Mobilizing U$ trillions for the billions left furthest behind

By Paul Clement-Hunt and Gordon Noble

Founding Partners in **The Blended Capital Group** need to mobilize rapidly U$ trillions via the capital markets through private finance, through the deepest pools of investment capital, through sovereign wealth funds and, essentially, through a re-imagining of public-private financial cooperation to blend investment aggressively to tackle global warming head on. Equally, and in parallel, we have to build local markets that drive sustainable development at scale in the world's frontier and emerging economies. Massive global inequality sits as a foundation stone for accelerated climate change as billions of people in the last mile are financially starved of the option to build resilience and empowerment through clean energy options.

If we don't address these realities we won't get a result for the 2015 Paris Climate Agreement. Deep global inequity complicates the climate finance challenge beyond imagination. There is a complete disconnect between the capital markets and the world's deepest pools of concentrated capital held mainly in the G7/G20/OECD countries and the two billion people at the base of the pyramid in the last mile. These are the communities left furthest behind and who will experience the impacts of climate change more directly than anyone else.

Why do we say this? Well, for the last eight years, we've been working with sub-Saharan African businesses and NGOs often supporting the agricultural value chain. The capacity and capability to mobilise private capital in any way, shape or form to those entrepreneurs, businesses or projects through main stream channels, through debt, through equity is unbelievably difficult. And that's a failure of imagination from what we term as "timid capital." This reality needs to be understood inside the CoP. How do we finance the entrepreneurial, climate-aligned businesses in the Sahel, in Latin America, in southern Asia? Mainstream capital, with few exceptions, simply ignores these last mile businesses to a large extent.

And we're talking of a need for thousands of funds dedicated to flow the U$ trillions that are needed by the last mile. Finance needs a new imagination. Our suspicion is the culture and imagination inside so many mainstream financial institutions is lacking. We believe that inside those grand and powerful financial houses, the fundamental change which is needed is a culture change or we will not see the funds flowing at the scale we need into the climate in coming decade. Culture change within finance? Absolutely. This culture change is required along the entire investment chain from the ultimate beneficiaries of pension funds and insurance reserves to the investee corporations whose innovation and risk-taking drive growth.

We have to educate governments. We have to educate pension trustees and policy makers. A lot of government officials do not understand private finance, the ones that do tend to come in through the revolving door between Wall Street, the City of London, and Chiyoda Ku as they go into government for a while. A critical challenge is how do we regulate, monitor and incentivize culture change within the broad mainstream finance sector and ensure they understand that the systemic risks they face around climate and inequality is what will blow their assets out of the ground over the next few decades?

Box 1: The U$ multi-trillion elephant in the room

Paul Clements-Hunt's December 7th, 2020, presentation to "Climate Change and governance preparing for Glasgow COP 2021":"My first direct involvement in climate change was in 1992 while I was living in Bangkok and making the professional transition from journalism to business. What was then the Oxford University Environmental Change Unit (ECU) had presented a paper in the Thai capital exploring the impacts of temperature rise on the productivity of agricultural communities in Thailand, Malaysia and Indonesia. One stat I recall vividly was that at 42 degrees centigrade productivity of agricultural out-growers declines precipitously. I turned the ECU presentation into a feature for the UK magazine, New Scientist, collected my freelance fee, and was hooked on the immense challenge of global warming.

Later, as an industry lobbyist for the International Chamber of Commerce (1998-2000) and then as a United Nations official heading up the United Nations Environment Programme Finance Initiative (UNEP FI from 2000-2012), I attended all UNFCCC CoPs[1], back-to-back, from CoP4, Buenos Aires in 1998, to CoP 17, Durban in 2011, missing out only on the Cancun CoP in 2010. I also parachuted into CoP 21 in Paris in 2015 to present a project for the UN Secretary General's Executive Office (UN EOSG), the launch of the Cities Climate Finance Leadership Alliance (CCFLA) and the Bangkok-Johannesburg Blueprint supporting it.

Over those 17 years my biggest take away from the UNFCCC annual negotiations was that the great elephant in the room was the role of private finance whether in the banking, investment, insurance or reinsurance spheres. More specifically, it was the question of how public and private finance could interact effectively to mobilize the U$ trillions needed to address global warming. Sure, year in year out, there were many fancy "CoP side events" exploring finance, investment and insurance, there was the challenge and aspiration created by the October 2006, 700-page Stern Review, and there was the hope of the U$ 100 billion pledge and green climate fund from CoP15, 2009 in Copenhagen, but the heart of the issue, and the specifics of "how", were never firmly gripped.

Governments and international officials from a broad range of multi-lateral agencies were far too focused on the circa 15% of finance drawn from public pots rather than how to mobilize the 85% of finance to tackle climate change which was estimated as what was required from private sources to move the global warming indicator in the right direction. Fault did not lie with the public sector alone as many in private finance and investment were happy to parade at the CoPs but, with few exceptions, were not prepared to enter into real discussions with government and multi-laterals unless the pathway to short-term profit was crystal clear and paved in prospective carbon gold.

In short, we lost almost 20 years avoiding the necessary focus on how to incentivize and mobilize private markets to tackle climate challenges at real scale.

Throughout this period my simple calculus, with a foundation of growing frustration, was that if we're not moving U$ trillions to decarbonize the future then we were locking in a four, five, six degree reality of engineered catastrophe for a lack of vision at true financial scale. Politicians and the highest UN officials were inevitably talking about U$ billions and, ultimately, hundreds of billions but not U$ trillions as they teetered along the diplomatic high wire with a vipers pit of swirling developed-developing country CoP politics and horse trading below them .

And so for UNFCCC CoP26 in Glasgow, Scotland, convening in Q4/2021? A chance perhaps for UK Prime Minister Boris Johnson to re-boot his deeply battered reputation as, despite

1 The United Nations Framework Convention on Climate Change (UNFCCC) entered into force on 21st March 1994. Now, some 197 nations are members to the Conference of the Parties (CoP). The acronym UNFCCC CoP is used to describe the annual UN meetings of all members to discuss climate change.

backing a prospective new coal mine in Cumbria just over the border from the great Scottish mercantile city, he has grasped onto the Global Britain leads the way on a clean, green, sustainable agenda going forward. We'll see?

The evidence? A powerful example is our experience in the Sahel over the last five years. By 2050, the close to two hundred million people living there in 2021 will rise to 500 million people in the vibrant communities across the 11 countries which make up the region. How do we get real finance to flow to the communities and the entrepreneurs we work with and who need finance?

Seventy five percent of the population is under 21. How do we optimize the opportunities provided by the demographic bounce coming to the Sahel? How do we improve agricultural value chains? How do we defend against desertification? It's going to take a complete reimagining of private finance and private markets.
Get the Sahel right and you can achieve the same anywhere on the planet.

Here we look at a range of critical "must do's" to build sustainable markets which can deliver for all 7.8 billion on the planet climbing to 9-10 billion by the Century's close. The Chapter is divided into the following main sections:

Historical development of markets
Evolution of market practices
Investing in systems resilience
Markets for sustainable development
Summary

We argue that to deliver on the United Nations' Sustainable Development Goals (SDGs)[i], the forward-looking global financial community needs to focus on the creation of local markets that deliver development outcomes at real scale. History tells us that local infrastructure – social, physical, economic, financial – creates the fabric of vibrant communities. In an era of financial globalisation, the emergence of massive pools of capital controlled by a limited number of markets means many billions of people will be left behind unless finance is re-imagined.

As the financial system grapples with how to allocate capital to areas including provision of infrastructure services, repair of natural systems, addressing inequality and investing in communities, as well as developing countries and frontier economies, there is a need to understand how markets are created, and for that we need to go back into history.

Diverse and localised markets are essential if we are to deliver the SDGs. The key word here is markets, not market. The current situation where a small number of stock exchanges including NYSE, FTSE and NASDAQ dominate global financial markets does not support true sustainable development.

Historically a key element of market activity was always local. A key insight from the historic development of stock exchanges is that the key invention that created the first stock exchange was the establishment of a mechanism to transfer an asset from one person to another. It was not, as we may commonly think, to price an asset. This insight has implications in the development of new markets in areas including natural capital and impact investment. The establishment of market architecture that facilitates trading is critical to the scaling of new innovations in sustainable finance.

A fundamental role of a financial system is to allocate capital efficiently. As Walter Bagehot wrote in Lombard Street, a classic text on money markets written in 1873, “Thus (English) capital runs as surely and instantly where it is most wanted, and where there is most to be made of it, as water runs to find its level”.[ii]

As we scan across the horizon of the global financial system we can see that there are major gaps where, due to factors including investor and regulatory practices, finance is simply not flowing.

Essentially, we argue that the herding of institutional investment into large pools of “timid capital[iii]” coupled with passive investment is an impediment to sustainable development.

In addition to providing the definition of sustainable development that we use today, Gro Harlem Brundtland also argued that sustainable development was a “process of change”. There is a need to understand the importance of international financial system partnerships that have been developed over the course of the last 25+ years. In this regard we highlight that there is a difference between a financial system and the finance sector. The finance sector consists of those institutions such as banks, investors and insurers that enable the financial system to operate efficiently. The financial system itself includes governments, regulators, businesses and households

We believe that there is a need for a new and urgent conversation between all financial system participants including governments, business, households and finance sector institutions that is focused on localizing the SDGs. We would propose a target of 0.5% of all financial capital is committed to investment outside of the major financial centres. We are not suggesting that investors will not have many challenges they will need to address to ensure that investments are successful. The way to solve these challenges is by forging a broad financial system coalition that consists of all stakeholders including governments, regulators, business, civil society and financial system participants.

The Chapter’s key arguments are:

- Diverse and localised markets are essential if we are to deliver the SDGs.
- There are major gaps where, due to factors including investor and regulatory practices, finance is not flowing.
- Without investment there is no influence to improve practices.
- Sustainable development is a “process of change”.
- The establishment of market architecture that facilitates trading is critical to the scaling of new innovations.
- The elements that must come together to drive transformation are the establishment of platforms for collaboration amongst diverse groups and preparedness to support innovations to address system impediments.
- A target of 0.5% of all financial capital should be committed to investment outside of the major financial centres.

- Without action there is also a danger that "timid capital[iv]" in the developed world will miss out on the scale, vibrancy and potential of frontier and emerging market investments. Such investments will include the SME base in non-OECD countries and the last mile entrepreneurs starting to disrupt traditional value and supply chains by taking advantage of the blossoming convergence of digital, pay-as-you go (PayGo), fin-tech, machine learning (ML), artificial intelligence (AI), e-mobility/drone technology, and the "internet of things (IoT)".

Historical Development of Markets

Gaziantep, may seem an unlikely place to reflect on the structure of global financial markets. Located in Turkey's Anatolia region the city is famous for its mosaics and its baklava. It is also just 97 kilometres north of Aleppo in Syria. By 2015 2 million refugees had passed through the city. In one 24 hour period alone 200,000 refugees arrived. The city itself successfully hosted 560,000 refugees.[v]

The city's success at integrating refugees into its economy and society was the reason that it was chosen by the United Nations Development Program (UNDP) to host the International Forum on Local Solutions to Migration and Displacement in November 2019.[vi] Mayors from 13 countries and 4 continents met with stakeholders from UN agencies, governments, municipalities, cities, international and local NGOs, the private sector and civil society, and adopted the Gaziantep Declaration, highlighting a pathway for refugees from emergency to resilience and development that includes a focus on scaling job creation and partnerships with the private sector at the local level.

Through our respective roles moderating and presenting at the Forum we had the chance to reflect on ways in which the financial sector could innovate to open up access to finance for the 79.5 million people that today have been forcibly displaced from their homes[vii] Doing so, it was hard not to absorb the history of the city itself.

Dating back to 3,500BC Gaziantep is one of the oldest cities in the world. The city was also a backbone of the Persian Royal Road and the Silk Road; trade routes that fundamentally shaped civilisation. When it comes to thinking about the history of the Silk Road, the mental image that arises is of donkeys and horses burdened with cargoes travelling long distances along dusty tracks. The stone pillars of Gaziantep's refurbished caravanserais, which now hosts international functions, vividly told the story that the Silk Road was far more deeply embedded into society.

Caravanserai on the Persian Royal Road and Silk Road were not just roadside inns where travellers could rest. They were significant pieces of infrastructure that were built and maintained to facilitate trade. In some parts of the Muslim world, caravanserais also provided revenues that were used to fund charitable or religious functions or buildings. These revenues and functions were managed through a waqf, a protected agreement which gave certain buildings and revenues the status of endowments guaranteed under Islamic law. [viii] A modern translation is that caravanserais operated as mutual structures where the owners were the community.

From a financial system perspective the caravanserais on the Persian Royal Road and Silk Road can be seen as the earliest market architecture. Over the last 5,000 years we have seen many innovations and iterations that have resulted in the financial markets that we have today.

In the United Kingdom the Domesday Book, compiled in 1086, recorded 60 market towns. Historically governments directed the formation of market towns. Medieval European market towns provided local lords with a valuable source of income. Stall holders were required to pay "stallage" and tolls were levied on all goods brought into town with officials appointed to inspect weights and measures with powers to issue fines. The urban design of market towns around a central square reflected their core purpose as well as the need to be able to control activity in order to collect income. Language we still use today, such as the word forestall, which referred to a stall holder selling before the market, arose out of the development of market towns.[ix]

The origins of the world's first modern stock exchange date back to 1602. The story of its development, brilliantly captured by Lodewijk Petram,[x] reveals that the share trading which became a foundation of modern stock exchanges happened by accident, not design. Petram outlines the history of the Dutch East India Company (Verenigde Oost-Indische Compagnie, VOC) and its first "initial public offering" in August 1602. The challenge that the founders of the Dutch East India Company needed to address as they sought to attract investors through their invitation to "All the residents of these lands" to "buy shares in this Company," was the time length of the company's charter.

The core purpose of the Dutch East India Company was to gather sufficient finance to commission a flotilla to travel to the Dutch East Indies (Indonesia) to bring back cargoes of coffee, tea, cacao, tobacco, rubber, sugar and opium. Normally flotillas operated for three to four years with the proceeds from cargoes sold and profits distributed to private investors.

By proposing that a private investor's money would be locked up for 21 years, the Dutch East India Company needed to establish a process where an investor's share of the enterprise could be traded to another person. The company's capital subscription register provided that "Conveyance or transfer [of shares] may be done through the bookkeeper of this chamber."[xi] In practical terms the buyer and the seller of a share, or their authorized representatives, "had to appear together before the company bookkeeper, and two directors had to approve the transfer before it became official. The bookkeeper kept a large ledger in which every shareholder had an account. If a shareholder sold a share, his or her account was debited by the amount concerned. And if he or she bought a share, the account was credited".[xii] The importance of the Dutch East India Company's charter was to outline clear rules to transfer shares. In modern terms the Company's bookkeeper provided the role of a clearinghouse.

Whilst authorities in Amsterdam tried to regulate that trading of shares take place in a designated exchange building, the reality was that share trading occurred across the city from morning to night.[xiii] Whilst the development of market towns had established the importance of place, share trading of Dutch East India Company shares illustrated the importance of having a process to transfer an asset from one person to the next.

This is a critical point that is worth repeating. The key invention that led to the development of stock exchanges was the establishment of a mechanism to transfer an asset from one person to another. It was not, as we commonly think, to price an asset. In fact it was almost 100 years later in 1698 when the London Stock Exchange was established in Jonathan's Coffee House where John Castaing established the practice of posting a list of stock and commodity prices called "The Course of the Exchange and other things".[xiv] [xv]

Understanding the importance of mechanisms that transfer ownership of an asset is relevant to the development of any form of market. This is understood intuitively in markets for goods such as fresh produce. A simple exchange of cash results in an individual taking ownership of an asset. For assets that involve a right of future access there is a need for some form of paperwork to demonstrate that ownership has transferred. In the case of physical goods such as a car, an individual registers a transfer of ownership with the relevant transport authority. From a purely theoretical perspective registering ownership of an asset could be used for many other assets from a train ticket to a gym membership.

When it comes to financing sustainable development, building systems that recognise transfer of assets is the foundation of any new market. In many cases the focus of those who are creating new finance innovations is to create transactions. An impact investor may for instance seek to create an enterprise that delivers great social and environmental outcome as well as financial returns. Without the development of market architecture such as mechanisms that enable the new asset to be traded with another person, the new initiative invariably struggles to be replicated and scaled.

Evolution of Market Practices

In 1976 renowned management consultant Peter Drucker wrote "The Pension Fund Revolution". His work, largely unrecognised at the time, argued that the growth of pension funds would ultimately impact on the allocation of capital and management practices.

Drucker saw that the growth of pension funds would be a permanent change. He was concerned that pension funds trustees did not have the skills to be entrepreneurs and argued that the 'person who is investing in what already exists, is in effect trying to minimise risk'. Recognising the economic problems that existed at the time in the US economy, he viewed the rise of pension fund investing as a unique opportunity to restore the legitimacy of management arguing that 'pension fund management requires and deserves an independent institution, divorced from commercial banking, investment banking or any other banking business.'[xvi]

Drucker believed that pension funds needed to be long term investors, stating "For most people, 'maximising shareholder value' means a higher share price within six months or a year – certainly not much longer. Such short-term capital gains are the wrong objective for both the enterprise and its dominant shareholders. As a theory of corporate performance, then, 'maximising shareholder value' has little staying power. Regarding the enterprise, the cost of short-term thinking hardly needs to be argued. But short-term capital gains are also of no benefit to holders who cannot sell".[xvii]

In 1995 Drucker re-published The Pension Fund Revolution adding an epilogue on the governance of corporations in which he argued that ‘pension funds cannot be managers as were so many nineteenth century owners’. In this epilogue Drucker argued that there is a need for new institutional structures that support pension funds to keep management accountable, stating “A business, even a small one needs strong, autonomous management with the authority, continuity and competence to build and run the organisation. Thus pension funds, as America’s new owners, will increasingly have to make sure that a company has the management it needs. As we have learned over the last 40 years, this means that management must be clearly accountable to somebody and that accountability must be institutionally anchored. It means that management must be accountable for performance and results rather than for good intentions, however beautifully quantified. It means that accountability must involve financial accountability, even though everyone knows that performance and results go way beyond the financial ‘bottom line’.[xviii]

Drucker considered how to build a definition of management accountability, which he defined as ‘maximising the wealth-producing capacity of the enterprise’. His solution was to propose a business audit that would be conducted by an independent professional agency that would be conducted every three years and would sit alongside the financial audit. It would be based on pre-determined standards and go through a systematic evaluation of business performance; starting with mission and strategy, through marketing, innovation, productivity, people development, community relations, all the way to profitability.[xix]

Forty years after The Pension Fund Revolution was first produced, we have not acted upon Drucker’s accurate assessment that the rise of institutional investment would impact on the real economy. Drucker’s primary concern was that the rise of pension fund investing would impact on the ways companies approach innovation. What Drucker did not predict was that pension funds would develop their own ways of investing that would have deeper impacts on the real economy.

As pension funds accumulated assets they turned to the work of American economist Harry Markowitz’s 1952 essay on Modern Portfolio Theory (MPT). A simple summary of MPT is that an investor can build an investment portfolio by choosing the level of risk that they are prepared to accept by mixing risk free assets with a portfolio of securities. Whilst MPT is good in theory, the problem is that pension funds took it literally. For many years MPT was used by pension funds to build portfolios of low risk bonds combined with equities portfolios. Over recent years, due to perceptions that investment returns were likely to be subdued in a low economic growth environment, pension funds have been attracted to passive investment strategies.

As of March 2020, U.S. stocks held in passive portfolios accounted for about 14 percent of the domestic equity market, up from less than 4 percent in 2005. BlackRock (2017) estimated that passive investors owned 18 percent of all global equity at the end of 2016. [xx] According to the UN-supported Principles for Responsible Investment it is believed that there is now a greater volume of assets following passive strategies than there is in active funds.[xxi]

In combination with the increase in passive investment strategies, institutional investors are also gathering assets in large pools. The largest stock exchange in the world, the New York Stock Exchange, had an equity market capitalization over USD 25 trillion in April 2020. The combined market capitalization of the three next biggest markets, NASDAQ, London Stock Exchange, and Tokyo Stock Exchange, are lower than the NYSE.[xxii]

MPT has enabled institutional investors such as pension funds to manage huge investment portfolios with very few resources. The challenge is that the uniformity of investment practices introduces system risks. We argue that the herding of institutional investment into large pools, coupled with passive investment is an impediment to sustainable development.

As investors crowd into the major stock exchanges, other stock exchanges are being deprived of capital. According to the World Federation of Exchanges there are currently 250 stock market providers that cover 53,000 companies with around USD 95 trillion of market capitalization[xxiii]. As institutional investors herd in large financial markets, the opportunity to grow the 240 markets that are outside of the major markets is constrained.

As we scan across the horizon of the global financial system we can see that there are major gaps where markets either do not exist, or are not functioning efficiently. There are six areas that we would call out:

- Finance is not flowing to developing countries and frontier economies despite the work that has been done to build stock exchange market architecture over the last twenty years
- Finance is not flowing to infrastructure provision, and has not recognised the disruption occurring through distributed infrastructure.
- There are challenges financing small and medium enterprises that are focused on sustainable development. There are no mechanisms to trade SME equity and debt.
- There is a lack of market architecture which makes is possible for small and medium sized municipal and community debt raisings to attract affordable finance.
- New alternatives investments in areas including natural capital and impact investment lack market architecture that facilitates trading.
- There is an opportunity for financial system participants to use their expertise and influence to grow markets in developing countries and ensure no one is left behind. Strategic investing which serves base of the pyramid communities is a much over-looked option to manage long-term systemic risk protecting the aforementioned deep pools of capital in the form of improved global security, reduced social volatility and upheaval, such as the mass movements of people, and a myriad of environmental threats which diminish economic potential for all.

Investing in System Resilience

Whilst we recognize all the areas where there is a need for finance to flow, we specifically highlight the lack of strategic investment in bottom of the pyramid communities as a systemic issue that cannot be ignored.

In the light of COVID-19 it is perhaps unnecessary to state that system issues are financial issues.

COVID-19 certainly cannot be described as a black swan event. There were plenty of previous warnings on the dangers of pandemics. The World Health Organisation (WHO) through its Global

Influenza Surveillance and Response System network, constantly monitored the emergence and evolution of influenza viruses with pandemic potential. WHO argued in its 2015 update that "nothing about influenza is predictable, including where the next pandemic might emerge and which virus might be responsible".[xxiv]

Despite the avalanche of information available on pandemic risks, and that it was consistently identified as a major global risk, the financial system was not actively engaged on the issue with only a few individual and institutional exceptions. This is not to cast aspersion on individual organisations but reflects the reality of dealing with system issues.

We would argue that the global financial system is exposed to a blind spot when it comes to base of the pyramid communities. The reality is that the implication of investors accumulating more and more capital in a small number of deep capital pools means that the information that investors rely on to make decisions comes out of those same deep pools. The challenge is that the finance system is not sufficiently tuned into the social volatility and upheaval, such as the mass movements of people, and a myriad of environmental threats which is happening on a day-to-day basis in parts of the world.

It is often said that you can't manage what you can't measure. We would argue that the global financial system cannot improve practices in areas where it is not involved. This is the same argument that is made in respect to an investor divesting from an oil company on the basis of concern over climate change. Once an investor divests it has no influence on that company. The same applies to areas where the global financial system is not actively investing. Without investment at real scale there is limited influence to improve practices.

If the financial system is serious about contributing to delivering the SDGs then financial system participants must get their hands and feet dirty and support the development of markets outside of their comfort zone. We would propose a target of 0.5% of all financial capital is committed to investment outside of the major financial centres through new approaches, products, structures and platforms. We are not suggesting that investors will not have many challenges they will need to address to ensure that investments are successful. The way to solve these challenges is by working together.

Out of many potential examples, we frame one generic case, briefly, to highlight our points based on real life while unattributed entrepreneurial examples. In the rapidly evolving data-driven, digitally smart, disruptive PayGo sector in Africa, delivering last mile community basic services through affordable credit for community accumulation of distributed infrastructure, we believe mainstream G20 institutional investors, and their intermediaries in the asset management community, are missing out on a wave of disruption which will bypass them to service the billion+ in last mile communities.

One Kenyan start up, approaching 8 years, has accumulated 252,000 agricultural out-grower clients for clean energy solutions, productive agri-tech and is now exploring e-mobility as well as a range of kick start technologies for community entrepreneurs. What at first glance looked like "another local shop" has evolved from that shop (established in a re-fitted shipping container) into a last mile distributor and now into an asset-backed supplier of affordable credit with the profile of a micro-financial institution. Despite a proven, replicable and scalable model, based on world class execution and, critically, listening to the needs of local communities rather than imposing technology solutions, it has taken the close to full eight years to secure meaningful backing from a well referenced financial institution. The battle to secure backing continually ran into the same obstacles, too small, data not good enough, and, beyond all, a cultural wall that dismisses so many promising African start-ups. One example: a Board member of a major global bank was told the story of the last mile distributor during an annual investor dinner at the World Economic Forum in Davos, Switzerland. "That's amazing and exactly what we need to back going forward. I'll put you in touch with our local people and we'll have a proper look as we are very keen on reaching the unbanked in the last mile," she confirmed. Her message was duly passed down the line until it arrived at the local branch serving the business's region. Despite a clear "take a look" from the Board, the ultimate answer for any form of financing came back as an interest rate of 38% and the deeds to the founder's property in the UK. Similar examples became an almost Monty Python parade of how mainstream finance sees so-many promising African SMEs as "not worth bothering with" other than on punitive terms. The business is now deep in conversations with institutional, although deeply entrepreneurial, capital in Brazil and South Africa to embed a successful Kenyan last mile model there.

The point is, not about this illustrative business example per se, but rather the broader point of no real, widespread private market infrastructure to connect institutional funds at scale to back and foster entrepreneurial endeavors, through equity, debt, mezzanine, hybrid and blended pools of capital and finance, with the potential for impact at scale for the last mile. Development Finance Institutions, both national, regional and multilateral, will argue that this is their role but reality often boils down to three words "slow, bureaucratic, and expensive" and other than 'show projects' they are often too disconnected from many last mile entrepreneurs. The fast, agile, risk embracing private capital is so often missing from the equation, or limited to the pockets of the truly converted, as there is no infrastructure to allow risk management and mitigation, and, as we have argued, smooth transfer of assets between a well-established last mile investor class. Models like the Tony Elumelu Foundation in Nigeria, backing more than 10,000 entrepreneurs across Africa, are filling the gap many mainstream institutions claim to have a "real interest in" but studiously avoid.

Markets for Sustainable Development

What mechanisms are already being used to work together on sustainable development system issues?

To explore this question we need to understand where we come from, and the progress that has been achieved. To do this we need to go back in time, not as far back as 1602 when the first stock exchange was established in Amsterdam, but to 1983 when the UN Secretary General Javier Pérez de Cuéllar, after an affirmation by the UN General Assembly, commissioned the former Prime Minister of Norway, Gro Harlem Brundtland to create a Commission independent of the UN to focus on environmental and developmental problems.

The Brundtland Commission is perhaps best known for the definition of sustainability that is used today, arguing that "humanity has the ability to make development sustainable to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs". The report itself also introduced the concept of "interlocking crises" as it considered the challenge of sustainable development in the context of:

- an African drought that put 36 million people at risk,
- a leak from a pesticides factory in Bhopal, India that killed more than 2,000 people,
- an explosion of liquid gas tanks in Mexico City that killed 1,000,
- the Chernobyl nuclear reactor explosion that sent nuclear fallout across Europe and
- agricultural chemicals, solvents, and mercury flowing into the Rhine River during a warehouse fire in Switzerland, killing millions of fish and threatening drinking water in the Federal Republic of Germany and the Netherlands.

Largely forgotten was Brundland's argument that "in the end, sustainable development is not a fixed state of harmony, but rather a *process of change* in which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are made consistent with future as well as present needs."

Brundtland's concept that sustainable development is a *process of change* is relevant to the architecture that has been put in place to support system change. There have been many positive developments since Brundtland began her work in 1983. We would all hope for instance that incidents such as Bhopal will never re-occur. However, because sustainable development is a "process of change" there is a need for the institutions that support the financial system to be in a constant state of evolution.

The Brundtland Commission opened up a global discussion on sustainable development that has progressed in multiple forms over the last thirty-five years. The Commission was followed by the United Nations Conference on Environment & Development (Earth Summit) that was held in Rio de Janerio, Brazil from 3 to 14 June 1992.

From the perspective of the financial system, the Brundtland Commission can also be traced back as the foundation of a dialogue that ultimately led to the establishment of the United Nations Environment Program Finance Initiative (UNEP FI) in the lead up to the Earth Summit[xxv]. Over the course of more than 25 years UNEP FI's partnership with the financial system has created a series of initiatives including founding the Principles for Responsible Investment, Principles for Responsible Banking, the Principles for Sustainable Insurance and the Natural Capital Declaration. Another UNEP FI contribution, often underestimated for its impact, was the initiation in 2005 of the Environmental and Social Risk Awareness (ESRA) course for banks which today has trained more than 3,000 executives across 125 countries. ESRA has been described as UNEP FI's equivalent of the "wings of a butterfly" bringing great impact across the world's financial systems while rarely observed.

An important part of UNEP FI's work has also been to focus on addressing impediments. An example of this was UNEP FI's Asset Management Working Group which in 2005 asked Freshfields Bruckhaus Deringer to provide an expert opinion "*on the question whether the law restricts us, as asset managers, from seeking to attend to broadly accepted extra-financial interests of savers in conjunction with their financial interests. What we have in mind are certain social and* *environmental interests that find expression in diverse international treaties, norms, and declarations, particularly those emerging from the democratic deliberative processes of the United Nations. Furthermore, we have also asked whether fiduciary duty does not require us to take into account such considerations, in view of their materiality to equity pricing*."

The resulting landmark "Freshfields" report produced by Professor Paul Watchman, a former Partner at global law firm, Freshfields Bruckhaus Deringer, stated: [xxvi]

> *In our view, decision-makers are required to have regard (at some level) to ESG considerations in every decision they make. This is because there is a body of credible evidence demonstrating that such considerations often have a role to play in the proper analysis of investment value. As such they cannot be ignored, because doing so may result in investments being given an inappropriate value.*

The importance of the Freshfields report was to provide a legal backing which enabled fiduciary investors such as pension funds to become signatories to the Principles for Responsible Investment formally launched by United Nations Secretary General Kofi Annan on April 27th, 2006, at the New York Stock Exchange Opening Bell Ceremony on the Exchange's iconic balcony. This launch showcased a coming together of the head of the world's multi-lateral system with the globe's most powerful financial institutions. Another important innovation led by UNEPFI was to develop the term ESG. Prior to the use of the term ESG, terms including GES (governance, environment and social) were beginning to be used to describe so called non-financial factors in investment decision-making. The concept behind ESG was that by putting the "S" for social in the middle, it would not be forgotten or flicked off the end of the acronym because social issues are often those deemed most difficult by investors and business. Some corporate lobbyists would have been delighted to see the troublesome "S" flicked off the end of ESG, a sentiment which continues to this day. As ESG has become a mainstream term there are many interpretations as to what the term should mean as the calls for ESG standardization build.

As individual sectors of the global financial system have focused on sustainable development we have seen a raft of global initiatives develop. In addition to initiatives for investors, banks and insurers which UNEP FI has led in different capacities, and on occasion in partnership with the UN Global Compact, we are now seeing initiatives focused on elements of the financial system such as UNCTAD's Sustainable Stock Exchange Initiative (SSEI started in 2009) and then later the Financial Stability Board's Task Force on Climate Related Disclosure (TCFD started in 2015).

Conclusion

In today's financialized economy markets are the principal means through which financial systems allocate capital. Because of their importance we need to understand their foundations, and more particularly what it takes to create new markets.

The history of the development of markets demonstrates the importance of localized markets that are connected to the real economy. From the development of trade routes including the Persian Royal Road and Silk Road, to the development of market towns, markets always connected to the society that they came from. Historically the growth of markets resulted in the growth of centres of trade such as London, Amsterdam and Venice. But strong trading centres were always accompanied by strong local markets.

A fundamental role of a financial system is to allocate capital efficiently. An efficient market should allocate capital to all areas of opportunity. As Walter Bagehot wrote in Lombard Street, a classic text on money markets, “Thus (English) capital runs as surely and instantly where it is most wanted, and where there is most to be made of it, as water runs to find its level”.[xxvii]

The challenge that the global financial system must urgently deal with is that whilst we have strong financial centres, local financial markets are weak. Emerging areas of investment, such as natural capital and impact investment, do not have their own market architecture - the absence of which will ultimately constrain their ability to scale. To use Bagehot’s analogy of water, instead of capital flowing to where it is needed, it is increasingly gathering in deeper and deeper pools.

The accumulation of deeper and deeper pools of capital in individual markets is not an accident but is the result of the practices that have been developed over the last forty years by institutional investors. Renowned management consultant Peter Drucker identified that the growth of pension funds would fundamentally change the allocation of capital. What he didn’t foresee was that pension funds would adopt passive investment models that have system issues on capital allocation.

There is an urgent need to free up the flow of capital. Ultimately if we do not it will be impossible to deliver the Sustainable Development Goals. We propose a target of 0.5% of all financial capital is committed to investment outside of the major financial centres.

To understand how we can build effective and efficient markets we have gone back in history to understand the foundations of stock markets. The key invention that led to the development of stock exchanges was the establishment of a mechanism to transfer an asset. It was not, as we commonly think, to price an asset. This insight has implications for the development of new alternative markets. Those who are interested in developing scalable markets in areas including natural capital and impact investment need to focus on the development of the market architecture that enables assets to be efficiently transferred from one entity to another.

The essay has considered the importance of international partnerships that have been developed over the course of the last 25+ years. We argue that in addition to providing the definition of sustainable development that we use today, Gro Harlem Brundtland also argued that sustainable development was a “process of change”.

Within the international architecture of the global financial system there is an absence of mechanisms that bring together all the parties in a financial system. Importantly we underscore that a financial system is not the finance sector but also consists of governments, business and households. The history of the development of market towns in medieval Europe demonstrates the important role that governments played in creating markets. Today governments have a critical role in building new markets, and making existing markets work.

END NOTES

[i] https://sdgs.un.org/goals
[ii] Walter Bagehot, Lombard Street: A Description of the Money Market, 1873
[iii] "Timid Capital" is a term first coined by The Blended Capital Group to describe the self-limiting deep pools of G7/G20/OCED investment funds that rule out frontier market opportunities on an ex-ante basis with little or no reference given to changing geo-politics, policies, opportunities and the demographic bounce underway for many of these countries.

[v] https://www.theguardian.com/cities/2019/jun/19/gaziantep-turkish-city-successfully-absorbed-half-a-million-migrants-from-syria
[vi] https://www.tr.undp.org/content/turkey/en/home/presscenter/pressreleases/2019/11/gaziantep-declaration.html
[vii] https://www.unhcr.org/en-au/figures-at-a-glance.html
[viii] https://en.wikipedia.org/wiki/Caravanserai
[ix] Eddershaw, David, Chipping Norton – the story of a market town, Poundstone Press, 2006
[x] Lodewijk Petram, The World's First Stock Exchange, New York, Columbia University Press, 2014

https://www.worldsfirststockexchange.com/2020/11/02/the-oldest-share/

[xi] https://www.worldsfirststockexchange.com/2020/10/15/the-worlds-first-ipo/

[xii] Lodewijk Petram, The World's First Stock Exchange, New York, Columbia University Press, 2014

https://www.worldsfirststockexchange.com/2020/11/02/the-oldest-share/

[xiii] https://www.worldsfirststockexchange.com/2020/11/17/the-voc-and-amsterdams-first-exchange-building/

[xiv] Antipodean Books, Maps & Prints, Course of the Exchange, & c. London, Tuesday, August 27, 1776. London Stock Exchange broadsheet. https://www.antipodean.com/pages/books/23268/sister-of-the-late-john-castaing/course-of-the-exchange-c-london-tuesday-august-27-1776-london-stock-exchange-broadsheet?soldItem=true
[xv] Historic UK, Ben Johnson, English Coffeehouses, Penny Universities
https://www.historic-uk.com/CultureUK/English-Coffeehouses-Penny-Universities/
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[xvii] Drucker, p71
[xviii] Drucker, p213
[xix] Drucker, p221
[xx] Federal Reserve Bank of Boston, The Shift from Active to Passive Investing: Risks to Financial Stability?, Working Paper, SRA
[xxi] Principles for Responsible Investment, How can a passive investor be a responsible investor, a PRI Discussion Paper, 2019
[xxii] https://www.statista.com/statistics/270126/largest-stock-exchange-operators-by-market-capitalization-of-listed-companies/
[xxiii] https://www.world-exchanges.org/
[xxiv] https://www.who.int/influenza/publications/warningsignals201502/en/
[xxv] https://www.unepfi.org/about/unep-fi-statement/history-of-the-statement/

[xxvi] UNEP Finance Initiative, A legal framework for the integration of environmental, social and governance issues into institutional investment, produced for the Asset Management Working Group of the UNEP Finance Initiative, October 2005

[xxvii] Walter Bagehot, Lombard Street: A Description of the Money Market, 1873