO calculations is based on a number of researched assumptions about the prevailing good or service in the charitable marketplace. We would like our estimations to be as precise as possible and, therefore, welcome suggestions and improvements to our current assumptions. In particular, we are looking for any additional or superior sources on the unit/cost of such projects as malaria prevention, malaria treatment, low-income mortgages, HIV/AIDS treatment, safe drinking water, drip irrigation, etc.

While it is a work in progress and we continue to pressure-test the supporting assumptions, BACO has been fully integrated as part of the approval and on-going management of each investment in Acumen Fund’s portfolio. BACO has informed our work as a consistent framework ensuring that we allocate our philanthropic capital in the most socially efficient manner, given the existing charitable and entrepreneurial models. Complemented by a number of other metrics tools, BACO aids us in understanding the greater context of our investments—from clean water delivery in India to rural pharmacy access in Kenya—and serves as a practical tool for Acumen Fund’s investor community.

Acumen Fund is a 501(c)3 social venture fund that invests in enterprises that offer access to critical, affordable products and services to the poor through scalable, market oriented approaches. Our investments currently focus on four key areas: water, health, housing, and energy.

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