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What is ahead for Social Investment?

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Introduction

What is next for philanthropy after the great downturn? This edition of Viewpoint looks at what lies ahead over the medium term, and argues that after the recent downward adjustment of financial resources, social investment has become even more attractive. The ideas presented here have been tested and challenged in a number of dedicated discussion sessions we have conducted with key players in the philanthropy and social investment space in cities around the world over the past four months, including Buenos Aires, Mexico City, Milan, Moscow, New York, Paris, Staad (Switzerland), and Stockholm.

As the citizen and financial sectors emerge from the financial crisis, we have encountered passionate debate around finding the right balance between innovations and sticking to the tried and tested. There is general sense that in spite of the crisis, the growth of the citizen sector – today already the world's third largest economy if it was a single country – is a secular trend, and that it will keep taking on more and more responsibilities from the state in terms of delivery of public goods on the one hand, and on the other hand in terms of innovative delivery of private goods and services to the four billion people at the so-called bottom of the economic pyramid, earning less than two US dollars a day.

But we also encountered unresolved tensions around a number of issues: between the pursuit of profit as a way to deliver sustainability and scale, and the concern of profiting from the poor; between stringent social impact measurement to avoid whitewash and the transaction costs imposed by such tracking; and the desire to invest in social enterprises and a sense that everyone is chasing the same deals in a space that urgently needs to find new ways to bring investable social impact opportunities on stream.

However, there was a remarkable consensus that whatever your preferred intervention model (philanthropy, social investment, or business) delivering social change requires getting the basics right and being clear about the underlying economics.

Fortunately, some discernible trends allow us to shed greater clarity on what lies ahead for social investment. Section one looks at a changing landscape and glimpses into the future of social entrepreneurship, microfinance, and bottom-of-the pyramid investing. Section two revisits three fundamental areas of import to human beings: sanitation, health, and energy, with an eye to emerging opportunities. Section three explores visions for what is perhaps a more distant future – and possibly the equivalent of the axis an asymptotic function should strive toward: a new social contract for philanthropy and a world in which everyone can be a changemaker.

To make sense of the trends and opportunities in social investment and philanthropy, we are privileged to count on contributions from a remarkable group of friends and writers. We thank all authors for sharing their personal experiences, views, and thoughts so generously, as well as all those with whom we were able to stress test our ideas and assumptions as we sought to define the optimal investment strategy for the new social investment fund we created, Viewpoint Investments.

Every generation faces its specific set of challenges, and the philanthropic field is perhaps more reflexive than ever. Thinking rigorously about short-term adjustment mechanisms is very important – as a way to keep and render an ambitious long-term change agenda viable. Beyond microfinance, other asset classes are emerging, and perhaps the two most transformational opportunities in terms of creating social impact today consist on the one hand of investing into small and medium enterprises that offer appropriate products and services to the bottom of the pyramid, and designing synthetic social businesses where an appropriate holding structure encodes a social mission in a for-profit venture, providing affordable goods and services to large numbers of people.

We hope that this unique blend of insights will help readers and investors to equally step up the game in the areas about which they are passionate.

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Managing Philanthropy after the Downturn: What Is Ahead for Social Investment?

"It is vain to do with more what can be done with fewer."

William of Occam (1290-1349)

by Maximilian Martin

Introduction

To everyone's relief, the world economy seems to have emerged from its deepest recession since World War II – but where are philanthropy and social investment headed?

In the short term, the recession has triggered a major adjustment: rising social needs coinciding with tightening private and public resources.

Largely resulting from their exposure to higher-risk financial products – which tend to deliver greater-than-average returns when economies expand, but produced hefty losses in 2008 –, the number of ultra high net worth individuals (UHNWI) globally has declined by almost one quarter (24.6%). The losses reduced UHNWI wealth by 23.9% in 2008, and relegated a large number of UHNWIs down into the "mid-tier millionaire" bracket.[1]

An 18-month recession in the United States, the world's largest economy, has left foundation endowments in the US down 30-40%, while Europe foundations report a 20 to 30% loss. In 2009, about two thirds of foundations in the US have reduced their payouts; in the US alone, 460 foundations were literally wiped out – losing 80% or more of their endowment assets.

The combined impact of a reduced personal net worth and lower foundation assets raise a challenging question: how to best pursue a social change agenda through philanthropy and social investment in times of tightening financial resources? How can one continue to exercise leadership?

Adjustment to a downturn is ultimately inevitable.[2] Not surprisingly, in the short term many foundations have taken a strategic look at their payouts and made some changes; their work is typically especially relevant in recessionary periods. For example, the Council on Foundations reports that 92% the grantmaking of US foundations benefits families and individuals who are economically disadvan-

[1] See Cap Gemini and Merrill Lynch Wealth Management. 2009. "Word Wealth Report 2009." http://www.ml.com/media/113831.pdf

[2] See Martin, Maximilian. 2009. "Managing Philanthropy in a Downturn." Viewpoints 2009: pp.110-126. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1322403

taged.[3] Moreover, in terms of expenditure adjustment and expenditure switching, many foundations now seek to contain their operating costs by implementing hiring and salary freezes, or cutting travel budgets. In the UK, 29% of charities have laid off staff.[4]

With respect to overall levels of expenditures, the picture is mixed; in the wake of a greatly increased demand for their services, 38% of US foundations maintained or even increased their level of spending – that is, they postpone adjustment. For example, the Gates Foundation endowment, down from USD 39 billion on January 1, 2008 to now USD 30.2 billion, maintained spending at close to 10% of the endowment in 2009.[5] Some foundations have also engaged in innovative approaches to support their grantees, removing restrictions on the deployment of funding or even using parts of their endowment in support of their grantees, for example via low or zero interest loans or emergency lines of credit.

This article proposes to look beyond the immediate adjustment and ask where we are headed over the medium term. What is an appropriate response is contingent on the specifics of each situation, but three general points need to be considered.

First, while the downward adjustment will hold back net worth and endowment asset values for years to come, pre- and post-crisis investment strategies for wealth in general are nevertheless projected to remain relatively sticky: alternative investments will fall from 9% of the global wealth portfolio in 2007 to 7% in 2010; real estate will rise from 14% to 15%, cash from 17% to 20%, fixed income from 27% to 30% and the equity portion will shrink from 33% to 28%.[6] The big question is: will social change investment strategies remain similarly sticky, or will we see significant shifts to innovative approaches?

Second, unlike traditional investments, social investments – defined as for-profit social investments that create demonstrable social impact as well as financial returns for investors – performed fairly well during the crisis. For example, the performance of roughly USD 25 billion in microfinance assets (2007) remained positive in 2008. In fact, some argue that the crisis has even created takeoff conditions for the social investment field, recently relabeled "impact investing" in an effort let by the Rockefeller Foundation, which forecasts the emergence of a USD 500 billion impact investing industry over the next five to ten years.[7] But if there is such significant demand for impact investing assets, how can we source an adequate supply of suitable investment opportunities in practice?

3 See Council on Foundations. May 6, 2009. "Foundations Respond to the Needs of Families Even as Their Assets Have Declined: Results of a Survey by the Council on Foundations." http://www.cof.org/files/Bamboo/programsandservices/research/documents/09downturnreport.pdf

4 See Charities Aid Foundation. September 14, 2008. "Charity Donations Fall as Demand for Their Services Grows." http://www.cafonline.org/default.aspx?page=16118

5 See Nee, Eric. 2009. "Q&A with Jeff Raikes." *Stanford Social Innovation Review* (Winter 2010). http://www.ssireview.org/articles/entry/qa_jeff_raikes/

6 See Cap Gemini and Merrill Lynch Wealth Management. 2009. "Word Wealth Report 2009." http://www.ml.com/media/113831.pdf

7 Monitor Institute. 2009. "Investing for Social and Environmental Impact." http://www.monitorinstitute.com/impactinvesting/documents/InvestingforSocialandEnvImpact_FullReport_004.pdf

Third, while significant attention is appropriately focused on how to best deal with the fallout of the recent financial crisis and the maturation of the for-profit social investment space, we need to consider the broader set of forces that are reshaping the field, in particular the emerging paradigm of a more globalized, entrepreneurial, and collaborative philanthropy. Ultimately, both philanthropists and grassroots agents exercise leadership in their respective domains, and this raises the question how different leadership strategies will help reshape the philanthropy and social investment space more generally over the medium term.

In looking at philanthropy after the downturn, there are some reasons to be bullish.[8] This article examines two factors that will influence how fast the social investment field can grow, and how big it will ultimately become. First, on the demand side, can we devise ways to share risk and thereby enlarge the pool of capital financing the resolution of social and environmental challenges? And second, on the supply side, can we close the emerging social entrepreneurship supply gap?

The subsequent sections develop these arguments, articulating a social investment framework for those who are keen to engage, but are often not quite sure how.

Establishing Capital Pools to Close the Demand Gap

In search of social impact, philanthropists typically give money to nonprofit organizations to execute some social mission. But in spite of its prominence, philanthropy is not nearly the largest funder in the social capital market. Consider the US, with over 1.4 million nonprofit organizations probably the world's most developed social capital market with USD 1.4 trillion in revenues (2004): user fees and direct or indirect government funding both dwarf philanthropy.[9] At USD 41.2 billion in 2008, foundation grantmaking is even scarcer. And even these three sources of money do not provide nearly enough money to redress many of the longstanding social and environmental challenges the US is facing.

This means that to create greater impact, philanthropists need to think about systematic ways to leverage their capital beyond the effect of a one-time donation. The financial impact of the downturn has further accentuated this need to be "smart" about leverage by drawing in other sources of capital.

How can this be achieved? In principle, there are two options: time-bound subsidies and joint capital pools.

8 See Martin, Maximilian. 2009. "Managing Philanthropy in a Downturn." Viewpoints 2009: pp.110-126. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1322403

9 Among reporting public charities with USD 1.05 trillion in revenues in 2004, fees made up 70.9% of income, private contributions 12.5%, government grants 9.0%, investment income 3.9% and other income 3.7%. See http://www.urban.org/UploadedPDF/311373_nonprofit_sector.pdf. See also http://www.philanthropy.iupui.edu/News/2009/docs/GivingReaches300billion_06102009.pdf

First, in the case of time-bound subsidies, a private or public subsidy is often a necessary condition to help to kick start some initiative, which may later seek financing on commercial terms to fund further expansion. Consider the example of Banco Compartamos, a Mexican microfinance bank which currently serves 1.4 million clients, with a total active loan portfolio of USD 550 million at the end of the third quarter 2009, and a return on average equity of 42.6%.[10] When Banco Compartamos went public on the Mexican stock exchange in 2007 in a secondary offering of 30% of its shares, priced at USD 468 million, it was already a highly profitable operation, making loans to the poor. But a long grant-funded development period from 1990-1998 preceded financial takeoff. Banco Compartamos traces its origins to a microfinance initiative called Compartamos AC, a non-profit organization dedicated to social issues in Mexico launched in the poor areas of the states of Chiapas and Oaxaca. In the late nineties, Compartamos AC collaborated with Acción International, a U.S. non-profit organization focused on stimulating microfinance globally, in order to establish a commercial, regulated microfinance company in Mexico. In 2000, Compartamos received the respective license and established SOFOL Compartamos, a single-purpose finance company devoted to microfinance. Now set up as a commercial enterprise rather than a grant-funded non-profit, Compartamos experienced amazing growth. From 2001-2006, its portfolio of active clients grew at a compounded annual growth rate (CAGR) of 46%, and its loan portfolio in U.S. dollars even faster, at a CAGR of 60%. What was once a subsidy-funded operation had become highly profitable: 2001-2006 net income grew at a CAGR of 67%, ending 2006 with a return on equity (ROE) of 56%. In 2006, SOFOL Compartamos was finally granted a full-banking license, becoming Banco Compartamos, and clearing the path for the initial public offering that would value the company at USD 1.5 billion.

Proof of concept often needs grant money; and scaling up requires commercial money. Time-bound subsidies are an instrument for philanthropists to ensure that once initiatives no longer need subsidies, the philanthropic money is redirected to some other issue area where it can make a difference. But rather than waiting for a decade until a grassroots initiative graduates to become an investment case, a second approach consists of combining different forms of capital at once.

The double recognition that grants alone often cannot do the job, and investment capital is often unwilling to go into the riskier or less conventional markets where the need is greatest, namely sub-Saharan Africa and developing countries that are not part of the BIC (Brazil, India, and China), suggests that the way forward is the creation of a joint capital pool. The original grant pool can be enlarged via investment arrangements that combine investors and philanthropists into consortia or funds, taking into consideration their different risk tolerance, return objectives, and expertise sets.

Consider how a capital pool approach would work in the area of public health. Healthcare in sub-Saharan Africa is characterized by substantial access shortages for low-income populations, quality issues, and excessive cost. Challenges include a shortage of physicians, nurses and other health workers, too few and overcrowded public facilities, a sense of low quality care in public hospitals and clinics, management and medical training gaps in health facilities, and compulsory fee-for-service payments at most public facilities irrespective of income level. To access even public care, gatekeepers frequently impose side payments upon everyone, including the poor. Moreover, insurance schemes are insufficient, and over 50% of healthcare expenditures are private and often funded out of pocket. While Africans need affordable and accessible quality health care, the public sector has neither the resources nor the expertise to provide a full-scale solution. Given the limitations inherent in public sector and donor-led approaches, an investment approach may actually be promising for three reasons: there is already substantial demand for private sector health care; there are profitable private sector business models which could be scaled; and the healthcare sector is currently underserved by investment capital.

As a result, philanthropists and social investors who seek to leverage the capital they bring to the table with the objective of enabling low-income Africans to gain increased access to affordable quality health services could pursue an investment strategy, backing healthcare companies in sub-Saharan Africa and helping them scale and professionalize their operations. And to bring as much capital as possible to bear on this challenge, it is useful to find ways to combine philanthropic, social, and commercial into a common pool. How can this work?

Commercial investors would judge such an investment opportunity purely on the basis of risk-adjusted financial returns; for a philanthropist, social impact considerations are paramount. The joint capital pool approach seeks to combine different groups of investors, organizing them in a consortium-type structure. For example, a charitable foundation may be inclined to provide grant funding to a technical assistance facility to assist portfolio companies in developing product and service delivery channels that specifically target the poor; a social investor with both social and financial return objectives may be willing to provide subordinated debt at a relatively low interest rate to a commercial investment vehicle that invests in such healthcare companies, whereas a purely commercially minded investor will contribute funds for equity investments in target companies based on risk-adjusted return considerations and the realization that part of the risk has already been absorbed by the other types of capital providers.

Done properly, a capital pool approach can source capital from all three quadrants of the financial and social return matrix, and social investment capital acts as the missing link that facilitates the combination of grant money and commercial capital (see figure 1).

[10] See http://www.compartamos.com/wps/portal

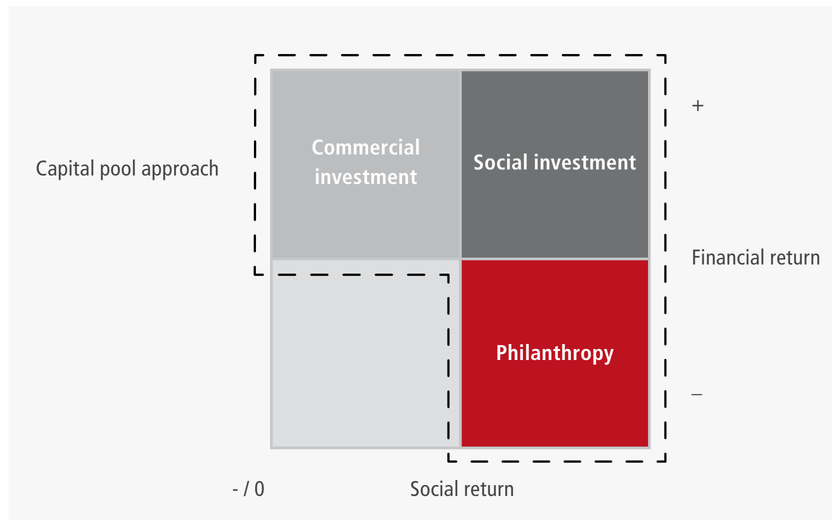

Figure 1: The Social-financial Return Matrix

While the capital pool approach is now being used sporadically, we anticipate that this approach will be used on a much larger scale over the medium term – for each class of investors, it is an elegant way to leverage their forms capital (philanthropic, social, and commercial).

In the pursuit of a specific social challenge, social investors (or "impact investors") who care both about financial and about social returns can often be instrumental in making sure that all forms of capital are appropriately mobilized. Deploying skills already available in the capital markets, creating investment mechanisms that combine the different classes of investors into a joint endeavor is readily feasible, e.g. by setting up an investment fund with an associated technical assistance facility and a subordinated loan mechanism.

The Social Entrepreneurship Supply Gap

Just as expanding the pool of capital available is key, so is deploying it properly. From a supply perspective, a specific constraint-opportunity set will shape the future of the sector.

The emergence of the field of social enterprise itself is testimony to the entrepreneurial revolution in civil society. Social entrepreneur-founders are celebrated as the vanguard of the globalizing citizen sector of the twenty-first century. In many ways, they are reminiscent of the epic leaders from antiquity, larger-than-life individuals whose actions could determine the fates of entire nations, and often towering above ordinary men and women, because they were far nobler, stronger and wiser.

But while this may seem counterintuitive at first, we are now about to reach a point where the relative supply of such individual social entrepreneurs is becoming constrained vis-à-vis demand for such talent. Of course, this means first of all that we need to find new ways to recruit social entrepreneurship talent into the sector. But that is not enough. We also need to find ways to better leverage such talent.

For the skeptics who may question why we would even need to look at this in a period where the concept of social entrepreneurship is taking off as never before, let me put the scarcity argument in context.

First, while the nonprofit sector is large and growing, it continues to be highly fragmented – for social entrepreneurs and more classical nonprofits alike. This holds back investment by raising costs and complexity. Consider that of 200,000 nonprofits founded in the US between 1970 and 2003, only 144 had reached revenues in excess of USD 50 million by 2003. Fragmentation may lower the barrier for innovation, but it imposes higher transaction costs and renders expansion more difficult. Compare the due diligence and portfolio management costs to be borne by a 100 million USD debt or equity investment vehicle with 100 portfolio investments of USD 1 million each to a more standard private equity investment vehicle of the same size where the average investment is USD 10 million. Assuming a typical private equity screening ratio of 100 opportunities for every investment made, the first vehicle would have to find, screen and monitor 10,000 opportunities, whereas the latter has to find, screen and monitor only 1,000.

Fortunately, a substantial part of the supply gap can be closed by more effective funding for social entrepreneurs. Consider for example the leading network of social entrepreneurs, Ashoka, a US-headquartered nonprofit that identifies, nurtures and networks social entrepreneurs around the world. Typically, these are charismatic individuals who have identified and implemented some pattern-changing idea that benefits society. Today, Ashoka has over 2,000 quality social entrepreneurs in its portfolio, many of whom can be considered investable. Moreover, on a sustainable basis, and as a rule of thumb, one can find about one additional Ashoka-quality social entrepreneur per annum per 10 million inhabitants. This means that we could in principle source 670 new social entrepreneurs per annum (at a current global population of 6.7 billion).

But while this is significant, a supply gap nevertheless remains – and will grow worse as the challenges our generation faces continue to grow in a nonlinear fashion. To illustrate the sense of urgency, consider figure 2: the projected growth of carbon dioxide emissions as a simple proxy for "problems," and population growth as a simple proxy for "solution providers."

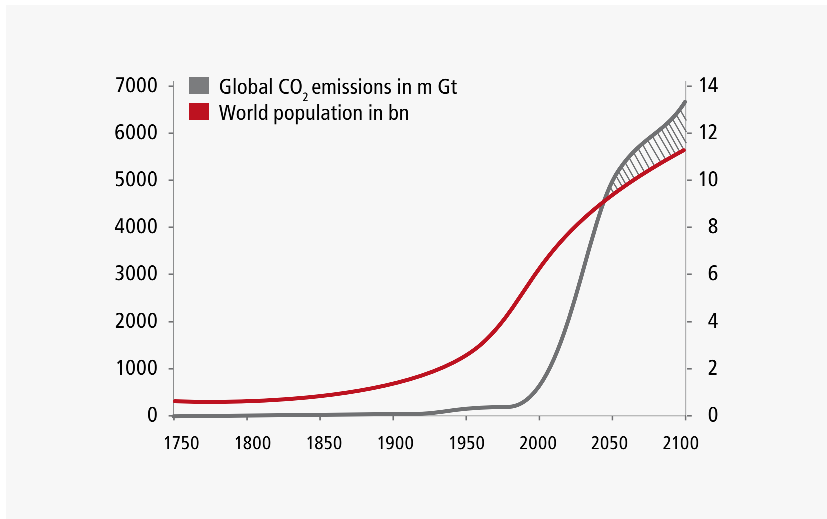

Figure 2: The Emerging Social Entrepreneurship Supply Gap (proxies: population growth vs. CO_2 emissions growth, 1750-2100)

So where do we go from here? Looking at leadership provides an interesting way forward.

First, in addition to the epic leadership of social entrepreneurs like Bill Drayton and Muhammad Yunus, enlightenment leadership also matters – Bill Drayton thinks of everyone as a changemaker – not just individuals in positions of high formal authority or at the top of organizations or social movements.[11] Catalyzing such leadership action across all levels of an organization or social movement, empowering people at all levels, tends to be more chaotic, but also unlocks enormous commitment and change potential. Because one of our chapters presents Drayton's vision, we focus here on another: leveraging social entrepreneurship talent through structures, the equivalent of "engineering leadership." The core idea here is to set up institutions and design and maintain incentive systems that reward aligned socially entrepreneurial behavior throughout an organizational pyramid and set boundaries on what not to do – a powerful way to influence human behavior.

Closing the Supply Gap through Synthetic Social Business

How can social entrepreneurship talent be optimally leveraged in organizational structures? In my work, I have found a promising approach. Because business schools around the world develop management talent on a massive scale, it is currently much less scarce than social entrepreneurship talent (which is growing fast given the interest of students around the world in the topic, but from a low base). To enlist this talent in the development of social businesses, we need to encode a social vision in an organization in ways that subsequently permit its further development and expansion by deploying conventional management talent.[12] For ease of reference, we can refer to this approach as "synthetic social business." Synthetic social business is simply another entry point to social entrepreneurship, based not so much on charismatic individuals, or social movements, but rather on enabling structures. Similar to capital pools, we suspect that this approach will be adopted on a much wider basis over the medium term.

Taking this engineering approach, a synthetic social business can be defined as a business venture whose social purpose is encoded in the holding structure of the company.[13] This means that a philanthropic foundation holds a significant ownership stake and special voting rights with the mission to make the good or service available to as many people as possible around the world. The set-up commits the company to pursue a more "social" business development and market positioning strategy that focuses on higher volumes and lower margins, or a tiered pricing strategy that renders the product or service available to wealthier and less favored parts of society alike. The entity is considered a "synthetic" social business, because the impulse to behave as a social business follows from the structure of the company and is less dependent on the individuals who have founded or lead the company, which is otherwise developed just like any other business, mainly by deploying management talent – a more abundant factor than social entrepreneurship talent. Developing a synthetic social business is often a particularly interesting option when technology and intellectual property are involved (see figure 3).

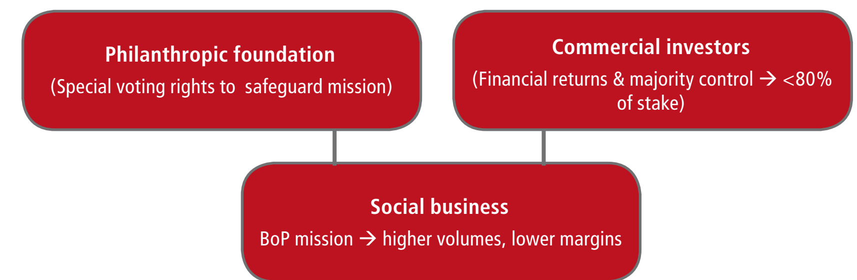

Figure 3: The DNA of a Synthetic Social Business

[11] See Martin, Maximilian, and Michael Jung 2009, Organizational Leadership Fields: Aiming for Impact at the Next Level. Viewpoints 2009: 40-50. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1366291

[12] One can either encode the mission immediately, or at a later stage, provided the individuals and entities who control the company can serve as effective guarantors of the mission.

[13] There are numerous examples of such company plus foundation structures, consider for example Freeplay Energy, listed on the London Stock Exchange (FRE: LSE).

Let us look at the kind of business opportunity angel investors or venture capital funds would encounter in, say, public health. Consider business development options in the field of nosocomial or healthcare-associated infections, defined as infections which result from treatment in a hospital or a healthcare services unit that are not secondary to the patient's original condition. There is a need for solutions: in developed countries alone, an estimated 1.4 million people suffer from such healthcare-associated infections every year. In the US alone, this leads to 88,000 deaths per annum (0.04% of the population); in developing countries the mortality rate is estimated to be much higher, for example 0.2-0.6% in Sub-Saharan Africa. In addition to the human tragedy, these infections cost USD 30 billion annually in the US alone.

If a superior disinfection technology investment opportunity came along, the question would be how to develop and commercialize it: according to purely commercial criteria, most likely focusing on developed country markets, or according to synthetic social business criteria emphasizing affordability and global market penetration. In the latter case, a company foundation can safeguard the mission and commitment to an adapted rollout strategy for bottom-of-the-pyramid markets, where the product needs to be sold at a much lower price and adapted distribution strategies be developed.

With 185,000 patents issued by the US Patent and Trademark Office alone in 2008, developing just 0.1% of them through the formula of synthetic social business would add another 20% capacity to the intrinsic social investment pipeline every year, and thus help to further close the supply gap for social investments.[14]

Conclusion

Once they have adapted to the short-term fallout of the financial crisis, philanthropists have two options: adjust ambition levels downward to align them with current resources; or, find more innovative ways to leverage existing resources, and become social investors (also referred to as "impact investors") with a part of their capital. The good news is that that is already happening on a significant scale, and likely to accelerate going forward.

Based on UHNWI interest in allocating capital to investments that do both good and well, there are powerful reasons to assume that there will be sufficient demand for the social investment market to grow to USD 500 billion over the 2010s. First, financial adjustment imposes new requirements on sourcing capital to achieve mission objectives, and second, philanthropic and commercial funders have become more receptive to moving away from the established binary view in which they are happy to make grants as donors, which provide an allocation that has a minus 100% return, or zero financial return; as investors, they prioritize how to make financially profitable investments.

[14] See http://www.uspto.gov/web/offices/ac/ido/oeip/taf/us_stat.htm

With today's microfinance market at roughly USD 25 billion and projections of tenfold-growth over the next decade, half of the supply is potentially covered. Factoring in clean energy covers another big chunk of the impact investment market. Moreover, there are large portions of the global population waiting to for adequate goods and services in other fundamental areas such as sanitation – where 2.5 billion people currently lack access to something as basic as a toilet.

But we need to move from headlines to investment in scale. Given growing investor demand, ensuring that enough quality investment opportunities can be sourced is critical for social investment capital to be deployed with adequate social and financial returns. Should supply not adjust to demand, the equivalent of inflation will happen: the social impact standards for such investments risk being watered to an extent where social investment would become largely a marketing exercise.

This article argues that structural interventions – "engineering leadership" – can help to make a difference. On the demand side for investment opportunities, establishing capital pools where philanthropic, social and commercial capital are combined into a joint investment strategy will be critical to mobilize vastly greater resources. On the supply of investment opportunities, a conscious effort to look for and develop synthetic social business opportunities can help to increase throughput through the opportunity pipeline by 20% over the medium term. Moreover, synthetic social business can help to address governance and profit capture issues.

As we seek to manage philanthropy after the downturn, it is comforting that after the short-term adjustment pain, exciting times and a new era of social investment, leadership and organizational forms will be ahead and continue to transform the world.

The Future of Microfinance

"Our responsibility is much greater than we might have supposed, because it involves all mankind."

Jean-Paul Sartre (1905-1980)

by Roland Dominicé

The microfinance industry has grown in the past three decades into a trusted asset class of over USD 25 billion. Its past successful life cycle points to the future developments that will enable it to scale up into a much broader investment opportunity at the bottom of the pyramid, targeting USD 250 billion.

From one step to the other of the value chain, the public awareness has first focused on the emotional story of individual value creation in the 1980s; in the 1990s focus shifted to the financial profitability of banking for the poor, and the case for investment. The 2000s have seen the emergence of microfinance as an asset class for investors, through the fast growth of many investment funds. The next decade will see three evolutions in the industry: (1) its focus on quality growth and the social responsibility of all stakeholders in the value chain, (2) a vertical growth covering all segments of the un-banked from micro- to small to medium entrepreneurs, and (3) a horizontal growth moving from a single product offering – micro-enterprise loans – to inclusive financial services covering the entire span of daily needs and correspondent capital requirements – from micro-housing to micro-utilities, micro-energies, micro-insurance, and so on.

The Microfinance Value Chain and Life Cycle

Microfinance has emerged as one of the leading asset classes in *impact investing*. It is largely accepted that it serves the United Nations Millennium Development Goals of poverty alleviation by providing access to capital to the economically active poor at the bottom of the pyramid. At a micro level, it provides the opportunities and means for individuals to further their ambitions and grow through their own value creation. At the macro level, microfinance rebalances and democratizes the access to capital by pushing money where it normally does not flow. Today, the majority of capital on earth competes in the value creation of goods and services that concern a small minority of the world population. The project of microfinance, whether for social or economical reasons, proposes to offer the vast majority of the world population with the means to create value, at their micro-level, and as a consequence at the macro-level. Microfinance is simply the continuation of market distribution of resources, but applied equally in a democratic manner.

Figure 1: The Microfinance Value Chain

The flow of capital in the microfinance value chain is channeled through four steps (see figure 1). Micro- and small enterprises – namely the economically active poor – have access to capital thanks to local microfinance institutions (MFIs) – banks, finance companies or non-governmental organizations (NGOs) dedicated to banking the bottom of the pyramid. These institutions refinance themselves today through specialized investment vehicles – funds, programs, and institutions – that in turn target socially responsible investors wanting to further the project of microfinance, and the global democratization of access to capital. The value chain is immediate and tangible, directly putting investors and micro-entrepreneurs in contact through two intermediate steps – providing investment stories easily understandable to private and institutional investors.

1980s and Micro-Entrepreneurs: The Emergence of a New Paradigm

The Grameen Bank, which was created in 1976 and winner of the Nobel Peace Price in 2006, serves as the founding locus of the industry. Although small banking for small people has always existed worldwide, the difference of modern microfinance, incarnated by the Grameen Bank and its followers, has been to emerge as a global movement, in a time of many global challenges towards growth and sustainability of the world population and their living conditions. The 1980s were a time of gradual rethinking and transformation of development strategies and policies at the World Bank, United Nations and other development institutions – the infusion of seed capital in individual life stories hinted at the emergence of a new paradigm, drifting away from the control and dependence of grant-making towards greater freedom and more responsibility of investments.

Life stories like that of Doña Sandra Robles have increased awareness for value creation at the bottom of the pyramid and the need of access to finance as a means to self empowerment and community development (see figure 2). Mrs. Robles took over the shop of her late husband in the Mercado Oriental, one of the biggest markets in Central America. With the help of revolving micro-credits she received from Banex, the leading microfinance institution in Nicaragua, she transformed her small vendor shop into her own plastic product manufacturing and exporting business, sustaining jobs for over thirty employees today.

Figure 2: Doña Sandra Robles

Her story, as that of over a hundred million people today, is a testimony of moving from emotional assistance to the poor into self-sustainability and freedom of choice and opportunities at the bottom of the pyramid.

1990s and Microfinance Institutions: Profitable Banking for the Poor

Some institutions like Banex, which often started as non-profits, became financial institutions with shareholders. Eventually, for the more successful ones, they took on full banking licenses dedicated to the needs of the unbanked and poorer population, and grew into the largest financial service providers in their region.

Development institutions and consulting firms building these institutions discovered the financial potential of engaging in micro-banking. With a simple single product, namely credit, which is easy to replicate and adapt, their micro-banking projects made for extremely solvent and sustainable businesses. MFIs have highly diversified client pools, often in the dozens of thousands of weekly payments. Profitability arose from the counterintuitive rule that very often, the smaller the business, the bigger the margin, and the higher the potential for economies of scale. Micro-entrepreneurs, with sales revenues of two dollars a day were working on fixed costs of 50 to 100 cents, and by borrowing a few hundred dollars for working capital or fixed assets, they could easily double or triple their production and sales volume. Making loans of that size is extremely costly and labor intensive; their founders were not in it for the money but elaborated systems and methodologies that allowed for charging sustainable costs. Their rule was to never charge more than half the net margin for the micro-entrepreneur. By the mid 1990s, the micro-banker and his client had engaged in a powerful symbiotic win-win relationship, which allowed not necessarily profit maximization but to build a replicable and scalable solution to improve each others' sustainability and growth, and overall living conditions. Over time, micro-banks have become investment grade and solvent institutions, with high client diversification, low leverage, sustainable profits and very low bad loan ratios (see e.g. Symbiotics' top 50 MFIs benchmark, SYM50), while still furthering this initial goal of sustainable banking for the poor in a win-win benefit.

2000s and Microfinance Funds: Building an Investment Asset Class

In 1998, the first ever for-profit investment fund was set up and distributed through private banks in Geneva, Switzerland. Public sector seed investors had succeeded in attracting interest from the private sector.

Today over a hundred so-called microfinance investment vehicles (MIVs) exist. They grew from literally nothing to over USD 6 billion in a decade, according to the last CGAP (Consultative Group to Assist the Poor, World Bank) 2009 survey. In Luxembourg alone, where most Europe-

an funds are registered, MIVs will reach USD 3 billion by the end of the year. Their growth has notably been steady throughout the financial crisis. Their investor composition today reaches out across the board from asset managers, to socially responsible investments (SRI) funds, family offices, retail clients and institutional investors such as pension funds.

Despite some bumps in net asset value (NAV) prices as a consequence of the financial crisis, MIVs show stable steady returns month after month. The regulated MIVs composing the Symbiotics Microfinance Index (SMX) have shown on average an annual return of around 5.0% since inception with a volatility of around 0.50%. Socially responsible investors have come to appreciate this resilient asset class, which provides both for solid return and tangible social responsibility.

2010 and Beyond: Socially Responsible Investors Building Inclusive Financial Systems

Social responsibility, reaching out in depth and breadth. Getting the Nobel peace price in 2006 was the peak of microfinance's "panacea message." The global financial crisis has reminded practitioners and investors alike that microfinance is made for humans, by humans, and thus perfectible. Examples in India and elsewhere have shown how overheating a microfinance market with excessive liquidity and competition can lead to abuse of its initial mission and aim. Practitioners and investors have since defined several safeguards and implemented initiatives to protect the quality and positive socio-economic mission of microfinance. Practitioners have developed client protection principles to the benefit of micro-borrowers; investors have developed social responsibility ratings of microfinance institutions and eventually investment funds. For example, Symbiotics' social responsibility rating focuses on seven dimensions of: (1) social governance; (2) labor climate; (3) contribution to financial inclusion; (4) fair treatment of clients; (5) diversity and quality of products; (6) social responsibility towards the community; and, (7) environmental policy.

The 2010s will be a decade of microfinance no longer as a panacea but as a means to an end. Practitioners and investors have to safeguard the social mission of microfinance actively, by promoting both client protection principles and social responsibility ratings. Without quality in growth, microfinance would lose its soul and could not further its mission as a continuation of market distribution of resources applied equally in a democratic manner, where the poor have as much access to credit as the rich.

Vertical growth of the industry. How small is micro? How poor is poor? From *micro-credit*, to *microfinance* to *finally inclusive financial services*, policy making entities in microfinance, such as CGAP, have broadened the scope and array of microfinance, its definition and constituents. The 2010s will not only be the maturity years in terms of quality growth and safeguards in outreach, but also the decade of greater vertical and horizontal depth.

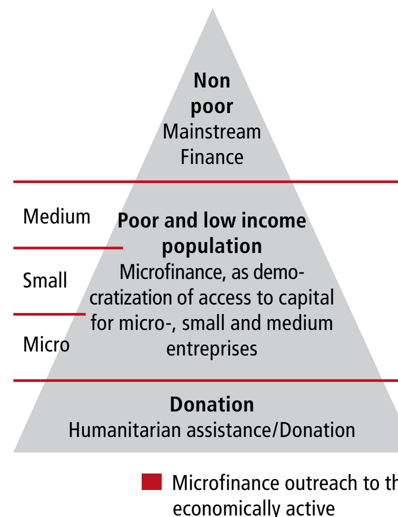

Figure 3: Vertical Growth of the Microfinance Industry

Vertically, the complex of size – how small is small? – is bypassed by encompassing all of the unbanked: micro-, small and medium income generating borrowers and enterprises. Microfinance reaches out across the board, from vulnerable non poor to extreme poor – sustaining the need of those economically active in this population range. There is as much impact in helping an individual borrower working on his own than in sustaining a medium enterprise hiring a few dozen such potential individual borrowers. By building inclusive financial services, microfinance investors mean today furthering both the growth of small village banking NGO MFIs as well as small and medium enterprise (SME) finance commercial banks.

Horizontal growth of the industry. Similarly, the horizontal depth of microfinance follows the growing and sophisticating needs of the micro, small and medium entrepreneurs in improving their living standards. From micro-credit, MFIs have quickly moved into micro-savings, micro-insurance, and micro-remittances. The 2010s will also be the avenue of access to capital for housing, food, energy, health and education, and water and sanitation, among others. Microfinance will deploy its full horizontal outreach by offering access to capital for all aspects of the daily basic needs, for the unbanked economically active poor.

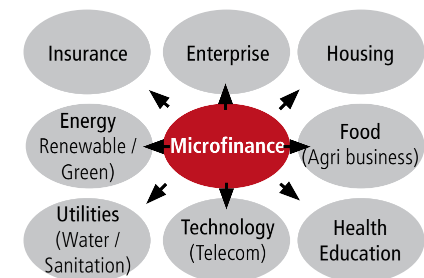

Figure 4: Horizontal Growth of the Microfinance Industry

Microfinance is not a panacea, and certainly cannot replace a stable government bringing social peace and the rule of law to its population, as well as strong economic stimulus, infrastructure and public goods. It can nevertheless grow in the shadow of governments striving for such a direction, to accelerate the private sector's capacity to grow in a free, responsible and sustainable manner, and allow the economically active to improve their daily living standards, thus graduating from poverty.

Microfinance investments will see full deployment in the next decade, bridging the gap to the vast majority of economically active poor. Foreign investment funds will enable this scaling up by targeting a much broader asset class of microfinance, including many elements of daily needs, with investment strategies focusing on social responsibility and the quality of service delivered to micro-borrowers.

What is Next in BoP Investing?

"Economic freedom is the obvious and simple system of natural liberty."

Adam Smith (1723-1790)

by Alvaro Rodríguez Arregui

The first decade of the new millennium witnessed the transformation of investments in businesses that serve the base of the socio-economic pyramid (BoP) from a fringe activity best left to philanthropic foundations, governments, and multilateral institutions into a burgeoning asset class that is increasingly drawing the attention of the commercial capital markets. This dramatic shift is due, in large part, to the success of microfinance. Several events have drawn attention to the industry: Grameen Bank's Nobel Peace Prize; Compartamos Banco's listing on the Mexican Bolsa, and Kiva's innovative peer-to-peer lending platform. Such events directly contributed to the increased visibility (and credibility) of the field. This helped microfinance become part of the mainstream financial discussions, but also brought large inflows of capital into the industry. High profile investors in microfinance include Pierre Omidyar, founder of eBay, and Sequoia Capital, the Silicon Valley venture fund that backed Google and YouTube. Individual investors, however, are also getting a piece of the pie, as microfinance focused funds and publicly traded institutions are increasing in size and number. The success of microfinance is, however, but a preamble to the nascent story of financially viable investment in solutions to poverty.

Commercial microfinance arose because access to financial services for the poor existed mainly through two channels: governments and the informal sector (loan sharks). Government loans had low interest rates but a lot of red tape, which increased transaction costs for the micro-entrepreneur. This meant meant long lead times when the informal economy operates in real time. In contrast, the informal economy offered immediate access to loans, but at excessive rates that could be as high as 2,000% on an annualized basis. Between these two offerings, there was significant space to offer a better value proposition than the existing sources and one that could be profitable and thus scalable.

So what has this taught us for the next BoP-focused investments? At IGNIA we see the same attributes that led to the success of microfinance in other sectors of the economy such as health and higher education. Commercial opportunities in both sectors are born from the inability of current channels, both public and private, to adequately address this segment of the population. In

education, government universities and technical institutes provide adequate classroom experiences and affordability, but oversaturation and limited program flexibility prevail. Private universities are proliferating, allowing students access to high academic levels and state-of-the-art infrastructure; their price points, however, exclude the BoP. In both cases the ability of the majority of the BoP to improve their economic standing through further education is limited. In the healthcare sector, BoP individuals face a similar predicament. Government health institutions offer adequate service at a high transaction cost, as oversaturation leads to long lead times for consultations and on-site delays. “Free” services thus become extremely costly for non-wage earning individuals. Therefore, the majority of individuals choose to use private sector solutions for their healthcare needs, which are extremely basic, but affordable, or of high quality, but beyond the economic means of most. As in microfinance, the current gaps in both sectors present an attractive opportunity for private sector solutions that offer better value propositions to scale rapidly.

This article will focus on examples of these two industries in Mexico that show some of the promise of microfinance.

Education: Revolutionizing the BoP’s Ability to Create Wealth

Education is commonly referred to as a *silver bullet*, a driving force behind an individual’s social mobility and a nation’s ability to rise out of poverty. Southeast Asia, in particular, is a prime example of a group of developing countries that used the power of education for development and societal wealth creation.

Higher education, in particular, can positively impact both individual and society. At the individual level, the benefits of higher education include higher returns relative to all other levels of schooling, largely due to increasing abilities and specialization. The direct income generation effect of university-level education for an individual is staggering. In Mexico, for example, the average increase in income for every additional schooling level completed prior to university level is 30%. The increase in average salary between a high school graduate and a university graduate averages a dramatic 100%. This furthers the claim that investment in higher education can be a catalyst for upward social mobility.

The gaps in higher education available to the BoP, however, are overwhelming. In Mexico, while 49% of those between 19 and 24 years of age come from the socio- economic level “D” (annual income between USD 758 – USD 3252), less than 200,000 of 5.3 million college aged individuals in the D-income segment have access to higher education, which is fewer than 3.8%. Tragically, 80% of applicants to the largest public universities in Mexico are denied entry due to lack of space. These are glaring symptoms of a public higher education system that is over capacity and unable to satisfy the needs of a generation thirsty for opportunities to improve its quality of life.

Because governments are unable to adequately address the growing education demand in developing countries, private higher education options are increasingly available to students. This segment provides an attractive opportunity for equity investors to capitalize on a market with high unmet demand.

Health: Tailored Solutions for the BoP

If we consider education the silver bullet to trigger upward social mobility, then we must view adequate medical services as the first line of defense against downward social mobility. Illness combined with inadequate health coverage can dramatically affect an individual’s ability to generate income and a family’s overall economic position, particularly in the BoP where impact can be much greater. Due to inadequate offering of medical services for the BoP, this segment increasingly engages in a postponement dynamic that is detrimental in the long term. The common story involves postponed doctor visits due to cash limitations, self-medication once an illness persists, and in grave cases, a doctor visit only when physical manifestations of the illness make it impossible for an individual to continue with their everyday life.

In Mexico, through its *Seguro Popular*, a government medical insurance program designed for low-income individuals in unemployment or the informal economy, the Mexican Health Ministry expects that by 2010 it will reach 100% coverage of those without access to government Social Security. Near universal government medical coverage notwithstanding, 54% of the country’s health spending is out-of-pocket (representing a USD 27 billion market). As in the prior example, “free” government medical insurance represents high transaction costs – long lead times in the form of unavailable appointments, transportation costs due lack of proximity of facilities, and on-site delays that negatively impact wage earning individuals. Widely accessible private sector alternatives, however, lie in neighborhood doctors whose service is tainted by misaligned incentives that reward diagnoses for unnecessary medical procedures resulting in high prices for the individual. Much like the neighborhood loan shark, neighborhood doctors offer convenience and immediate attention, but at prohibitive costs. This service gap in the current value propositions of both government (low price – high transaction costs) and the private sector (high price – low transaction costs) point to a ripe market for new health solutions that can result in both profitability and scale.

Why is equity investment needed to foster growth of the industry? Venture capital is needed to support the expansion of innovative new solutions to health access at the BoP. A current private sector success story involves Farmacias Similares, one of Mexico’s largest pharmacy chains with over 4,000 points of sale, which has a general practitioner in each pharmacy charging under USD 2.50 per consultation. The “Dr. Simi network” offers 3.5 million consultations every month, a clear symptom of a market starved for private sector solutions. Dr. Simi fulfills a basic need with a very rudimentary service. New solutions are appearing at the basic health level that cater more to the health

care services of a modern society, including membership models, mobile and walk-in clinics for basic consultations and diagnoses and at advanced levels, ambulatory surgical centers and specialized hospitals. Such models need equity infusions from investors willing to assume the risks involved with early stage investments in underdeveloped industries. Those investors willing to commit to a ripe and underserved market will likely serve as catalysts for the transformation of the sector and the creation of competition for quality medical service solutions to the BoP, which ultimately will benefit the consumer.

Fundamentals Revisited

Imagine All the People Living in a World With Toilets

by Jon Lane

The Case for Investing in the Private Health Care Sector in Sub-Saharan Africa

by IFC International Finance Corporation, World Bank Group

After Copenhagen: Perspectives on Energy

by Maximilian Martin

Imagine All the People Living in a World with Toilets

"Thought brings about the generality of forms."

Avicenna (980-1036)

by Jon Lane

Today, 40% of the world's population - 2.5 billion people - do not have access to basic sanitation. In other words, they do not have what most people in developed countries have, use and take for granted: a safe, decent toilet to use. In fact, the Millennium Development Goal target of halving the number of people without access to sanitation by 2015 is the furthest of the various global development targets set in 2000 from being achieved. Around the world, 10 million children die every year. Poor sanitation and hygiene are the chief or underlying causes in over half of these deaths. Diarrhoeal diseases, caused primarily by inadequate sanitation, are the second largest killer of children, and cause 17% of deaths in children under-five. Over the past 10 years diarrhoea has killed more children than all the people lost in armed conflicts since the Second World War. Clean toilets save lives; some 5,000 deaths could be averted every day through universal access to sanitation.

Healthy people can go to school and go to work. Research indicates that meeting the sanitation MDG target would yield economic benefits of USD 63 billion each year, and universal access would yield USD 225 billion; clean toilets contribute to economic development. However, poverty is more than a lack of income; it refers to social inclusion and dignity. Around 800,000 people in India still personally remove faeces from latrines, carrying them away in baskets on their heads - a practice that bars their inclusion from mainstream society. Poor women and girls are hit hardest by the absence of toilets, risking sexual harassment while looking for privacy in the darkness.

So sanitation is clearly important, although the topic has been more taboo than table talk, a neglect which in the past contributed to the lack of effective action.

A Shifting Paradigm around Sanitation

Fortunately, things are changing. Until now, sanitation has been stuck in a box as an old-fashioned, uncreative, public sector activity. Most governments and agencies have seen sanitation as something done to people – and usually tacked on to water programs as a minor aspect. Governmental sanitation policies – if they existed at all – were based on subsidizing the cost of latrines or toilets, i.e. building toilets for people whether they wanted them or not. Across the developing world about half of those toilets built by governments are used for some other

purpose – as store rooms for food, goats, bicycles and other valued possessions. Engineers built the toilets from their technical point of view – making toilets, digging sewers, and getting excrement away and out of sight to be dealt with scientifically. In poor countries, with neither the money nor the water for centralized sewerage systems, engineers didn't know how to serve the mass of people.

But now sanitation is seen as a major, market-driven everyday human economic activity. Governments are changing policies to emphasize hygiene promotion, demand creation and sanitation marketing. Most external development agencies have already changed their policies in this way. In the future the aid money and government budgets will be spent on persuading people to raise sanitation up their own priority lists, and to improve their own sanitation service. The local entrepreneurs and service providers will be ready. Just as almost anybody in the world can now get a cell phone and good customer service, so everybody will soon be able to get a toilet with full customer service – supplying the components, constructing it, maintaining it and collecting the contents to use for their economic value. Human excrement (properly composted) will be recognized as an economic commodity not a waste product. People will no longer have to dig their own pits and try to work out what to do when they are full.

There is an increasing number of good examples of successful sanitation programmes that take a marketing-led approach rather than a supply-driven one. By harnessing the persuasive power of marketers and communicators, far greater progress can be achieved in sanitation. Twenty years ago, few rural Africans had even heard of cell phones, but now they buy millions because they have been persuaded to want them. With a creative approach the same can be done for toilets and give the 2.5 billion people without them what they want: privacy, convenience, safety and status. Politicians will get the economic development that they want.

Market-based Solutions Will Help Meet the Demand

A tremendous opportunity is about to be created for a market to be served. In this scenario, the market will meet the people's demands by providing for toilets at the household level, pit emptying, public toilet management, fertilizer sales, methane generation, and a range of other profitable business lines related to sanitation. This work will be done mostly by small local entrepreneurs and not by big commercial companies. Entrepreneurs will need help accessing the market and loan or equity finance. Work is underway by a wide range of actors, from sanitation professionals to bankers, to help find and supply the finance needed to create the market.

'While most financing opportunities in philanthropy are not large enough to attract banks and corporations, the sanitation market is relatively substantive, requiring a minimum of USD 8 billion per year, for a period of 10 years to meet MDG targets,' writes Arthur Wood, formerly of Ashoka. 'This translates to an estimated investment of USD 85 billion with an estimated USD 650 billion worth of social externalities, presenting scalable opportunities for both the banks and the social sector. The deal is further sweetened by favorable economic estimates. Each dollar that has been invested in improving access to water and sanitation in developing countries is estimated to reap economic returns ranging from USD 3 to USD 34 to investors.'

During the coming years, financiers, commerce actors, lawyers, institutional development experts, social investors and others will examine more closely the various business lines related to sanitation, with particular focus on the commercial investor's point of view. The goal is to understand the best ideas across geographies and market segments so that finance products can be designed that support those business lines, both locally and at scale.

In 2010 and beyond, entities such as the World Sanitation Finance Facility[1] will start bringing those finance products to the entrepreneurs. This will be complex because the sanitation business people are spread very thinly across a lot of countries, including many of the poorest countries in the world. Right now, the best way to serve them has not been established – that is what the forthcoming research should discover. When it is, large sums of funding will be mobilized to support sanitation. It will require clarifying the return for commercial providers and establishing a streamlined capital flow.

Experience shows that public funding is not enough to ensure sanitation for all people and that building subsidized toilets with limited funds has not proven to be the answer. But toilets and the related sanitation services are also not currently being supplied by the for-profit end of the financing spectrum. Most grant finance and for-profit approaches unfortunately do not encourage the collaboration and scale needed to meet the sanitation need.

Sanitation sector professionals are shifting their philosophy to focus on using grant finance of the type available from governments to activate the latent demand for toilets. In this model, ensuring loan and investment finance for entrepreneurs and customers is critical for meeting this demand, as is finding viable business models within the sanitation market. This is easier said than done, but some exciting challenges and possibilities exist. Key questions to be answered in the near future include:

- How do local communities participate in the sanitation market?
- How can investors focused on social and environmental impact get into sanitation?
- What are the social and environmental benefits of investment in sanitation, beyond the financial value of the market?
- How viable are household toilet building, pit emptying, public toilet management, fertilizer sales and methane generation as activities for

[1] The WSFF is an open, collaborative working group of sanitation, social innovation, financial, legal and commercial actors, who are committed to working together and transforming sanitation into a vibrant, everyday human economic activity.

entrepreneurs, communities and investors?

- How do we increase competition in the marketplace and drive costs down?
- How can we innovate financially and achieve meaningful scale in sanitation?

Aligning Policies to Support Appropriate Sanitation Solutions

Today and in the future, hard work needs to be done to maintain the dialogue between technical, financial and political people regarding sanitation services. It is commonly acknowledged that centralized waterborne sewerage is economically and environmentally untenable for the vast majority of people around the world. So sanitation policy nowadays acknowledges on-site sanitation as most viable for rural areas and even for low-density urban populations. There are a wide range of technically, culturally and financially appropriate sanitation systems and technologies to meet people's needs. The policy headache remains the high-density urban settlements in which an increasing proportion of the world's poor people live. Some policy analysts still feel that sewerage services can be extended to those people, others that public or community toilet blocks are a more realistic option.

Fortunately, people are working together on all of these aspects. The sanitation sector has suffered for years from fragmentation, and from being the 'orphan child' to the water sector (being outfunded by as much as USD 13 to USD 1), but that is starting to change. A UN-sponsored 'International Year of Sanitation' in 2008 started to get professionals to more effectively preach about the importance of sanitation. No longer is there disagreement about one or the other type of sanitation technology. Rather, there is general agreement that sanitation is good for people's health, for the environment, for dignity and for the economy. Other collective efforts, such as The Global Framework for Action, are now being started and designed to get sanitation even higher on the international political agenda.

The Case for Investing in the Private Health Care Sector in Sub-Saharan Africa[1]

"Knowledge is power."

Francis Bacon (1561-1626)

[1] Excerpted from *The Business of Health in Africa: The Business of Health in Africa: Partnering with the Private Sector to Improve People's Lives*, International Finance Corporation, 2007. While the empirical analysis of this report precedes the recent financial crisis, its medium-term assumptions remain largely valid once short-term economic adjustment has taken place.

by International Finance Corporation

The poor investment climate in Sub-Saharan Africa has long discouraged entrepreneurs and investors. But today, indicators pointing to the development of a more attractive investment climate include dramatic increases in foreign direct and private equity investment and significant gains in stock market indices across the continent. Health care has not been a major beneficiary of these positive investment trends despite stated interest. We review below improvements in the region's investment climate, summarize the challenges particular to the health care sector, provides an assessment of the magnitude of such investment opportunities and highlight some potentially attractive business models.

The Investment Climate in Sub-Saharan Africa is Improving Significantly

Political stability has dramatically improved in recent years. The likelihood of continued stability has been strengthened by the establishment of more resilient democratic structures and processes. Over the past ten years three countries in the region have moved from "partly free" to "free," and eight countries have moved from "not free" to "partly free." In Eritrea, Malawi, and Zimbabwe political freedom and civil liberties decreased.

Corruption is still a major obstacle to investment, and the prospects for systemic reforms that could counter it vary considerably across the region. The institutions responsible for providing checks and balances generally lack both resources and political clout. New organizations, such as the Mo Ibrahim Foundation, are raising awareness of good governance by providing a quantified list of countries ranked according to quality of governance and conferring awards for excellence. Furthermore, civil society is increasingly active and outspoken concerning governance issues and corruption. Media in many countries are independent and critical, and corruption is increasingly debated publicly.

The macroeconomic environment is improving, too. The region has achieved an average annual GDP growth rate of 5% over the last seven years, and this growth rate is forecast to increase throughout the remainder of this decade. Over the same period, average inflation has dropped from 16% to less than 8%. For many countries, averages mask a more compelling story. In 2007, Africa ranked third in the world (after the Eastern Europe-Central Asia group and the OECD countries) in the pace of economic reform. In 2006, two thirds of Sub-

Saharan African countries made at least one significant economic reform, and Tanzania and Ghana ranked among the top ten reformers worldwide.

Companies such as cable television network M-Net and beer giant SAB Miller have achieved impressive growth over the past 10 years. MTN, the South African cellular network operator, has expanded across the continent and all sectors of society. The net inflow of foreign investment increased from USD 6 billion in 2000 to USD 18 billion in 2005 – an increase from less than one half of 1% to around 2% of global foreign investment. Close to half of the world's major investment groups now express interest in the region, and several (including JP Morgan, Citibank, and AIG) have established specialized funds to focus on it. Large development finance institutions such as IFC, FMO, DEG, NORFUND, and OPIC have begun to focus on investment in Sub-Saharan Africa, and several of these are committing upwards of 20% of their portfolios to the region. Private equity flows have increased from a little under USD 100 million in 2001 to over 2.3 billion in 2006.

Health Care Represents a Significant Investment Opportunity

Current consumer demand for health care services continues to be unmet in most of the region (for an overview of opportunities, see figure 1). For example, every year 18,500 wealthy Nigerians travel abroad to seek medical care. In Kenya at least 5% of the total stated demand for health care is not satisfied due to limited access to services and products. Unsatisfied demand for health care is probably much higher.

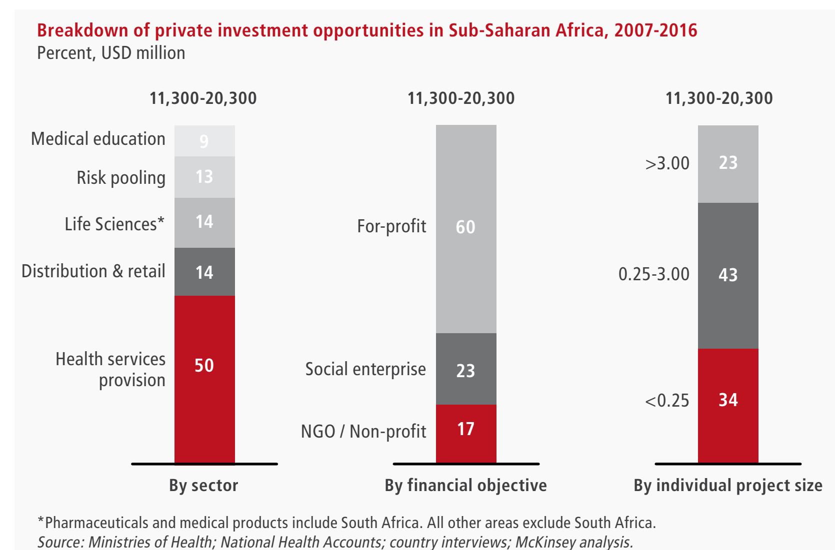

Figure 1: Investment Opportunities – an Outlook

Donors have a key role to play, using subsidized investments to finance opportunities that are not quite financially viable but show crucial promise in the development of a sustainable, high-quality, and responsible private health sector. Given the breadth and diversity of the private health care landscape, investors should be able to find an opportunity that is right for their individual needs and goals.

The five sub-sectors and their key segments are illustrated in figure 2 along the dimensions of financial viability, individual project size, and total market opportunity. This illustration represents the range of well-operated businesses and organizations. They are intended to give a sense of the opportunities available and to illustrate the main differences between the sub-sectors. Individual enterprises that fall outside the ranges shown are also likely exist, but the volume of available opportunities outside of these ranges is not expected to be significant.

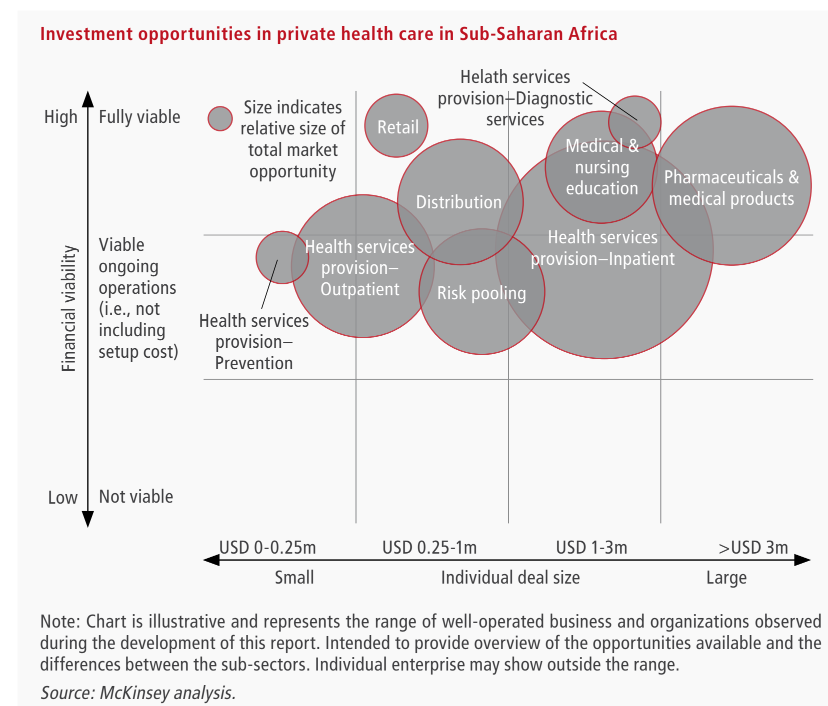

Figure 2: Investment Opportunities – Current Market Size

Provision

Provision is the largest private health care segment and holds significant potential for financial returns and development impact. The private sector share of provision varies significantly by country, depending on local government perspectives on paid health care services.

Regardless of the social and political context, over time the limited capability of the public sector to fully satisfy the anticipated continued rapid increase in demand is expected to drive an increase in the private sector's share in most countries. The majority of private health care provision is for-profit. Business models typically fall into four broad categories: inpatient care (including primary care), outpatient care, preventative care, and diagnostic services. Inpatient care is by far the largest of these categories in financial terms, at 65% of total provision expenditure. Specific investment models within these four segments are illustrated below (figure 3). High-end clinics that target growing middle- and upper-income populations in urban centers can deliver net profits of up to 30%. These clinics provide the high-quality care that attracts patients and the infrastructure that attracts medical and nursing staff. An expected increase in the number of patients able to afford these services and growing acceptance of local treatment among patients makes prospects for growth impressive. Examples include the Tanzania Heart Institute in Dar es Salaam, Lagoon Hospital in Lagos, Bridge Clinic in Abuja, and Nyaho Medical Clinic in Ghana.

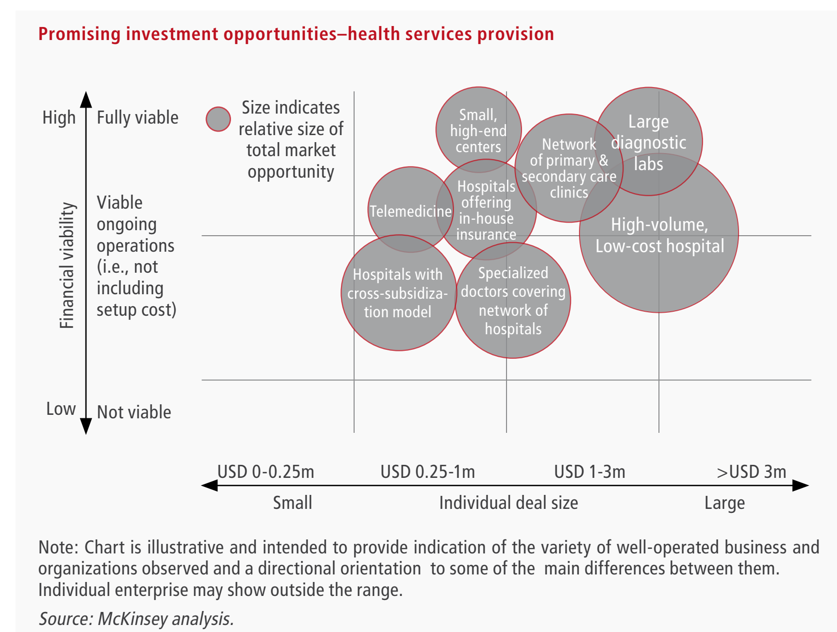

Figure 3: Promising Investment Opportunities

At the other end of the spectrum are high-volume, low-cost hospitals, usually located in high-density areas and targeting low-income groups requiring basic medical care. Since the services available are limited, patient throughput is extremely high (up to 100 patients per day per doctor). A typical revenue range for such businesses is USD 1–5 million per year. Because they provide health services to a very large population, these hospitals have significant development impact. High labor productivity helps to make the services affordable.

Risk Pooling

Risk pooling mechanisms are critical to driving sustainable improvement in health care provision in Sub-Saharan Africa. Risk pooling is a better way to pay for health care than the out-of-pocket payment systems on which most currently depend. Further, because they are able to contract directly with provider organizations, risk pooling arrangements are a powerful force for encouraging the development of higher-quality, better organized private sector providers. Risk pooling can take many forms. It is still in its nascent stages, but evidence exists of its appeal. Private insurance accounts for 20% to 30% of health care expenditure in Namibia. In West and East Africa, there are as many as 600 community-based health insurance schemes, covering over 1.5 million people. Nigeria recently approved a compulsory national health insurance scheme for civil servants and the formal sector that is to be implemented by private enterprises with the goal of eventually extending coverage to the entire population. Overall, risk pooling arrangements are expected to present a USD 1.4–2.5 billion investment opportunities over the next ten years. Integrated HMOs, providing basic insurance coverage coupled with selected preferred providers, are currently emerging throughout the region. These usually involve a capitation model or in-house provision of care. By providing in-house health services (generally primary care), these HMOs can control claims costs and fraud more efficiently. Although cost containment can make insurance affordable, the main development impact is the creation of incentives to catalyze the development of a larger provider network. Currently this model is best developed in Namibia, Nigeria, and Zimbabwe.

Micro-insurance is still rare. However, creating incentives for customers to buy health insurance packaged with traditional microfinance products could spur the growth of this market and extend health care coverage within poorer segments of society and rural populations. Plans including basic coverage for common or catastrophic conditions could be sold by microfinance corporations and linked to products like loans. While current examples of such models are primarily social enterprises accepting below-commercial returns, Grameen's experience in Bangladesh suggests that margins can be high.

Life Sciences

Overall, life sciences represent a USD 1.6–2.9 billion investment opportunity over the next ten years, with the largest

segment being generic manufacturing. The four life science segments explored in this report are generic drug manufacturing, medical supplies manufacturing, infectious disease innovation (based outside of Sub-Saharan Africa), and South African-based life sciences innovation. The majority of investment opportunities in life sciences are expected to be in excess of USD 3 million, significantly higher than the smaller-scale projects more common in the other subsectors. The estimated 2006 pharmaceutical market was USD 3.8 billion, but local manufacturers account for only 25% to 30% of that. Medical supplies and devices account for an additional USD 2.1 billion, but less than 10% is locally produced.

More than 70% of the region's USD 1 billion annual pharmaceutical production is concentrated in South Africa, where Aspen Pharmacare, the only vertically integrated manufacturer in the region, is the clear leader. Together Nigeria, Ghana, and Kenya represent about 20% of pharmaceutical production. Overall, 37 countries have some pharmaceutical production. Local manufacturers capture only a small share of the donor market (estimated between USD 750 million and USD 1 billion), primarily because donors require product prequalification from more stringent regulatory bodies like the WHO or the US FDA. As of April 2007, only two manufacturers had WHO prequalified products.

In addition, manufacturers generally produce at a cost disadvantage to large Asian generic manufacturers because of scale, an expensive asset base coupled with older technology, higher financing costs, and lack of integration with API production. Sub-Saharan African manufacturers nonetheless sold USD 1 billion of generic pharmaceuticals in the region last year. There is mixed evidence regarding whether or not local production is preferable to imports. A 2003 WHO study of anti-malarials, for example, found no consistent quality differences between them and imported products.

Distribution and Retail

Distribution and retail represents a USD 1.6–2.8 billion investment opportunity for the next ten years, with 80% of the investment potential to be found in the development of distribution infrastructure (warehouses, trucks, supply chain management information systems, etc.). The retail sector, while significantly smaller, is the most profitable segment within health care across most of the region, with net margins of up to 50%. Hospitals and clinics often depend on their pharmacies to cross-subsidize their businesses. For example, in one Kenyan outpatient clinic, 70% of the clinic's profit came from its pharmacy. The counterfeit drugs epidemic (and the health risks they represent) makes distribution and retail extremely sensitive components of the health care sector. In Kenya, a survey of anti-malarial products found that almost 30% of those drugs in the country were counterfeit. One of the factors allowing for the prevalence of counterfeit products is the often enormously fragmented supply chain that feeds both the public and private sectors. In Uganda there are over 100 officially registered importers/distributors, and 12–14 "industry leaders." In Nigeria, there are 292 licensed medical importers and 724 licensed medical distributors. One leading manufacturer reported supplying a complex network of more than 100 outsourced or owned distributors. Aside from pharmacies attached to public hospitals and clinics, most formal outlets are private, single-outlet operations. For example, over 1,500 retail outlets are legally registered but the only retail chain is Mediplus, with ten outlets. In South Africa, where retail margins have been stringently regulated in recent years, the sector is shifting rapidly toward major chains. Although there are only a handful of pharmacy chains in the remainder of Sub-Saharan Africa, those that do exist are extremely successful, in some cases showing growth rates of over 100% a year. This opportunity varies significantly due to government regulations. Given the relatively low volume of medical products that flow through formal distribution in some countries, successful distribution companies have chosen to operate across sectors, also delivering soft drinks and consumer goods. Though these distribution approaches have limitations for some categories of product (for example, vaccines requiring temperature controlled distribution), they are adequate for the vast majority of over-the-counter medicines, often lower margin products that benefit the most from a lower cost, shared transportation platform. Businesses of this kind can have from USD 1–15 million in annual revenues. Because they increase the accessibility and availability of drugs, reducing stock outs and obsolescence, the development impact of investing in such models is significant.

Medical and Nursing Education

For the last 40 years, the region has had the lowest availability of qualified health care human resources in the world. (Countries like India and Morocco have seen physician and nurse densities increase by 200% to 400%). The estimated shortage of health care professionals is in the order of 4.3 million globally with an uneven distribution between geographic and economic regions. The largest relative shortage in health service staff (doctors, nurses and midwives) is in Sub-Saharan Africa; a 140% increase is required to meet the threshold standard per 1,000 population. In many countries, public teaching institutions for health professionals are oversubscribed by students possessing the required entry qualifications. For example, in Ghana public nursing schools have the capacity to accept only 40% to 50% of qualified applicants.

Research undertaken for the WHO in 2006 indicates that the Africa Region has the lowest number of professional training institutions for medical education and the second lowest density of nursing and midwifery training institutions. The World Health Report 2006 suggests that there has been significant growth in private sector provision, albeit from a very low base. Nevertheless, the role of the private sector in the African Region has been limited for a number of reasons:

- Government regulations which have traditionally restricted the role of the private sector in medical and nursing education;

- The difficulties facing potential schools in partnering with approved local teaching hospitals;
- Which are usually public institutions;
- The high capital investment costs relating to medical education; and
- In some cases, the limited spending power of potential students.

Evidence from developing countries elsewhere (e.g., in Egypt and India) indicates that private medical and nursing schools can be financially viable – and that they can play an important role in the supply of qualified health care staff.

Countries like Ghana, Senegal, Tanzania, and Uganda, tend to have more open policies regarding the participation of the private sector in education, and may be best suited to the development of private sector models for professional health education. In the short term, nursing schools would appear to offer the more attractive investment opportunity – as regulations tend to be less restrictive than medical schools, and set-up costs are lower, thus leading to more affordable courses. For example, private institutions in Ghana currently charge about USD 2,500 for annual tuition – representing a 50% premium over government schools. Still, such fees are low enough that potential wages offered by local employers can quickly pay off the debt. In countries with more restrictive regulations the provision of specialist or postgraduate nursing courses may offer an early opportunity – as regulations tend to affect undergraduate courses.

Private medical and nursing education could represent a total investment opportunity of USD 1.1 to USD 1.9 billion over the next decade. Medical education in particular is asset intensive and it is likely that more than half of the potential investments would require more than USD 3 million. Established private hospitals that achieve local accreditation as training institutions are clearly best suited to take advantage of such opportunities. Private hospitals commonly establish private training institutions, especially for nursing staff.

After Copenhagen: Perspectives on Energy

"The meaning of a proposition is the method of its verification."

Ludwig Wittgenstein (1889-1951)

by Maximilian Martin

Introduction

202 years ago, when the Industrial Revolution had just broken out for two decades or so, the English scientist Thomas Young was the first to use the concept of energy in its modern sense. The word energy derives from Ενέργεια (energeia) in ancient Greek, used for the first time by Aristotle in fourth century BC. The concept of energy as it is in use today came out of the concept of "vis viva," defined by Gottfried Wilhelm von Leibniz (1646-1716) as "the product of the mass of an object and its velocity squared." Since then, a better scientific understanding of energy and the growing consumption of the world's fossil fuels has powered global economic progress. And through our use of the finite fossil energy resources and their impact through greenhouse gas emissions onto the global climate, humanity is now encountering the physical limits of the planet for the first time.

Given that access to energy is a fundamental human need on the one hand, and reducing greenhouse gas emissions (GHGs) on the other is critical to keep human civilization as we know it viable beyond the twenty-first century, the global community is tasked to chart an appropriate course toward emissions reduction. This was, of course, the expectation of the United Nations Climate Change Conference held in Copenhagen from December 7-18, 2009. Disappointment ran high when world leaders representing over 190 nations failed to agree on an ambitious goal and binding mechanism to contain climate change. Instead, under the compromise Copenhagen accord backed by over 100 countries, developed countries will merely finance a three-year program starting in 2010 with USD 10 billion a year for projects in developing countries to help them to deal with drought, floods and other impacts of climate change, and to develop clean energy on a larger scale.

While achieving a legally binding and verifiable global climate change treaty is a necessity, the level of ambition, attention and effort surrounding the negotiations are nevertheless significant. Public pressure from a by and large thriving citizen sector continues, and there will be subsequent rounds of negotiation, running up to COP 16 in Mexico City in December 2010 and beyond, which should produce an agreement eventually. Moreover, despite the need to provide appropriate international coordination and regulation, nation-states are not the only relevant actors.

Worldwide, metropolitan areas are responsible for 75% of GHGs, and significant efforts are under way to reduce emissions along the three vectors: saving energy, boosting energy efficiency, and developing alternative energy. Moreover, technical progress is shifting out the frontier of what is technologically feasible. While it is important to hold governments accountable for the stewardship of the nations they serve into the twenty-second century, this means that there are other opportunities to engage – as investors, social investors, and philanthropists.

This article argues that the game is not over after Copenhagen. It first provides an overview of the outlook on alternative energy and five opportunity areas in terms of clean energy, energy savings and eco-efficiency. Subsequently, we articulate a framework to help social investors assess where to intervene and how.

Outlook on Clean Energy

The transition to a low-carbon economy will impact all industries either directly or indirectly. In some ways, the clean energy market can therefore be considered the "mother of all markets" in our sustainability century. As President Obama pointed out, "we know the country that harnesses the power of clean, renewable energy will lead the twenty-first century."[1] This means, that over the medium term, there are reasons to be bullish on clean energy – although it is not yet clear which nation will emerge as the leader.

But there is still a long road to travel. In 2007 world total primary energy supply was 12,026 MTOE (Million Tons of Oil Equivalent) of which only 12.4% was produced from renewable energy sources. According to the International Energy Agency renewable energy comprises renewable combustibles and waste, biomass, hydro, solar, tide and wind energy. Due to its widespread non-commercial use in developing countries, solid biomass is by far the largest renewable energy source, representing 9.3% of world total energy supply or 73% of global renewable energy supply. The second largest source is hydro power with 2.2% of TPES (Total Primary Energy Supply), followed by geothermal representing 0.4% of TPES. The contribution of solar, wind and tide together represented 0.2% of world TPES. Renewables overall are nevertheless the third largest contributor to global electricity production. They accounted for 17.9% of world generation in 2008 after coal and gas. Growth in renewable energies worldwide is at 1.7% (average) annually since 1990 – slightly lower than the world TPES growth of 1.9% – although growth in OECD countries was twice as high as in developing countries.

From its low basis, the clean energy industry has experienced annual growth rates above 30% over the past decade, and reports global revenues of USD 115.9 billion in 2008 for biofuels, solar photovoltaics, and wind power – up from USD 75.8 billion in 2007. One sector alone, wind power, had revenues in excess of USD 50 billion for the first time in 2008 (see figure 1).[2] The industry is projected to grow to USD 325 billion by 2018.

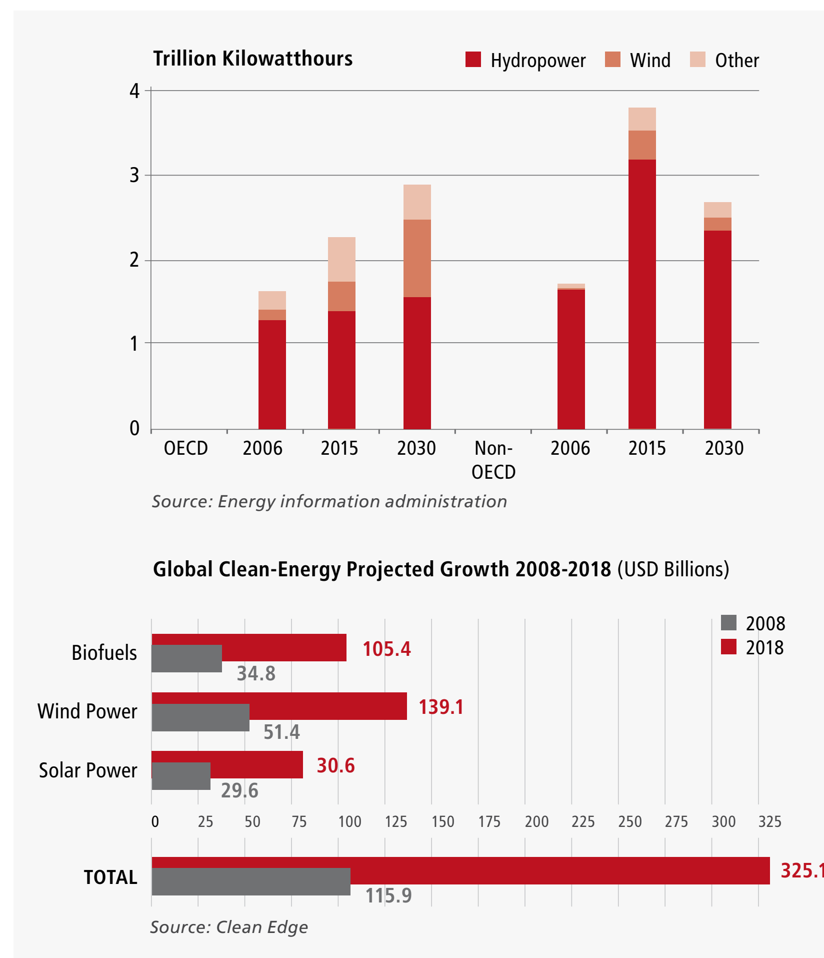

Figure 1: Outlook on the Renewable Market

[1] See President Obama, Address to Joint Session of Congress, February 24, 2009, http://www.whitehouse.gov/the_press_office/Remarks-of-President-Barack-Obama-Address-to-Joint-Session-of-Congress/.

[2] See Makower, Joel, Ron Pernick, and Clint Wilder. 2009. "Clean Energy Trends 2009." Clean Edge.

Moreover, the renewable market has some remarkable success stories to share.

- In biofuels, Brazil in 2008 managed to source over 50% of its total national automobile transportation from bio-ethanol. While Brazil is a long-established ethanol leader, this is nevertheless significant as it is the first time that a renewable obtains a dominant position in any major market.
- Wind power is moving ahead as well. In the US, wind installations represented over 40% of all new electricity generating capacity in 2008. Adding a capacity of 8 Gigawatt (GW) moved the US ahead of Germany as the world's leading generator of wind energy by total wind power output. [3]
- In the solar photovoltaics market, over four Gigawatt of capacity was installed in 2008. Though smaller than the wind energy market, this represents remarkable growth, considering the industry crossed the one-Gigawatt threshold as recently as 2004.

Notwithstanding, big challenges remain. Biofuels, wind and solar power will not fully replace fossil fuels any time soon, and can only be part of the answer to climate change.

First, at just under 2%, USD 115 billion feels like a drop in the bucket of a USD 5 trillion global energy industry.

[3] Globally, 27 GW of wind power were added in 2008. See Makower, Joel, Ron Pernick, and Clint Wilder. 2009. "Clean Energy Trends 2009." Clean Edge.

Second, in spite of public policy incentives, for for-profit investors, profits in clean energy have been diverse and partially a function of when they entered the market and how, with generally better outcomes for institutional and retail investors, and often less convincing returns for venture capital and private equity funds. In the wake of the global financial crisis, the oil price collapsed from a historical peak of USD 147 in July 2008, reaching a trough of USD 30 only five months later. Moreover, the recession also slowed down IPO markets, thus impacting incentives for venture funds to make new investments in clean energy. Tight credit conditions impacted the renewables industry directly, and many firms had to delay expansion plans, shelve projects, and reduce staff. Even in the wake of public policy stimulus, such adverse factors are significant – while it is great to get a quarter or more of project costs through fiscal incentives or government grants, this does not remove the need to find funders for the remaining 75% of the investment!

The medium-term outlook nevertheless remains generally positive. Around the world, governments are increasing clean energy requirements, and this acts as a stimulus to develop supply. For example, in the US over 30 states have already established renewable portfolio standard requirements or goals, and the US is considering a national renewable portfolio standard that will require about 25% of the US electricity mix to come from renewable sources by 2025.[4] As a space that is already incentivized via public subsidies, clean energy is best considered from an investment perspective, rather than a social investment perspective willing to sacrifice financial returns for social impact. Moreover, there is an important role for philanthropy as well, mainly in funding research, advocacy, and smart convening.[5]

[4] See http://www.epa.gov/chp/state-policy/renewable_fs.html

Clean Energy, Energy Saving and Energy Efficiency: Five Major Opportunity Areas

Seen that clean energy will not replace fossil fuels in the foreseeable future, actors interested in reducing carbon dioxide equivalent (CO_2e) emissions also need to consider how energy can be saved and its transmission be rendered more efficient. There are five trends to watch (see figure 2). They will transform the energy industry, drive value creation, and provide future entry points for social investors and investors alike.

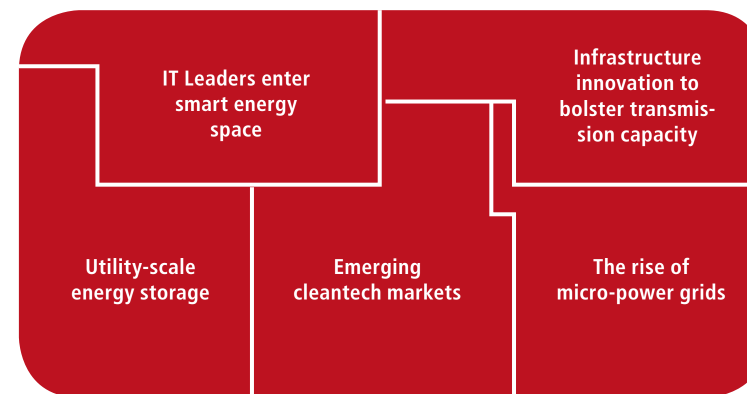

Figure 2: Five Major Opportunities in the Clean Energy Sector

First, we are moving toward "smart grids:" a transformation of the grid is under way from the equivalent of "dumb" mainframe computers with terminals to an integrated web of computers, in this instance from local power plants and the buildings we live and work in to an integrated network of devices that can communicate with each other. This introduction of unique identifiers – Internet protocols – will allow for significant energy efficiency through smart metering and the optimal integration of powered devices ranging from buildings and cars to laptops and cell phones. Public policy stimuli such as the USD 11 billion grid improvement package of the US Federal Government will help accelerate smart grid transformation.[6]

[5] See also Martin, Maximilian. 2007. "C4CC – Cleantech for Climate Change: Building a Response Portfolio." http://ssrn.com/abstract=1322390.

[6] See appropriations.house.gov/pdf/PressSummary01-15-09.pdf

Second, a storage technology race is under way to provide a solution for utility-scale energy storage. This is of particular importance in the case of solar and wind power, where peak power supply and demand often mismatches. Large-scale storage for renewables would remove a key barrier to significantly scaling the use of renewable energy in a utility's energy mix. Currently, there is a host of technologies vying for becoming the utility industry standard, including compressed air energy storage, flywheels, large-scale lithium ion batteries, molten salts for solar thermal storage, redox, sodium sulfur, vanadium and zinc.[7]

Third, the clean energy movement has become a secular trend around the world, with new countries building significant capacity and clusters. Launched in January 2009 in Bonn with the mission to advance clean energy worldwide, the statutes of the International Renewable Energy Agency have so far been signed by 137 states and the European Union.[8] A number of countries seek to stimulate the installment of solar energy capacity through aggressive feed-in tariffs (e.g. France and Greece); wind power capacity is also up significantly in a number of countries, almost doubling in Turkey (+194%) and Tunisia (+170%).[9] Eastern European governments have also devised aggressive plans to increment renewable energy capacity; Belarus for example wants to source a quarter of its energy needs from renewable by 2012; France aims for 23% by 2020. Of course, from an investor's point of view the question remains what technology will prevail and what regulatory regimes will emerge. Interestingly, empirical evidence suggests that the level of subsidies for renewable energies is less important than planning security in a regulatory framework; however, policy makers are not necessarily aware of the cost political risk imposes.[10]

Fourth, significant efforts are under way to boost transmission capacity, which is considered as one of the main obstacles to maintain the growth momentum of utility-scale solar and wind energy. The US power grid is particularly antiquated, and will benefit from the upgrade under way. In Europe, large-scale offshore North Sea and Atlantic wind turbine projects will bring significant new capacity on stream.[11]

Finally, while grid infrastructure is being generally upgraded and overhauled, there is an interesting sub-trend that can introduce radical efficiency gains: micro-grids. Micro-grids are local power networks that facilitate the production of power closer to the end user, so that electricity does not need to be produced at higher voltages, and step-down losses can be eliminated. Deploying cogeneration, fuel cells, geothermal, micro-turbines, solar cells, or wind turbines, micro-grids can provide energy solution systems that are adapted to local needs and usage patterns. Where waste heat is integrated, such systems can run on an overall efficiency of up to 90%.

[7] See Electricity Storage Association, http://www.electricitystorage.org/site/technologies/

[8] Source: IRENA, http://www.irena.org

[9] Source: Global Wind Energy Council

[10] See Lüthi, Sonja, and Rolf Wüstenhagen. 2009. "Die Kosten politischer Risiken: Empirische Studie untersucht Investitionsbereitschaft europäischer Photovoltaik-Projektentwickler." http://www.solarserver.de/solarmagazin/solar-report_0909.html

[11] See for example: http://tdworld.com/underground_transmission_distribution/north-sea-wind-power-20091101/

Targeting Climate Change and Economic Empowerment Objectives

Investments in energy saving, energy efficiency and clean energy can be both financially attractive and make an important contribution to CO_2e reduction objectives. But what about the economic empowerment objectives in developing countries that social investors and philanthropists typically care about? Can we fight climate change and meet those as well? Considering that 1.6 billion people still do not have access to electricity at all and almost 3.9 billion people have no regular access to an electricity grid, some argue that this is the place where renewable energies like solar or wind are needed most. In our view, it is important to be clear about the tradeoffs involved in targeting climate change and economic empowerment (see figure 3).

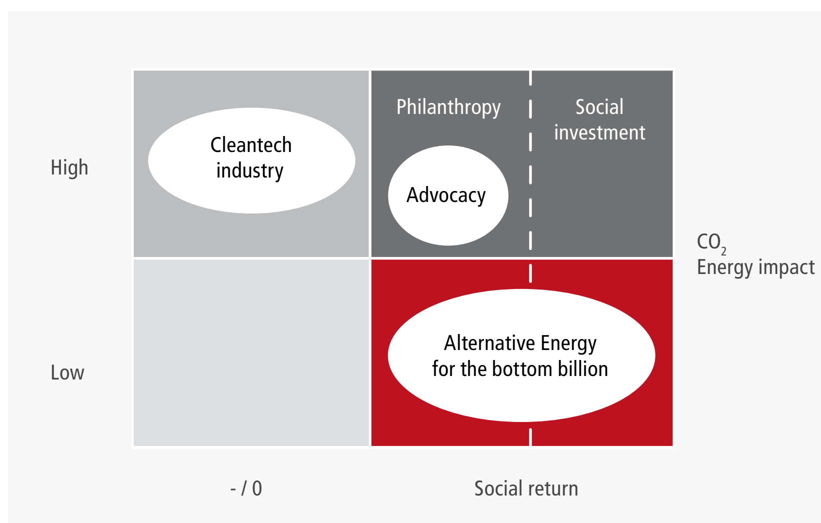

Figure 3: The Climate-Empowerment Matrix

Consider the four quadrants of the "climate-empowerment" matrix.

First, interventions that cluster in the bottom-left quadrant and thus have both a low economic and a low climate impact are not of interest to actors seeking to combat climate change and alleviate poverty.

Second, the bulk of the opportunity areas in clean energy discussed above

have foremost a CO_2e reduction objective. Interventions in this space in terms of renewables, energy savings and energy efficiency typically enjoy substantial and increasing public subsidies and policy support. This renders them interesting investment opportunities in their own right, but not necessarily a field of action for social investment.

Third, there are interventions that have a strong poverty alleviation or economic empowerment impact. Access to energy provides a direct benefit in terms of poverty reduction and improved health. For example, the UN Millennium Project estimates the impact of providing electricity to a rural Philippine household at USD 81-150 per month due to "improved returns on education and wage income." In fact, for the poorest 4 billion people on the planet, access to modern, clean and safe energy is equivalent to entering a new life. Right now, energy means batteries, kerosene or paraffin lamps, or cooking with firewood or waste. Urban households may perhaps have a link to the grid – but it is notoriously unreliable, dangerous and informal. Women and girls in particular spend hours in collecting firewood or inhaling smoke over a dirty stove. A staggering 1.6 million people die every year due to the toxic effects of indoor air pollution from cooking fires. Access to energy for low-income people means choices about what to do at night, improved health and safety, and the ability to direct scarce financial resources to more productive uses. It means pumping water when the crops are ready, keeping a shop open at night, or not fearing for a child studying with a candle. For low income communities, it means forests preserved from firewood scavenging, clean air at cooking time, and streams without leaking battery acid. Lack of energy may be an inconvenience in the developed world, but it is a barrier to development of the most basic kind for low income populations. Moreover, there is a market – despite being poorly served or even put at risk, the poor are paying for energy. People at the bottom of the pyramid spend USD 500 billion on energy each year to meet their cooking, lighting, communications and income generation needs.[12]

This means that providing adequate energy solutions makes a big difference. Consider for example a current project to promote affordable solar energy for low income communities recently launched by the Canopus Foundation, Ashoka and a group of other foundations: the funders are organizing a competition which is intended to discover and enhance modular, scalable and replicable photovoltaic systems, and seek to reward and design innovative payment and financing schemes as well.[13] Such initiatives are laudable, because they may uncover existing innovations somewhere in the field that are urgently needed: there are many blockers to dissemination of cleaner energy solutions. For example, finance schemes – the fix costs for solar or wind are high. The developed-country approach of discounting numerous expenditures that will occur in the future and comparing them with a single large expenditure which is then financed if the project's overall return on investment is positive and exceeds a hurdle rate is often not an option in developing countries – even in cases where the return on investment is strongly positive: people may simply not have the money for an upfront payment, and nobody may be willing to provide them with financing at reasonable rates. The consumers in the BoP markets need to be served with business models that are compatible with their financial situation and their preferences. This is a key intervention area for social investments, as discussed in other chapters. Moreover, they may be real leapfrogging opportunities, capitalizing on technological discontinuities, as in the case of land lines and cell telephony in Africa.

[12] Measured at purchasing power parity (PPP).

[13] See http://ww.canopusfund.org/solar_for_all.html. The organizers explain: "Until today the access to modern energy is constrained by factors such as limited access to appropriate affordable technology, fragmented small markets, prohibitive taxes, and limited financial resources," Prof Eicke Weber, Director of the Fraunhofer Institute for Solar Energy ISE and chairman of the jury explains. "The 'Solar for All' initiative wants to meet the technical and financial challenge with a global design contest." "A lot of projects in the past failed because project developers were not taking an end-user perspective," remarks Peter Heller, Director of Canopus Foundation. "Our contest will motivate key-players to focus on end user needs."

Fourth, we need to be honest. Given the goal of limiting temperature rise to 2 degrees Celsius, significant cuts in emissions are required. According to a common scenario, CO_2 emissions can grow in developing countries until 2020 and must then stabilize; we need to reach a worldwide 50% reduction, and this means that the industrialized countries must reduce emissions by 80%. While serving the people at the bottom of the pyramid is extremely important for a number of reasons and often commercially viable, let us do so to achieve economic empowerment. Let us also be clear that climate change efforts must be targeted where the bulk of the emissions are produced. This means that the key opportunity consists of metropolitan areas worldwide that are responsible for 75% of GHG emissions. In short, for those interventions that focus on targeting climate change, we need to direct our efforts to the top-right quadrant.

Given the lack of progress in Copenhagen, probably one of the most promising projects currently is EUCO$_2$ 80/50, because of its concentration on metropolitan areas and its public-private-partnership (PPP) approach. EUCO$_2$ 80/50 is a metropolitan mitigation project coordinated by the Metropolitan Region of Hamburg, bringing together 15 regions in Europe, with General Electric as the official partner.[14] EUCO$_2$ 80/50 operates as a four-step strategy design project that deploys the Greenhouse Gases Regional Inventory Protocol (GRIP) methodology to first establish regional GHG inventories, subsequently conducts scenario workshops to develop optimal mitigation strategies, and then decides on a regional mitigation strategy. In step four, the goal is to transfer the results to over 100 other metropolitan areas. To establish a reliable basis for regional mitigation activities 18 regional invento-

[14] See http://www.euco2.eu. The cities and metropolitan regions participating in the initiative are: Brussels, Frankfurt, Glasgow, Hamburg, Helsinki, Ljubljana, Madrid, Napoli, Oslo, Paris, Porto, Rotterdam, Stockholm, Stuttgart, and Torino. EUCO2 80/50 is a project of METREX, the European network of metropolitan regions and areas, which comprises over 50% of such regions in Europe, see http://www.eurometrex.org/ENT1/FR/index.asp.

ries were produced in accordance with UNFCCC standards from January-April 2009. The inventories considered four emissions sectors (agriculture, industrial processes, waste and the energy sector) and established that in the regions under study (including large regions such as Paris or Madrid), 87% of emissions stemmed from the energy sector. Subsequently, scenario workshops will be conducted with regional stakeholders from economy, politics, administration and citizen sector, and the effects of various mitigation measures visualized and assessed by means of a scenario tool. The incorporation of stakeholders facilitates a consensual strategy finding process which makes implementation more probable than e.g. a climate action plan developed by a public administration on its own. It will become clear in the scenario workshops that a substantial part of the required 80% GHG emissions reductions are possible through a smart combination of saving energy, using it more efficiently and substituting fossil energies by renewable energies, and that many of the required products already exist, e.g. in the GE ecomagination product shelf.

Conclusion

Energy is an important engagement area for investors, social investors and philanthropists alike. Modern society continues to rely mainly on fossil fuels to preserve economic growth and current standards of living, and this will not change in the near future. Given population growth, economic progress, and environmental destruction, accurate accounting of energy dependency has never been more important to developing public policies that stimulate sustainable development of global society, both in the industrial world and the emerging economies. The game is not over after Copenhagen – but we need to be smart. We live in a world where politicians are not arbiters of everything. There are multiple roles to be played by investors, social investors, and philanthropists as well. Some are profitable and meaningful, some are meaningful only.

At a global level, further emphasis needs to be put on the introduction of a global cap-and-trade system that will limit GHGs by balancing regional emission differences through transfer payments. But there are additional domains that provide opportunities for engagement.

For the four billion poor people on the planet, access to affordable energy is critical for livelihood. While there are interesting rural and urban solutions for renewable energies in developing countries, these opportunities can only be unleashed with the help of new finance mechanisms, and will require public and private subsidies (philanthropy). Social investment opportunities creating both social and financial returns also exist. Analyzing them is not so different from the kind of analysis commonly conducted in venture capital. In the BoP space, a smart combination of provision of financial resources and sound investment processes can and will make a difference.

But this will not contain the rise in global temperature within the 2 degree Celsius range. In the grand scheme of things, the poor in developing countries use comparatively little energy.

To achieve our climate change objectives, we need to take a different focus. Energy saving, energy efficiency, and alternative energy are all critical, and this creates multiple opportunities to get involved. In a not-so-distant future, our information society will dispose of information systems at all levels providing direct real-time feedback on energy usage, introducing radically new opportunities for increased efficiency of usage.[15] In the short term, it is best bet is to act where emissions are actually caused – in metropolitan regions. A structured matrix approach helps to visualize economic impact in terms of poverty alleviation, and CO_2e reduction impact, and to determine where and how to get involved.

Regarding the fundamentals, there are reasons to be confident. Over the long term, humanity should be able to meet its energy needs from renewables. According to serial inventor and entrepreneur Ray Kurzweil, secular trends develop in hockey-stick shapes – flat for a long time and then all of a sudden taking off. For renewable energies in particular he is very bullish, pointing out that solar energy suffices to meet world energy demand 45 times. Let’s hope that we can get our act together to create an enabling international climate change framework. Only time will tell if we can prove G.W.F. Hegel (1770-1831) wrong, who famously argued that “history teaches us that people have never learnt anything from history.”

In the meantime, philanthropists, investors, and social investors all have a meaningful contribution to make: keeping up the advocacy pressure, acting as intelligent investors in clean energy, energy saving and energy efficiency, and engaging as social investors at the bottom of the pyramid. In many instances, this will also be good business.

[15] Note that smart metering etc. will raise new questions, for example around privacy issues.

Visions for the Future

A New Social Contract for Philanthropy?

by Arthur Wood

Everyone a Changemaker: Social Entrepreneurship's Ultimate Goal

by Bill Drayton

A New Social Contract for Philanthropy?

"One longs, in reading your book, to walk on all fours."

François Marie Arouet, or Voltaire (1694-1778), writing to Rousseau after reading Noble Savage

by Arthur Wood

In February 2007, at the height of the boom, the *Financial Times* published the US was in danger of losing its AAA rating as a result of healthcare and pension costs, compounded by growing demographic pressures. This was nothing new and reflected similar articles dating back to the 1980's, an issue policy makers have consistently fudged.

What is not generally recognized is that after a lull of a few years these structural trends are now again about to worsen. Ironically, the US is actually the best placed among any G7 country.

Into this predictable chasm of political inaction, declining tax bases linked to growing domestic demands for health and pensions, and the macro issues of Climate Change, Water and Sanitation, the storm of 2008 broke, and at a stroke has forced these issues onto the political agenda.

The growing mountain of government debt means that government is less capable of funding social programs, and for the first time since 1982 (with a blip in 1987/89) foundation funds have melted, by over 35%, the effect further compounded in the US by the tax system. On the corporate side, corporate social responsibility (CSR) budgets are being cut back, seen by many CEO's as not core to their bottom line.

The situation indeed looks bleak. The current funding structure of philanthropy (or to phrase more cogently, the supply of social capital) has really only two positions to invest: namely "a for-profit" with social impact (say, 6% plus); or a grant model where the money is given away (at a return of negative 100%).

This system creates disincentives to scale or collaborate, fails to provide a mechanism to scale an entity, and most importantly provides no mechanisms that encourage a systemic collaboration of players (for-profit, not-for-profit, multilateral, governmental and corporate). Ironically and intuitively we all realize this collaboration is required to solve the complex social issues we face, but this is not how we currently finance or incentivize the players.

This reality is reflected in analysis published by the Stanford Social Innovation Review, highlighting the resultant effect, noting that in the US social capital market, the world's most sophisticated social capital market valued at USD 1.4 trillion, less than 3.8% of the entities have revenues of larger than USD 10 million. If you look back to 1970 less

than 0.07% of all entities have managed to achieve revenues of USD 50 million or more.[1]

The social capital market is in essence a huge market but one with very high degrees of fragmentation, with virtually no economies of scale. It is a market where the cost of allocating capital is estimated again by McKinsey to be 22-43 cents in the dollar (ten times the cost of the commercial sector). What does that tell you about the "profitability" or to use the not for profit jargon, "*the sustainability*" of the whole sector?

The current legal and financial paradigm means there is:

- No mechanism to allow an idea in the not-for-profit world emerge effectively into sustainability, even cash flow is allocated by a grant model;
- Looked at as the R&D of society, there is no mechanism that links this innovation to the downstream benefits (and cash flow) of its creation; and,
- No mechanism that allows a systemic collaboration of different players, for-profit and not-for-profit.

Taken together, this creates a structural funding gap (see figure 1).

[1] See Meehan, William F., Derek Kilmer and Maisie O'Flanagan. 2004. "Investing in Society: Why We Need a More Efficient Social Capital Market - and How We can Get There." *Stanford Social Innovation Review* (Spring). http://www.ssireview.org/articles/entry/investing_in_society/. See also Foster, William, and Gail Fine. 2007. "How Nonprofits Get Really Big." *Stanford Social Innovation Review* (Spring). http://www.ssireview.org/articles/entry/how_nonprofits_get_really_big/

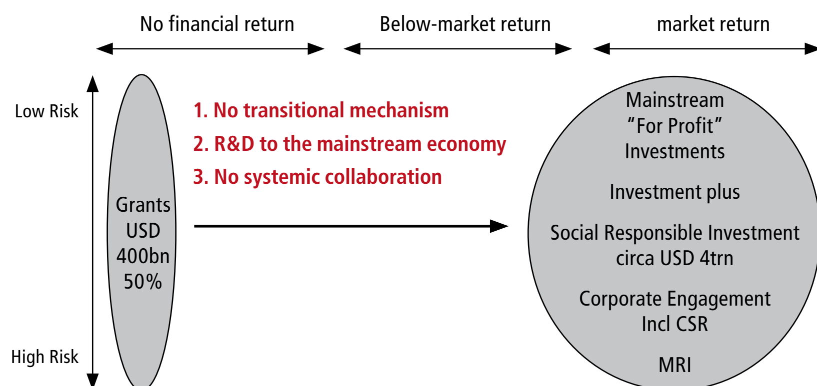

Figure 1: The Structural Funding Gap

The Need for a New Social Contract

However, it is this very inefficiency and scale that offers an opportunity to all parties by recognizing philanthropy has two roles in our society. One is charitable, and there are issues that will always require grant funds: think of immediate disaster aid, stopping child abuse or human rights. This should always be clearly supported, probably by grant.

Nonetheless, philanthropy also performs another key function in our society, for which it is not always fully recognized, namely the research & development of society: *the hub of new ideas*. Clear examples include the Green Revolution pioneered by Rockefeller in the 1960's; more recently, the creation of microfinance. Indeed many things we see as charitable in the developing world are sustainable businesses in the developed world. The question is the time lag.

Faced with the fundamental question that there is simply not enough money in the current paradigm, and that we face the danger that we will fail, without wishing to sound too dramatic potentially as humankind, given issues such as climate and water, the question becomes quite simply: *how do we mobilize the resources of the whole of society, specifically the corporate and banking sector, to address these fundamental issues?* Maybe we should also pose the question: *why should it be somehow morally unethical to make money out of solving the fundamental issues of our time*?

Indeed, even from the perspective of the traditional not-for-profit world, why do we allow ourselves to be locked inside a legal and financial paradigm that ensures we do not benefit out of the downstream economic benefits of what we stimulate?

Ironically, the philanthropic sector possesses huge strengths not only as the R&D of society, but also in terms of its access also to huge subsidies, both public and private. Structurally, it is paradoxically the only large scale capital market where the participants will quite happily take a sub-market return, indeed of negative 100%: a grant.

Despite the sector being a clear source of subsidy and ideas, the "for-profit" corporate sector tends however to only cautiously engage in philanthropy, in two juxtaposed ways. First, by not bringing their core skills to bear due to the fear of reputational risk and of being tabbed with *"profiting out of the poor"*. This school sees philanthropy as purely Corporate Social Responsibility, or at best a human resources concept, in which interest is usually higher in a bull market, not as a brand opportunity or as an opportunity to develop new markets.

Alternatively, corporate practices can be viewed as more predatory, as can be seen in elements of the pharmaceutical world where the value of the R&D is extracted from the not-for-profit world in a grant model. The pharmaceutical company then separately benefits on the upstream distribution of those ideas and products in the for-profit world, indeed for the most part the *"not-for-profit"* academics see themselves as lottery ticket winners, not as part of a consistent busi-

ness proposition and act accordingly. The power is with distribution, not innovation.

Indeed the philanthropic sector is at times its own worst enemy as the legal and financial structure locks it in to the grant world and *dis-intermediates* the sector from the downstream benefits of what it does, so sacrificing influence and social mission as a function of the current funding process.

Viewed as the R&D element of a broader societal pact to engage the "for-profit" world in the interests of both parties raises interesting issues:

- How do you ensure that the social mission is maintained and preserved?
- How do you create financial incentives for systemic collaborations?

From Silo to Social Contract

Driven in part by a growing realization by all parties that the current siloed paradigms cannot address the systemic failure in many social issues, one is beginning to see change happening at a number of levels.

At the local societal level the growth of social entrepreneurship and the broader growth of the citizen sector reflects this desire to address at the level of the community the fundamental issues that government and the not for profit paradigm have clearly failed to address even in a time of benign economics.

In the foundation world, the renewed interest in program-related investment (PRI) and mission-related investment (MRI) as well as social investing, with new financing models and ideas emerging, all offer substantive promise and opportunity. It reflects the changes being fostered by the cold light of economics. It reflects a need to move out of a paradigm that has only one funding structure, a foundation, which can also be regarded as a closed ended investment trust. We need to ask: how can we leverage their capital for greater social impact?

It may help the reader to classify some of the recent innovations with a more "hawkish" eye, testing for impact, and putting these innovations in a broader framework for action. To identify some of this new innovation in scale, let us use the acronym TIERCELS (male hunting hawks):[2]

- T – Transparency: Markets only grow with transparency.
- I – Intermediaries: The creation of new Intermediaries that mediate the relationship between the sectors and the current silos to the benefit of the social sector stakeholders.
- E – Externalities: Mechanisms that allow the valuations and monetization of the effects of investment in social funding.
- R – Risk / Return: Most players in the social sector assume this is unitary. However the creation of layered financial models with each player taking different social economic return allows more private capital to be injected into the market.
- C – Corporate Engagement: Looking into new models beyond CSR where philanthropy plays a role in opening up new markets.
- E – Entrepreneurship: The growth of social entrepreneurship and social enterprise models, innovation-driven and owned by the community.
- L – Legal Structures: A substantive growth in new legal structures to redefine the economic relationship between the social sector, government and the corporate sector such as the L3C (the US Low Profit Limited Liability Company) and the CIC (the UK Community Interest Company).
- S – Scale: The growth of mechanisms that drive substantive economies of scale into the relationship between the social sector and the corporate sector.

These new initiatives are driving substantive new capital and innovation into the philanthropic and social market place and very much challenge the assumptions of the existing "not-for-profit" world. It creates not so much of a bipolar world of for-profit and not-for-profit, but one where philanthropy and social mission are part of a broader social contract to the benefit of all.

Practically, the world looks begins to look more like the representation in figure 2. We are moving toward collaborative leverage, and away from grants and silos.

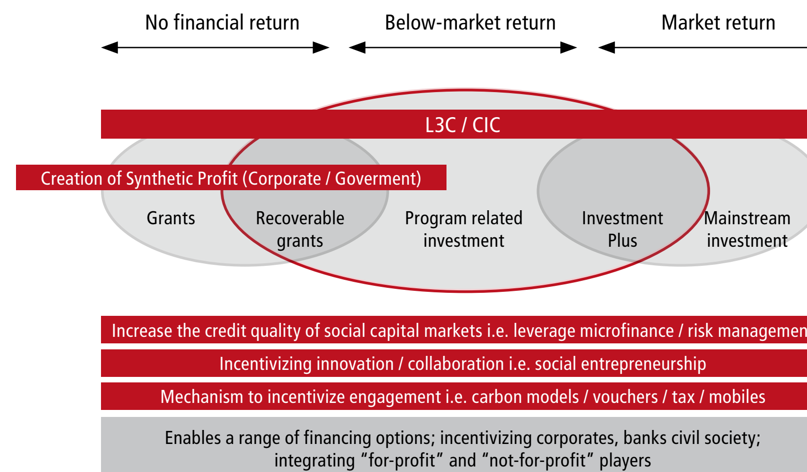

Figure 2: Beyond the silos[3]

[2] Numerous examples are readily available to illustrate each element.

[3] Adapted from Bolton, Margaret. 2005. "*Foundations and Social Investment: Making Money Work Harder in order to Achieve More.*" London: Esmée Fairbairn Foundation.

This is not just a cry of the citizens sector. To quote the UK PM Gordon Brown at the UN in November 2007 with Secretary-General Ban Ki-moon: "our objectives cannot be achieved by governments alone, however well intentioned; or private sector alone, however generous; or NGOs or faith groups alone, however well meaning or determined. It can only be achieved in a genuine partnership together."

Or as the former Canadian Prime Minister Paul Martin noted: "Government unleashed the power of business entrepreneurs when it provided them with the wherewithal to succeed, with needed public goods and functioning capital markets". What I would now ask, is that government unleash the power of social entrepreneurs as well by providing them with the wherewithal to succeed. The problems are such that we need to mobilize the resources of the entire society. At the risk of a bad pun, that is the true bottom line.

Everyone a Changemaker: Social Entrepreneurship's Ultimate Goal

"I don't approve of the global village. I say we live in it."

Marshall McLuhan (1911-1980)

by Bill Drayton

The agricultural revolution produced only a small surplus, so only a small elite could move into the towns to create culture and conscious history. This pattern has persisted ever since: only a few have held the monopoly on initiative because they alone have had the social tools.

That is one reason that per capita income in the West remained flat from the fall of the Roman Empire until about 1700.

By 1700, however, a new, more open architecture was beginning to develop in northern Europe: entrepreneurial/competitive business facilitated by more tolerant, open politics. The new business model rewarded people who would step up with better ideas and implement them, igniting a relentlessly expanding cycle of entrepreneurial innovation leading to productivity gains, leading to ever more entrepreneurs, successful innovation, and productivity gains. One result: the West broke out from 1,200 years of stagnation and soon soared past anything the world had seen before. Average per capita income rose 20% in the 1700s, 200% in the 1800s, and 740% in the last century.

The press reported the wars and other follies, but for the last 300 years this profound innovation in how humans organize themselves has been the defining, decisive historical force at work. However, until 1980, this transformation bypassed the social half of the world's operations. Society taxed the new wealth created by business to pay for its roads and canals, schools and welfare systems. There was no need to change.

Moreover, no monopoly, public or private, welcomes competition because it is very likely to lose. Thus, the social sector had little felt need to change and a paymaster that actively discouraged it. Hence, the squalor of the social sector. Relative performance declining at an accelerating rate. And consequent low repute, dismal pay, and poor self-esteem and élan.

By the nineteenth century, a few modern social entrepreneurs began to appear. The anti slavery leagues and Florence Nightingale are outstanding examples. But they remained islands. It was only around 1980 that the ice began to crack and the social arena as a whole made the structural leap to this new entrepreneurial competitive architecture.

However, once the ice broke, catch-up change came in a rush. And it did so pretty much all across the world, the chief exceptions being areas where governments were afraid. Because it has the advantage of not having to be the pioneer, but rather of following business, this second great transformation has been able steadily to compound productivity growth at a very fast rate. In this it resembles successful developing countries like Thailand. Ashoka's best estimate is that the citizen sector is halving the gap between its productivity level and that of business every 10 to 12 years.

This rapidly rising productivity means that the cost of the goods and services produced by the citizen sector is falling relative to those produced by business – reversing the pricing pattern of the last centuries that led to the much-criticized "consumer" culture.

As a result, as resources flow into the citizen sector, it is growing explosively. It is generating jobs two and a half to three times as fast as business. There are now millions of modern, competing citizen groups, including big, sophisticated second-generation organizations, in each of the four main areas where the field has emerged most vigorously: Brazil-focused South America, Mexico/U.S./Canada, Europe, and South and Southeast Asia. (The field is also growing vigorously in Africa, the Middle East, East Asia, and Australia/New Zealand, but these are much smaller clusters.) All this, of course, has dramatically altered the field's élan and attractiveness. This is where the job growth is, not to mention the most challenging, value-rooted, and increasingly even well-paid jobs. Just listen to today's "business" school students.

Eventually the distinction will fade as the accidental division created over the last three centuries of rapid business productivity growth and social-sector stasis erodes. Ashoka and a growing number of other citizen sector organizations ask that everyone stop defining us as not government (NGO) and not business ("non-profit"), respectively, the European and American original reactions to our newly emerging sector. It does not make sense to define half of society by what it is not. We suggest the use of "citizen sector" and "citizen organization" instead. One or more citizens caring and organizing to provide a service or spark a change are the active ingredients. And, as this paper articulates, our most important impact is our "everyone a changemaker" – aka citizen – role.

Society cannot significantly increase the proportion of adults who are, and know they are, changemakers and who have mastered the necessary and complex underlying social skills until it changes the way all young people live.

Given the results-based power of this transformation of the citizen sector, more and more local changemakers are emerging. Some of these learn and later expand the pool of leading social entrepreneurs. To the degree they succeed locally, they give wings to the entrepreneur whose idea they have taken up, they encourage neighbors also to become changemakers, and they cumulatively build the institutions and attitudes that make local changemaking progressively easier and more respected. All of which eases the tasks facing the next generation of primary pattern-change entrepreneurs.

This virtuous cycle catalyzed by leading social entrepreneurs and local changemakers is the chief engine now moving the world toward an "everyone a changemaker" future. No matter how powerful this dynamic is, however, several other changes are necessary if society is to navigate this transition successfully:

- Most important, society cannot significantly increase the proportion of adults who are, and know they are, changemakers and who have mastered the necessary and complex underlying social skills until it changes the way all young people live.
- Although it is normal for support areas like finance to lag behind change in the operating areas they serve, the emergent citizen sector is now at significant risk unless it can quickly engineer major structural changes in both its institutional finance sector and the broad grassroots sources of support in its post-breakeven zone.

Transforming the Youth Years

There are well over 400 Ashoka leading social entrepreneurs whose primary goal is getting society to do a far better job of helping all children and young people to learn and grow up successfully. Each has a powerful, proven, society-wide approach. (Between 49% and 60% of those elected by Ashoka have changed national policy within five years of their startup stage election.)

However, each of these approaches is a partial answer. It is built around one insight or principle, works through one delivery system, and addresses one or two client groups. Ashoka's "mosaic" process brings all these powerful elements together, draws out the few universal principles that open major new strategic opportunities for the key decision makers in a field (e.g., in this case, those who run schools and youth programs), and then markets these principles. In effect, these mosaic collaborations promise our community the ability to entrepreneur together, an advance that produces far bigger impact than anything the sum of our solo ventures could achieve.

Roughly two-thirds of these 400-plus youth-focused Ashoka entrepreneurs have learned the same three powerful principles. Because they need human resources to implement their vision and cannot realistically get more teachers, they turn to young people. The first insight is that young people are a huge, and in fact usually the only significant available human resource. The other two follow logically: first, the unconventional assumption that young people are or can be competent; and second, the idea that one must transform youth communities (e.g., in schools) so that they become competent at initiating and organizing, and then train and reward their young people in these skills. Applying these three principles in hundreds of different ways and across the globe produces strikingly similar and powerful results: motivated students, better academic results, and young people who are experiencing being in charge. And a very differ-

ent feel to those schools and programs from the moment one walks in.

Whether these social entrepreneurs discovered and developed these principles to solve their staffing problems and/or with broader educational purpose, collectively they have created a most powerful set of tools to transform the youth years. Moreover, the repeated success they have had in large-scale and highly diverse applications of these principles leaves one with enormous confidence in the power and practicability of these principles.

Ashoka's young people's mosaic also identified another principle that fits closely with this first cluster: anyone (or any group) who does not master the complex social skill of guiding his or her behavior through applied empathy will be marginalized. Since this is the enormously cruel, destructive state of perhaps 30% of the world's people, helping young people master empathy is proportionately important.[4] One of the best ways of doing so is by encouraging them to build teams to contribute important changes and/or services. If their team is to succeed, they must master teamwork, which in turn rests on applied empathy.

Ashoka began developing its mosaic process and the pioneer young people's application in 1990. It was, however, only quite recently that Ashoka realized that its ultimate purpose, an "everyone a changemaker" world, is an unreachable fantasy unless the youth years become years of practicing being powerful and acquiring the required underlying skills: applied empathy, teamwork, and leadership. This realization suddenly puts the mosaic's core principles in a new light: They are as powerful as they are in large part because they are so key to unlocking this historical transition.

If young people do not grow up being powerful, causing change, and practicing these three interlocked underlying skills, they will reach adulthood with a self-definition that does not include changemaking and a social skill set that largely precludes it. Just as one must develop strong emotional foundations in the first three years of life or suffer for a lifetime, young people must master and practice these social skills and the high art of being powerful in and through society while they are young.

Consider how sophisticated the learned skill of applied empathy is: As we contemplate each action, we must comprehend how it will impact everyone at several removes around us and long into the future – and then guide our behavior accordingly. Our world now requires that skill as the ticket of admission to most simple levels of society. A dependably good person can no longer rely only on rules because they are increasingly in conflict, changing, or have yet to be developed.

Those without this complex skill will be marginalized. Moreover, mastering it is only the first step toward learning teamwork and leadership. Like ballet, these skills require extensive and real practice.

The children of elite families grow up at home and usually in school being expected to take initiative and being rewarded for doing so. This confident ability to master new situations and initiate whatever changes or actions are needed is in essence what defines the elite. Entering adult life with confidence and mastery of empathy/teamwork/leadership skills is what ultimately has given this small group control of the initiative and therefore of power and resources for millennia.

However, the other 97% grow up getting very little such experience with taking initiative. Adults control the classroom, work setting, and even sports and extracurricular activities. And this situation, coupled with society's attitudes, drums home the message to this majority: "You're not competent or perhaps even responsible. Please don't try to start things; we can do it far better." Teachers, social workers and others are comfortably in control; and, in fact, most school and other youth cultures are not competent and do not train and support and respect initiative-taking. Instead, the peer group culture, not surprisingly, is resentful and in the worst cultures, quite negative.

Do these inarticulate, frustrated youth cultures bring analogous prior situations to mind? Over the last century, many other groups – including women, African Americans, those with disabilities, even colonial peoples – had to make their way from debilitating stereotypes and little prior practice in taking the initiative to becoming fully accepted, capable contributors. These groups, although very different from one another, had to travel strongly similar human and community transformation paths.

Young people are the last big group to set out on this journey. They are also different; but, in the underlying psychological and organizational transitions ahead, they can learn a great deal from the experience of these other groups.

Building on the history of these earlier movements and also on the accumulated experience of hundreds of leading social entrepreneurs working with young people, Ashoka and many partners have prototyped and are beginning to launch at scale the equivalent of a women's or older person's movement for young people.

Although this movement must ultimately change how everyone thinks about and relates to young people, it is young people and their peer communities who will have to change most and who have the most to gain. Therefore, as with all the earlier similar transformations, it is essential that they be central actors – both in actually shifting to the new pattern (because the best learning comes from action) and in championing the change (because people in any class are most likely to hear and trust peers).

This emergent movement will be far bigger than Ashoka, and once it is past the next six to ten intensely entrepreneurial years, it will require extensive operating management that is culturally inappropriate for Ashoka's "collegial/intrapreneurial" essence. Ashoka has therefore created an independent but close partner, Youth Venture. Working closely with Ashoka's young people "mosaic" team, it has the lead in major spread and emerging operating work.

The millennium when only a tiny elite could cause change is coming to an end. A generation hence, probably 20 to 30% of the world's people, and later 50% to 70%, not just today's few percent, will be changemakers and entrepreneurs. That world will be fundamentally different and a far safer, happier, more equal, and successful place.

To get there, we must end the infantilization of young people. They and the rest of us must enable all young people to be fully creative, initiatory, and powerful changemakers.

We must also build the wisest possible financial and other institutions so that, as these young people become adults, the new citizen sector will draw them fully into an "everyone a changemaker" world.

Contributors

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Alvaro Rodriguez is Co-Founder and Managing Partner of IGNIA, an impact investing venture fund for Latin America focused on commercial enterprises that serve the base of the pyramid. He is Chairman of the Board of Compartamos Banco, the largest microfinance institution in the Americas. He is former Chairman of the Board of Directors of ACCION International and of UNIDOS Lo Lograremos, AC. Rodriguez was formerly CFO of Vitro, CEO of Farmacias Benavides and CFO of Grupo Elektra. In 2005 Alvaro was named Young Global Leader (YGL) by the World Economic Forum (WEF). In 2008 he was invited as a member of the WEF's Global Agenda Council and in 2009 to the WEF's Global Redesign Project. He is also a Board Member of Harvard University's David Rockefeller Center for Latin American Studies; LASPAU-Harvard University; Banamex, Mexico (Advisory Board), World Microfinance Forum of Geneva, MetroNet/Xertix (Mexico), Asociación Mexicana de Capital Privado (AMEXCAP) and a mentor of Endeavor and a Member of YPO. He is a Pan-American rowing medalist (1991) and was eighth in the World University Games (1989). He holds a BS from ITAM and an MBA from Harvard Business School.

Roland Dominicé

Roland Dominicé was appointed Executive Director of Symbiotics in 2008, after having been in charge of client relationship and business development since co-founding the company in 2004. He also worked for BlueOrchard Finance as their chief financial officer for three years, as well as for PricewaterhouseCoopers in Geneva in management consulting, for McKesson in San Francisco in corporate finance, and for UBS Switzerland in institutional asset management. Roland holds a master's degree in International Relations from the Graduate Institute in Geneva and a master's degree in Social Sciences from the University of Chicago.

(William) Bill Drayton

Bill Drayton is the CEO, Chair and Founder of Ashoka. He has been a social entrepreneur since he was a New York City elementary school student. While at Harvard, he founded the Ashoka Table; and, at Yale Law School, he launched Yale Legislative Services which, by the time he graduated, engaged one third of the student body in helping key legislators throughout the Northeast design and draft legislation. Bill Drayton is also a manager and management consultant – choices that also grow from his fascination with how human institutions work. Although he loves history and thinks first in historical terms, he is trained in economics, law, and management, the three key interventionist disciplines. He was a McKinsey & Company Consultant for almost ten years, gaining wide experience serving both public and private clients. For four years, he was Assistant Administrator at the U.S. Environmental Protection Agency, where he had lead responsibility for policy, budget, management, audit, and representing the environment in administration-wide policy development, notably including budget, energy, and economic policy. He also served briefly in the White House, and taught both law and management at Stanford Law School and Harvard's Kennedy School of Government.

Andreas Ernst

Andreas Ernst is Executive Director and Deputy Head of Social Investments at IJ Partners. Previously he was Deputy Global Head of Philanthropy Services at UBS, a dedicated advisory unit that helps clients conceive, set up and monitor effective philanthropic vehicles. Previously, he was a Project Manager at the International Trade Centre UNCTAD/WTO, and a Research Assistant attached to the University of Geneva's Social Entrepreneurship course. With a core regional expertise in Asia and South-East Europe, he is particularly interested in issues regarding methodology – especially project evaluation, design, and management. In his previous career, he gained first-hand experience of the transformative power of disruptive technologies through his involvement in the successful launch of a start-up in the media industry. He holds a Master's degree in Business Administration from Hamburg University, Germany.

Jon Lane OBE

Jon Lane is British and is a Civil Engineer by profession. He began his career as a consulting engineer in London before moving to international development work and specifically water and sanitation for poor people. In the late 1980s Jon Lane worked as Country Representative in Nepal for WaterAid. Returning to UK, he became Director of RedR (Registered Engineers for Disaster Relief) and in 1994 was appointed Director of WaterAid. During his term of office, the organization received the prestigious Stockholm Water Prize for outstanding water-related activities, while Jon himself was honored with an OBE for his leadership of WaterAid. Jon Lane left the London-based NGO in 1999 to live in Malawi and work as a senior-level consultant in water and sanitation, primarily for multilateral and bilateral agencies and NGOs. His work during that period mainly involved global strategy, policy and advocacy work. Additionally, Jon Lane has chaired or been a member of the steering committees of several prominent water and sanitation sector organisations. Jon Lane has been an active member of the Water Supply and Sanitation Collaborative Council from its inception, having attended the New Delhi meeting in 1990 at which WSSCC was created. He has been involved in some of WSSCC's key milestone moments, including Vision 21, which established many of the principles that still guide its activities, and its periodic Global Forums, which bring its members together to reaffirm priorities and plans. In January 2007, Jon Lane was appointed Interim Executive Director of WSSCC to lead the organization during its period of revival. He then applied successfully or the post of Executive Director to which he was appointed in October 2007. His special passion in this work is to give sanitation and hygiene much greater global prominence and recognition.

Maximilian Martin

Maximilian Martin is Chief Strategist and Global Head of Social Investments at IJ Partners. He was previously Global Head and Managing Director of Philanthropy Services at UBS, a dedicated advisory unit that helps clients conceive, set up and monitor effective philanthropic vehicles. He also serves as a Visiting Professor at the University of Geneva, where he teaches philanthropy and social entrepreneurship in the MBA program, as well as lecturing at the University of St. Gallen. Previous engagements include serving as Head of Research at the Schwab Foundation for Social Entrepreneurship, Senior Consultant with McKinsey & Company, instructor at Harvard's Economics Department, and Fellow at the Center for Public Leadership at the John F. Kennedy School of Government. Max's research and publications focus on the relationship between globalization, social entrepreneurship and investment, and cross-sector value creation opportunities in this space. His dissertation proposed a new approach to political economy and structural adjustment. In 2003, he developed the first university course on social entrepreneurship in Europe for the University of Geneva and the Schwab Foundation for Social Entrepreneurship. In 2003-2004, he conceived and created UBS Philanthropy Services, the UBS Philanthropy Forum and its corresponding sub-platforms (Viewpoints, Visionaris). He now intends to move the needle on synthetic social business. Max holds a Masters in Anthropology from Indiana University, a Masters in Public Administration from Harvard University, and a PhD in Economic Anthropology from Hamburg University, Germany.

Arthur Wood

Arthur Wood, an Englishman and former banker married to a Norwegian, was educated at the London School of Economics, SDA Bocconi and HEC in France. As Leadership Group Member and the former Global Head of Social Financial Services of Ashoka based in Washington DC and then London, his core mission was and remains to see how to change the way philanthropy is funded. In this context he has been at the forefront of creating and implementing new social financial models with cutting edge global social entrepreneurs. As well as engaging a number of major international financial institutions to enter this space in Canada, Switzerland, US, Singapore and the UK, and being one of the co-creators of the new Low Profit Limited Liability (L3C) in the US and the proposed SELLP in the UK, he is also on the forefront of the global debate on new legal and tax structures required in philanthropy. He is the current Chairman of the World Sanitation Financing Facility (WSFF), a Founding Partner of Total Impact Advisers, a member of the World Economic Forum Advisory Group on social and philanthropic investing, Board Member of the Big Issue Invest and sits on the advisory board of a number of social sector entities in a number of global locations. He publishes widely in the business press on social financing issues and is a regular invited speaker at global academic institutions – including Geneva University, St. Gallen, Oxford, Indian School of Business and Dartmouth University.

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