



In search of gamma an unconventional perspective on Impact Investing

Uli Grabenwarter Heinrich Liechtenstein



Impact Investing: Just Hype or Default Choice? I Impact Investing: What It Is and What It Is Not I Empirical Evidence: How Different Is Impact Investing? Strategy Matters: Investment Success by Design I The Landscape of Impact Investing: An Attempt at Classification I Impact Investing Is INVESTING: Nothing Less and Sometimes a Bit More I Key Insights and Suggestions for Shaping the Future of Impact Investing I Impact Investing: Quo Vadis?

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Executive Summary

The notion that the success of an investment should be measured by financial return alone has always been contested and has been more hotly disputed in the wake of the financial crisis. Specifically, there is a growing belief in certain financial and political circles that investments should be judged by their ability to generate both a profit and a positive social impact. Clean technologies, such as solar electricity, are often held up as an example of how this new approach to investing – known as 'impact investing' – can work.

This paper summarizes the main findings from new research on impact investing supported by IESE Business School and the Family Office Circle Foundation, based on interviews with more than 60 dedicated impact investors. In it, we define impact investing, identify the diverse investors and how they have succeeded or failed and explain why the popular assumption that impact investing involves a trade-off between financial gain and social impact is wrong.

In fact, one of the most striking findings from our research is that impact investing can only be called impact investing if there is a positive correlation between the financial return and the social impact. Other factors are also required to qualify as an impact investment, including the pursuit of profit and an intentional, measurable social impact. However, unless this positive correlation is evident, any investment with a social goal is simply philanthropy.

Key findings from our research include:

- True impact investing has five key characteristics. It must have:
 - profit as an objective
 - a positive correlation between the intended social impact and the financial return of that investment

- an intentional, pre-determined social impact
- a measurable social impact
- a result that produces a net positive change to society.
- With true impact investing, there is no trade-off between profit and social impact because the two elements are positively correlated.
- Any trade-off between profit and social impact is the investor's choice, not a function of impact investing. We identified four key types of impact investors, each with different approaches and different expectations of the amount of profits that they chose to retain or to reinvest in the business.
- Successful impact investing depends on many traditional factors – such as a strategic approach, intelligent deal sourcing and building the best team – but is set apart by a process that continually assesses impact.
- Impact investing has traditionally been hampered by inadequate measurement tools – meaning true impact is disguised by, for example, broad-brush CO₂ statistics. However, we believe the gamma factor could solve this dilemma.

We hope this report will help clarify some of the misunderstandings that have surrounded impact investing and enable investors to capitalize on the full potential of this emerging asset class.

1. Impact Investing: Just Hype or Default Choice?

In the last few years, fundamental questions have been asked about how financial markets operate and how they benefit society. As part of the fallout from the financial crisis, the contribution made by financial markets and their main players to the prosperity of society has been questioned. Around the globe, new investment approaches have been called for that reflect responsible behaviour and accountability in order to keep financial markets in tune with the development of society.

Some of the main questions that have arisen in the debate are the following:

- By focusing exclusively on the creation of financial wealth for individuals (i.e. investors), are financial markets destroying value for society?
- Has responsibility for the development of society been sufficiently reflected in the mechanisms, regulation and governance of financial markets?
- Is social responsibility a component of investment that is necessarily detrimental to financial return?
- Should changes be made in the taxation and supervision of financial transactions to account for financial markets' responsibility to society?

As the debate on these topics progresses, market players have engaged in a parallel debate to explore how economic activity at large can be made compatible with the sustainable development of society.

1.1. The Emergence of Impact Investing

At the forefront of this debate is the question regarding how an investment's benefit (or cost) to society can be integrated into investment decision processes and become a transparent part of the performance of asset managers to serve as a selection criterion for investors.

In response to these questions, new investment strategies have emerged that look beyond pure financial return. Investment approaches whose investment objectives go beyond pure financial return have many names in financial market terminology, including corporate social responsibility (CSR) investing, responsible investing, social investing, responsible investing based on environmental, social and corporate governance standards (ESG), and, finally, impact investing, which is the most sophisticated attempt to combine financial return objectives with an investment's contribution to the sustainable development of society.

Impact investing includes any for-profit investment approach that seeks a financial return, but also attempts to measure its impact on society.

1.2. Objectives of the Report and Research Sample

The purpose of this report is to shed light on the current positioning of impact investing in financial markets. The insights are based on more than 60 interviews with dedicated impact investors.

An important constituency of our market research sample was made up of large single-family offices (SFOs). SFOs have traditionally played the role of pioneers in new asset classes. In its development towards an asset class, venture capital benefited substantially from the less risk-averse behaviour of family offices. The same is true of impact investing as an emerging asset class today.

The choice of using the activity of family offices as a reality check for various impact investing concepts was also driven by the high affinity SFOs have traditionally had with investment approaches that go beyond pure financial return. Family offices are also typically free of institutional constraints, a liberty that allows them to pioneer new investment areas and approaches with a degree of risk affinity that would be difficult to find in an institutional framework.

However, our report also includes views and conclusions taken from the experiences of institutional investment firms with dedicated activity in the field of impact investing, some of which have emerged from family office structures. The views gathered from these market players are of particular relevance for assessing the scalability of this market segment and the main obstacles it faces on its path to growth.

1.3. Key Messages of the Report

The report seeks to assess the approaches taken to impact investing by current and past practitioners.

- We seek to identify patterns that affect success and failure in impact investing.
- We reflect on the challenges of impact investing as an asset class and discuss various approaches to integrating social and environmental impact in the investment decision-making process of impact investors.
- We provide evidence to show that, though the core success factors of impact investing are very similar to those of established asset classes, particularly the venture capital and private equity investment space, strategic choices and a structured approach appear to be more influential as factors for success in impact investing than in other asset classes.
- We seek to determine what differentiates impact investing from other asset classes and conclude that

there may be fewer differences than the average market observer might assume.

- Based on our findings, we also argue that the concept of a trade-off between financial return and social/environmental impact does not reflect market reality and is not only meaningless for the purpose of characterising this investment space, but may even be its main obstacle for opening up to mainstream markets.
- Finally, we address the issue of impact metrics and the contribution they can make towards establishing this industry. This topic has been particularly controversial for many years and thus far no approach has been found that can serve as a foundation for market consensus or standardisation. In our report, we analyse why this important milestone has not yet been achieved and present a metrics model that will hopefully advance this debate.
- For this purpose, in the context of this study we expand on the concept of the gamma factor in investment performance as a complement to traditional two-factor asset pricing models. These models typically use the alpha and beta factor to determine measures for risk-commensurate return. The gamma factor, however, expresses the intended non-financial benefit an investment generates for society, also called its social impact. It is a multiplier factor applied to the financial performance of an investment based on social impact objectives that can be defined as part of the investment thesis and back-tested in an investment monitoring process.
- We conclude with an overview of impact investing in the private equity space and quoted securities markets, and seek to define the positioning of this sector with respect to other impact-conscious funding models, notably the concept of venture philanthropy.

2. Impact Investing: What It Is and What It Is Not

Since the capital asset pricing model (CAPM) was introduced in portfolio theory and asset management in the early 1960s, the financial world has focused the assessment of investment performance on two main indicators, known as alpha and beta. While the beta factor expresses the sensitivity of a given asset to the movement of the market as a whole, the alpha factor is a risk-adjusted measure for the so-called active financial return of an investment. The active financial return is the return in excess of the compensation for the risk the investors assumed by making the investment in a specific asset or portfolio of assets. For half a century, the alpha factor was used to assess the performance of asset managers across all types of asset classes.

"Any business model in which every impact unit has a cost in terms of financial return is a disguised form of philanthropy."

However, in the last decade and most certainly since the beginning of the current financial crisis, which started with the subprime crisis in 2007, investors have increasingly questioned whether traditional models for assessing investment performance are comprehensive enough. The emerging debate asks whether the exclusive focus on financial and often short-term measures of investment performance is suitable to express all the dimensions investors want to see reflected in their investment choices.

Within this debate, impact investing has established itself as a novel market segment that seeks to take a

holistic approach to value creation. It combines the creation of financial wealth with a concern about how such financial value is created and the impact the investment has on society.

2.1. Definition of Impact Investing

For the purpose of this report, impact investing is defined as follows:

Impact investing is any profit-seeking investment activity that intentionally generates measurable benefits for society

This definition comprises a number of important features common to other segments of the impact financing market, as well as features that differentiate it from those segments, especially the space of philanthropic activity:

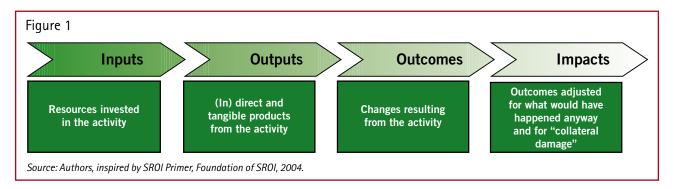
- a) Profit Orientation
- b) Correlation Between Impact and Financial Return
- c) Intentional Impact
- d) Measurable Impact
- e) Positive Effect on Society

a) Profit Orientation

The notion of investment must include a focus on return. While philanthropic activities are a vital segment of impact financing activities, they are, in and of themselves, dependent on charitable funding sources and, without such financial support, cannot be considered self-sustainable. Consequently, they cannot be part of a broader asset allocation strategy based on the complementary risk/return profiles of its components and cannot reach scale through return-driven growth of assets.

b) Correlation Between Impact and Financial Return

This requirement implies that the financial return drivers of funded business models cannot be dissociated from



impact objectives. If the business model is the means of achieving the impact objective, by definition there has to be a positive correlation between the impact objectives and the business model's financial return. Any business model in which every unit of social/environmental impact has a cost in terms of financial return is therefore inevitably a disquised form of philanthropy.

c) Social Impact Must Be Intentional

The impact generated through impact investing must be deliberate and intentional. Most human activities and virtually all activities financed through investments have some sort of impact on society. However, to be considered impact investing, the impact of an investment activity must be more than a coincidental or merely tolerated by-product. For this purpose, the social impact must be tangible: it must be feasible to express social impact in a change theory that reflects the delta induced by the investment compared to a state observable prior to making the investment.

Defining such a change theory implies defining an expected impact when the investment is decided upon. Defining an expected impact result that shows a causal link between the investment made and the result achieved is actually more vital as a criterion for impact investing than the actual methodology or type of impact metrics used.

d) Social Impact Must Be Measurable

Impact Metrics can be overly complex and may, in some cases, provide little added value beyond a theoretical

concept for the investor. However, it is absolutely essential to formulate impact expectations and objectives in a tangible way prior to investing. Such a requirement obviously does not rule out the possibility of developing and/or refining appropriate metrics for impact investing in the course of the investment. This is particularly true for pioneering impact investing in new investment areas.

"When measuring impact, investors tend to mix output and outcomes with the impact they achieve with their investment."

In order to be considered an impact, the results of an impact activity must contribute to a change in the situation prior to the investment and this resulting change must be quantifiable. Only if such a change can be formulated as an expectation at the point of investment can it form part of an investment objective against which the observed impact resulting from the investment can eventually be benchmarked.

The impact investing value chain typically involves four components:

Inputs
 Outcomes
 Outputs
 Impacts

The differentiation of the four categories is demonstrated in the flowchart above (see Figure 1):



When measuring the impact of an investment, investors tend to mix output and outcomes with the impact they achieve with their investments. The output of an activity does indeed have a causal link with the investment activity financed and possibly even with the very investment analysed. However, not every output actually stands for an impact. There may be outputs of an investment's funded activity that have no impact or even a negative impact.

Take the activity of an organisation building educational infrastructure in developing countries. As an "impact indicator" in their annual report, they publish the number of new educational facilities and additional student places made available in the year. The annual report mentions a new municipal school in a developing country and makes the happy announcement that 32 places for primary-school pupils were made available. Actually, of the 32 places, only 8 were filled because the other 24 children were kept at home to work on the harvest and do other work that allowed the family to cover its basic needs. So, despite the undeniable output of 32 new student places, the impact-relevant outcome was actually only achieved for 8 children.

Equally important is the differentiation between outcome indicators and impact indicators: while outcome

indicators express the difference resulting from a given activity, this difference needs to be adjusted for the change that would have taken place if the investment had not been carried out. In the school project example this could be expressed as alternative educational programs (visiting teachers, open-air classes) that may have resulted in lower quality education but possibly in more widespread education than that achieved through a structured schooling system.

e) Positive Effect on Society

Impact investing needs to generate a positive impact on society. In previous sections, we discussed the definition and measurement of impact. However, for the purpose of assessing the impact on society, all the outcomes of an activity need to be considered and this is typically done by means of collateral damage analysis.

"True Impact needs to be assessed by means of a collateral damage analysis."

In the schooling project discussed above, such an assessment might include the municipality's recurring expense for maintaining the building, which will eat into the resources needed for other vital municipal infrastructure. In an environment of scarce funding sources, the trade-off of benefits from the use of resources may have sizeable impacts on the community. In our school project, spending the municipality's scarce financial resources to maintain a school building that is basically empty could even effectively mean that the funded project has a negative social impact.

This example demonstrates that the impact intended by an investment may be counterproductive when placed in the larger context of negative externalities.

3. Empirical Evidence: How Different Is Impact Investing?

It is obviously rather trivial to talk about the concept of impact investing from a theoretical point of view. It is much more appealing to see how impact investing can be put into practice.

Here many questions arise and most of them continue to be the topic of lively public debate:

Can achieving impact be combined with generating financial return? And if so, must a trade-off be made? How big does the trade-off have to be? Is the investment process different? Can impact be quantified? How can impact be made part of an investment process?

3.1. Testing the Market: Our Market Survey Sample

We were privileged to have access to the Chief Investment Officers and investment staff of more than 60 players in the impact investing space, including large single-family offices, direct investment firms managing funds with an impact investing approach, and fund-of-funds managers and other specialised asset managers marketing impact investing products.

We analysed their investment approaches with them, based on their defined investment objectives, the selection criteria they applied and how these criteria were embedded in the investment process, and finally how they assessed the performance of their investment activity in the impact investing space.

Our findings reflect the great variety of investment themes and investment targets in the impact investing space. They ranged from hardcore clean-tech investments in the venture capital and private equity space to the funding of social entrepreneurs in Asia who combat lack of access to healthcare in rural areas. Equally diversified were the motivations reflected in our sample for conducting impact investing as their core activity: some addressed this sector with a mentality of "giving-back-to-society", whilst others sought to do so with a business approach (i.e. generating financial return), but we also found a considerable number of players in this field who sought exposure to impact investing because of their expectation that it would outperform other asset classes in terms of financial return. This was particularly the case in the clean-tech space.

"Our study was not able to confirm the existence of a mandatory trade-off to be made by impact investors between pursued impact objectives and financial return."

More generally, we observed that the impact characteristics of business models in the underlying investment targets were clearly driven by investors' financial return expectations: the more aggressive return expectations shown by investors were typically translated into a higher degree of positive correlation between the pursued impact objectives and the investment's profitability drivers.

However, our study was not able to confirm the existence of a mandatory trade-off made by impact investors between pursued impact objectives and financial return. The concept of an inevitable trade-off between social impact and financial return and the hierarchical subordination of societal goals to the

logic of financial markets appears to have become redundant in today's market reality, at least in the form called for in public debate in recent years.

3.2. Impact or Financial Return: A Trade-Off That Does Not Exist

Indeed, virtually all the literature on impact investing published to date differentiates in some way between "impact first" and "financial first" investors and "market-based" investing and "mission-based" investing, thus suggesting that investors have to make a choice between financial return and the social benefits an investment may create¹.

This perceived competition between arguably incompatible investment objectives has been and probably continues to be one of the most prominent barriers for impact investing to scale to a recognised asset class. Whilst financial-return-driven investors have traditionally associated social or environmental impact with a loss in financial return, impact investors with a clear social or environmental agenda feared that the explicit focus on profitability would destroy the noble social cause of their investment.

Since this debate began, investors have looked at each other like they were on opposite sides of the iron curtain and with a high degree of mutual suspicion when it came to their investment practices.

"Impact investors with a clear social or environmental agenda feared that the explicit focus on profitability would destroy the noble cause of their investment."

Only the recent financial crisis has lessened this polarisation to some extent. Financial-return-driven investors have been forced to look at new concepts of value creation and the sustainability of the business models they invest in. Moreover, investors with a social and/or environmental agenda have discovered that capital efficiency is a vital component to their investment success and that this is also true on the impact front.

In a way, clean technologies paved the way for this now fluid communication channel between what used to be two strictly segregated worlds, simply because, in every successful clean-tech company, the benefits for society and financial profitability are so closely interwoven in the business model that one cannot be separated from the other.

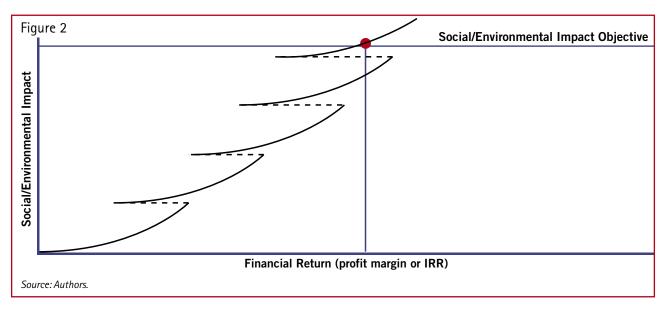
3.3. Correlating Impact With Financial Return

In segments outside the clean-tech space, the notion that financial return and social impact can enhance each other is less intuitive and has been a point of discussion for years.

Yet what seems to be a contradiction at first sight is not necessarily one if placed in the context of market reality beyond preconceived market logic.

As a matter of fact, it is hard to argue that any provider of capital would fund a newly created company purely for financial return considerations. Rather, it is a choice of a business model that is appealing and convinces the investor that the investment makes sense. Many considerations come into play in such an investment decision: risk affinity, the skill set of the entrepreneur who executes the business model, business risks, and business factors such as the raw materials needed, the owners' choice of values and many more.

¹ Monitor Institute: Investing for Social and Environmental Impact, 2009



All these factors come together in a business model that ultimately answers two questions: What is the company's business? (i.e. what is the business offering or what is the company's product?) and how is it going to be put into place? One or both of these questions also addresses the social impact of the business. Any product that is supposed to find a buyer must have some form of social impact. The question of how a business is run definitely has a social impact, not least for its employees. And finally, how the value chain is operated from product development to production, distribution and after-sales customer/product management definitely has a huge social impact.

"If profit maximisation were the only overriding objective when setting up a business, most of the businesses and their products and services we consume on a daily basis would not be available." The maximisation of profit, however, is not an objective at the inception of a business model to start a company. If profit maximisation were the only overriding objective when setting up a business, most of the businesses and their products and services we consume on a daily basis would not be available, or at least not in the way our economies operate today.

What business objective is pursued and how it is realised are fundamental parts of a business case, long before the question of financial viability or profitability is answered or even asked. In a way, one can argue that financial viability and profitability are not business objectives per se, but are merely means of achieving business objectives that can be broken down into a multitude of dimensions.

Obviously, the investment decision to be put into practice is tested against an investment's financial viability by assessing whether, based on the efficient use of capital, such an investment really does make sense. At this stage, an entrepreneur or any potential shareholder of the company will search for the most capital-efficient way to achieve a company's business objectives, thus maximising the efficiency of the capital employed, or, in other words, the investment's financial return.

The graph above (Figure 2) demonstrates this relationship between financial return and social impact while providing for the jumps in fixed costs that are necessary to meet impact objectives. Not surprisingly, it reflects the same shape as the profitability of a production unit with a decreasing per-unit cost as capacity utilisation is maximised. Such a drop in per-unit cost in a traditional production business results in higher per-unit output margins as sales numbers increase. Assuming a positive correlation between impact units achieved and financial return, the same relationship holds true for the impact component in a business model and its effect on financial return.

"If impact investing has the requirement that social impact and financial return are positively correlated, then the trade off between the two can no longer be a driving factor in the investment selection."

Therefore, the graph also reflects a number of important prerequisites to qualify the deployment of capital for a social or environmental purpose as impact investing as opposed to philanthropy and charity-type grants. The most important prerequisite is a causal link between a business model and the social impact achieved. There must be a positive relationship between the scale of social impact pursued and an investment's ability to achieve financial self-sustainability, its likelihood to recover its investment cost and its likelihood to generate financial profit. If there is a negative correlation between social impact and a business' ability to fund its operational activity and organic growth from its own revenues, we are not talking about impact investing

but rather about a form of philanthropy that needs to be funded with a sunk-cost mentality.

However, if one accepts the positive correlation between the impact to be achieved and the financial sustainability of the underlying business model as a prerequisite for impact investing, the trade-off between social impact and financial return can no longer be the decisive factor in investment selection.

The concepts of market return, cost of impact, subordination of financial return to social impact and the like are replaced with the simple notion of the "expected return". The expected return is the return for which an investor is ready to financially back a business model. The question of whether this return matches market return, falls short of it or exceeds it may be of theoretical value but has no importance in practice: the sheer existence of enough investors to fund a business model with its business objectives, return expectations and risks involved indicates that there is a market for this business model.

3.4. Defining an Investment's Expected Return

Therefore, with our counterparts in our market sample, we assessed the return patterns on their impact portfolio and inquired how these returns compared to the return expectations formulated at the time of investment. The results where extremely widespread, ranging from clear outperformance over other asset classes to extremely poor performance with substantial financial losses.

In our approach, we first sought to understand the business model and the degree of positive correlation between the impact pursued and the financial return. We were interested in determining whether the realised return matched the expected (or planned) return at the time of investment. As expected, we found clear and significant differences. To our surprise, however, the degree of match or mismatch between expected and realised financial return was independent of the

degree of correlation between the impact pursued and the financial return.

In the group of impact investors who were focusing their efforts on selecting impact-driven business models, i.e. where impact was highly correlated with financial return, such as clean-tech businesses, we found that more than half of the investors comprised in that group were achieving or exceeding the expected financial returns. Surprisingly, within the same spaces, we also found that returns were far below the expectations of a third of the investors in this group.

It was striking to observe that these proportions were not significantly different from those observed in the group of investors who were targeting investments with significantly lower correlation between impact objectives and financial return. As mentioned above, besides investors who sought financial returns in impact-focused businesses suitable to outperform other asset classes, our sample included investors looking for business models addressing social issues in underprivileged areas. In these investments, there was still a clear correlation between the impact pursued and the revenue model of the underlying investment, but the choice of (geographic and/or sector) deployment of the investment was clearly driven by the impact objective pursued by the investor.

One example is Pamoja Capital, founded in 2006 by John H McCall MacBain following the sale of Trader



Classified Media. Their investment in a rubber plantation rejuvenation business plus a 35MW power plant under construction in Liberia demonstrates a clear positive correlation between environmental and social impact and financial return: the social pricing of the electricity that will be produced by the plant is set at a level that is affordable for many people who would not otherwise have had access to electricity. Furthermore, the plant recycles the non-productive trees from nearby rubber plantations and then replants new trees. When the trees mature, they will provide the local farmers with a steady income stream from the rubber. Furthermore, because the company pays the farmer for the trees that it removes, the farmers have the initial capital to hire employees to tend the trees in the interim period. The project seeks to be carbon neutral from beginning to end, and have a positive social, environmental and development impact. The projects also offer employment opportunities to more than 700 members of the local community, which in turn has follow-on benefits for the development of local businesses. The business model is self-sustainable and profit generating. The impact objectives were built into the business model through the generation of affordable electricity (without which a power plant in that region would very likely not have made any sense). Obviously, it could be argued that Pamoja's actual financial return was less than what could have been achieved from an energy investment in any industrialised country. However, Pamoja's investment objective was to build an energy plant in an underprivileged area of Liberia that offered electricity at an affordable price to its target customers. At the same time, the business had to generate a financial return that made the plant sustainable, delivered a return for investors and allowed for organic growth.

This example nicely demonstrates the optimisation process taking place in the impact investing space: Pamoja identified a business model that created social and environmental benefits that could be tracked as part of business performance. The objective was then to optimise the business model in a way that maximised

its business objectives under the constraint of having to remain fundable from a sufficiently large investor base. The result was an impact-adjusted return figure reflecting the financial return requested by investors to be ready to fund the project while maximising the investment's social and/or environmental impact against predefined impact targets. Here again, we were surprised to discover that more than a quarter of the sample whose objectives were to maximise the impact-adjusted return of their investments reported that they were able to exceed their expected financial return. In fact, about half of these outperformers on the investors' expected return were able to outperform benchmarks that did not.

3.5. Investment Styles: Investors' Attitude Towards Profit Generation

Depending on the proportion of their financial return they were prepared to (re-)invest to achieve (additional) social impact, players could be classified in a spectrum ranging from investors ready to reinvest their entire proceeds to achieve additional impact on one side to investors wanting to extract proceeds from the investment in the form of dividends and redirect them to new investments on the other. However, the investor's choice about investment proceeds should not be seen as a trade-off choice in the underlying business model. It is rather the investor's choice as to how to use the financial return of the investment. Just as certain mutual funds investing in bonds give investors the choice to accrue and reinvest interest or have it distributed in cash, based on the offering of an impactadjusted return, impact investors may choose one of the following options:

- a) reinvest the financial proceeds from the investment to scale their investment and generate additional impact.
- b) keep their investment at a constant level and receive any distributed financial profits.
- c) decrease there investment over time by extracting profits and eventually selling their shares in the business.

Case study Jan Sundt: Exploiting a Unique Business Opportunity – With Impact

Do you think of impact investing as a way to spot and exploit business opportunities? This is the case if you invest in a business model whose core selling proposition is to have a social or environmental impact. In other words, the profitability of the investment is based on exploiting an opportunity that only exists because of the social or environmental impact it generates. You might think that this is the case of renewable energies, microfinance, etc., but what if someone told that you it also applies to SKIING?

That someone is Jan Sundt!

Background

Jan Sundt grew up in a shipping family in Norway. He received a business education in finance and worked as a banker and in the family shipping business. He sold out of the family shipping business in the mid-1980s and transferred most of the proceeds to the family office, where his children were majority owners. The family office was founded to manage these funds while Jan Sundt pursued more entrepreneurial activities outside the traditional framework of the family office.

Sustainable Skiing in Oslo: An Impact-Driven Business Model

Jan had always had a passion for skiing and, when he moved back to Norway ten years ago, he was saddened to see that, in the country that invented skiing, large groups of the population could not afford to practice downhill skiing and snowboarding. Together with another family, he purchased two small rundown ski areas; one within the city limits of Oslo and the other just outside the city. His impact objectives for the resorts were to:

- Create resorts accessible to all: people who could not afford to travel to an Alpine resort, children, immigrants and the disabled.
- Develop positive environmental attitudes among young people through skiing and snowboarding events.

The closeness to the capital, public transport and the affordable ticket prices made the facilities accessible and affordable to the majority of Oslo's population. The number of guests in the facilities doubled, turnover quadrupled and the larger of the two facilities now generates the fourth highest turnover of a ski resort in Norway.

The risk-return profile of this investment did not correspond to the investment portfolio approach of the family office, but only an entrepreneurial mindset could make this investment opportunity happen. The development of the larger facility also required considerable personal patience because of the lobbying needed to get government permits.



Furthermore, Jan kept a close eye on the environmental and social footprint in a business (ski resorts) that, admittedly, not many people would consider an investment with a positive impact on the environment.

- The resorts were environmentally certified and considerable efforts were made each season to reduce the environmental impact. For example, when the facilities were taken over by the present owners, electricity usage did not increase, despite the fact that the capacity was doubled.
- A number of assessments were made of the resort's environmental impact, e.g., the CO2 emissions differential of visiting this ski resort as opposed to driving to the mountains.
- A partnership was created with a "healthy" soft drinks supplier. The soft drinks company provided free snowboarding lessons to disadvantaged communities and the facility provided lift tickets and equipment.

Facilities designed for disabled snowboarders and downhill skiers are currently under construction.

The Entrepreneur Who Turned His Hobby Into a Profitable, Impactful Business

Jan Sundt was troubled by the fact that far too many of his compatriots could not enjoy the same hobby as he did. Skiing was too costly for the majority of the population of Oslo, as the resorts were far away, which meant travel and lodging costs. Was this a problem or an opportunity (un-served future clients) for an entrepreneur? To realize this opportunity, a business model that would attract this clientele and define the prices, the service, the processes, etc. had to be developed. A financially sustainable business plan with social and environmental impact was created. The realization of that business model was not the result of a strategic investment approach (identifying the area of desired impact, clarifying correlations, etc.), but rather the idea and desire of entrepreneurs to pursue a dream – unambiguously a very opportunistic investment approach. "When I started this venture, I was very much aware of the risks involved. It is like starting any venture were you have many factors coming into play which you can't plan with certainty. I knew from the outset that this was not the type of risk profile of an investment I could expect the family office to unanimously endorse. But I could afford this type of risk and I thought it was worth having a go. For me, creating a successful business around the objective I wanted to pursue was key. As is the case for a startup business, I knew that in order to get there, more than just money was required. The success of such a venture requires the same input of leadership and entrepreneurial spirit as a conventional investment in a startup situation. So, in addition to capital, I am also providing my time and expertise (for what it is worth) and I believe that the result of this effort is a business model that is of more value to society than a philanthropic donation," said Jan Sundt, who is a typical example of the social business angels in our landscape (see page 27, Figure 4).

What Does this Case Prove?

- 1. Impact investing is about developing and implementing business models and is therefore not different from any other business. Impact is just one more dimension of the business model. The fourth largest ski resort in Norway in terms of turnover has been made possible by also serving the less privileged part of the Oslo population in an environmentally sustainable way.
- Proving that out-of-the box businesses and industries are suitable for impact investing requires the mind set of a true entrepreneur. We call these entrepreneurs social business angels. Even family offices can be too "structured."
- Impact investing can create completely new business opportunities: if skiing can be the basis for impact investing, it seems there are no limits.

4. Strategy Matters: Investment Success by Design

Once we had established that the (mis-)match between expected financial return and effectively generated financial return was not necessarily correlated with the impact pursued, we were obviously interested in identifying patterns that could explain why certain investments and certain investors systematically fell short of their expected return targets. During this exercise, we discovered that most investors whose returns were below their expectations were not faced with this phenomenon because their expectations were too high, but because an aspect of their investment approach was flawed. The vital question, then, is what was flawed? Why are some investors able to achieve their expected returns while others fail to do so?

From the players who managed to meet their expected return targets, we were able to derive key parameters from their investment processes that seemed to have an effect on their investment success. These key parameters were typically linked to setting up a strategic framework for their impact investing activity.

In our interviews, we identified the following core elements of this strategic impact investing approach:

4.1. Identifying the Area of Desired Impact

Investors with a clearly defined investment approach spent significant time and money developing a clear understanding of the desired impact. As a consequence, they were able to differentiate between the output, outcome and impact resulting from their investment activity (see Chapter 2.1 and Figure 1).

4.2. Clarifying the Correlation Between Impact and Financial Return

For these investors, due diligence began by clearly defining the target business models and understanding how such models could achieve the desired social impact and financial return. This analysis also included the correlation between impact objectives and the financial return drivers of the underlying business model. As a result, from inception they had a clear view of the excepted scope and scale per deal, which defined the scope and scale of impact.

4.3. Acquiring Market and Sector Knowledge

In most cases, the investors did not have previous experience in the targeted sector. Acquiring market and sector knowledge became crucial. This meant hiring external consultants and spending substantial amounts of money on market and sector intelligence. (The case of the investment approach of one of the founders of SAP provides one such example; see case study on page 23). Building this sector-specific knowledge and gaining specialised know-how also gave these investors additional benefits. Their know-how became a value-added proposition for the investee company and therefore improved the quality of the deal flow to the investor as the investor's reputation grew.

4.4. Implementing a Portfolio Approach

A strategic investment approach also means investors diversify over a number of companies (to spread risk) while at the same time they focus on sectors where they have specific knowledge. Any investment is exposed to a series of risk factors, including default risk. Impact investing is no different. Successful impact investors typically define a target-portfolio approach

to minimise risk while leveraging their acquired market and sector knowledge.

In summary, a strategic approach to impact investing involves a strategic choice of sector; research-driven investment target selection with an organised deal funnel; strategic choices in asset allocation and portfolio strategy; and deliberate choices in impact and financial returns. The result is a clear definition of the target business models, i.e. how to produce social impact and financial return, and the excepted scope and scale per deal.

Our market research not only showed that the most successful impact investors complied with the core

success factors mentioned above in their investment approaches. We also found that the investors who were the least successful in achieving their expected financial returns were also the ones with the biggest shortcomings in the strategic setup of their investment activity: very little or no defined target sectors or interests and no ex ante definition of the expected impact and/or financial drivers/results. These players approached investments based on personal preferences, emotional ties and relationships with the principal and/or other family members, and were often driven by a "give-back-to society" mentality. We call this the opportunistic approach to impact investing.

Case Study Aeris Capital: Strategic Approach in Game Changing Sectors

The biggest value drivers in business are revenue models that focus on unavoidable and unmet needs of society. Such business models are generally great investment opportunities. In the midst of these investment opportunities, is it possible to identify game-changing business models that contribute to the sustainability of our society? The family office of Prof. Klaus Tschira – Aeris Capital – is convinced that this is the case!

Background:

Klaus Tschira, a physicist by training, is a co-founder of German software giant SAP. After many years on the board of directors, he is now a member of the company's supervisory board. In addition to setting up Aeris Capital to manage his wealth, in 1995 he also established the Klaus Tschira Foundation, a Heidelberg-based foundation dedicated to supporting research in informatics, the natural sciences and mathematics.

A Family Office With a Clear Objective and Strategy for Success

Aeris is identifying "impact-game-changing" sectors that are driven by future environmental and social trends. According to Aeris' assessment, these sectors provide the best risk-adjusted and impact-directed results for investors. By anticipating these trends ahead of the market, Aeris seeks to identify "predictable surprises" that can help protect and enhance shareholder value over the long term. Aeris, as a sustainability investor, seeks investment opportunities that combine the key innovations and drivers of tomorrow's business

environment, which are dictated by social, environmental and geopolitical trends, while at the same time mitigating environmental, social and governance risks. Aeris' investment strategy is based on 3 themes that shape the world and are essential to satisfy physiological needs and required for human survival:

- Sustainable Energy, which is not limited to Clean Tech, is global and covers multiple industries and markets, such as Materials, Renewable Energy, e-Storage and Energy Efficiency.
- Aging Population, which focuses not only on the health-care needs of a growing, more affluent aging world population, but also its demands for consumer products, entertainment and media; wellness; and lifestyle and life choices.
- Agriculture and Forestry, which focuses on Farming, Suppliers, Food Packaging, etc., and Water: filtration, purification, conservation and wastewater treatment.

The main ideas are summarized in Aeris' Mission Statement:

- Invest along the supply and value chain in all asset classes related to the chosen theme (Megatrend).
- Have an impact in specific undervalued or underdeveloped sectors to generate alpha.



 Identify and occupy new segments where competition is low or does not exist and favor dominance.

Aeris' belief is that long-term sustainable investing leads to outperformance in financial terms. It is optimistic for the future, as in both 2008 and 2009 its impact portfolio outperformed its benchmark comprising assetmanagement teams without a particular focus on sustainability.

Aeris operates a strategic-investment approach to impact investing, which includes:

- Acquiring superior knowledge on the chosen sectors:
 Aeris is not just aware of the potential of a sector;
 it wants to understand the minutest detail before
 proceeding. For example, its interest in electric cars
 was based on 3 years of research. This included the
 review of 10,000 papers, data analysis by internal
 analysts and the hiring of external consultants to
 verify their own conclusions and investment thesis.
 This means a very costly due diligence on sectors
 and their companies before even starting to identify
 deal flow.
- Understanding the complete supply and value chain: within the sector, sub-sectors are identified and analyzed. For example, the value chain of the electric-car industry could be divided into: electric vehicles, components (e.g., batteries), energy suppliers (e.g., solar or hydro energy companies), energy management and distribution (e.g., charging station networks) and waste management.
- Superior Network as a differentiating factor: Aeris also invests time and money to build a large network in these issues/sectors of leading experts, investment banks and interesting co-investors such as other family offices.

Why Is Impact the Future and Vice-Versa

If a lot of people will face a big problem in the future, there will be a lot of future clients to be served. A large

part of the biggest problems to be solved are related to social and environmental issues, and that is why Aeris has chosen 3 impact topics for its overall strategy for all asset classes.

Take the topic Aging Population: the sheer numbers of new elderly people, together with the dynamic demands of the BRICS nations for a better and more Western quality of life, will put pressure on health-care systems to be more efficient and better address the so-called diseases of the aged, from diabetes to cardiovascular problems and cancer. This creates – amongst others – opportunities in the asset classes of private and public equities. Longer active lives are also creating demand for new forms of residential living, capable of accommodating both an extended work life and greater interest in hobbies and non-work activities. This creates – amongst others – opportunities in the asset class of real estate.

What Does this Case Prove to Us?

- 1. Strategic approach pays off Aeris spent a lot of time, brainpower and money to indentify sectors that enhance financial return and at the same time have an impact. It is a typical example of a "double enhancer" in our landscape chart of impact investors (see Figure 4 on page 27).
- 2. Investing in anticipation of big future trends always pays off. As such trends happen to have – basically by definition – a large environmental and social impact, one can conclude that focusing on big trends with a clear understanding of the anticipated impacts makes for an ideal approach to impact investing.
- 3. The biggest challenge of impact investing is to accurately assess the timing of such big trends. Intelligently navigating big future trends requires large investments in knowledge, teams and networks. This may imply a sizeable upfront investment, but ultimately appears to pay off.

5. The Landscape of Impact Investing: An Attempt at Classification

We have summarised the findings of this analysis by mapping our sample according to the approaches identified (strategic vs opportunistic) on the y axis and the degree of correlation between pursued impact and financial return drivers on the x-axis (see Figure 3).

Furthermore, for each investor we show whether the realised return matched or exceeded the expected return (green) or whether the realised return was below the expected return (red). The size of the bubble indicates the size of the impact investment activities. We only included investors for which we were able to attain sufficient information. Duplications were omitted.

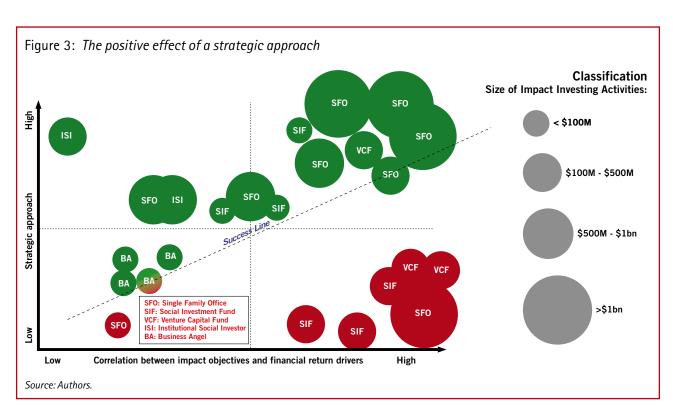
The graph is based on investors' self-reported data and its potential biases must therefore be acknowledged. Because of these biases, it is no surprise that we have less data on realised returns below the expected return. We identified 4 distinct groups of impact investors:

5.1. Double Enhancer (top right)

We call an investor a "double enhancer" if it has strategically defined its approach to impact investing by focusing on business models that enhance financial return and impact at the same time (high positive correlation between impact objectives and financial return drivers). As described above, a clear sector example here is clean-tech. The higher the impact, the higher the financial return, the higher the impact, etc. It is a virtuous circle.

Ben Goldsmith and WHEB Partners

Ben's first forays into the impact investing space were via several ad hoc investments in small environmentally focused companies and funds. To truly achieve impact, he realised that he would need to create a structure



where he could implement a sufficiently institutional investment process to attract leading people in their field. For this purpose, he set up WHEB Partners, which is based on Ben's strongly held view that he can achieve superior returns through an environmental focus. Following the success of the first fund, Ben and his colleagues raised a second venture fund and also expanded the investment company's overall potential by launching WHEB Asset Management (environmentally focused funds for the retail investor) and WHEB Infrastructure Fund (green infrastructure funds targeting family-office investors).

All the "double enhancers" interviewed had professional structures they used to implement their investment activity. These ranged from intermediated investment approaches (specialised funds) to investment-company-type structures with dedicated specialised staff. All these structures were scalable.

5.2. Strategic Benevolents (top left)

Some investors have made the choice to reinvest the proceeds from their investment for the sake of scaling the impact they can achieve. The objective of these investors in our sample was to do good on a sustainable basis, i.e. to preserve and recycle the money available for sustaining and scaling these impact activities. Refraining from building financial reserves from profits for the purpose of scaling the impact reduces the margin of financial resources to correct setbacks in the execution of a business model. In order to cope with the risk of increased vulnerability of the underlying business models, such investors took a portfolio approach that allowed them to accept that some deals might be write-offs. Therefore, they had well-defined overall return expectations per deal and aggregated them to a portfolio model. These investors had defined their impact-adjusted financial return expectations, taken a strategic approach to the deal flow, outsourced all activities for which they could not deliver the highest quality and attracted highly skilled

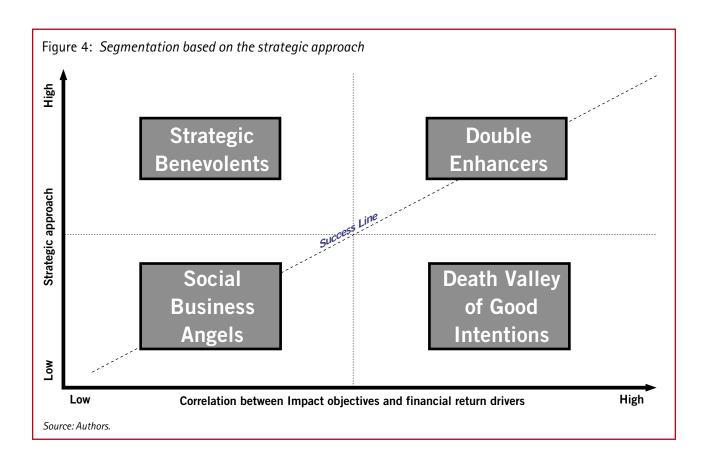
investment teams. The most popular structure for this type of investor was the foundation.

5.3. Death Valley of Good Intentions (bottom right)

The only segment of clear negative outliers with realised returns far below expectations is in the bottom right-hand corner of our graph: opportunistic approach and high correlation between impact and financial return. One of the explanations for these examples of failure is that investors with opportunistic investment approaches appear to have limited access to quality deal flow due to doubts on the value they can add to investee companies and co-investors in a syndicate. They have a lot of money, can pay and attract professional staff, but, due to their poorly defined strategy, are exposed to bad deal flow and have systemic flaws in the quality/structure of the investment management process, which culminates in not selecting attractive deals.

5.4. Social Business Angels (bottom left)

There is one way to have an opportunistic deal flow approach in impact investing and still have returns in accordance with expectations: the business angel approach of former successful entrepreneurs. They have privileged access to deal flow due to their perceived value added as former successful entrepreneurs (which is highly recognised by the target investee companies), a more long-term investment horizon and strong involvement of the principal/family member. This opportunistic hands-on approach by the principal, often paired with a high willingness to use generated financial return for scaling impact, appears to be a viable approach to pioneering impact investing areas that institutional investors could not afford for reasons of risk/return considerations. Private investors (family members) that acted with family money or assets of their own in an angel-like manner, often had basically no structure, but leveraged the personnel and contacts of the existing family office (legal support, support in due diligence, etc.).



5.5. Strategic Investment Approach: The Hurdle for Success?

Based on our market survey, with the exception of the angel investor, a strategic investment approach appears vital to achieve the expected return. All investors above the diagonal line (the "success line" in Figure 4) claimed to have had returns that fulfilled their expectations. One possible interpretation for this could be that the higher the positive correlation between impact and return, the more investors are motivated to establish an institutional investment approach that includes a high strategic approach. On the flipside, it also means that the lower the correlation between impact and financial return, the more investors are tempted not to set their financial expectations high enough and not to require a systematic investment approach.

6. Impact Investing Is INVESTING: Nothing Less and Sometimes a Bit More

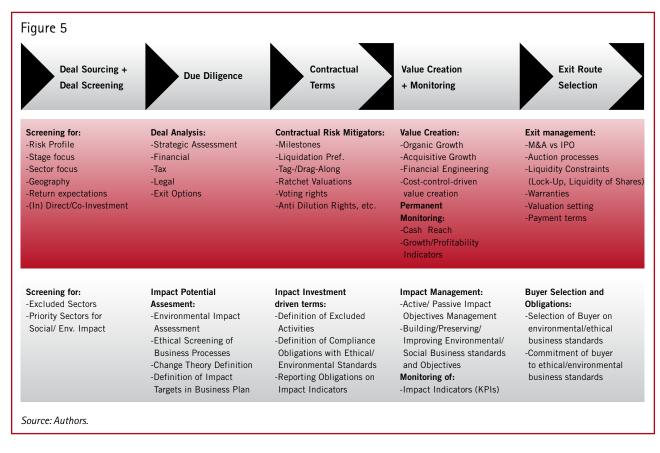
Successful investing follows certain rules of behaviour that derive from the very nature of the investment business:

- originating quality deal flow,
- applying state-of-the-art due diligence standards to select deals with superior value propositions,
- providing professional support as value-added investors to maximise value creation,
- providing for downside protection in case the

investment "derails", including monitoring and control rights to ensure focused execution of value creation strategies by the management team at investee level, and finally

- acquiring exit rights and options to materialise value in an exit process.

These investment dimensions are parts of the investment process every sophisticated investor follows one way or the other. Impact investing is no different in this respect and there is no reason why it should be. Our market sample confirms, without exception, the paramount importance of these success factors in the investment process, and also in impact investing. What differentiates impact investing is the fact that, next to the "traditional" risk/return considerations in each of the steps of this investment process, the impact investor follows an additional track for assessing and managing the impact dimension at each step of the investment process. This is shown in the figure below:



6.1. Investment Process Matrix: Financial /Risk and Impact Dimension

Many of these points are very intuitive. However, in our interviews, a number of aspects recurrently appeared to be closely associated with a successful combination of achieving the pursued impact objective and meeting expected return targets. These "success factors" within the investment process are described below.

6.2. Success Factors Within the Investment Process

6.2.1. Access to Privileged Deal Flow: Deal Sourcing and Deal Screening

In any investment activity it is vital to secure a deal flow that makes it possible to pick the deals that have the highest potential to deliver the expected returns with an acceptable risk. In impact investing there is not only the need to develop an investment case for the financial-risk-adjusted return, but there is also the requirement to pursue a social impact, which makes the privileged access to deal flow even more crucial.

For people relying on opportunistic deal sourcing, "Don't believe that the deals you are offered are opportunities not to be missed", was the advice a social business angel gave for not ending up in the "Death Valley of good intentions".

For investors not having a seasoned entrepreneur as a driving force and market interface, the strategic approach to deal flow generation made all the difference. As mentioned above, a sophisticated definition of the right sectors based on in-depth research in conjunction with high discipline in executing the investment strategy appeared to result in superior quality of investments.

The investors we interviewed who had a clear understanding of the scope and scale of their target deals were most frequently able to achieve a relevant level of the pursued social impact and earn the expected returns.

"Successful impact investors appear to be particularly sensitive to the degree of capital efficiency with which such impact can be achieved."

It is interesting to note in this context how impact investors reason about the scope of their investment. Generally, scope and scale appear to be a concern of dedicated impact investors. Impact investors seek to fund businesses that address social issues through their business model. Businesses have a built-in ambition to grow.

Naturally, impact can be achieved in many ways and at different scales. Successful impact investors appear to be particularly sensitive to the degree of capital efficiency with which such impact can be achieved and whether the investment, in comparison to the social issue addressed, does make a difference. Hence, the achieved impact should not only be assessed in absolute terms, but in relation to the overall social issue it seeks to solve. In an epidemic disease, finding a way to help a few hundred patients may be of limited social impact, whilst developing an orphan drug to cure a rare disease can have an incredible impact, even if the disease will only affect a few hundred patients a year on a global level: in absolute terms, saving a few hundred lives is the same in both cases. However, the fact that a successful orphan drug addresses the systemic issue of a disease makes its social impact superior to preserving the lives of an equivalent number of people struck by an epidemic disease without being able to help people affected by the disease at scale.

Hence, business models that cannot be scaled are rarely attractive to impact investors. The potential for scaling appears to be just as important to them as the requirement of a positive correlation between the impact objective and financial return drivers in the business model. Business models that lack either the possibility of being scaled or show a negative correlation between the impact objectives pursued and the generation of financial returns are better suited for philanthropic activities but do not attract genuine impact investors.

6.2.2. Ability to Coach and Monitor Companies Along the Way

An entrepreneur expects active support to develop the business from a professional lead investor in private deals. This also applies to impact investing. Investors' financial know-how, their contacts and all sorts of advisory and coaching activities are sought. In the case of the successful investors in our sample, we noted a high degree of involvement of the impact investor, almost in every case in the role of lead investor. However, the most important aspect of all was the capacity of the investor to coach the entrepreneur/CEO in the main challenge of impact investing: to deliver the expected return and the desired social impact. Businesses pursuing impact objectives in their business models are frequently even more dependent on a single individual, often a charismatic entrepreneur. These business leaders often feel like a lonely wolf and seek sparring partners to test their ideas and ambitions to drive their business. Hence, the interaction between the investor and the entrepreneur is often decisive for the success of the business. Not only do entrepreneurs of social businesses frequently require strong support in the non-impact-related dimensions of their business, but, due to the specific nature of their business idea, they are often much harder to replace. In a way, these businesses very much resemble a technology start-up with a couple of highly skilled technology-driven entrepreneurs. It often takes a great deal of hands-on support from the VC who funds them to make the

business a success. In our study, a number of investors said that such support can only be delivered with close geographic proximity. One investor based with his team in London and active in India said that they had to establish an office in India, as it was impossible to deliver this success factor without being physically near.

A vital component of coaching entrepreneurs with impact-focused business models is tracking the impact achieved. In our interviews, we found that very few used pre-defined impact indicators as a basis for monitoring impact progress. Although everybody agreed that this was truly vital for the effectiveness of the investor's coaching activity, few had spent the time and brainpower to develop these key performance indicators (KPIs). In many cases, this was not due to a lack of interest in defining and applying such KPIs, but rather because of the difficulty of defining meaningful indicators. As a matter of fact, whilst social business angels, due to their close interaction with the social entrepreneur, typically do not require sophisticated reporting tools on the impact achieved, the challenge is different for impact investors that operate with delegated/discretionary asset management services. Here, the difficulty of defining meaningful KPIs often arises from the diversity of business models funded within one portfolio, making it a challenge to define impact measures that are comparable between investments and that can be aggregated at portfolio level.

Nevertheless, the few impact investors we encountered who had developed specific KPIs, sometimes with substantial upfront effort, were convinced that appropriate metrics were the basis for improving the impact dimension of the investment over the years.

6.2.3. Early Definition of the Exit Strategy

Unless they are for evergreen structures relying on dividend income models, investments require an exit at a certain point in time. For the purpose of this report, we defined "exit" as a proactively pursued sales process and hence disregarded the damage-limiting liquidation of assets or "exit-by-default". The exit defines the return on an investment in both financial and impact terms.

To define and plan for an exit early on is easier in cases where impact objectives and financial return drivers are highly correlated in the business model. Cleantech is therefore an ideal sector for impact investing in the private equity space. The success (in financial and impact terms) of many clean-tech funds proves that social impact is priced at exit for investments where social impact is an integrated part of the financial model. Other industries in which this is at least partly true are energy and healthcare.

It becomes more complex when there is less correlation between the impact objectives and the financial return drivers. Especially when the business model could be replicated in or dislocated to (geographic or sector) areas with reduced social impact, there was a distinct risk that the business was acquired solely for its business model, without specific impact sensitivity from the buyer. In such cases the investors in our sample voiced two main concerns:

- 1. Social impact is not priced at exit.
- 2. The next owner destroys the impact by focusing on financial return.

The first point could not be verified due to a lack of suitable benchmarks.

However, we found evidence of very diversified experiences of impact investors in which there was a risk that the buyer would "destroy" the impact component of a business and saw how this could be dealt with in a sales process:

 Some impact investors decided to apply selection criteria for potential buyers by requiring that the selected buyer honour the current mission of the company.

- In other cases, even buyers who were not known for being impact-conscious businesses were retained in a sales process because they could make it credible that they sought to buy an impact-driven business in order to change. An institutionalised family office, for example, invested in Vitamin Water to sell a drink that encouraged people to drink healthily. The company was eventually bought by Coca-Cola. For the family office, this was not inconsistent with their principles. Coca-Cola had "wised up" to the fact that this was an important product and, by taking the product more "mainstream", they were transforming their soft drinks business.
- 3) One example where the social impact initially targeted was lost was reported by a social business angel investing in South Africa. He invested in a company that collected and refurbished second-hand computers. Eventually, other investors decided that South Africa was not the right location for this company and relocated it to China, where productivity was higher and costs were lower. In this case, by moving the facility, the intended impact in South Africa was lost. This demonstrated that financial considerations were stronger than the desire to achieve social impact in a given region.
- 4) Many of the investors interviewed also used loans as a primary means of overcoming any problematic situations at exit. "Exiting micro-equity positions is practically impossible", as these enterprises seldom grow large enough to attract interest from private equity players or strategic buyers, and the entrepreneur often lacks the capital for a management buyout. To mitigate the exit risk, investors prefer to structure their investments as convertible debt. (Beyond the "Tradeoff", Hui Wen Chan, Vera Makarov and Sarah Thompson, February 27, 2010, p. 11.) Obviously, the use of a debt product discharges the investor from any considerations of the survival of the business' impact dimension beyond the repayment of the loan.

6.2.4.A Motivated and Aligned Team Makes for Success

The investment process and investing itself are, of course, only as good as the investment team that executes it. Investing is one of the most competitive employment markets and it is understood that attracting high-quality professional staff requires providing attractive incentive schemes. This normally means that investment team members participate in one way or another in investment performance and, as a newer trend, not only in the upside, but also in the downside.

In our sample, one investor in the double enhancer quadrant asked all his employees to invest a substantial amount of their personal wealth in the deals they made for the company. In this case the employees were the first people to make or lose money, depending on the performance of their deals.

On the other hand, we also identified families active as strategic benevolents that had the objective of ensuring that their very professional investment team got decently wealthy through the package they were offered.

Of interest was the correlation between staffing issues and the overall framework set for an impact investing activity. Investors with a highly opportunistic impact investing approach seeking attractive financial returns (the quadrant of the "Death Valley of good intentions") showed the highest degree of staff turnover and difficulty attracting staff. This phenomenon was probably linked to the inability to prove investment success with such an opportunistic investment approach.

In general, we have noted a distinct increase in the skill set and quality of staff hired in the impact investing space over the last years. This may be due to the new attention impact investing has received in financial markets, but may also be a reflection of increased awareness among newly trained investment professionals that social responsibility has increased in the finance industry compared to a few decades ago.

6.2.5. Performance Analysis: Without Cheating

Assessing the performance of an operation is key in any business environment. In the traditional investment business, performance measures are typically linked to financial return measures and in many cases are paired with a deeper analysis of the risks taken.

"Cost transparency in impact investing activity is a challenge".

Besides the dimensions common to traditional asset classes, impact investing includes a third dimension in terms of performance analysis that seeks to assess the impact achieved. The assessment of these three dimensions is not trivial:

- a) Assessing risk is often difficult in impact investing, as these investments are executed in novel investment areas. Hence, there are no benchmarks for returns, default rates and, consequently, the volatility of returns, which is a measure of the risk assumed by investors.
- b) On the return side, cost transparency in impact investing activity is a challenge. We met a number of investors who were enthused by new impact investing activity and, as a result, were de-facto not attributing the real costs to this activity. Some investors did not include what they spent on due diligence in their calculation of the realised financial return, but attributed it to other activities or overhead. In a way, they were assessing their impact investing activity on a gross performance basis, which is obviously not sustainable in the long run. Other forms of cross-subsidising impact investing activity can be found in the use of shared

resources with other activities of the family office. An angel investor using his family office for legal and other support without considering these costs in the profitability of impact investing deal costs is biasing performance figures. However, virtually all the successful players in impact investing we interviewed stressed the importance of a clear definition of what performance per deal means and what to include when calculating it. Accountability for results is not only a prerequisite for achieving a sustainable investment activity; it is also vital for establishing performance parameters for the team in order to create incentives and motivate them. Investment team motivation in itself is a success factor.

Finally, on the impact investing performance front, the biggest challenges lie in metrics. The successful players in impact investing confirmed the importance of clarity regarding the impact they wanted to achieve, how it could be integrated in the investment decision and how it could be monitored. The main challenge here was the definition of metrics. This specific aspect is discussed in Chapters 7.3. and 7.4. and in Appendix I. However, in a number of cases where investors were not very specific about their impact performance, the issue was not or not only the lack of available metrics. In a number of cases, there was also a lack of discipline in considering the interaction between pursued impact and expected financial return, or a lack of awareness of the impact that was actually pursued by the investment. The most tangible impact performance assessments were found in (i) investment models with a very high correlation between pursued impact and financial return drivers, (ii) cases of very close involvement of the capital provider (i.e. the case of social business angels) and (iii) cases of highly professional investment setups where tangible reporting on the achieved impact was a requirement to bridge the distance between the capital provider and the investment activity carried out.

Generally, we found that the structures that worked the best for assessing the impact of investment activity in its three dimensions of risk, return and impact were at the extremes of our observed spectrum, i.e. in the space of highly involved individuals personally executing the impact investing activity with their own money (social business angels) or sophisticated professional investment structures.

6.2.6. Size Matters

In the context of sustainability mentioned above, one aspect should not be forgotten: scale. What is the required size for an impact investment to pay off and be part of a sustainable investment activity? Again, this is not a phenomenon exclusively relevant to impact investing. The VC industry also faces this issue of critical size: take the example of a seed investment activity. Technically, a seed fund can operate from a fairly limited size if it keeps a high investment discipline in terms of investment targets, capital intensity and risk diversification. However, the cost of execution is an issue because, in a sustainable investment business, the operating expenses of the investment business ought to be borne by the returns on investment. This requirement is the reason why small-scale seed funds have virtually disappeared over the last decade and have been replaced with business angel activity on one side and public-sector technology transfer programs on the other.

In the impact investing space analysed here, the situation is very similar: there are successful angel deals, where relatively little money (about €100,000) and the right definition of scale and scope have achieved the expected impact and the expected return.

However, such small structures only seem to be successful in an angel-like setup. The moment there is a professional team, the costs (team, infrastructure, etc.) of small deals are too high. An example can clarify this: a small but highly professional team of, say, three people with support can cost around €1 million a year, not counting performance-linked remuneration. Let's assume that the expected investment performance can cater for a 2% management fee on a sustainable basis. These parameters result in a minimum "fund"

size of €50 million. All sorts of assumptions and ratios can be changed, but even by doing so, a sense of the need for a certain minimum threshold will not go away. Still, many impact investors clearly operate below such minimum size. As a consequence, they are understaffed or compromise on staff quality. Hence, there is a certain notion of critical size in impact investing to sustain best-in-class investment teams. On the other hand, the amount of money to be invested needs to be in tune with the investment strategy,

target sectors and the deal-generation capacity of the entire setup. If the combination of requirements on the investment resources and economic parameters of the intended investment activity cannot be made compatible, the only solution appears to be outsourcing. Outsourcing investment execution is the way chosen by many investors of subcritical size, not only in impact investing, but also in other asset classes such as the private equity and venture capital space.

7. Key Insights and Suggestions for Shaping the Future of Impact Investing

7.1. The Concept of Market Return Is Redundant for Asset Classes With no Liquid Market

A leading debate about impact investing has traditionally tried to assess whether impact investing can achieve market returns. We have presented the insight gained from our research that impact investors seek to realise a business model that delivers a certain social or environmental impact as part of its business objectives with a given risk profile and an expected return.

Our interaction with impact investors in our research sample seems to indicate that they do not have to make a choice between pursued impact and financial return. We have taken this reasoning and projected it to asset classes where the common market understanding is that they are clearly return-maximising asset classes.

The question of interest to us was being able to identify the features of impact investing that make people suspect that this asset class is trading off financial return for additional social and/or environmental impact. The frequently raised question as to whether impact investing can achieve market return is yet another widespread attitude based on the belief that investors need to make a trade-off between financial profitability and social or environmental impact: it suggests that social impact is always at the expense of financial return or, in other words, social impact is bought at the expense of financial return.

This assumption goes against the foundation of impact investing set out here, namely, that the impact to be achieved is part of the business objectives that positively correlate impact objectives with financial return drivers and, hence, is inextricably at the very origin of an investment decision.

"The trade-off debate is in contradiction to the foundation of impact investing which is that impact objectives are an integral part of the business objectives."

Moreover, this assumption of a trade-off is also counterintuitive when examined against the very understanding of what is meant by market returns in other asset classes. Indeed, market return is prominently used in the capital asset pricing model (CAPM) and reflects the return generated by the market portfolio of investments that one investment forms part of. As such, market return implies the existence of a market for the type of an envisaged investment. The existence of a homogeneous market portfolio with components with comparable risk/return features shared by all investors is already a very brave assumption in quoted markets and does not necessarily withstand a reality check. However, the concept of market return becomes even more remote the further one moves away from liquid and tradable assets or the further one moves away from regular markets.

Let's take the example of venture capital and private equity investments for which only a very illiquid and highly inhomogeneous secondary market exists, if at all. In such illiquid asset classes, what is the market return for an investment? Is an internal rate of return

of 30% in a private equity buyout deal a market return, an above-market return or a below-market return? Does it matter what level of leverage is used to achieve such a return? What is the market return for an investment in a company whose sole purpose is to develop a new molecule as the basis of a drug against Alzheimer's disease? 5%? 50%? As much as 500%? Can anybody tell? If judged against the return history of venture capital as an asset class, one can easily argue that there are plenty of asset classes that deliver better returns than venture capital, especially if expressed in comparable measures of public market equivalent (PME) returns. Yet, there are plenty of institutional investors, family offices and private individuals who continue to deploy venture capital and all these investors are certainly far from being charity organisations. The point is that, at least in illiquid asset classes, there is no concept of market return and there is ultimately only a choice driven by investor preferences, which combine the purpose of the investment with its financial profitability and the risk profile associated with the underlying business model.

Hence, rather than a trade-off that has to be made between financial return and social and/or environmental impact, the origin of an investment decision is the judgement of a business model that happens to include a given social impact and that, as a whole, appeals to a sufficient number of investors in order to receive funding.

Admittedly, such a holistic judgment of investments has not always been the rule. The assessment of riskadjusted returns has been rudimentary in the past, especially in illiquid asset classes, mostly because of the absence of comparable asset classes and returns. Only with the financial crisis triggered in 2007 has the approach to risk-adjusted return assessment changed in illiquid asset classes as well. Investors have started to look into additional ways to integrate the full spectrum of risks into the investment decision process, even for investments without market

comparables. If there is now market consensus that it does not make sense to assess financial return in isolation from the risks taken, the logical consequence would be to also question the assessment of investment performance in isolation from social and environmental sustainability.

It therefore appears that the question of trade-off between financial return and social impact is unfounded, at least in the definition of impact investing used in our study.

This definition implies a positive correlation between pursued impact and financial return drivers.

If the argument of the trade-off between financial return and non-financial investment objectives is to be maintained, it must also be applied with the same consistency to at least all the asset classes that lack a liquid market and therefore lack comparables for market return. Yet financial investors appear more forgiving when it comes to justifying investment decisions outside the impact investing space. This phenomenon is presumably triggered by the ambition of impact investing to justify the investment case as a whole, while other asset classes very often limit themselves to a financial return promise that frequently remains just a promise.

However, if the investment decision is based on a holistic assessment of business objectives, including their social and environmental impact, metrics are needed to give investors the means to back-test their investment assumptions and react accordingly, just as they would do on their financial return expectations. This is precisely the logic applied by impact investors when they seek to come to a common understanding on how to express impact and impact investing performance in suitable metrics.

7.2. Why Impact Investing Is Done Is Irrelevant as Long as the Achieved Impact Is Intentional

Another sizeable debate in the impact investing space revolves around the question about whether impact investing can be done with the sole purpose of boosting profits. Just as exclusively financial return-driven investors have traditionally questioned the impact component in any investment as value-destroying redundancy, impact-focused investors have always felt that the ambition to generate financial return with a business model takes away the noble cause of the impact objective being pursued.

This perception deeply rooted in the mindset of impact investors is the main reason why impact investing has historically often been confused with philanthropy and has therefore amplified the assessment of mainstream markets that social impact objectives in an investment destroy financial value.

"The scope of challenges facing society today can no longer be solved with a purely philanthropic approach."

Yet, for the sake of both their constituencies, the two kinds of investors – hardcore philanthropists and financial investors with no particular interest in social/environmental impact resulting from their investing activity – have to change their perspective:

a) Even in the space of pure philanthropists, the understanding is gaining ground that the scope of the challenges facing society today can no longer be solved with a purely philanthropic approach. Capital accessible through fundraising for philanthropic activities is in no way sufficient to address all the locl issues in society, let alone

"In the light of the dominance of capitalistic socioeconomic models in our societies and the lack of alternatives, the challenges of sustainability can only be overcome if they are integrated into market logic."

regional and global challenges. These global challenges include the threat of possible climate change, as well as poverty leading to major political instability, human rights issues in supply-change management, the scarcity of primary resources, and demographic challenges, to name just a few that have grown beyond the scale that can be solved with traditional approaches of charities and philanthropic organisations. Hence, in the light of the dominance of capitalistic socioeconomic models in our societies and the lack of alternatives, these challenges can only be overcome if they are integrated into market logic.

In such market logic, it is obvious that part of the investment community will invest in impact-relevant business models purely for financial return considerations. In the philanthropic space, impact-motivated investors will have to accept that their own approach must coexist with this market mentality if they are to effectively address societal issues at the regional or global level. In other words, the impact investment community will have to come to terms with reality and accept that the reason impact investing is taking place (whether for pure financial considerations or for the purpose of achieving a social impact) is ultimately irrelevant as long as the social /

environmental impact is not a coincidental byproduct but a deliberate choice in the business model.

Likewise, financial investors across the complete investment spectrum have started to realise that their financial return models are no longer sustainable if they do not consider the long-term impact the underlying business has on society. Independently of the debate on the cut-off line between investing and philanthropic activities, the inclusion of social and environmental impact in the definition of business objectives and the way in which they are attained has meanwhile translated into financial return implications across the entire spectrum of asset classes. The fallout of the financial crisis has clearly demonstrated that, as we move forward, value creation in business will have to consider the cost of externalities such as air, water and soil pollution, and the use of constraint resources, including the dependency on fossil-fuel energy, to a much greater extent than has been done thus far, simply because these externalities are no longer free and access to constraint resources has become an issue of competitiveness.

Social and Environmental Impact: From Business Restriction to Response to Business Restrictions

Whilst social and environmental impact may well have been perceived in the past as a constraint to financial-return-oriented business models, its active management has today become a key driver of financial return. Social and environmental sustainability affects financial return through direct cost factors (CO₂ footprint, pollution taxes), reputational risks (unethical supplychain management) and business risks (liability risks for environmental hazards). These factors translate into either reduced returns (direct impact on return expectations on an investment) or an increase in

investment risks (expressed as greater volatility of financial returns).

In recent years, a number of large private equity firms have started considering social and environmental impact in their investment risks and have made them part of their value creation plan in investee companies².

"The effect of social and environmental sustainability is undoubtedly the biggest amplifier of impact considerations for investments in traditional asset classes."

Awareness of non-financial impact amongst PE fund managers has also stepped up through pressure from limited partners and the trade buyers PE firms use as exit channels for their investments. Limited partners, especially amongst trade-union-funded institutions and pension funds, increasingly have expectations regarding the ethical approach to their investment activities. Trade buyers across all industries have become selective in their acquisition targets: environmental and social-responsibility-linked reputational risks make them either apply sizeable discounts to the sales price or refrain from acquisition altogether.

The effect of social and environmental sustainability is undoubtedly the biggest amplifier of impact considerations for investments in traditional asset classes. Only a few years ago, investor requirements for social and environmental responsibility, ethical investment criteria and the like were perceived as investment restrictions that were frequently reflected

in negative screening approaches applied by asset managers. Today, this perspective has changed and proactive management of social and environmental profitability has become a way to respond to business development constraints dictated by the scarceness of resources, increasing costs of externalities and consumer pressure for ethical standards applied in the production cycle.

From this perspective, environmental and social sustainability have become business factors that have to be considered on a par with financial sustainability and are woven into the entire product cycle of a business, including supply of input factors, production management and product distribution channels.

What does this new framework of market reality mean to investors? It implies that social and environmental sustainability are no longer business aspects to be considered outside the operating parameters of a business. Rather, they directly influence either a business' downside risk or its growth and profitability potential, or both.

However, if social and environmental sustainability have indeed become core business success factors, they also have to be monitored the same way other business parameters and objectives are monitored and controlled. This is where the issue of metrics for social-and environmental-impact key performance indicators (KPIs) comes into play.

7.3. The Challenge of Metrics: Impact Performance Versus Investment Performance

If it is true that virtually every investment has a social and environmental impact, the only difference between impact investing and traditional investing is in the intentional measurability of non-financial impact.

It is therefore not surprising that impact metrics are the core topic of debate around impact investing. If impact investing has not yet become a genuine asset class, it is primarily because it has failed to define its industry standards, and impact metrics are these standards' centre of gravity. However, the absence of industry standards for impact investing is far from being the result of a lack of ambition. There is consensus that impact metrics are vital for this industry and numerous attempts have been made to define them by consultancy firms, members of academia and practitioners.

If these attempts have all largely failed, it is because of the lack of clarity regarding the purpose impact metrics should actually serve. The answer varies, depending on when this question is asked along the impact-investing value chain. It has to be different because the information required by individual stakeholders is not the same.

Why Should Social and/or Environmental Impact Be Measured at all?

The expectations of stakeholders in businesses regarding social and environmental sustainability are widespread:

- Consumers PAY for transparency on how the products they are buying are produced.
- Company managers seek competitive advantage in employer responsibility to attract and retain talent.
- Company managers seek information on the vulnerability of their business model due to impactrelated risks (reputational risks, liabilities for environmental/social damage).
- Company managers seek to quantify the competitive advantage they can derive from social responsibility and social/environmental dimensions in the business model.
- Direct investors who invest in companies not only for their product offering, but also because of the way the business model is implemented have an interest in knowing whether the business model they are investing in is working and how well.

- Direct investors strive for proactive management of business risks that limit sales growth and competitiveness.
- Investors want downside risk management for "risk to society", be it through direct costs related to indemnification or indirect costs (reputational risks).
- Finally, indirect investors (i.e. investors outsourcing their investment activity to intermediaries such as professional asset managers) want to know how effective such asset managers are at executing impact-relevant investment and how successful they are at meeting the investors' impact and return expectations.

Against such a broad spectrum of expectations on impact metrics, it is not particularly surprising that the debate on impact measures has so far not delivered any meaningful consensus regarding how such metrics should be established and what purpose they can serve. The barriers to meaningful impact indicators are manifold:

- In the mindset of many market players, social and environmental business objectives are still dissociated from other business objectives (the trade-off dilemma) and, hence, there is disagreement as to the purpose of KPIs that serve two different constituencies of business objectives.
- 2) As opposed to financial return objectives, which have largely dominated financial markets, nonfinancial performance indicators are of a widespread nature and require different measurement units and scales. These measurement approaches require effort to be developed and put into place.
- Given the widespread objectives traced with social and environmental impact indicators, comparability of individual indicators is not naturally given. Such comparability needs translation into common,

- standardised measures. The dilemma with standardised measures is that they require assumptions and simplifications to converge precisely to such a uniform standard. These assumptions and simplifications, however, potentially destroy the link of the KPI to its initial impact objective. Hence, there is a severe trade-off between comparability of KPIs and the value of information they carry with respect to the initial investment objective.
- 4) KPIs for social and environmental impact serve a number of purposes of many different and often diverging stakeholder objectives. For some, they are an expression of how a business is conducted; for others, they reflect a real impact component that is crucial to achieving the business goals; for still others, they are part of investment performance reflecting the contribution to ethical value creation; and for yet another group, they are used as a selection criterion for service providers (e.g. asset managers). Despite the diverging requirements of various stakeholders, the focus when defining impact metrics has been on onesize-fits-all measures that have introduced more confusion than clarity into the debate.

The attempts to come up with standardised, comparable and transparent measures have so far failed because of this lack of homogeneity in the expected purpose of metrics for various stakeholders. In order to be a meaningful expression of achieved impact, KPls need to be closely tied to an individual activity's characteristics and a change theory associated with it. Individuality, however, defies comparability of KPls, which is the expectation of another constituency of stakeholders, notably investors who seek to compare impact-related investment performance.

This incompatibility of the simplification necessary for standardisation purposes with the preservation of the specificity of KPIs to be relevant measures for the impact of a business activity has resulted in impact metrics such as scorecards, social return on investment, CO₂ footprint measures and the like that do not satisfy any stakeholder expectations in a meaningful way.

"The job of an asset manager in impact investing is to select businesses that perform best against impact targets."

A deeper analysis of existing financial performance measures in financial markets shows, however, that this phenomenon is not specific to the impact investing space. Standardised measures that do not differentiate how performance is achieved are also used in financial performance assessment and, in many cases, they are abused to claim achievements in performance that do not necessarily reflect reality. The flaws built into commonly used performance measures are not so much of an issue in public markets with lively and liquid trading activity and solid analyst coverage that provide transparency on the risks taken, volatility and comparable investment opportunities.

The situation is different in the case of illiquid and unquoted investments. Take the example of private equity transactions where investors are simplistically served with quartiled performance figures without having much of a view on the investment risks taken in individual transactions or portfolios of transactions. An IRR of 25% on a private equity buyout fund may look attractive, may be top quartile for its vintage year and may look like a sensible investment compared to stock market investments. However, such information does not reflect the type of leverage taken on average in such a fund's portfolio, the capital gain achieved in absolute terms or the value added by the fund manager in the individual deals.

In order to find out such information (which cannot be derived from the aggregated IRR performance figure), an investor would have to conduct a detailed due diligence, break down the value-creation components in the fund manager's track record, and analyse holding periods of investments and value the evolution of individual deals, etc.

Unsophisticated investors in private equity have rarely gone down this road and lack of due diligence may be at the origin of the absence of Darwinism in the PE industry, the volatility of PE as an asset class and the sizeable blow the PE industry has taken in the financial crisis since 2008. Today, those investors who remain committed to PE as an asset class and their intermediaries who continue to attract money for PE investing are very much aware of the value creation component underneath the simplified performance measures of IRR and multiples on investment cost.

Yet, if the due diligence on the underlying investment activity of asset managers results in suitable decision parameters in traditional asset classes, the solution to meaningful impact measurement and performance assessment of asset managers in impact investing may also reside in a two-layer approach. Instead of attempting to express impact performance and investment performance in the impact space through the same measure, it may be useful to dissociate these two fundamentally different views. A model that uses KPls for genuine impact objectives merely as an input factor for metrics that assess the investment selection performance could provide a metrics system that satisfies the needs of all stakeholders.

7.4. The Gamma Factor in Investment Performance: An Attempt to Solve the Impact Measurement Debate

In our empirical study of active impact investors, the debate on suitable and meaningful impact metrics was a recurring topic. The spectrum of views on impact metrics included, "We don't need it, since we are using our own money and are personally involved, so we know what's going on", "We use scorecards because that's the best way to achieve a common denominator", and "We use the CO_2 footprint across our entire portfolio and calculate direct and indirect impact". However, none of the market players seemed convinced that a sufficiently universal approach had been found to satisfy all potential user groups of these impact metrics.

At the level of individual investments, four insights were repeated:

- 1) Impact measurement was predominantly sought by investors who were not directly involved in investment management. Business-angel-type investors were relaxed about metrics, as they could see tangible results on the ground and were satisfied with that degree of information. The bigger the degree of delegation of the investment decision and management, the greater the desire to have some form of impact metrics in place.
- 2) There was a high degree of frustration with the level of sophistication wanted and needed for impact metrics. Players frequently either compromised on the information value for comparability reasons (scorecards, uniform standard measure) or on the comparability of their measures to track real impact components.
- 3) There was general agreement that it is more important for impact to be measurable than how impact measurement is actually done.
- 4) Active impact investors also agreed that impact objectives need to be clear prior to or, at the latest, at the time of investment to become an integral part of investment objectives.

From our discussions with active impact investors, it became clear that the main challenge of impact metrics was to make them a suitable tool for the various stakeholders in an investment process.

Defining meaningful impact indicators at the level of a business is, in itself, challenging. As discussed in Chapter 2, it is of utmost importance to distinguish between output, outcome and impact indicators and ascertain whether such indicators are truly representative for the impact component in the business model.

Indicators at the level of the business model serve the purpose of tracking the impact obtained through the company's activity. Such impact indicators can and actually must be very individualised and specific to the company's business model. Just as it is meaningless to analyse overall working capital ratios in the financial statements of a company without differentiating between trade account receivables and trade account payables, it is meaningless to track impact performance indicators that do not place the individual values in the context of the business.

However, this is precisely what frequently happens with impact indicators. For the sake of comparability, impact indicators at business plan level (e.g. the tonnes of a certain plastic substance that previously could not be recycled but now can be processed using a new technology) are translated into general indicators (e.g. the amount of CO₂ saved by not incinerating these tonnes of plastic) to be compared with other investments and aggregated at portfolio level. The question as to whether the CO₂ footprint expresses the genuine social/environmental impact remains unanswered (the CO₂ footprint resulting from the incineration of this substance may not have been the biggest issue; it might have been the tiny quantities of dioxin gases that presented a much greater threat). Also missing in such indicators is the impact of the solution found in terms of the scale of the issue to be solved: impact not only needs to be evaluated in absolute terms, but also in relation to the size of the problem that an impact investment is supposed to solve. In our example, the question is whether the innovative recycling procedure for this plastic material can provide a sustainable long-term solution without

other significant negative side effects and whether it can be applied at scale to the quantities of plastic waste involved. All these questions are sacrificed for the sake of the comparability and aggregation of impact indicators at portfolio level.

All this inevitably leads to the question as to why exactly we are sacrificing the information value of impact indicators at business level for the sake of comparability and aggregation?

"IMPACT performance indicators and impact INVESTMENT performance indicators actually serve two different purposes that cannot be made compatible in one measure."

The answer very likely lies in capital providers' communication requirements for impact investing regarding impact achievements. Such investors want to know what impact has effectively been achieved with their capital. And they want to compare the impact achieved by one asset manager (e.g. a fund manager, fund-of-funds manager, etc.) with that of another. It is admittedly a very different view on impact indicators compared to entrepreneurs who use them to gauge the competitiveness of their technology, the market share they can capture and the scale of the solution they bring to a social problem as part of their selling proposition.

And this is precisely the dilemma created by impact indicators. The abstraction made in the information provided by impact indicators for the sake of serving the INVESTMENT performance analysis of impact investors sacrifices their value as measures of IMPACT

performance. Paradoxically, the resulting compromise does not serve any of the parties:

- i) Such aggregated indictors have become meaningless to run the underlying business. How is the entrepreneur of the plastic recycling facility going to derive any useful information for conducting the business based on the reduction of the global CO₂ footprint achieved?
- ii) For the investor who has been investing in the recycling business through a fund or a fund-of-funds manager, the information is hardly any more valuable. What does it mean if a business model has managed to save a few hundred thousand tonnes of CO₂? At what cost? And is it really relevant which of two asset managers has saved more tonnes of CO₂ in absolute terms? Isn't it more important to ask which asset manager used the capital more efficiently to address a social or environmental issue?

Intuitively, it is easy to understand that an entrepreneur is dependent on the information indicators provide on the IMPACT performance of a business model, while investors who are trying to assess the services of an intermediary are actually interested in impact INVESTMENT performance. However, in the absence of better alternatives, the entire industry is now using IMPACT indicators as impact INVESTMENT indicators in their reporting to investors. How can this be acceptable to investors?

Part of the answer lies in the lack of investor sophistication. Even for financial investment performance, there are still many investors in the market who uncritically compare financial return figures between funds (e.g. IRRs) without assessing the risk they are running in the underlying investment models. The same is true for impact investment performance. For investors who merely require a justification to classify an investment as an impact investment, a nice round figure expressing some kind

or reduction in society's CO₂ footprint may very well do the trick. And as long as such a poor level of sophistication satisfies a sufficiently large share of the market to be successful in fundraising, asset managers will hardly make the effort to come up with a more sophisticated approach, especially when the path to greater sophistication is not an easy one.

"The purpose of the proposed model is to help establish an integrated measure for financial and impact performance at portfolio level while maintaining meaningful KPIs at business model level."

However, there is a growing community of impact investors out there in the market who are no longer satisfied with the current fig-leaf approach and who seek real performance indicators to measure the investment performance of their asset managers. As a contribution to this intellectual debate between dedicated impact investors and asset managers who are keen to develop standards for their industry, the following paragraphs describe a novel approach for impact measurement at the level of business models and asset managers (see Annex for more details). At the core of the model is the idea that IMPACT performance indicators and impact INVESTMENT performance indicators serve two different purposes that cannot be made compatible in one measure. However, IMPACT performance indicators can serve as input factors for the impact INVESTMENT performance indicators in a model that bridges the two dimensions. The purpose of the proposed model is to help establish

an integrated measure for financial and impact investing performance at portfolio level while maintaining the freedom for meaningful KPIs at the level of individual business models. The basic idea of the concept is to divide impact metrics into a two-layer approach in which:

- a) one layer expresses the impact objectives at investment level in indicators (KPIs) that can be freely defined and tailored to a specific investment's needs and features.
- a second layer assesses and expresses the performance of an investment manager or asset manager in terms of an "impact-adjusted return".

The gamma factor is proposed as an extension to the capital asset pricing model (CAPM) that serves the purpose of determining the expected return of a given investment under the assumption of a given risk profile compared to a market portfolio.

With the help of the gamma factor, the expected financial return, r_{ai}, for an investment derived from the CAPM

$$r_{ai} = r_f + \beta^*(r_m - r_f)$$

where r_f is the risk-free return rate and r_m is the market return for the underlying asset, can be translated into an impact-adjusted return. At realisation, the expected return on an investment, r_{ai} , becomes the realised return on an investment, r_{ei} . By applying the gamma factor, this return can be translated into an impact-adjusted return, r_{IA} , as follows:

$$r_{IA} = r_{ei} * \gamma_s^3$$

where r_{ei} is the ultimately realised return on an investment and γ_s is the standardised gamma and expresses the impact achieved as a ratio of the overall impact level observed at a given point in time after

the investment to the impact level set at base 100 at the time of investment.

The resulting multiplier is

- a) greater than 1 if the established impact objective is exceeded
- b) equal to 1 if the established impact objective is met
- c) less than 1 if the investment falls short of its impact objective

The multiplier is then applied to the expected (and later observed) financial return of the investment in order to derive the impact-adjusted (expected/realised) return.

The benefit of this measure is that it dissociates the impact quantification at individual investment level from the impact performance assessment at portfolio level or at the fund manager's track record level.

It has the advantage of allowing for an individualised definition of impact KPIs at investment level without compromising on the comparability of impact performance at investment management level.

As such, both requirements on impact measures, i.e. their comparability and their meaningfulness for the impact objective pursued, can be satisfied without compromising on either of them.

The challenge that remains is in the degree of sophistication and ambition reflected in the impact KPIs at individual investment level. Theoretically, an asset manager or impact investor could set easy-to-achieve impact targets in order to boost its impact performance. Such behaviour would have to be detected in a due diligence process on the investment manager by analysing its (impact) investing track record. While this may seem like an additional effort to undertake by investors, it is no different from a due diligence requirement for achieving an informed investment decision, e.g. in a private equity fund investment.

It also appears considerably simpler to submit the quality-of-impact objectives established by an investment or asset manager to an objective rating exercise than to achieve comparability of impact KPIs at the level of individual transactions that have absolutely no features in common.

Case Study A Principled Approach to Investing: Capricorn Investment Group

Jeff Skoll grew up in Montreal and Toronto and studied for a BA in electrical engineering. Before heading to Stanford University for an MBA, he ran a computer-rental company in Toronto. At Stanford he met Pierre Omidyar, with whom he founded what was to become eBay. In 1998, eBay went public, and the following year Skoll, the company's president and first full-time employee, became Canada's youngest billionaire. He left eBay in 2000, retiring at the age of 35 with an estimated \$2 billion and a determination to continue changing the world.

A Family Office Dedicated to Impact – a Network of Companies

Jeff Skoll is said to have wanted to change the world since he was 14. This mission did not change following his success as an entrepreneur. Aware that social challenges and change happen at many levels and in many dimensions that do not fit one standardized approach, he created a series of ventures and initiatives to trigger social change. His movie company Participant Media is based on the belief that films are a powerful medium to build awareness and reach the number of people necessary to trigger social change on a large scale. He sponsors the Skoll Centre for Social Entrepreneurship at Oxford University's Said Business School to educate tomorrow's leaders with a vision of how to address social challenges. His foundation runs the Skoll Forum, the world's largest annual gathering of leading thinkers in the area of social entrepreneurship. He has also launched the internet platform TakePart.com, which offers people additional ways to engage with important issues in society.

"My objective was to establish an investment approach that delivered, across all asset classes, strong financial outperformance together with positive impacts. My investment program shares the same DNA with my philanthropic, media and other efforts. While it must generate strong returns to fuel my other endeavors, it may also produce positive social and environmental outcomes."

Jeff Skoll



Jeff Skoll's Investment Approach

In 2001, Jeff Skoll created Capricorn, an investment firm to serve as the financial engine driving his other activities. Capricorn seeks to generate the financial resources necessary to support those activities that, due to their particular social mission, cannot be run in a self-sustainable way. But unlike other personalities active in the philanthropic space who fund their social activities through a for-profit investment portfolio without restrictions, Jeff Skoll seeks to run all of his investment activities on the basis of a shared set of values. Capricorn calls its investment approach "a principled and responsible investment approach."

Operating a Principled Investment Approach

- This approach reflects the view that, "achieving superior investment returns does not preclude a principled approach, but rather is enhanced by incorporating ethical, social and environmental factors on a total, integrated basis." (Stephen George, Chief Investment Officer).
- For the investment approach sought by Jeff Skoll, principled investing means that their people, processes and investments seek to be of uncompromising quality, deeply aligned, objective, ethical, fair and not directly harmful to the world or people.
- Incorporating these aspects into their investment processes, they believe, can better control risk while taking advantage of investment strategies that incorporate long-term sustainability elements and thus enhance returns.
- Capricorn's investment approach integrates its social impact from the moment it defines its investment strategy. It defines what sectors, industries and types of business models the firm wants to engage in and subsequently assesses each investment against these standards.
- The alignment of the business models Capricorn invests in with the social impact they bring about is the core focus for selecting investments that combine financial returns with social change.
- Assessment of social impact is therefore reflected in the strategic choices of Capricorn's investment approach rather than through impact metrics at an individual-deal level.

To reinforce Capricorn's philosophy, these principles are not only present in the investment process, but also in "softer" aspects:

 Hiring people who "fit" with this investment philosophy.

- Treating employees in a manner that reflects the principles, thereby reinforcing those principles from the ground up.
- Sharing office space with the Skoll Foundation to encourage interaction and exchange of ideas.

This not only offers a "feel good factor" to employees, but also results in tangible investment opportunities. For example, engagement with a sustainable salmon farm in Scotland began within the Foundation and, as the project developed, became an attractive investment prospect for the Capricorn portfolio.

Focus on Social Impact Translated Into Financial Success

Capricorn has a sufficiently long history to show a meaningful track record for its investment activities. Since 2003, Capricorn has invested several hundred million US dollars in companies with business models that address social or environmental challenges or objectives. Since 2003, Capricorn has consistently outperformed the pooled vintage year multiple of the Cambridge Associates Private Equity and Venture Capital benchmark and situates itself comfortably in the top quartile of funds included in that benchmark in six of the seven vintage years under review. This performance affirms Capricorn's ambition to prove that social and environmental objectives in no way contradict the aim of achieving attractive financial returns.

Any indices and other financial benchmarks shown/discussed are provided for illustrative purposes only, are unmanaged, reflect reinvestment of income and dividends and do not reflect the impact of advisory fees. Investors cannot invest directly in an index. Comparisons to indexes have limitations because indexes have volatility and other material characteristics that may differ from a particular fund. For example, a fund may typically hold substantially fewer securities than are contained in an index. Indices also may contain securities or types of securities that are not comparable to those traded by a fund.

Therefore, a fund's performance may differ substantially from the performance of an index. Because of these differences, indices should not be relied upon as an accurate measure of comparison. In addition, data used in the benchmarks are obtained from sources considered to be reliable, but Capricorn makes no representations or guarantees with regard to the accuracy of such data and makes no assurance of the investment returns

8. Impact Investing: Quo Vadis?

Undeniably, impact investing has received a lot of attention in recent years, certainly since the financial crisis began in 2008. Whether the current momentum will be sufficient to establish impact investing as a separate asset class and then as an integrated part of financial markets will depend on the standards impact investors are able to establish, agree upon and adhere to.

Private equity markets and microfinance will play a vital role in this process. Historically, the dynamics of socially responsible investing have predominantly come from public markets. In public markets the limitations investors face quickly become apparent when it comes to influencing the conduct of business. It is not trivial to influence the way a business is run as a shareholder who holds a few percentage points in the share capital. These limitations quickly translate into very simplistic impact-investing tools that rarely go beyond a form of negative or positive screening or scorecard model.

The potential is much greater in the private equity space because the level of influence a private equity player acquires in a portfolio company is normally a controlling one, either alone or in a syndicate of likeminded investors. This level of control allows for a much higher degree of influence on the strategic objectives within a business model, including social-and environmental-impact components.

In general, any part in the impact-investing value chain can only claim the results it can directly influence. That is why the publication by asset managers of such measures as tonnes of CO₂ emissions saved is not very meaningful. It is not the job and hence not the value added of an asset manager to save CO₂ emissions. The job of an asset manager is to select businesses (and business managers) that perform best against impact

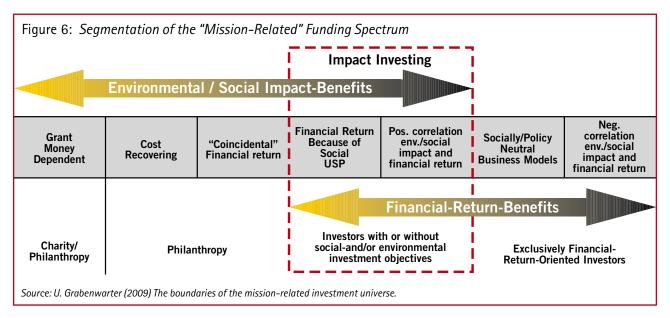
targets. Asset managers who take part in impact investing are paid to assess impact targets in sectors and business models, select companies and managers that are the most likely to achieve these targets and ensure that the impact objectives are pursued in a capital-efficient way (financial return component). Hence, it is not the number of CO_2 tonnes saved in a fund manager's portfolio that counts, but:

- i) the relevance of CO₂ emissions in the business model of the investee company and the potential damage they cause to society.
- ii) the level of ambition reflected in the CO₂ reduction targets put forward by the company.
- iii) the capital efficiency of achieving such CO₂ reductions.
- iv) the level of accomplishment of such CO₂ reductions.

Asset managers in impact investing can and must take a view on these four dimensions. By doing so, they provide value added to the investor.

"What were once soft-factors in business decisions have suddenly started to become financial return drivers."

Intuitively, the smaller the stake held in a company and the more remote an asset manager is from the target investee, the harder it is to influence its conduct of business. It is therefore logical that actively influencing the business conduct of a publicly quoted company is much harder than in the case of private equity. Social responsibility as approached by asset managers in public markets has therefore frequently been reduced to screening approaches (negative screening resulting in deselection, positive screening for capital allocation to best-in-class companies) rather than proactively influencing the pursuit of specific impact objectives at company level.



However, the importance of social impact is also in a process of change in public markets. Through active shareholdership programs, investors pool the interest of like-minded investors to obtain the level of influence necessary to engage in a dialogue on equal terms with business management on strategic, impact and financial targets.

As a result, company managers have started to realise that the non-financial aspects of their business performance have become an increasingly important factor in the value expectations of investors and hence in the value creation of businesses. What were once soft-factor aspects in business decisions have suddenly started to become financial return drivers and to conquer territory previously dominated exclusively by short-term profitability ratios.

This will eventually result in a transparent approach taken by quoted companies when establishing their business targets for social/environmental impact, sustainability and social responsibility. Once these targets form part of standard communication between business managers and shareholders, asset managers can base their investment selections on them and be judged for the quality of these investment decisions by their own investors.

8.1. Impact Investing and Philanthropy: Are Bill Gates and Muhammad Yunus Wasting Their own (and Others') Money?

With the definition of impact investing and the mindset we have described with the aim of embedding it into the landscape of financial markets, one burning question obviously arises: What effect does the approach to impact investing analysed and presented here have on other approaches of funding for impact-relevant initiatives around the globe?

Does the fact that an investment approach confined to business models that are not only profit seeking but also require a positive correlation between impact objectives and financial return drivers mean that any other approach to pursuing impact is necessarily a waste of money?

The answer is no. The spectrum of impact-relevant sources of finance ranges from charity to the traditional asset classes of mainstream markets.

These target areas of mission-related finance clearly include activities whose funding will never be compatible

with market mechanisms and logic. Bringing basic healthcare and educational services to regions where the purchasing power of the target population is zero cannot be funded with plain-vanilla market instruments.

Such areas have historically always depended and will continue to depend on charitable activities and philanthropic organisations. The big problem philanthropy has always faced when tackling social issues is a question of scale: the needs of populations and activities dependent on philanthropic funding have always been much greater than available funding sources can provide

"Society's sustainability depends crucially on the success of taking impact investing into mainstream markets."

The mismatch between the need for philanthropic funding and its availability is actually one of the dominant reasons why society's sustainability depends so crucially on the success of taking impact investing into mainstream markets. If mainstream markets take responsibility for social and environmental impact, not only will the required scale be provided to tackle global issues, such as climate change and the management of natural resources, but philanthropic funding sources will be freed up to respond to areas where they are needed, i.e. those that cannot be funded with market logic.

8.1.1. Philanthropy: The Issue Is Scale

Philanthropic sources have always been at odds with the gap between what ought to be done and what could be done given the financial resources available. A major part of charitable and philanthropic activities continues to be directed towards fundraising. The focus of charitable funding is also very often confined to local social issues because of the lack of funding. Yet, many of the projects pursued by philanthropic organisations are at least regional, if not global (e.g. human trafficking).

The initiative launched by Warren Buffet and Bill Gates called the Giving Pledge proposed a concept for the first time that overcame the constraints of scale. Together with his wife, Bill Gates dedicated \$58 billion of his own wealth to set up the Bill and Melinda Gates Foundation, thus making Bill Gates the creator of the biggest philanthropic organisation in the world.

His example has been followed by a large number of very wealthy individuals, who have pushed the amount of money made available through the Giving Pledge initiative far beyond the \$100-billion mark.

On this scale, philanthropic initiatives are able to address regional and even global issues and can propose true solutions and become a much-needed complement to philanthropic initiatives that cannot extend their activity beyond local reach due to the lack of funding.

8.1.2. Social Businesses by Nobel Prize Winner Muhammad Yunus

Another method now being widely discussed in public is 2006 Nobel Peace Prize winner Muhammad Yunus' Building Social Business approach.

This approach aims to create an alternative type of business run by or devoted to helping underprivileged people. In this concept, businesses are run in the same way as for-profit businesses with the aim of being capital efficient and profitable like their mainstream business peers. However, unlike traditional for-profit businesses, these companies do not pay dividends to their shareholders but reinvest their surpluses to expand their humanitarian efforts and benefits for society.

At first sight, this concept appears to be a hybrid model between philanthropy and impact investing as described in this paper. On the one hand, it requires investors who see their investment as a philanthropic giveaway without the expectation of any return (on the nominal amount or any interest earned on it). On the other hand, however, these businesses are expected to be run in a way that makes them fully self-sustainable and able to expand their reach without further dependency on philanthropic funding.

"The requirement of impact investing to be for-profit refers to the correlation between impact objectives and financial return and has nothing to do with the dividend policy of a company."

When examined more closely, however, this type of business can be considered an outright form of impact investing very similar to the "strategic benevolents" described earlier in this report. To be considered impact investment, the requirement we have defined does not relate to the company's dividend policy, but merely

states that the company should be run with a forprofit mindset with a positive correlation between pursued impact and financial return drivers.

The company's dividend behaviour is not a feature that determines whether or not a business is an impact business. It is a feature of the investment product or instrument used to fund the business.

As in traditional companies, there are often different share classes that confer privileged dividend rights to certain types of shareholders. In this case, shareholders waive their right to dividends through the terms and conditions attached to their shares.

This flexibility when defining shareholder rights actually offers many opportunities for funding social businesses, as it provides access to all types of investor mindsets and combines them in a diversified group of shareholders. Investors can subscribe to a common impact objective pursued by the funded business but have different financial-return features reflected by the terms of the financial instruments they invest in.

Ultimately, these different perspectives of impact investors can be brought together in a common stock market where the type of shareholders Muhammad Yunus envisages in his Social Business model can coexist with ordinary shareholders just as traditional ordinary shareholders coexist with bondholders in financial markets today.

Annex: The Gamma Model

Many studies and investment approaches developed to consider non-financial performance elements in impact investing try to distinguish between "impact-first" and "financial-first" investors. The 2009 Monitor report on impact investing defines impact-first investors as investors who seek to optimise social or environmental impact with a floor for financial returns, and financial-first investors as investors who seek to optimise financial returns with a floor for social or environmental impact⁴.

While such definitions intuitively make sense, they miss the point in the for-profit impact investing space. Ultimately, the debate on impact-first or financial-first investors is relevant when describing the spectrum of investment mentalities in the market, but is not a meaningful categorisation tool when it comes to exploring how social and environmental impact can be integrated into an individual's or institution's investment decision process.

For the reasons set out in chapter 2 above, for-profit impact investments must have financial return expectations and social impact expectations from the outset, as well as a positive correlation between the pursued impact and the funded business model's financial return drivers. The impact and financial return expectations for the funded business model must therefore be compatible at the inception of an investment: there must be a thesis on how the social impact can be achieved with a financially viable business plan. Otherwise, the investment decision is flawed from the outset. An impact objective pursued through a business model in which every impact unit achieved has a direct cost through loss of financial return is not part of impact investing. It is a different form of

philanthropy. So if the investment fails on either of the two (sets of) objectives, it is a failed investment. Whether the social impact is sacrificed for the sake of preserving financial value (shifting the company's business activity) or financial value is sacrificed to preserve the social impact (converting the business into a grant-dependent activity) is merely a question of taking a damage-limitation approach, but is not part of an impact-investing approach.

That being said, it is also true that impact investing has always suffered from the challenge of integrating the value assessment of an investment's impact contribution into its overall investment performance measure.

Whilst it intuitively appears relatively easy to define and compare financial return figures because of market consensus on return measures such as TWR, IRR and investment multiples, such comparability is not yet available in impact investing. Many attempts have been made to define impact measures that converge an individual investment's impact performance into a quantifiable, summable and comparable indicator. The most sophisticated approaches developed to date include the concept of social return on investment and various models that converge impact measures into one aggregate indicator such as CO₂ equivalents. However, none of these approaches has yielded a way to measure social or environmental impact in a way that has evolved towards a market standard. Instead, market players continue to:

- struggle with the subordination of social impact to financial return or vice versa.
- debate on mission-led versus market-led⁵ investment concepts.
- rely on measures that provide ex-post reporting on frequently over-sophisticated key performance indicators rather than serving as an investment decision tool.

⁴ Investing for Social and Environmental Impact, Monitor Institute, 2009

⁵ Concept developed by Imprint, US.

The crucial question when developing impact measures is actually determining the purpose such measures should serve. As in financial investment decisions in which the expected financial return serves as a decision component for investors to assess whether, based on a given return, they are ready to take the amount of risk they associate with the investment, an impact measure for an investment should also make it possible to formulate an investment objective.

A lot of attention has been paid recently to attempts to come up with impact metrics that can be aggregated across asset classes, instruments and market segments. However, no one seems to wonder what purpose such impact metrics could have.

In general, the more aggregation there is in impact metrics, the less metrics can be tailored to the specific characteristics of an investment. This undeniably leads to a loss of information that can be derived from such metrics. Take the example of the CO₂ footprint that for a long time has served as such a universal impact measure. Investors analysed an underlying investment's contribution to directly and indirectly alleviate society's CO₂ footprint and, in a second step, aggregated this CO₂ savings across their portfolio, which resulted in a CO₂-reduction figure that could provide for reporting and other purposes.

However, exactly what information can be derived from such a measure? If, say, 500,000 tonnes of CO_2 emissions is saved a year through an investment, what exactly does that mean for the impact performance of such investment? Without further information on the pursued impact and the business model used to achieve it, nobody can actually determine whether a saving of 500,000 tonnes of CO_2 in a year is a sizeable number or not. It is not even possible to decide which benchmark to use.

In the absence of a benchmark that links the impact target to some measure of how efficient capital is employed to achieve a given impact, any impact metrics cannot be much more than cosmetics in a "feel-good" investment approach. Genuine impact investing is built around four core questions:

- 1) What is the intended impact to be achieved?
- 2) At what financial return can the targeted impact be achieved?
- 3) Does the underlying business model have the characteristics in terms of impact relevance, financial return expectations and associated risks to attract sufficient capital to fund it?
- 4) How and when can the impact and financial return achieved from the investment be back-tested?

This decision framework is more complex than those used for purely financial-return-driven investments, but is conceptually not very different from asset classes that have to cope with a great deal of information deficiency and uncertainty, such as private equity and venture capital. In such asset classes, assessing investments from a purely financial-return perspective is challenging, as parameters on the risk components involved are subject to substantial debate. Adding the dimension of impact exponentially escalates the insufficiency of information provided by a monodimensional financial-return indicator.

It would therefore appear useful to walk new avenues to set standards for impact metrics if they are to make sense in financial market logic. The following proposal provides a framework for impact measurement based on the capital asset pricing model (CAPM) for holistic investment performance assessment.

The model reflects the fact that IMPACT performance indicators and impact INVESTMENT performance indicators actually serve two different purposes that cannot be made compatible in one measure. However, IMPACT performance indicators can serve as input factors for impact INVESTMENT performance indicators in a model that bridges the two dimensions. The goal of the proposed model is to provide an integrated measure for financial and impact-investing performance at portfolio level without contesting the freedom for meaningful KPIs at the level of individual business

models. The proposed concept divides impact metrics into two layers:

- a) The first layer expresses the impact objectives at investment level as indicators (KPIs) that can be freely defined and tailored to a specific investment's needs and features.
- The second layer assesses the performance of investment managers and asset managers and expresses it in terms of an "impact-adjusted return".

With such an approach, the information needs of several groups of stakeholders in impact investing can be satisfied:

- Players requiring information to steer IMPACT performance will be able to work with impactrelated KPIs closely tied to the underlying business model.
- Players requiring information on INVESTMENT performance based on impact achievements will be able to work with performance indicators that express the realised impact against the benchmark of impact expectations at the time of investment.

Whilst impact indicators at business level are a feedin to investment performance indicators, the indicators effectively used operate at different levels of the investment value chain. At company level, KPIs express performance with respect to business objectives. At investment level (i.e. from the asset manager's point of view), impact metrics express the quality of investment selection decisions with respect to impact performance.

The Theoretical Basis of the Model

For investment decisions that exclusively look at the risk/return relationship of a financial instrument, the capital asset pricing model (CAPM) provides a

framework to assess an investment's expected return against its volatility compared to the market reference:

$$r_a = r_f + \beta^*(r_m - r_f)$$

where r_a is the expected return, r_f is the risk-free rate of return, and r_m is the return of the market rate of return.

The ß factor in the CAPM indicates the risk of an investment by giving a measure of the volatility of its return if compared to the market return and deriving the asset's expected excess return over the risk-free return. In doing so, investors agree on a risk-adjusted return for an asset that reflects the equilibrium price of this investment in the market. The brave assumption behind this formula is that investors all agree on the beta, which obviously is not the case. Hence, the model remains fairly theoretical in nature. Nevertheless, it is used to price assets in financial markets and to gauge financial return expectations for an investment.

As such, it is also useful as a basis for integrating the concept of social and/or environmental impact into an investment's overall return equation.

Indeed, just as beta is used in the above formula to introduce an investment's risk, i.e. to introduce its volatility compared to the market into the assessment of its return potential, the gamma factor proposed in this paper can be used to assess the value created in terms of social or environmental impact in order to determine an investment's overall value creation.

Let it be the impact level at the point of investment, la the expected or targeted impact level at the point of investment and le the impact level at the point of exit. Gamma can then be derived as follows:

The target impact, I, equals:

$$\Delta I = I_a - I_t$$

The actual impact achieved equals:

$$\Delta I = I_e - I_t$$

Then the expected gamma factor is determined as

$$\gamma_a = I_a/I_t$$

and the realised gamma factor as

$$\gamma_e = I_e/I_t$$

For the purpose of comparability, it is useful to rely on the expected standardised gamma, which is set at 1

$$\gamma_{sa} = 1$$

This measure can then be compared to the realised standardised gamma, which is calculated as the ratio of the realised impact level to the expected impact level

$$\gamma_{se} = I_e/I_a$$

And, consequently,

$$r_{ai} = (r_f + \beta^*(r_m - r_f)) * \gamma_{sa}^6$$

where r_{ai} stands for the financial return for which an investor is ready to fund the business model, which includes the pursued impact objectives and, further:

$$r_{IA} = (r_f + \beta^*(r_m - r_f)) * \gamma_{se}^{7}$$

where r_{IA} stands for the realised impact-adjusted return and

if γ_{Se} < 1, the investment has fallen short of its impact expectations and, consequently, the impact-adjusted financial return has decreased.

If, however, $\gamma_{se} > 1$, the impact achieved outpaces the anticipated impact and the overall performance of the

investment in terms of its impact-adjusted return, r_{IA} , has improved.

If $\gamma_{Se} = 1$, the investment has met its impact expectations.

In the performance analysis of an investment, it is important to consider the interaction between the gamma factor and the achieved financial return. Overall performance is expressed as the impactadjusted return, r_{IA}. If r_{IA} differs from r_a, such outperformance can result from outperformance or underperformance of the social impact objective, as it can result from a shortfall or outperformance in the financial return of the investment. In other words, an investment that shows a return, r_{IA}, that is greater than the initially expected financial return, ra, may have fallen short of its social impact objectives but have performed financially so well that the impact of the reduced standardised gamma factor is overcompensated by the financial outperformance of the investment.

In order to properly assess the over-performance of an investment, it is therefore important to dissociate the two components of investment performance.

For financial performance, this is again relatively simple by using IRR or multiple measures on the capital invested.

For social or environmental impact performance, it is useful to analyse the standardised and non-standardised gamma.

The standardised gamma expresses the overall social impact performance of an investment or a portfolio of investments and indicates whether the established impact objectives have been met, exceeded or not reached. Due to its standardised nature, this measure can be aggregated across a portfolio of investments

⁶ Source: U. Grabenwarter (2010) Impact Measurement - What's the point?

⁷ Source: U. Grabenwarter (2010) Impact Measurement - What's the point?

and used as an impact-performance measure of an asset manager.

The non-standardised gamma factor allows for more detailed analysis of the individual impact performance indicators used for an investment. Such indicators can be expressed as more common measures such as $\rm CO_2$ emissions, but also as more sophisticated measures such as revenue growth for a disadvantaged target population as a result of an educational program or the reduction in healthcare costs from a novel treatment of a specific disease.

The gamma factor therefore allows for standardised analysis of an investor's impact-investing track record that can complement financial track record analysis and result in an overall investment judgement.

The Value of the Gamma Model in Impact Metrics

- The gamma factor avoids aggregation of impact parameters that become meaningless through simplification and standardisation. Instead, the gamma factor only assesses performance on impact indicators and assesses achievements against predefined targets.
- 2) The gamma factor takes into account the emerging consensus in the market that the question which measure for impact is actually used is not as important as:
 - a. using a measure for impact that is consistent and traceable.
 - b. defining impact objectives ex-ante in the investment process.
 - c. back-testing the results achieved against the defined objectives.

- 3) The gamma factor gives absolute freedom in the definition of impact performance measures. It avoids establishing artificial impact KPIs that require making numerous assumptions that may or may not hold true in reality.
- 4) Impact indicators tailored to an investment may be easier to capture, data requirements can be tailored to the situation, and tracking and reporting of these indicators will generally be less costly and work intensive than measures that are artificially maintained for impact performance purposes without having a natural tie to the investment's underlying business model.
- 5) The gamma factor allows the overall performance of an impact investment to be aggregated in one parameter, the impact-adjusted return, and highlights the fact that the two factors cannot be dissociated because they are both deliberate and equally important investment objectives.
- 6) The gamma factor expresses the impact INVESTMENT performance without compromising on the freedom of defining impact KPIs at company level. The gamma factor can be the aggregate of as many impact KPIs as is deemed useful in the context of a specific investment in one impact INVESTMENT performance parameter that is obtained by multiplying the gamma factors derived from the various individual impact KPIs.
- 7) The gamma factor provides for the transparency of impact objectives in the investment process. Investors take a deliberate decision on the business model they invest in and its impact objectives in order to achieve a financial return.

Potential Challenges to the Gamma Factor and why They are not Valid

Critics will quickly identify obvious challenges to this metrics model, notably the following:

- It could be highly tempting in this model to establish easy-to-achieve impact targets so an investment will outperform and provide an upward-bias to the impact-adjusted return, r_{IA}.
- 2) The financial impact can compensate for a shortfall in performance on impact objectives, thus misleading the investor to believe that an investment has been successful while it actually may have performed on only one of its two value components.

These two factors are undeniable challenges to this impact metrics model, but they are not very specific to impact metrics and are not very specific to impact investing. Transparency on investment objectives should be a concern for investors in any asset class, particularly in venture capital and private equity, to assess whether the reported return figures are commensurate with the risk taken.

Likewise, any investor should know what the main constituting elements of investment performance are, regardless of the asset class. In private equity, a sophisticated investor wants to know whether the realised investment performance was based on value creation through i) leverage, ii) organic growth, operational efficiency and strategic business development, or iii) multiple trading in a cyclical market environment. Identifying the source of value creation will require thorough due diligence from the investor.

Precisely the same approach is needed when interpreting the impact metrics suggested in this model. In a due diligence process, an investor will have to assess the level of ambition reflected in the impact indicators used in the underlying business models. Over time, assessing the quality of KPIs at business level could also be done by specialist advisory firms and rating agencies.

For the interpretation of realised investment results, it is obviously not enough to look at the impactadjusted return, r_{IA}, just as it does not make sense to look at an IRR figure without looking at the underlying risk profile of a private equity investment. Analysis of the gamma factor will provide the necessary insight on the impact behaviour of the investment and its importance in the overall impact-adjusted return. For such analysis, the investor will look at the standardised impact-adjusted return (expressing an outperformance or a shortfall compared to an established impact target) and the absolute gamma ratio, which is based on the increase/shortfall of the impact achieved over the impact-relevant benchmark value at the time of investment.

With the analysis of the impact-adjusted return, the standardised gamma and the non-standardised gamma, the investor should have a comprehensive view of the investment manager's performance in both financial and impact terms.

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