Measuring Impact and Non-financial Returns in Impact Investing:

A Critical Overview of Concepts and Practice

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Abstract

Impact investing is a form of investment that has risen to prominence in recent years. Compared to other forms of socially responsible investment, the most prominent feature of impact investing is a focus on measuring the social and environmental return that it generates. In response, much effort has been undertaken to develop effective measurement systems, but significant confusion remains around the notions of 'non-financial return' and 'impact', and their assessment in practice.

Thus this paper draws on a range of relevant literature as well as the authors' previous practical experience to provide a preliminary overview of underlying concepts. Further it begins to cast a critical eye on the roles and responsibilities within measurement, making more explicit the subjective interpretation of social and environmental return (SER) by investors, and the clash of suppositions taken from other older measurement traditions. In doing so, the paper investigates some of the tensions around breadth of coverage, participation and objectivity, rigour and flexibility, attribution of impact, and the very concept of 'a return' itself which currently surround practical measurement.

In this context, the paper shows how measurement does not yet appear to have found a pragmatic, participative, systematic way forward, and concludes by identifying key research areas that need to be addressed to advance knowledge in this field. Further empirical data collection and analysis will be undertaken in a subsequent series of papers to be published.

1 Introduction

Impact investing is a theme that has risen to prominence in recent years - receiving much attention after a JP Morgan report (O'Donohoe *et al* 2010) predicted global scope for up to $667bn of profit in five sub-sectors over 2010-2020, from a capital investment of up to $1,000bn. However, the notion of impact investing is not new, as evidenced by a survey of major impact investors reported in Saltuk *et al* (2013), in which up to a fifth of the respondents cite active engagement on similar agendas since before 1995.

Indeed, this concept represents the quantitative evolution of many existing concepts - such as 'positive screened' financial investments - currently being embraced by financial institutions, financiers and investors alike. What makes impact investing a progression is its prescriptive emphasis on measurement and quantification of performance on the social and environmental agendas after, as well as before, investment. This raises the prospect of impact investing becoming an asset class, with standardised metrics and benchmarks; and a broader group of investors being brought in, attracted by clearer sight of how 'better social and environmental outcomes for society' are fulfilled by their investment actions.

However, despite the availability of useful guidance such as Hehenberger *et al* (2013), and Olsen and Galimidi (2008), the state of measurement is far from satisfactory (Saltuk *et al* 2013, Grabenwarter and Liechstenstein 2010). The process of developing commonly agreed terminology, assessment methods and metric systems is currently at an embryonic stage and it has not been easy thus far. Nor are there clear incentives or feedback mechanisms to promote measurement quality. As a result, a wide spectrum of approaches and rigour on measurement of impacts and non-financial returns exists.

At a practical level, a variance in approach is partially due to a variety of investors' measurement capabilities, and those are heavily influenced by factors such as the financial and human resource allocated to the task. However, at a conceptual level there are also major differences of interpretation in crucial notions such as impact and non-financial return. This debate has implications for what should be measured; by whom and at what stage of the investment phase; and how.

The aims of the paper are therefore threefold. Firstly, to clarify the terms and underlying concepts currently used when measuring the impact and non-financial returns of impact investments. Secondly, to provide a critical review of the system for measuring social and environmental returns to impact investing. Thirdly, to identify which research agendas are crucial to advancing knowledge in the field.

These aims are linked to three overarching questions that the paper sets out to address:

- What do 'impact' and 'non-financial return' refer to in impact investing? And, more broadly, does the overall set of concepts used for the measurement task form a coherent framework?
- What are the main tools, techniques and roles adopted in measuring impact? And what are their main strengths or shortfalls?
- What are the most important measurement issues to be addressed?

In this context, it is important to note that this paper is the first in a series of working papers which will be written as part of a three year study (2013-2015), *'Measuring impact beyond financial returns'*, funded by the European Investment Bank Institute. Being the first in the series, data and analysis provided in the paper is still preliminary. Indeed, the broad aim of this first paper is to set the scene for the study as a whole - introducing concepts, notions, and theoretical frameworks which will be explored in greater depth and complemented by empirical analysis throughout the course of the study.

In the remainder of this paper, Section 2 provides a brief overview of the main characteristics of impact investing. Section 3 reviews the concepts formulated for measuring social and environmental returns, and assesses the extent to which these form a coherent framework. Section 4 considers which tools, techniques and roles have been adopted to undertake that framework, the difficulties that have been encountered, and how improvements can be achieved. Section 5 suggests a series of propositions to advance our knowledge in the field. Section 6 concludes.

2. Characteristics of Impact Investing

Investment with a purpose that goes above and beyond making more money can be traced back many centuries. In the 1600s, for example, it is recorded that Quakers in the US decided that they could not reconcile investing in slaves with their belief in the equality of individuals before God (Louche *et al* 2011). More recently, in 1928, the US Pioneer Fund became the first investment fund to formally avoid 'unethical investments'; in 1982 Calvert Social Investment Fund was the first fund with screening of issues and set-aside for selected below-market rates investees; and in 1983 the Microfinance Grameen Bank was formally founded, although its projects actually started in 1976.

Since then there has been a blossoming of the variety of investment approaches, with the common theme of achieving wider benefits for individuals, employees, communities and society as a whole, while making a financial return. As well as impact investing, a simple list of these includes:

- Positive screening;
- Mission-Driven Investing;
- Mission-Related Investing;
- Values-Based Investing;
- Program Related Investing;
- Ethical Investing;
- Sustainable Investing; and
- Community investing.

An analysis of these investment approaches and their relationship with impact investing is outside the scope of this paper; our intention here merely is to point out that impact investing is one of the latest theoretical, practical, and - to a lesser extent - policy constructs aimed at developing an investment agenda which balances social goals with a money making purpose.

2.1 Definitions

No well-established definition of impact investing has definitive status. However, in what might be seen as the dominant strand of thought, establishment actors apply similar themes. In a prominent article, O'Donohoe *et al* (2010: 5) defines it as "Investments intended to create positive impact beyond financial return ... [that] require the management of social and environmental performance in addition to financial risk and return." Similarly, the Global Impact Investing Network (GIIN) defines impact investments as those that: "aim to solve social or environmental challenges while generating financial profit. Impact investing includes investments that range from producing a return of principal capital (capital preservation) to offering market-rate or even market-beating financial returns." Along similar lines, Bridges Ventures (2010) sets out a definition of impact investing which consists of: "actively placing capital in businesses and funds that generate social and/or environmental good and a range of returns, from principal to above market, to the investor".

Others have sought to refine the definition in various ways, depending on (i) themes and sectors covered; (ii) its level of ambition for change; and indeed (iii) whether it has a right to be a legitimate activity at all. For example, O'Donohoe *et al* (2010) see impact investing particularly linked with 'bottom of pyramid' services, aimed at customers on very low incomes, especially based in developing countries. At the other end of the spectrum, from a social activist standpoint, Nguyen-Trung (2012) contends that finance and activity for social or environmental purpose are wholly contradictory, whilst Shah (2011) represents an intermediate stance, calling for impact investing to only include those investments offering 'compelling' returns for investors and an ambitious aspiration to drive social change.

2.2 Features

While the mainstream definitions cited above depict impact investment as an agenda that balances financial and non-financial return in a measurable way, Grabenwarter and Liechtenstein (2011) outline more specific characteristics. In particular, they regard it as vital for the investment to include an *intentional*, *pre-determined* social impact, a feature that we consider later in this paper.

More generally, a prominent feature of impact investing is that it relates to financial investments, so excluding such actions as cash donations or the use of time banks. As such, impact investment occurs through all the different forms of investing money – either in respect of loans, bonds, equity and quasi-equity for businesses and social enterprises; or in respect of funds which in turn invest in these financial assets. Further, by convention, impact investment relates to financial investment in companies (including social enterprises), rather than Government funding (such as Treasury bonds).

There is no particular specification on how companies use such investment. For example, when surveying 254 UK voluntary and charity organizations that had received a form of social investment, Gregory *et al* (2012) found that 38% had done so for working capital purposes; 29% had done so to facilitate asset acquisition; 28% to scale up existing activities; and 25% to enable building refurbishment.

In addition, impact investing does not have a particular threshold for financial and non-financial returns; the desired level of each form of return varies from investor to investor. One simple schemata by Freireich and Fulton (2009) categorises investors into 'financial first' and 'impact first' investors, depending on whether they put more priority on financial returns than non-financial returns. However, the expected level of financial resources to be received by the investor at a future point is generally of a lower level (sometimes a much lower level), than for normal financial investing – though unlike a donation or a grant, there is an expectation of at least some portion of the investment being returned.

Indeed, it may well be that no financial disadvantage occurs. Humphrey *et al* (2012) contends that investment approaches geared to firms with a broader sense of social responsibility are likely to generate financial returns in line with those of portfolios that ignore wider considerations. Grabenwarter and Liechtenstein (2011) in assessing financial versus non-financial returns from well managed impact investments finds no negative correlation, implying that there is no trade-off

between the achievement of positive social impacts and financial return; whilst Orlitzky *et al* (2003) argues that socially responsible investment strategies may even achieve better stock market returns than normal.

2.3 Impact investing and its relationships with socially responsible investment and other corporate social agendas

The promotion of impact investing could be interpreted as an effort to codify and make systematic effective practice within 'socially responsible investment' (SRI) or 'responsible investment' (RI). It has paralleled a similar elevation in the importance of venture philanthropy, which takes techniques from venture capital and applies them to the task of making philanthropy more effective in achieving social good for society, through the use of strategic planning and other means, as part of wider efforts to promote more sustainable and socially aware forms of investment.

There are, however, important distinctions between these concepts which can help define and understand better the specificities of impact investing. For instance, Dixon *et al* (2007) contend that SRI has become a well-established term in the realm of institutional equities investment portfolios, and increasingly investors and financial institutions have looked to realise the opportunities in alternative assets and diversified portfolios. Consequently, they argue, institutions have come under closer scrutiny to measure and evaluate the impacts of their investments - mirroring, for example, the debate over the Equator Principles for banks and their engagement with the sustainable development agenda.

Various tools have been developed to assess impacts in terms of the environmental, economic and social effects of real estate projects (including regeneration) at a company, community and project level. However, such measures tend to be underdeveloped in relation to the social dimension. Hence impact investing shares the same objectives of mainstream SRI, especially in terms of combining social, environmental and ethical goals in decision-making (that is, setting objectives, selection, retention and realisation of investments) but it places, at least in principle, greater emphasis on both measurement in general, and on the social dimension of investing and investment recipients in particular.

Impact investing should be distinguished from the related but distinct concepts of corporate governance (CG) and corporate social responsibility (CSR). For example, for Roberts *et al* (2007), CSR is characterised by activities concerned with business operations; going beyond legal requirements and duty to shareholders; integration of social and environmental concerns into business operations; and optimising positive effects and minimising negative effects of the company's actions. By contrast, impact investing involves the combination of social, environmental, governance and financial goals in the application of capital and the measurement of the impact generated by the actual investment process. As such, it can therefore be argued that whilst CSR is concerned with addressing corporate practice, impact investing addresses financial investment practice and the measurement of non-financial returns.

The definitions, features and nuances between impact investing and other corporate initiatives has helped position impact investing in the wider field of socially and environmentally-oriented investment and business practices, highlighting the innovative emphasis placed on measurement and assessment. The next section provides a taxonomy of what impact investing seeks to measure, and a glossary of terminology, and casts a critical light on how concepts of social impact assessment have been co-opted by the emerging impact investing discourse.

3. Concepts for measuring impact and social and environmental returns within impact investing

Previous sections have described the growth of impact investment, its main features, and strong emphasis on measuring non-financial gains. This section turns to the issue of measuring these wider gains to society and the environment.

Such measurements can, at least in theory, fulfil a number of critical tasks. From a simplified perspective:

- *Investors* may seek to find out the extent to which their actions are helping or hindering wider social goals, with special reference to which areas or sector, on what timescales, and at what levels of risk.
- *Fund managers* may wish to benchmark the effectiveness of different investments against each other, or over time.
- *Enterprises or Investees* may wish to use metrics to determine what progress is being made, and the potential scope for improvement; and
- *Beneficiaries or investment recipients* may aim to participate through consultation or more proactive involvement in the measurement, in order to help improve the effectiveness of the investment in terms of social or environmental gains.

Before analysing these perspectives and potential roles in measurement, it is important to clarify the terminology used to measure impact investing, and what proponents of impact investing aim to measure. A literature review of the field suggests that at least two main concepts are involved: 'Impact' and 'Non-financial returns' or 'Social and Environmental Returns' (SER). These concepts will be reviewed and interpreted within the context of impact investing in the remainder of this section.

3.1 Impact

The notions of impact and impact assessment are central to impact investing. However, to some extent, a comprehensive definition or shared understanding of impact, and impact areas, seems to be lacking in current impact investing literature. Recent impact investing works such as Hehenberger *et al* (2013) and Puttick and Ludlow (2012), as well as analysis from the business project evaluation literature, are beginning to fill this important conceptual void. However many issues remain unresolved.

By contrast, over the last forty years, the social and environmental sciences have developed a rich academic and practice-oriented multidisciplinary body of work on impacts in respect of projects and places. This includes theoretical constructs, assessment methods and tools to better understand impact and its measurement.

From a social and environmental science perspective, the International Association for Impact Assessment (IAIA) defines 'impact' as the difference between what would happen with a given action, and what would happen without it (IAIA 2009). The terms "impact" and "effect" are frequently used synonymously, and can refer to a vast number of facets of economic, social and environmental characteristics. Vanclay (2003) however argues that from a social standpoint, a convenient way of conceptualising social impacts is as *changes* to one or more of the following:

- *People's way of life* – that is, how they live, work, play and interact with one another on a day-to-day basis;
- *Their culture* – that is, their shared beliefs, customs, values and language or dialect;
- *Their community* – its cohesion, stability, character, services and facilities;
- *Their political systems* – the extent to which people are able to participate in decisions that affect their lives, the level of democratisation that is taking place, and the resources provided for this purpose;
- *Their environment* – the quality of the air and water people use; the availability and quality of the food they eat; the level of hazard or risk, dust and noise they are exposed to; the adequacy of sanitation, their physical safety, and their access to and control over resources;
- *Their health and wellbeing* – health is a state of complete physical, mental, social and spiritual *wellbeing* and not merely the absence of disease or infirmity;
- *Their personal and property rights* – particularly whether people are economically affected, or experience personal disadvantage which may include a violation of their civil liberties;
- *Their fears and aspirations* – their perceptions about their safety, their fears about the future of *their community*, and their aspirations for their future and the future of their children.

At a practical level, long lists of impacts with as many as 80 impact areas and typologies in the social realm alone have been devised. In parallel, over the course of the years, social scientists and communities of practitioners have also developed a well-established and widely shared repository of standards and best practice concerning the social component of impact assessment, and its scope.

Since 1980, for example, the International Association for Impact Assessment (IAIA) has endeavoured to remove confusion on terminology and developed international principles for impact assessment. They define Impact Assessment (IA) as the process of identifying the *future* consequences of a current or proposed action (IAIA 2009: 1) and measuring as much as possible the changes.

More specifically, according to IAIA (IAIA 2009: 1), impact assessment has a dual nature, each with its own methodological approaches:

- As a technical tool for analysis of the consequences of a planned intervention (policy, plan, program, project), providing information to stake-holders and decision-makers; or unplanned events, such as natural disasters, war and conflicts.
- As a legal and institutional procedure linked to the decision-making process of a planned intervention.

The oldest, most established aspect of IA is Environmental Impact Assessment (EIA), which was introduced in the 1950s. This was followed by development of Social Impact Assessment (SIA) in the 1960s, which includes the processes of analysing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions (policies, programs, plans, projects) and any social change processes invoked by those interventions (Vanclay 2003). These forms of assessment then matured in Strategic Environmental Assessment in the 1990s and Sustainability Assessment in 2000s.

Esteves and Vanclay (2013) goes further and contends that SIA is more than a technique; it is a philosophy about development and democracy which is linked to social sustainability and the social dimension of sustainable development. This is because ideally SIA considers:

- Pathologies of development (that is, harmful impacts),
- Goals of development (by clarifying what is appropriate development, and identifying how quality of life will be improved), and
- Processes of development (such as participation and building social capital).

This interpretation of IA is shared to some extent by financial institutions, such as the World Bank, which deems social analysis and impact assessment as integral to the promotion of more sustainable forms of development. In a recent sourcebook on incorporating the social dimension into their supported projects, the World Bank argue that 'Social assessment' refers to the analysis that the 'borrower' undertakes during project design to assess the social feasibility of the project. This assessment enables the borrower to target the project to the poor and vulnerable, and assures the borrower and the task team that their project objectives are acceptable to the intended beneficiaries (World Bank 2003: ix).

As noted earlier, Impact Assessment is normally conducted *ex-ante,* that is, before an activity or investment is carried out, to predict in advance the social and/or environmental consequences that are likely to follow. IA identifies the scope of the assessment, the likely stakeholders to be affected by the activity, and the type of impact; it suggests strategies to mitigate negative consequences and enhance positive ones. From a theoretical perspective, it is loosely linked to the promotion of sustainable forms of development, but not necessarily to achieving specific social objectives. Nonetheless SIA is increasingly incorporated into voluntary CSR practices, in which corporations (especially those working in mining or other environmentally harmful sectors) do not focus just on

harm minimisation, but aim to exceed regulatory requirements and promote specific social goals for individuals and communities affected by their projects and operations.

In recent years, impact assessment practice, especially SIA, has moved away from viewing assessment as a one-off pre-activity appraisal (which often results purely in a series of social impact statements), to focus on adaptive management of the social issues associated with the planned activity. Indeed, SIA often also has an *ex-post* dimension, which focuses on the monitoring and management of predicted negative and positive impacts through agreed indicators. This measuring and managing exercise often occurs against a baseline of specific targets and objectives decided at the beginning of the activities.

This differentiation between *ex-ante* and *ex-post* assessment and its practical implications (predicting vs. monitoring and managing; scoping social issues vs. setting targets and objectives) is an important one, and will be explored in greater depth in the context of impact investing in section four of this paper, especially in the context of its re-interpretation and proposed blending with financial measurement criteria by financial institutions.

The reminder of this section will focus on illustrating how, in recent years, ex-post assessment literature has merged with concepts used in business project evaluation literature (such as inputs, outputs etc.). A recent work by EVPA outlines the concepts that together comprise an 'Impact value chain', as shown in figure 3.1.

Figure 3.1 Impact Value chain with illustrative example

Resources (buildings, staff)	*Concrete actions*	*Tangible products and services from the activities*	*Changes resulting from the outputs*	*The combination activities, outputs and outcomes, adjusted for what would have happened anyway, actions of others, and for unintended consequences*
£50,000 capital invested, 5 people working on the project, then 1 teacher and £15,000 per annum	*Land bought, school designed and built*	*New school built with 32 places and courses for 24 run by 1 teacher*	*24 students gaining better numeracy and literacy skills*	*New school in the area and a number of students gaining better education*

Source: Adapted from Hehenberger *et al* (2013)

Some outputs and outcomes have developed widely accepted metrics for their 'value chain', but progress is often sector-specific. The IIGCC's painstaking work on greenhouse gas emissions (IIGCC 2010), for example, examines different scenarios in exacting detail, drawing on strong government and commercial forces to resource analysis. New agendas can find it especially hard to derive accepted outcome metrics, and Nicolls and Pharaoh (2008), for instance, cites the role played by a lack of consensus on performance criteria in the failure of the Global Exchange for Social Investment.

Nor is establishing a causal link usually straight-forward: assessment faces many problems (Barrow 1997, Coccossis and Parpairis 1992, Hughes 2002, Vanclay 2013, Hehenberger *et al* 2013), including:

(i) the analysis of what would have happened anyway – or 'deadweight'

(ii) the nature of the impacts, which may make it difficult to isolate or quantify a specific impact;

(iii) conflicting impacts, for example, a new metro station may lead to gentrification of an area;

(iv) difficulties in distinguishing a specific impact from social changes that may be generated at macro-economic level or by the actions of others – or 'attribution' issue;

(v) the existence of inter-related impact effects, which means that the overall impact of a project differs from the sum of single activities - or 'aggregation' issue;

(vi) lack of longitudinal studies which leads to difficulties in establishing the pre-activity condition or obstacles to determine the significance of the change – or 'significance' issue

(vii) overstating the endurance of any positive change in outcomes – 'drop off' issue

(viii) comprehension of the extent to which original problems are displaced elsewhere – or the extent to which outcomes displaced other potential positive outcomes - or 'displacement' issue

(ix) differential perceptions and distribution of impacts among different groups in society, particularly the impact burden experienced by vulnerable groups – or 'distributional issue'.

Nonetheless, research suggests that at least three different types of 'evidence' can be used to imply causal connections, and to a lesser extent address some of the issues outlined above: statistical reasoning; logical chains of argument; and anecdotes.

In the field of impact investing measurement, these three approaches are more usually known (respectively) as: quantitative analysis of impact; theory of change; and qualitative analysis. More details of quantitative analysis of impact and theory of change will be given in section 4.

3.2. Non-financial or social and environmental returns

Another recurrent term used in the measurement dimension of impact investing is social and environmental return (SER), though there is currently no authoritative interpretation of this notion. This section, therefore, represents a first step towards a better understanding and

conceptualisation of SER, and its relation to impact as understood by the impact investing community.

Identifying financial returns from an investment portfolio is generally a straight-forward process. This can be done by assessing the gain or loss on an investment over a specified period of time, expressed as a percentage increase over the initial investment cost. This process includes the examination of such elements as the amount of money invested in a given asset, the date when the investment was made, the date when the asset matures if applicable (such as a fixed term company loan), and its current or estimated market value.

By contrast, identifying and measuring SER is often problematic. This is because the list of 'non-financial outcomes' linked to an investment, initiative or project, whose primary purpose is to 'do good' for society or the environment is potentially vast. For example, investment in a chain of clinics in India is likely to generate multidimensional effects in the local area, which may include, for instance, the promotion of improved health amongst undertreated ethnic groups; new training opportunities for staff entering the jobs market; and an improved local environment as a result of a new machine to improve the disposal of medical waste. More generally, Colantonio and Dixon (2009) outlines an array of potential areas covered by the social side of SER: education and skills; employment; health and safety; housing; identity, sense of place and culture; participation, empowerment and access; social capital; social mixing and cohesion; and well-being, happiness and quality of life.

The 'SER listing' includes benefits accruing to beneficiaries who may have no direct connection to the investor; this suggests that a philanthropic, vicarious aspect to impact investing could be an important element. Also noticeable is the contrasting role played by monetary information in the two processes. The illustrative SER listing has far less of a focus on such information, and in practice assessments of SER do outline the *outcomes* of what the organization is trying to achieve, rather than provide monetary values for them. Indeed, as late as 2011, the PUMA sports goods company became the first enterprise in the world to publish an estimate, in *monetary terms*, of the social cost of the water use, greenhouse gas emissions and other environmental effects of its activities and those of its supply chain[i].

Some important aspects are, however, common to both returns. In particular, both sets of investors take an interest in data that can reveal the extent to which there is a *change* in the issues that they care about. In the case of a financial investor, the main issue is whether their portfolio is worth more or less money. In the case of an impact investor, the issue in respect of SER is whether there are improvements in beneficial outcomes (such as a healthier population), and reductions in negative outcomes (such as use of scarce water supplies).

Also highly noteworthy is that changes in key variables occur over differing timescales. A summer holiday programme to improve young people's self-confidence, for instance, may take a month; a school-based project to reduce teenage pregnancy may take a decade to show its full effects. Just as a financial investor may be patient or impatient, forward or backward looking, so differing impact investors will seek, observe and react differently to information on changes in outcomes over the short-run, medium-term and long-run.

Our tentative definition of SER therefore recognises that:

(a) SER accrues to 'impact beneficiaries' who may or may not have a connection to the 'impact investor';

(b) SER is created insofar as changes to beneficial social and environmental outcomes occur; and

(c) changes to outcomes over any timescale compared to what would have occurred without any action taking place are the '*Impact*' referred to within the term 'impact investing'.

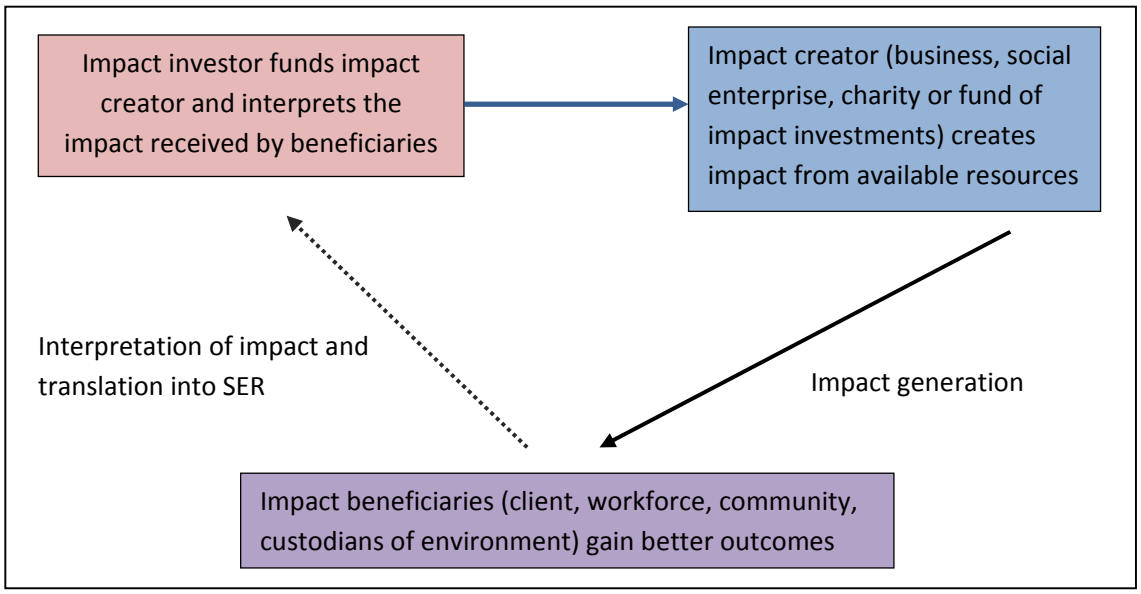
It follows that SER may have negative aspects, since some outcomes may be affected in a harmful way by the activities of a given organization. In addition, it should also be noted that there is an alternative use of the term '*impact*', which relates to long-term effects only. This definition is used particularly in development assessments (OECD / Development Assistance Committee 2002), but would be confusing to apply to impact investing.

3.3. Interpretation of impact and non-financial returns by impact investors

Sections 3.1 and 3.2 have considered the meaning of the terms 'impact' and 'SER'. This section moves on to provide a preliminary attempt to conceptualise how these notions link together in impact investing.

At a basic level, in impact investing, impact relates to the 'net effect' or 'change' (social, environmental, political etc.) yielded by activities funded by an investment amongst individuals, communities or in a defined geographical area, with the objective of generating value that mutually benefits external stakeholders and the investor. Figure 3.2 shows the logical sequence by which impact is generated, accrued to a wide range of stakeholders – but not directly to the impact investor, and then quantified to some extent into SER by impact investors, or investees when reporting to the latter.

Figure 3.2 Three main roles within impact investing



There are therefore three roles in the process of generating SER in impact investing: the *impact creator* (such as a company); the *impact beneficiaries* (such as clients); and the *impact investor*, who facilitates the process by investing in the Impact Creator. The distinction between 'impact' and SER is therefore crucial, because it is important to highlight that impact is perceived by investment recipients and then distilled into non-financial returns by impact investors.

It is, however, far from clear that a compelling way to present SER information has been found. Fiestas *et al* (2010) reports frustration among fund managers that efforts to incorporate wider values seemed to be ignored by potential clients – so highlighting an important agenda for further research.

Even when a deep interest is taken, investors' perceptions of achievements do not always correlate well with what really has been achieved, and this carries potential consequences for impact investment measurement. For example impact is likely to start the moment there is even a rumour that something might happen (Esteves and Vanclay 2013). Ironically, even the act of carrying out a social or environmental impact assessment can create social impacts. In addition, impact may not accrue to the intended beneficiaries because the well-connected among the population (who need a new service the least) may be quickest in the up-take. The same issue applies to the companies that are invested in (for example, those who are good at marketing themselves are not necessarily the ones that could achieve the most beneficial social impact).

Such deficiencies raise the following important considerations for SER assessment:

- What should be measured;
- By whom and at what stage of the investment phase; and
- How should this be measured.

Behavioural economics, for example, has highlighted a number of ways in which perceptions are influenced by the framing of the situation. For instance, a data series showing losses (e.g. 10% down in the last quarter) are likely to generate a more concerned response than a transformed but equivalent data series showing a reduced level of gain (e.g. 30% up since quarter one, but a lessening from the 40% gain achieved in the first three quarters of the year).

At a more fundamental level, the analysis of the relationship between the existence of positive and negative impacts and SER reveal the 'positive bias' of the current impact investing discourse, and the potential conceptual flaws of its measurement architecture.

The value creation chain currently prospected envisages a linear sequence of steps, which starts with the allocation of resources to achieve social and environmental goals and concludes with the generation of positive net impact - hence additional value for all stakeholders involved and the investors alike. Little is currently said on the existence of potential negative impacts, how they should be taken into account, and their potential translation into negative 'non-financial return' or their effect on net SER.

This would seem to be counterintuitive because various pieces of psychological research show that those who lose on value due to the actions of enterprises are often much more aware of this than the counterparts who gain (Kahnemann 2011). As a result, the voice of impact beneficiaries who may be net losers is likely to be heard more than net gainers. This may potentially explain a tendency for traditional assessments to focus on losses, such as health and safety accidents or pollution incidents. Positive benefits, such as action to train up unemployed teenagers into becoming more effective in the workplace, generally receive less attention unless the enterprise is directly paid for doing so.

A further consideration is the way in which SER may be perceived differently when it is directly linked to financial returns, as is the case with payment-by-results projects. In such cases, the extent of happiness or dismay at SER performance is likely to be intensified compared to other forms of investment.

There is often also an issue of 'positionality' and influencing power structures in impact investing. This is linked to impact beneficiaries' limited ability to have a say in terms of assessment domains, methods and criteria, and limited say in determining agendas and issues to be addressed locally. Some of these issues relate to clashes of concepts, which stem from varying perspectives on measurement and actual level of participation in the assessment itself, as will be explained in the next section.

3.4 Sources and clashes of concepts in measuring non-financial returns

SER measurement takes inspiration from a number of different methodologies and perspectives – including Social Return on Investment, Corporate Social Responsibility, logic frameworks, theory of change and cost benefit analysis. This can lead to a clash of concepts: tensions around the themes of breadth of coverage; participation and objectivity; attribution of impact - even the concept of 'a return' itself - are described below.

3.4.1 Breadth of coverage

Those appraising how well companies perform on Corporate Social Responsibility often tend to take a very broad perspective. OECD guidelines for multinational companies, for example, request that companies examine their effects with respect to clients, the workforce, the supply chain, relevant communities, and the environment (OECD 2011).

Social and environmental rating agencies have similar perspectives, with Sustainability Asset Management, for instance, having a highly detailed set of criteria for assessing corporate performance and risks (SAM 2012). By contrast, impact creators – especially social enterprises and charities - looking to achieve beneficial change are often much more interested in tracking what has happened to their key outcomes, and not hundreds of different indicators.

At one extreme, for example, the founder of Harlem Children's Zone, Geoffrey Canada, is quoted in Zelon (2010) as saying: "The only benchmark of success is college graduation. That's the only

one: How many kids you got in college, how many kids you got out. Everything else is interim." Similarly, the focus of measurement for the Social Impact Bond scheme in Peterborough Prison, which aims to reduce reoffending rates, is on reoffending outcomes, and the factors that can contribute to achieving improvements on the performance metrics (Disley *et al* 2011: 22).

Impact investors appear to take a perspective that lies between these two; the Big Society Capital outcomes framework, for example, looks much more at a range of outcomes accruing to clients of enterprises, while the approach outlined in Bridges Ventures (2010) is of a small set of key outcomes relating to major themes such as health and education.

Both the CSR and the 'client outcome' perspectives can be seen in legislation drawn up by the European Parliament on standards required to qualify as a 'European Social Enterprise fund' (EuSEF), where it calls for publication of performance data on investee enterprises in respect of one or more of the following: treatment of the labour force; social inclusion; equal opportunities; public health; social protection (especially action to prevent or manage unemployment and exclusion); health (including action to prevent or manage disability, and support those in old age); and education.

3.4.2 Participation and objectivity

The use of a measurement framework to assess inputs, activity, outputs and outcomes is widespread, from economists and accountants to social innovators and social entrepreneurs. Yet the same measurement framework is adopted by those with very different viewpoints on who should influence the analysis, and the extent of objectivity that should be aimed for.

A 'Logic framework' approach, for instance, starts with an organization's goals and then works out whether - or not - the activities logically lead to them. The technique is heavily used in respect of aligning activities with objectives in a top-down way, proceeding with feedback from participants who can demonstrate that their inputs are important in facilitating the outcomes. By contrast, the Social Return on Investment approach makes no assumptions as to objectives; the initial stages are explorations of the value that a variety of stakeholders perceive that they gain as a result of the activities. Neither does the approach look to assess a metric of SER that is objective; instead, the technique purposely aims to produce a subjective assessment that is right for the given set of stakeholders (Nicholls 2013).

3.4.3 Attribution and influence

The derivation of an assessment of impact is core to the theme of impact investing measurement. It is also often technically difficult, and very different perspectives are put forward to resolve the technical problems. Academic programmes such as the J-PAL (Abdul Latif Jameel Poverty Action Lab) at the Massachusetts Institute of Technology sometimes look to the technique of randomized control trial evaluations to assess the efficacy of options in a statistically rigorous way. By contrast, the Social Return on Investment approach takes a much more discursive and participatory approach, looking to members of a stakeholder group to come to a consensus among themselves as

to what effects would have been likely to come about anyway, and the extent to which changes in outcomes were due to one party rather than another.

This perspective of highlighting a narrative of causal contributions is most evident in those assessments that have no quantitative evaluations at all, but rather seek to identify the theory of change and whether that theory of change was followed by impact creators or not.

3.4.4. Rigour and flexibility

An influential strand of measurement practice[ii] seeks to uncover impact to levels of rigour that rate highly on checklists such as the Maryland scale of evidence (which outlines randomized control trials as the 'gold standard' for evidence) and the overview of processes to follow to achieve a 'fully robust' meta-analysis[iii] set out in 3IE (2012).

Yet the results of such technocratic assessments can be misleading. Seligman (2011) makes a distinction between 'internal' and 'external' coherence. The statistics may add up for the data in a given dataset, but if that dataset draws on a limited set of situations (such as always being applied to areas where there is a high degree of social trust), then the findings may lack flexibility to different circumstances.

Consequently, Puttick and Ludlow (2012) (see table 3.1 below) are more careful in specifying which techniques are more effective in all situations, instead highlighting an important role for independent valuation and the ability to replicate results.

Table 3.1 NESTA's five levels of evidence for impact investing

	Expectation of available evidence
Level 1	Can give an account of impact – logical reason for how it can improve outcomes
Level 2	Gathering data that shows some change among users
Level 3	Data shows greater impact than others
Level 4	Independent valuation validates the observed impact
Level 5	Can show that impact can be replicated through such means as fidelity evaluation

3.5 Summary of terminology and key points

Key points from the discussion within this section are that:

- There is a conceptual and practical distinction between 'impact' and 'non-financial return' (or Social and Environmental return). Different roles are played by impact creators, impact beneficiaries, and impact investors in shaping their meaning and attaching a value to them;

- The term 'impact' in this paper relates to changes in outcomes attributable to the Impact Creator that are of a social or environmental nature, generated over any given timescale;
- The term 'Social and Environmental Return' relates to the social and environmental benefits received by Impact Beneficiaries, as interpreted by the Impact Investor;
- The 'Social and Environmental Return' may or may not be aggregated into a single index, and may or may not be put into monetary terms;
- 'Impact' can in practice be positive or negative, and can be intended or unintended. At present, however, impact investing literature would seem more biased towards the consideration of positive impacts only. This 'positive connotation' of impact investing is inherently linked to investors' aspirations to 'do good' and achieve positive objectives for their investment.
- At present, impact assessment literature from the social and environmental sciences and impact investing literature are slightly disconnected because their points of departure and objectives are different. Whilst impact investing is concerned with the measurement of impact or non-financial return of an investment, more traditional and well-established forms of impact assessment have historically being concerned with the measurement of impact yielded by policies, programs, plans and projects.

We now move on to the question of how the concepts have been applied in practice.

4 Applying impact measurement in practice

The measurement of impact and its translation into non-financial return for investors is crucial, and can be influenced by several factors. These include, amongst many others, the stage at which the assessment is carried out; the investment typology and measurement culture or mind-set of the assessors; and choice of tools and techniques for measuring impact. These three factors are investigated in turn in the reminder of this section.

4.1 Measurement of social and environmental returns before and after investment

Similar to the *ex-ante* and *ex-post* differentiation in traditional impact assessment, in impact investing the impact appraisal can be carried out at pre-investment stage and post-investment stage, with implications for the different roles and responsibilities of the stakeholders involved in the measurement.

4.1.1 Pre-investment

In considering whether to invest, *impact investors* use enterprises' data and other information (such as interviews with company executives) to determine whether to invest. As noted previously, there can be a clash of perspectives between those that advocate a broad, versus those that advocate a narrow, measurement approach. Some impact investors invest purely on whether the specific outcomes of the enterprise are in line with what they wish to advocate, and whether they are on credible trajectories. By contrast, other impact investors (particularly those that use CSR-based

rating systems such as SAM) (implicitly) take a holistic perspective on the social and environmental aspects of the enterprise.

A further step is taken by those that sign up to the Equator social and environmental Principles for large infrastructure and industrial projects[iv] - and so have systems for measuring social and environmental impact. Those financial institutions which accept the Principles agree that they will not provide finance to projects where the client does not comply with them [v].

Impact creators (enterprises and charities) are generally required to provide historical data and projections for the future, in line with the impact investor requirements outlined above. Some of this information (particularly historical information) will, however, have been influenced by measurement standard setters. For example, the influential Global Reporting Initiative (GRI), established in 1997, advocates a balanced scorecard approach, and sets sustainability reporting guidelines for voluntary use by organizations; while the Climate Disclosure Standards Board, a consortium of business and environmental organizations set up in 2007, seeks to integrate climate change information into mainstream financial reporting.

Impact beneficiaries generally have no say in the measurement system that is adopted, unless the impact creator organization is a mutual or is keen to adapt to stakeholder views; stakeholder participation is one of the Equator Principles noted earlier in this paper.

4.1.2 Post investment

Once an investment has been made, the information requirements and roles shift. The impact investor's goal in measurement could be: to simply ensure that SER goals are on track; or as a supplement to financial and other data to inform whether corporate performance is on track; the provision of information to inform shareholder advocacy (a role passionately argued for by Domini and Kinder 1986); or the provision of information to support benchmarking in the sector (a particular goal of the Impact Reporting Investment Standards network formed in 2008).

In particular, those impact investors that sign up to the United Nations Principles for Responsible Investment have agreed to be 'active owners', incorporating Environment, Social and Governance (ESG) issues into ownership policies and practices; and seeking appropriate disclosure on ESG issues by the entities in which investments are made.

If and when they do receive investment, impact creators are given instructions as to what core outcomes and other information should be measured, which they enact with varying degrees of enthusiasm. Enterprises have to decide what other forms of information to assess, how to analyse their data or whether to have it analysed by others; and (if this is not specified by impact investors or others) whether to have their assessment scrutinised by others.

The Global Reporting Initiative (GRI) is an influential formulator of metrics; a broader and complementary perspective for impact creators on what information to provide is given by the International Integrated Reporting Council (IIRC), a global coalition of regulators, investors, companies, standard setters, the accounting profession and NGOs, which sets out the framework principles of Integrated Reporting (IR) (see IIRC 2013).

One role that is relatively unfulfilled, but which could rise in prominence is that of social auditors, who independently assess the social and environmental outcomes produced by enterprises. The importance of such an approach is highlighted by signs that Social Return on Investment results in particular, show 'ratio inflation' (Clifford *et al* 2013). However, social audit practice has faced criticism for being 'weak', 'not transparent' and 'not accountable' (Pruett 2005). Such criticisms have not proven easy to overcome, because there is no recognised 'badge of quality' that can be enforced by a recognised institutional body. Nor is there a widespread view among impact investors or impact creators that the value of an independent perspective is well worth the additional expenditure.

Some steps have, however, been taken to improve the quality of social auditing and SER measurement. The Social Audit Network has worked hard to establish minimum quality standards for its members; while the Social Impact Analysts Association (SIAA) has worked hard to promote knowledge-sharing since its establishment in 2011.

4.2 Investment typology and measurement culture or mind-set

The specificity of what is measured and how it is measured also depends on the form of investment pursued by the investor, the preferred approach to measurement of the investors, and the assessor's prevailing measurement culture.

Given that impact investing can take a variety of forms (ranging from equity to project-specific investment such as Social Impact Bonds and other Pay-by-Result contracts), the extent of detail of the evidence needed on impact and SER will vary according to the 'focus' of the investment and investor.

For example, an impact investor active in multiple social and environmental fields could, at least in theory, measure SER linked to a series of investments at aggregate level, balancing for example the trade-offs between various non-financial returns (such as social gains in one project being balanced against environmental loss in another).

By contrast, some pre-determined and specific forms of impact are central to the delivery and financial success of the project, such as when the change in outcomes is required through a payment-by-results contract. Both figure 4.1 and table 4.1 illustrate how this level of specificity of the impact to be measured could be represented, taking into account the spectrum investment forms and the distinction between 'core outcomes' / 'non-core outcomes' required of corporate performance.

Figure 4.1 Spectrum of SER to be measured according to investment form

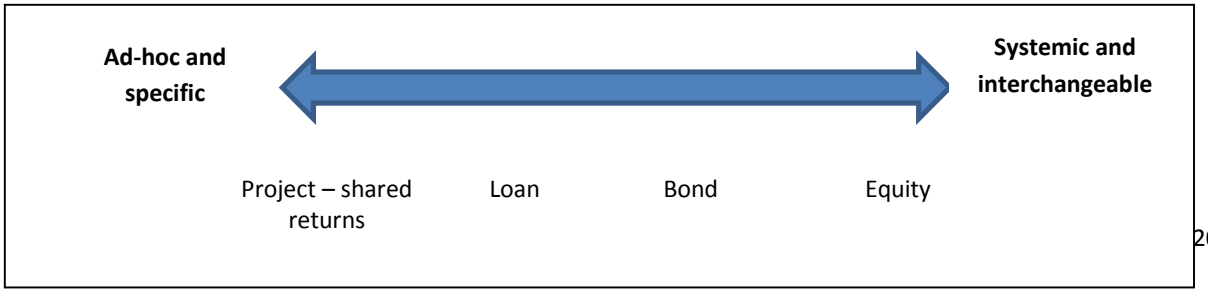


Table 4.1 Different scenarios for different types of outcomes

	'Core outcome' required by those paying for goods and services	*Not a 'core outcome' required by those paying for goods and services (i.e. Corporate Social Responsibility agenda)*
Intrinsic to what the enterprise does	Impact - Government pays social enterprise for reducing reoffending in ex-prisoners	Impact - Social enterprise running a bakery provides job opportunity to ex-prisoners
Add-on activity for the enterprise		Law firm makes a charitable donation to a local free advisory service

A further key distinction relates to the approach to choosing what projects or organisations should be invested in.

- The least active approach to socially responsible investment is by 'Negative screening', which Eurosif (2012: 16) terms the 'oldest and largest responsible investment strategy'. The potential investor assesses whether a given company has goals that are incompatible with theirs, and if so, excludes them from consideration. The lack of a measurement focus means, however, that this approach is not compatible with impact investing.
- More active is 'Preference', 'Best of Sector', or 'Positive screening' investing. In these forms, companies are actively chosen for their ability and/or past achievements in making positive contributions to society or the environment (Eurosif 2012: 14); these potentially achieve impact investment characteristics if a focus on measurement post-investment is achieved.
- The most active approach is for tailored investment, actively seeking out and assessing the social benefits of particular projects and organisations that chime with the investors' aims.

In addition, investors can adopt a range of stances towards their chosen projects and enterprises. Particularly for the smaller end of the social investment market, acting in support of organisations whose turnover is around £1m or less per year, some investment intermediaries (such as CAF Venturesome) provide free advice and mentoring on growth and financial sustainability.

At the other end of the spectrum, some investors look to influence large organisations' actions through votes and/or ability to raise awkward questions at Annual General Meetings. Domini and Kinder (1986) argues that it is both a 'positive screening' approach (as opposed to negative screening) *and* 'investor advocacy' *and* an emphasis on promoting key initiatives for social justice that comprises socially responsible investing.

A key theme of the above discussion is that there are underpinning cultural perspectives that need consideration. Following Wilson (1998: 159), it could be argued that the culture of impact

measurement practice consists of 'persistent, patterned ways of thinking' about (a) the goals of measurement in impact investing; and (b) suitable forms of human relationships to achieve those goals.

It follows that there is, unfortunately, no (valid) methodology to measure SER that can be instigated by simply pressing a button and waiting for a result to appear. The application of techniques requires human assessors, with human mind-sets, working in human contexts.

Some assessors look to wide discussions with stakeholders, using approaches to create an evaluation that is right for the given situation. Others take a more introverted view and look to the 'application of science', building on past results and hoping to generate rigorous knowledge for the future. This suggests a spectrum of measurement culture, with two distinct 'archetypes' at either end: *System builders* and *Case by case* advocates, as shown in table 4.2.

Table 4.2 Two different forms of measurement practice culture

	Central task	*Forms of human relationships*
System builders	Produce a system that is as objective, robust, and quantified as possible	Expert to expert interactions designed to build up a body of knowledge Expert to audience communications designed to disseminate knowledge
Case by case	Produce an assessment that informs stakeholders of the full social value	Facilitator role played to draw out stakeholder views on key outcomes Focus is on the 'here and now', not on what other assessors have done in the past

System builders are more likely to use Benefit Cost Analysis and regression, where technical expertise is predominant, as will be explained later in the paper. Those with a preference for case by case approaches, who tend to enter into the measurement field from a practitioner perspective, are more likely to be found deploying qualitative methodologies such as logic maps of activities and outcomes. Box 4.1 provides two case studies taking differing perspectives on measurement.

Rating agencies have taken a strong lead in the 'system builders' cohort. Exponents of sophisticated approaches that harness data and evidence on dozens, if not hundreds of categories include Sustainable Asset Management, Oekom Research, Asset4 (part of Thomson Reuters) and RiskMetrics.

Box 4.1 Measurement case studies - TEEB (The Economics of Ecosystems and Biodiversity) and Impact Arts Craft Café

TEEB is an independent study, hosted by the United Nations Environment Programme and sponsored by the European Commission and various national governments. TEEB staff harness economics and cost benefit analysis to (1) identify the ecosystem services of given areas for different groups in society; (2) calculate a monetary value for those services; and (3) seek solutions to overcome undervaluation where it occurs. The "TEEBcase" collection of case studies presents quantified analyses and discusses effects on policy and resource management. TEEB study co-ordinators have backgrounds in such fields as banking, consulting, environmental economics and development economics.

The *Impact Arts Craft Café scheme* undertook a Social Return on Investment assessment to determine its wider value to society. The analysis showed that the Cafés created between £4.86 and £9.57 of social value for every £1 invested, when wellbeing, health, social relationships and other benefits were taken into account. The analysis took extensive care to: (1) identify key stakeholders (clients, housing associations, friends and family of clients, heath services); (2) assess the change in outcomes attributable to the Cafes; and (3) estimate financial values of those outcomes based on the stakeholders' own judgements.

Financial analysts from investment banks and investment funds are also often strong proponents of 'system building'. For example, representatives of Alliance Trust Investments, Deutsche Bank and Société Générale were all members of a working group convened by the UN Principles for Responsible Investment unit that uncovered many good practice examples of incorporating environmental and social considerations into analyses of company share prices (Beith *et al* 2013).

Hesse (2010), in setting out the sustainability indicators used by different financial analysts and rating agencies, identifies a firm emphasis on the quantitative. For example, with respect to greenhouse gas emissions, it cites seven organisations (Dexia, KLD, Social Investment Forum Japan, RiskMetrics, Sarasin, Sustainalytics and Vigeo) that use quantitative indicators, and only one (Credit Agricole Cheuvreux) which seeks a qualitative response on enterprises' wider policies to combating climate change.

There is also a strand of academia with a strong 'system building' perspective, aimed at boosting the standard of evaluation to more rigorous levels. 3IE (2012), for example, sets out a demanding checklist of processes to follow to achieve a 'fully robust' meta-analysis;[vi] while the Maryland scale of evidence sets randomised control trials as the 'gold standard' for evidence.

By contrast, the 'Case by case' approach is much more predominant among charities and social enterprises. A range of surveys and interviews with practitioners (Clifford *et al* 2013, Ógáin *et al* 2011) suggest that they much prefer indicators that are tailored to their priorities, and not imposed from top-down. Hehenberger *et al* (2013), for example, sets out an approach based firmly on stakeholder views on the extent of created social value.

An important argument made by 'Case by case' practitioners is that the results of technocratic assessments can be misleading. Seligman (2011) makes an important distinction between 'internal' and 'external' coherence. The statistics may add up for the data in a given dataset, but if that dataset draws on a limited set of situations, then the findings may well be much less robust than thought if the programme is expanded. Such considerations vary from governance to operational details, and can be subtle and unexpected - from whether an influential local champion is or is not available, through to whether a consistent level of empathy for clients is maintained by a given group of workers.

Even more fundamental is the clash of visions as to whether a more standardised and formalised impact investing sector is feasible and desirable. For although it would match the modus operandi of investment banks, many within what Scott (2013) terms the 'radical debate within social, environmental and economic justice circles' have concerns that too much of society and economics is dominated by the interests of precisely such institutions. The choice of metrics can influence and be influenced by power structures.

4.3 Tools and techniques for measuring impact

The extent of tools and techniques for measuring impact varies widely. One instructive analysis of practice among 385 recipients of its impact investments by the Social Investment Business found that 62% had satisfactory or better measurement systems, but 38% had poor or no impact tools, as shown in table 4.3.

Table 4.3 Use of impact tools and commitment to measurement among investees funded by Social Investment Business Group

	Commitment to social impact measurement					
Use of impact tools and systems		None	Some	Good signs of adoption	Committed to process	Total
	Excellent				9	9 (2.3%)
	Good		5	43	12	60 (15.6%)
	Satisfactory	9	107	51	3	170 (44.2%)
	Poor	23	68	3		94 (24.4%)
	None	14	37	1		52 (13.5%)

Source: *SIB Group Impact Investment Roadshow presentation*, Oxford Jam conference, 11 April 2013

The above table does not describe which measurement systems were used. There are many possibilities, and various tools and techniques have been developed to measure impact. While they

can be distinguished by many characteristics, our review of the literature and practical experience suggests five features by which they can be clustered.

These features comprise:

- The extent to which *they adjust for changes in outcomes* and so measure impact. As outlined in Figure 3.1, some assessments will relate only to 'activities'; others will move to signify 'outputs'; and some will draw on a knowledge of 'outcomes'; our perception is that only a minority will make an attempt to assess the changes in outcomes attributable to the project or enterprise.
- The degree of *integration* or synthesis of social and environmental returns. Some assessments aim to synthesise a single indicator, or amalgamate them into a small number; others do not.
- Whether an attempt is made to move to a monetary value. Some techniques do have this as an aim, but others do not, on the basis that the results can be misleading or meaningless;
- The extent to which the technique is *participative*. Some approaches aim to introduce a 'participative' element of consultation and discussion; others are more technocratic;
- Consistency of parameters of variables. Some techniques draw on an accepted set of parameters, such as the value of travel time for a commuter in public transport analyses.
- Figure 4.2 provides a schematic illustration of the characteristics of selected techniques in respect of three of these features.

Figure 4.2 Characteristics of selected techniques for measuring impact

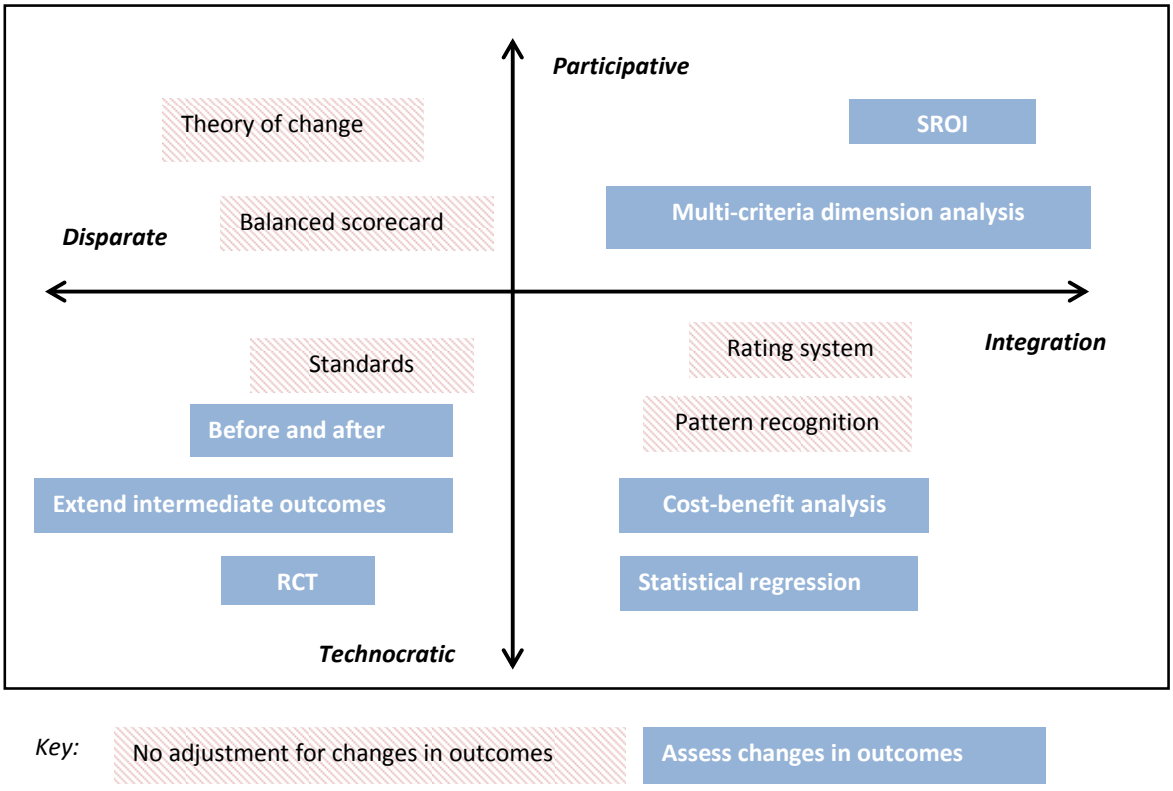


Table 4.4 below outlines a fuller set of approaches, and five agendas are covered in greater detail subsequently in this section. An in-depth analysis of features of the tools included in table 4.4 is outside the scope of this paper. However, the impact investing literature suggests that a set of around five groups of techniques are particularly influential, and these are discussed below, along with a consideration of hybrid approaches.

4.3.1 Theory of change and pattern recognition

The early stages of Social Return on Investment actively look to identify, in a participatory way with stakeholders, the major outcomes and the logic chain with which they are achieved.

When this approach is combined with pattern recognition of key success factors (a sense of a management team that is gelling, a product that has a credible set of potential customers, a good brand and so on), this approach is a credible way to determine investment decisions. Indeed, O'Loughlin and Thamotheram (2006), for example, argues that as decisions become more complex, investment choices are determined more by pattern recognition than methods such as multi-criteria dimension analysis.

The theory of change and pattern recognition approach is also a fall-back position if impact measurement practitioners find assessment of impact simply too hard. For example, California Wellness Foundation's Violence Prevention Initiative Leadership Program was an initiative aimed at preventing violence against youth. After investing large resources in a quantitative study with disappointing results, Foundation leaders opted for "telling the story" of the program using case studies and deep interviewing (Reinelt *et al* 2002).

4.3.2 Social Return on Investment (SROI)

SROI is a prominent analysis that aims to (1) identify key stakeholders (clients, contacts of clients, government organizations, civic society and so on); (2) assess the change in outcomes attributable to the impact creator; and (3) estimate financial values of those outcomes based on the stakeholders' own judgements, as exemplified in Box 4.1.

However, this approach has faced critiques that resolving disagreements between stakeholders can be difficult; and that attribution can be hard (Arvidson *et al* 2010). In addition, SROI has faced criticism for being too difficult to implement in full. In response, methods such as 'SROI-Lite', have been developed. Sponsored by Santa Clara University, SROI-Lite simply asks enterprise managers to define the *single* most important *output* they create, the *unit cost* of that output, and the ratio of cost to successful output (Olsen and Galimidi 2008).

Table 4.4. Key forms of assessment techniques and measurement tools

	Key points	*Adjust for changes in outcomes*	*Synthesis involved*	*Monetary value*	*Participative*	*Consistent parameters*
'Bottom-up' perspectives on outputs and outcomes						
I. Social audit	A formal, independent, voluntary review of a company's endeavours in social responsibility. A social audit looks at factors such as a company's record of charitable giving, volunteer activity and energy use.	Possibly – though focus more on outcomes than impact	No – uses multiple indicators	No – not a theme of the methodology	Yes – aims to reach out to stakeholders	No – not a culture of system building
II. Social return on investment (SROI)	Aims to provide a valuation of all the wider outcomes from a business or other organization's activity. It collates stakeholders' views of outcomes and the attribution of change, and puts financial 'proxy' values on all impacts.	Yes – attribution of impact is key theme – though not so often done in practice	Yes – key theme of the method	Yes – key theme of the methodology	Yes - aims to reach out to stakeholders	No - not a culture of system building
Statistical approaches to assessing changes in outcomes						
III. Before and after comparison	The simplest statistical approach, this looks at relevant outcomes before and after an intervention (for example, the self-confidence of young people before and after receiving support from a youth worker). It can, however, miss out on other factors.	Yes – assessing change is central theme of this methodology	No – analysis of one variable only	No – not a theme of the methodology	No – participation not a key theme of method	No – not a key theme of the method
IV. 'Near neighbours' benchmarking	'Near neighbours' are those judged to be a reasonable set of peers. Blank (2013), for instance, argues that health and safety issues are best benchmarked at industry level, while human rights is best benchmarked equally across all countries. Henderson (2001) argues that if metrics of social	No – puts changes in outcomes in context, but this is not the same as isolating the change in	No – analysis of one variable only	No – not a theme of the methodology	No - participation not a key theme of method	Possibly – consistency with neighbours but not necessarily

	value do not fit well to local conditions, then action based on them can be counterproductive.	outcomes				beyond
	Key points	*Adjust for changes in outcomes*	*Synthesis involved*	*Monetary value*	*Participative*	*Consistent parameters*
V. Statistical regression	This allows for multiple influences on a given outcome. It can be used to examine differences in expected outcomes (cross-section) or changes over time (time series analysis). It does however require statistical experience to initiate.	Yes - assessing change is central theme of this methodology	No – analysis of one variable only	No – not a theme of the methodology	No - not a key theme of method	Possibly – may or may not occur
VI. Randomized control trial (RCT)	RCT is a process by which the outcomes of a 'trial' group receiving a given intervention are compared against outcomes from a randomly selected 'control group' that does not.	Yes - assessing change is central theme of this methodology	No – analysis of one variable only	No – not a theme of the method	No – participation not a key theme of the methodology	Possibly – may or may not take broader systemic perspective
Statistical approaches to comparing changes in outcomes against cost of achieving change						
VII. Cost effectiveness analysis (CEA)	CEA is a form of economic analysis that compares the relative costs and outcomes of two or more courses of action. It is usually expressed in the form of a ratio – for example, cost per year of life saved by a given form of health treatment	Yes – central to the method, drawing on one or more of III, V, VI	No - not a core theme of the method	Not an monetary value for the benefits	No – not a key theme of the methodology	Yes – aims for systemic approach
VIII. Cost benefit analysis (CBA)	CBA aims to calculate the ratio between the benefits and the costs of a project. All benefits (including social and environmental benefits) and costs are expressed in monetary terms. These are adjusted to create a metric of costs and a metric of benefit on a 'net present value' basis.	Yes - central to the method, drawing on one or more of III, V, VI	Yes – central to the method	Yes – all main issues put in monetary terms	No - not a key theme of the methodology	Yes - aims for systemic approach

Collation of indicators of relevant outcomes						
IX. Balanced scorecard	This comprises a structured report of a small number of metrics, usually some financial, some non-financial. The report may provide an assessment of changes in the metrics, and also give a sense of either a target value or an indication of whether the metric is on-track.	Possibly, though not necessarily the case	No – uses multiple indicators	No – not a theme of the methodology	No - not a key theme of the methodology	Possibly, though approach often tailored to case
X. Multi-criteria dimension analysis (MCDA)	MCDA aims to structure the choice of which option to choose, by determining what the key criteria are, what weights to give to those criteria, and how the given options compare against those criteria. The preferred option is the one with the highest (weighted) score.	Possibly – drawing on one or more of III, V, VI as data	Yes – can produce single index or small no. of indices	Can be done if desired, though not if aim is to find 'best score'	Yes – tries to encourage wider perspective of views	Possibly, though approach often tailored to given case
	Key points	*Adjust for changes in outcomes*	*Synthesis involved*	*Monetary value*	*Participative*	*Consistent parameters*
XI. Rating system	A variant of MCDA, this takes scores on a range of issues, and weights them according to a consistent formula to determine a broad-brush rating.	Not necessarily – often based on outcomes	Yes – aims at broad-brush overview	No – not a theme of the methodology	No – not a theme of methodology	Consistent for organisations considered
Combinations of approaches						
XII. Intermediate outcomes +	This approach extrapolates from short-term results using previous research findings over a longer period. McNeil *et al* (2012), for example, advises youth work organisations to extrapolate results from 'soft skills development' through to 'hard	Yes – central to the approach, drawing on one or more of III, V, VI	No – more about assessing single variable	Possibly – can use willingness to pay or other	No – relatively technocratic approach	Yes – tries to build upon previous assessments

	outcomes' for society (such as crime levels), by drawing on findings from longitudinal assessments.			method to monetize		
	Key points	*Adjust for changes in outcomes*	*Synthesis involved*	*Monetary value*	*Participative*	*Consistent parameters*
XIII. Pattern recognition	The intuition, based on past experience, as to whether such factors as team, timing and innovation match well with what has previously worked well in the same or related areas.	Possibly – may be implicitly taken into account	Yes – coming to an overall assessment	No – not a theme of the approach	No – this is a single person's judgement	No – based on intuition backed by evidence
Expert opinion						
XIV. Delphi method	Used much more in private enterprise than SER assessment, this method entails structured estimates from a group of informed experts of likely changes in outcomes.	Yes – key theme of the methodology	Possibly – if called upon to produce	Possibly – if called upon to produce	Yes – though only with other experts	Possibly – may build on past assessments
XV. Standards	This approach sets out a yes/no response to whether a particular standard has been met.	Not necessarily – often based on outcomes	Yes – coming to an overall assessment	No – not a theme of the approach	Standards may be set using wide consultation	Yes – standard is set for range of organizations

4.3.3 Cost benefit analysis, statistical regression and randomized control trials

Cost benefit analysis (CBA) has the same aim as SROI – a ratio between benefits and costs, both assessed in a monetary way. However, the underlying philosophy is very different – the aim is for more objectivity and is less participatory with stakeholders. CBA has a strong slant towards what can be measured in an economic way (though this does include such issues as environmental damage), and places a heavy reliance upon statistical modelling and/or randomized control testing as its sources of information on impact, rather than the stakeholder consultation in SROI.

In the UK for example, for the Peterborough social impact bond project, which aimed to reduce reoffending, the Ministry of Justice undertook statistical modelling (via a method known as 'propensity match scoring') to calculate an expected reoffending rate given the characteristics of those offenders to be supported by the scheme, and hence infer what reoffending levels should be for the project to be a success. Similarly, Allen (2011: 120-124), in his study of social investment and early intervention, highlights the business case and recommends a variety of 'early action' interventions that are underpinned by evidence from at least one randomized control trial or two quasi-experimental designs.

Financial value assessments and statistical regression techniques are also sometimes connected. Beith *et al* (2013), for example, provides a range of case studies of how quantitative analysis of social and environmental effects by such organisations as Société Générale and UBS indicated over- and under-estimates of financial value of enterprises by markets.

Yet methodologies that take too much of a technocratic approach can be resented by impact creators. A range of surveys and interviews with practitioners (Clifford *et al* 2013, Ógáin *et al* 2011) suggest that they much prefer indicators that are tailored to their priorities, and not imposed from top-down. Hehenberger *et al* (2013), for example, sets out an approach based firmly on stakeholder views on the extent of created social value.

4.3.4 Intermediate outcomes plus extrapolation from research

In view of the difficulties in assessing impact in a rigorous way, it is perhaps not surprising that an impact investor such as the Acumen Fund has come to the conclusion that analysis of long-term effects is "complicated, expensive, and often impractical for early stage enterprises" (Ebrahim 2013). In such situations, one option is simply to look at intermediate outcomes (such as number of anti-malaria nets disseminated, rather than changes in the prevalence of malaria).

Nonetheless, a note of caution must be sounded if no consideration is given to counterfactuals. With respect to regeneration, for instance, the prominent methodology LM3 counts the direct and indirect procurement in a local area (Sacks 2002), but evaluators of infrastructure programmes tend to be more cautious and take into account reduced spend in other areas (Micek 2011, HM Treasury 2003: 54).

If a reasonably robust assessment of short-term impact has been obtained, then it becomes possible to draw on insights from other research programmes, forming an assessment of medium-term impact from intermediate outcomes plus extrapolations from research. McNeil *et al* (2012), for example, outlines a methodology for assessing the business case of youth work, by considering (a) the identifiable change in soft-skills among clients in the short to medium-term; and (b) academic research that links those soft-skills to long-term personal and social outcomes such as employment and level of crime.

4.3.5 Rating systems and Standards

Another route to finding a good proxy of performance is to rely upon outcomes data – whether good results have been achieved or not – and not be concerned about the starting position or counterfactual. Sustainable Assessment Management (SAM 2012) conducts an annual Corporate Sustainability Assessment, covering economic, environmental and social dimensions in approximately 100 questions, each of which is given a weighting.

4.3.6 Hybrid approaches

The disadvantages inherent with both the SROI and Cost Benefit Analysis methodologies has led some to worry that both are flawed, and that alternative ways to bridge the two and gain the advantages of both must be found. Bridging the two cultures is not easy, but attempts have been made. One important example is Grabenwarter and Liechestenstein (2011). This report considers the issue of how to assess fund manager performance in respect of wider social and environmental performance. It recommends the use of subjectively chosen quantified targets, which are subjected to a challenge process to ensure suitable level of stretch. Performance is then measured against these targets, using an index approach.

4.4 Extent of use of tools and techniques in practice

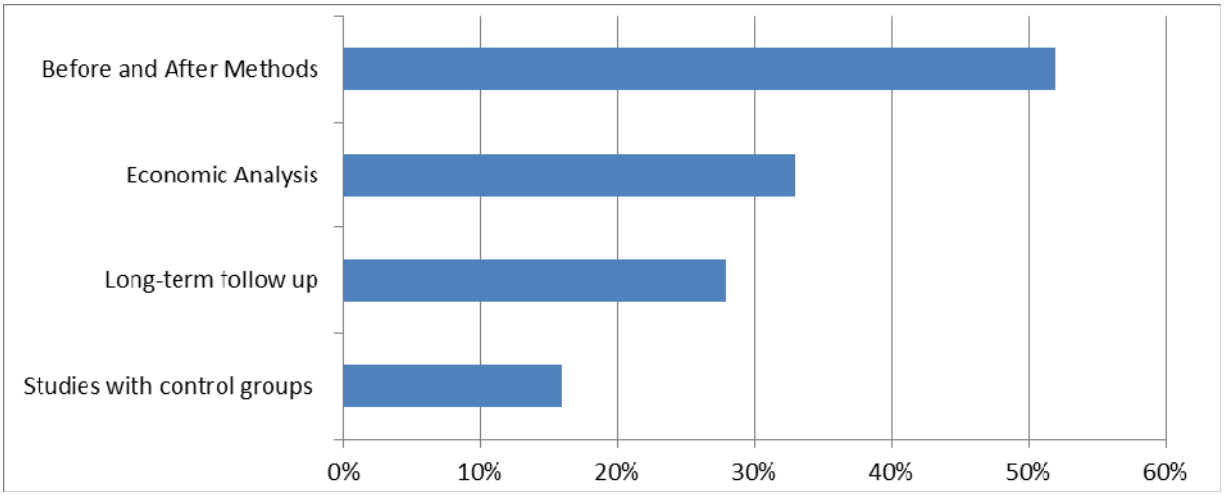
Among impact investors, there appears to be a clear preference for the use of rating systems, standards and other outcome measures. Castillejos and Grabenwarter (2010) reports that, out of 96 impact investors , a range of assessment techniques were used - 61 (64%) used key performance indicators (KPIs); 20 (21%) used independent rating systems (such as Oekem and SustainAbility); 13 (14%) used adherence to standards; and 2 (2%) used balanced scorecards.

A recent survey, reported in Saltuk *et al* (2013), found a more extensive use of rating systems by impact investors. Of a set of investors accessed through the Global Impact Investing Network (which is closely aligned to the IRIS standard) and JP Morgan, 52% stated that they aligned their work to IRIS standards, 30% stated that they aligned their work to other standards, and 28% said that they did not align to any external standards[vii].

By contrast, impact creators are more likely to attempt the hard task of assessing their impact. Clearly So (Gregory *et al* 2012: 33) found that some 65% of charities and voluntary organisations receiving social investment could measure their social impact. And a recent survey by NPC

suggests that many charities undertake basic assessments of changes to their main outcome(s) (see figure 4.3). However SROI looks to be less used than its publicity suggests, as it is often seen more as a marketing tool than a performance management methodology (Arvidson *et al* 2010).

Figure 4.3 Use of assessment techniques by charities



Source: reproduced from Ógáin *et al* (2012)

In-house knowledge of wider social and environmental effects is patchy; only 2,500 EU large companies out of 40,000 formally disclose such information each year (European Commission 2013).

4.5 Gaps in the dimensions covered by measurement of social and environmental returns

As noted in section 3.4, there is sometimes a clash of views between those that seek a broad, CSR-style perspective on outcomes, and those that focus much more on the core outcomes of a given enterprise. The desk research that has been undertaken for this paper also provides scope for investigation of a related question: whether, in practice, some dimensions of social and environmental returns are not well covered by existing measurement systems.

To consider this question, an assessment was made of themes covered by four influential systems[viii]: (a) Big Society Capital (b) Bridges Ventures; (c) The UK-based National Health Service (NHS) Social Value Foundation; and (d) SD-KPI. Publicly available documents on measurement practice from these four organisations were examined against a taxonomy, developed for this study, of a range of social and environmental themes raised by the literature.

Four dimensions were covered by only one measurement system, implying a relative weakness in the extent to which they are measured: mental health; social and emotional skills; wellbeing; and biodiversity.

Although the assessment is only illustrative, findings from the literature concur with the view that there are gaps in measurement practice. Ganju *et al* (2011) raises concerns about the lack of recognition of the importance of the mental health agenda per se; McNeil *et al* (2012) reports a lack of interest in policy-makers around 'soft skills', even though the case has been strongly made by proponents of a 'capabilities approach' (Sen 1999) that a focus on problems rather than strengths can be counterproductive; and an extensive analysis of measurement of environmental issues by businesses, Bishop and Evison (2010), reports that 'most companies report on their links to biodiversity and the ecosystem in a superficial manner, if at all'.

5 Advancing knowledge in the field and future research challenges

Previous sections have highlighted specific issues concerning the measurement of impact and SER in impact investing, from both conceptual and practical perspectives. This section builds on the previous ones and provides an overview of additional research areas and challenges which both researchers and practitioners are likely to face to advance state of the art knowledge in impact investing. These are summarised in the form of propositions and statements below.

a) *Concepts of what should be measured and covered within 'impact' and 'non-financial return' or 'wider value' are far from settled*

Kinder and Domini's 1998 challenge to include concepts of social justice within social investment assessment frameworks has met with a mixed response at best.

For example, only tentative steps towards firmer conceptual frameworks for a key theme – empowerment of individuals – are being made. Malhotra *et al* (2002), in the context of international development, illustrates the complexity of developing a useable conceptual framework – the most frequently measured categories are household decision-making, access to resources and freedom of movement, but agendas such as freedom from violence, political participation and sense of self-worth are also important, even though less measured in practice.

Yet although such analyses provide an impetus to measure more, Mulgan (2010) provides an important challenge to policy-makers, evaluators and those concerned with 'making a difference' to ensure that additional indicators really do connect to what is of worth. The fundamental proof of whether an outcome has a value to society is whether someone is prepared to forego, or get another to forego, some other asset (such as money) in order to maintain or enhance that outcome. And the case of female empowerment through the struggle for adult women to be given the right to vote and become Members of Parliament highlights the way in which what is seen to be of public value changes over time.

b) The conceptual case for creating a single metric of value is highly contested

Sophisticated methodologies exist to assess the financial performance of a company or an investment in a format that facilitates comparisons across companies and investments. Nothing similar exists for the broad field of social and environmental metrics - and there are commentators, such as Mulgan (2010), who argue against the very rationale for aiming to produce a single metric of performance. This perspective underpins balanced scorecard approaches such as 'Blended Value', which make the components of value explicit to decision-makers.

By contrast, 'Social Return on Investment' (SROI), does create a single index, and does so using the subjective valuations that are acceptable to the stakeholders of the enterprise or project that is being assessed. Proponents of SROI recognise that this causes difficulties in comparisons between enterprises, but for them it is the internal learning that is paramount.

c) Conceptual frameworks have often downplayed the category of risk

Organisations such as the GRI make a strong case for making explicit the level of risk - that is, the level of volatility of outcomes – in assessments. Similarly, the 'Integrated Report' standard for company accounts makes clear that companies should identify risks with extreme consequences, even though the probability of their occurrence is considered 'quite small'. Other global standards, such as IRIS and Social Return on Investment, focus on outcomes rather than risk.

Indeed, impact risk is far less studied than financial risk. Although the two are correlated, it is easy to envisage circumstances where a short-term focus on financial returns leads to lowering of service quality; and circumstances where a focus on achieving wider outcomes means that financial returns suffer. Research could potentially investigate the effectiveness of tools and techniques to assess:

- The relative importance of internal, as opposed to external factors;
- The level of volatility in outcomes;
- The level of 'leverage' being applied, with the analogy here being a bank being willing to take more and more risk with its loans for the same capital base.

d) Some influential systems of impact measurement have a mixture of 'subjective' measures as well as 'objective' ones

There is a spectrum of indicator frameworks that range from those that draw on 'objective' indicators, such as IRIS, and those that draw on more tailored, and more subjective sets of opinions to evidence impact, such as those harnessed in Social Return on Investment.

Blends of the two are certainly possible. In the context of measuring progress of sustainability, Stagl (2007) detects a move towards measurement approaches that deploy different types of knowledge (monetary and non-monetary; quantitative and qualitative data); and have a strong element of stakeholder engagement. In the context of assessing fund manager performance, Grabenwarter and Liechstenstein (2011) recommend a challenge process to ensure that targets for

different 'benchmark' levels of outcome are at a suitable level of stretch, enabling comparisons to be made across projects, and hence across investment portfolios.

Key questions for research on whether an impact assessment that includes subjective measures can 'ring true' include the extent to which a challenge process can be effective in producing stretch targets of the same rigour; and questions around the extent to which standardised metrics could be brought into subjective processes such as Social Return on Investment.

e) There are observable tensions between an organisation wishing to tailor its measurement to its own situation, and the constraints imposed by a standardised framework.

Particularly among those organisations that are relatively small and which are aiming to innovate, there is a clear preference for indicator frameworks that are closely tailored to their needs.

Ógáin *et al* (2012: 47), reporting on the findings of a survey of 1,000 charities found over 90 percent felt that more assistance in developing their own methodologies would be useful – although a similar proportion also felt that more financial resources were required.

By contrast, large-scale investors gain reassurance from a much more standardised approach. 70% of respondents to a JP Morgan survey (Saltuk *et al* 2013) feel that standardized impact metrics are "important" or "very important" to the development of the industry.

f) Meta-analyses are not often used to derive better assessments of impact

Unless there are no outside factors that affect results, the attributable changes in outcomes from a project are not the same as observed changes in outcomes. Since the availability of more data makes standard statistical techniques more powerful in assessing the likely extent of any change, this calls either for relatively large projects or for meta-analyses, bringing together data from a number of small- to medium size projects with similar aims and project methodologies. However, evidence suggests that meta-analyses are not often used in this field.

g) Gold standard levels of robustness are impractical for vast majority of enterprises

Randomised control trials are viewed as the gold standard, in terms of robustness of evidence, by various established frameworks, such as the Maryland scale. Yet various commentators have pointed out that the use of randomised control trials is often impractical and/or misleading. Key circumstances can vary greatly between localities, such as when an influential local champion is or is not available.

And important details can be hard to assess or replicate: from an operational and evaluation perspective, providing similar levels of empathy for different clients is a very different proposition to providing clients at a fast food chain with a lower level of salt content in their beef burgers.

h) Creating assessments that are suitable and realistic for both investors and investees is difficult

As noted earlier, there is often a tension between what an investor would like to see, and what an investee can provide in terms of evidence and assessment. Research could potentially investigate good practice in terms of approaches to attribution; action to gain a balanced perspective on social and environmental benefits compared to financial gains; and quality assurance of metrics.

i) Use of intermediate outcomes should be much more actively explored

Even when there are substantial time lags in outcomes (for example, levels of youth custody), few practitioners have the time and resource to deploy long-term evidence programmes. An important, but relatively under-explored route is to look at intermediate outcomes, such as whether motivation was changed for the client group as a whole, and then match this against findings of linkages between intermediate outcomes and the desired end results.

j) A better assessment of empowerment in clients of organisations receiving impact investments is needed

Empowerment is a topic that is of vital interest to many microfinance organisations; empowerment is also of interest to many working in the field of social innovation and social enterprise. As noted earlier, empowerment is an agenda that has proven relatively difficult to capture in a suitable form in metrics. Research could potentially investigate the availability of good practice models and the barriers and levers that would facilitate the dissemination of more effective assessments. In addition, a link to empowerment in places should be noted, drawing on the perspective of Sennett (2007: 279), who argues that cities can and should do more to create 'democratic spaces' that stimulate 'informal mixings and connections among people.'

k) There is a greater need for assessments of impact for places

Impact is often hard to assess at the level of an individual or family; and it increases in complexity at the level of a place, because there will be many more influences on outcomes. Assessments tend only to occur for major infrastructure projects, major regeneration programmes, or for key one-off events such as the Olympic Games.

An important question is whether impact investors on a less grand scale can gain access to appropriate metrics to guide their choices – this issue is particularly prominent for the agenda of 'community investing'. Research could potentially investigate the indicator frameworks used, and the extent to which they effectively relate to places; as well as the techniques applied to assess attribution in relation to impact investing for communities and housing.

l) Much more progress on measurement being made within sectors than between sectors

The literature shows huge efforts to set standards and resolve technical issues on environmental and social metrics by many industry-led networks across the world – not least the impressive analysis underpinning assessments of carbon emissions. Such effort is only made possible, however, by strong commercial and governmental forces – thorough analysis and oversight is needed to shore up carbon trading and to monitor and invigorate international treaty commitments. By contrast, pressure to develop 'between-sector' metrics, integrating social and environmental issues, is less prominent.

6 Conclusions

This paper has shown how measurement practice for impact investment draws on ideas from many fields – from Social Impact Assessment (assessing wider effects associated with infrastructure and major projects), through to social innovation. That makes for a contested arena as to the right way of working, and the right way of thinking in the field of impact measurement practice.

The paper has also argued that impact investing's most prominent feature is the prospect of an effective way of measuring non-financial benefits; if this can be achieved, it would facilitate better decisions and offer the prospect of a step-change in the amount of investment funds that are invested to promote social and/or environmental goals as well as financial gain.

A well-functioning measurement system would be one that builds upon past insights and collations of data, while making reasoned compromises to its stakeholders in assisting them to meet their goals. But SER measurement for impact investing is not yet in that state. It has a diffuse set of terminology, tools and techniques, driven by very different mind-sets as to the purpose of SER measurement and its long-term goals. This leaves it vulnerable to a state where the 'bad drives out the good', with hyped up benefits misleading investors until they are shown up by government assessments or media exposés.

For environmental issues where there are market mechanisms operating (such as greenhouse gas emissions within Europe), there are strong incentives for investors and enterprises to come together to work to develop measurement standards and means to monitor and enforce them.

By contrast, there has been little attention paid to metrics for such issues as poverty reduction (Fiestas *et al* 2010) and the social dimension of microfinance (Fenton 2010). Cheng *et al* (2011) has a strong rebuke for much impact investment practice, stating that 'we need to see the people, not the profit'.

Nonetheless, over the past twenty years or more, the groundwork for progress in SER measurement has been laid, with institutions such as GIIN and IRIS taking an active role. The pace of improvement has increased, with organizations such as the Social Impact Analysts Association being recently set up, and with the European Commission initiating legislation and regulation on

CSR reporting and on social fund management. The challenge will be to address a number of key measurement issues, among them:

- Finding practical ways for peers to share tools and techniques on how to assess impact;
- Improving the level of independent audit in a way that is cost-effective for impact investors and impact creators; and
- Developing approaches that are able to capture the essence of SER achievements in a way that is meaningful to high net worth individuals and those selecting impact investing funds.

Future progress is likely to be a lively source of debate. Some of those that measure SER on a case by case basis run the risk of not building upon what has gone before and making overstated claims; others who aim for systematic analysis can run the risk of imposing preconceived ideas of value and ignoring what the stakeholders feel has really been the main benefit of a given intervention.

Dialogue could yield valuable insights. Despite, or perhaps even because of clashing mind-sets and perceptions of impact and value, impact measurement has a crucial role to play in steering impact investment towards those agendas where they can achieve most social and environmental good.

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i) See PUMA (2011). Note that Abt & Associates became the first company in the world to add an environmental report to its financial accounts in 1972.

ii) See for instance the publications of J-PAL, Allen (2011) and Aos *et al* (2001)

iii) Issues included in the checklist of what makes for good methodology for meta-analyses are: avoiding a language bias; having independent screeners looking at full texts of the article; having more than one person looking at potential data and seeing if all agree on suitable quality levels.

iv) These are overseen by the International Finance Corporation, the private sector arm of the World Bank.

v) The ten principles are (1) Review and Categorisation; (2) Environmental and Social Assessment; (3) Applicable Environmental and Social Standards; (4) Environmental and Social Management System and Equator Principles Action Plan; (5) Stakeholder Engagement; (6) Grievance Mechanism; (7) Independent Review; (8) Covenants; (9) Independent Monitoring and Reporting; (10) Reporting and Transparency.

vi) Respondents were allowed to endorse more than one external standard in their response to the survey.

vii) Respectively, a UK based impact investing intermediary with a £600m fund; a UK based impact investor often seen as an exemplar on measurement; a social enterprise which disseminates the work of a national research programme on social value; and an assessment of metrics on sustainable business practice commissioned by the German Federal Environment Ministry.

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