



RETHINKING IMPACT TO FINANCE THE SDGs

A Position Paper and Call to Action prepared by the Positive Impact Initiative

Consultation Version

July 2018

“Previous sector-focused policy-making or a goal-by-goal approach will not achieve the 2030 Agenda for Sustainable Development or its SDGs. Stronger integrated planning, strategic thinking and policy integration will be crucial for Governments to define the best SDG implementation mix at the local level.”

**Repositioning the UN development system to deliver on the 2030 Agenda – Ensuring a Better Future for All:
Report of the Secretary-General, July 2017**

DRAFT FOR REVIEW

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The SDG financing gap is first and foremost a business model gap

Investment needs and the related investment gaps for the SDGs are huge. They will grow over time because of a cumulative effect. The needs are mainly in developing country infrastructure, but financial flows have a hard time meeting them: private finance is constrained by risk and return, while public finance is increasingly scarce. The issue is therefore not merely financial: there is a lack of business models that can deliver on the SDGs.

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Putting impact at the centre of strategies will reduce the SDG bill and catalyse private sector solutions

An impact-based approach - using impacts as a starting point to business, finance and public solutions - can bring a step change in bridging the SDG financing gap. By applying an impact-based approach to business models and to public programmes respectively, the public sector and the private sector can:

- Minimise cost to impact ratios, which means reducing the overall bill for the SDGs,
- Create impact-based financial flows,
- Crowd-in private finance and optimise public spending.

Ultimately this amounts to revisiting the dynamics of public- private sector interactions.

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The finance sector will accompany the Impact Journey

The finance sector is the only non-public stakeholder that cuts across all sectors of the economy. With its specific expertise and of course as the largest source of finance, it is the other major player (alongside governments and business) in a position to drive positive impact in the economy.

By taking a holistic approach to impact management, the finance sector can both create new business opportunities and better manage risks.

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The Principles for Positive Impact Finance are a global framework for the Impact Journey

There are multiple standards and frameworks contributing to the understanding and mainstreaming of impact. The Principles for Positive Impact, with their holistic definition of impact, provide an umbrella framework to promote clarity and the convergence of multiple impact-focused approaches and standards. By the same token they are set up to drive positive impact across the economy, and hence to accelerate the journey towards positive impact and the achievement of the SDGs.

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We need an Impact Ecosystem to accelerate Positive Impact and achieve the SDGs

Everyone has a role to play in driving positive impact for the achievement of the SDGs. Ultimately what is implied is a re-invention of public-private and civil society interaction. The 4th industrial revolution, with its data enabled service orientation, provides the means to achieve this. The onus is now on all of us to take this opportunity to produce the societal, development and environmental benefits that we need. We call for the ecosystem for positive impact to be built together.

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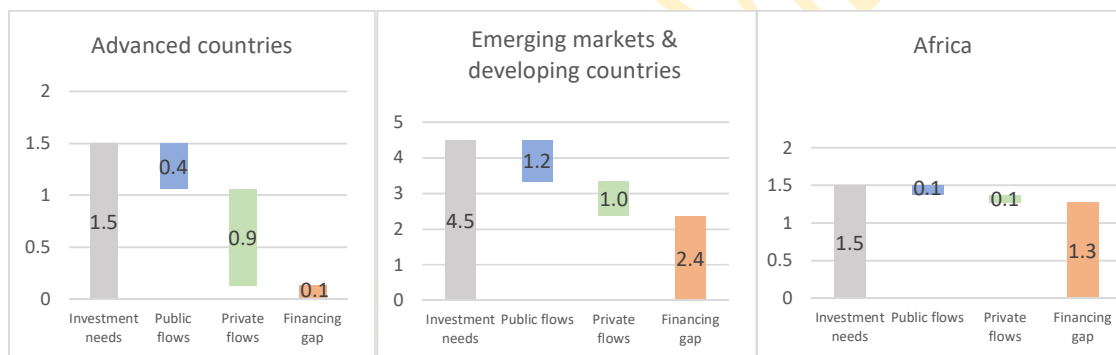
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1. The SDG financing gap is first and foremost a business model gap

Investment needs and the related investment gaps for the SDGs are huge. They will grow over time because of a cumulative effect. The needs are mainly in developing country infrastructure, but financial flows have a hard time meeting them: private finance is constrained by risk and return, while public finance is increasingly scarce. The issue is therefore not merely financial: there is a lack of business models that can deliver on the SDGs.

It is widely recognised that the bulk of the Sustainable Development Goal (SDG) investment needs are in emerging and developing countries, much of it for infrastructure.¹ Figure 1 below provides an estimate of the financing gap, represented as investment needs minus public and private financial flows. On this basis, we estimate the financing gap at US\$ 2.5 trillion for all emerging and developing countries and US\$ 1.3 trillion specifically in Africa.

Figure 1: SDG financing gap - advanced vs emerging & developing countries vs Africa



Source: Authors

It is important to note that there is a significant opportunity cost in delaying investments into the SDGs. The 2030 agenda for sustainable development defined a target period of 15 years to reach the SDGs starting in 2015, implicitly suggesting that over time and as we move towards 2030, the gap must be gradually reduced. This means that if investments are delayed, then the financing gap will get larger than initially expected. Impacts expected to result from investments will also be affected, as environmental, social and economic pressures continue to mount. The timing of investments has a direct consequence on the impacts the SDGs aim to address. The greater the delay in achieving the SDGs, the more important the “backlog of unrealised investments” needed to catch up and the bigger the financing gap will be.

This is particularly true for emerging and developing economies. Looking at Africa over the 2015 -2030 period, the population is expected to increase by 43% and the initial gap of US\$ 1.3 trillion will reach US\$ 19.5 trillion, all else remaining constant. The cumulative financing gap in Africa represents approximately 26.9% of the world’s gross domestic product (GDP) in 2015. In other words, Africa will need to mobilise a bit more than a quarter of the world’s GDP until 2030. In advanced countries, the cumulative gap is comparably insignificant, at US\$ 2.06 trillion over 2015 -2030, approximately equivalent to the 2015 GDP of India.

¹ Schmidt-Traub & Sachs (2015) and UNCTAD (2014).

The gap exists because it is notoriously difficult to make large and long-term investments in emerging and developing countries. Private business and finance are constrained by risk, while public finance, whether local or international, is scarce. Public private partnerships and blended financing solutions facilitate extra investments by providing risk sharing solutions. For 2016, multilateral development banks (MDBs) reported to have mobilised US\$ 163.6 billion in private co-financing² with high income countries alone representing US\$ 92.5 billion or 56% of the total, middle-income countries accounting for US\$ 65.2 billion and low-income for US\$ 5.9 billion. The modest figures highlight the challenge of mobilising private finance in developing countries.

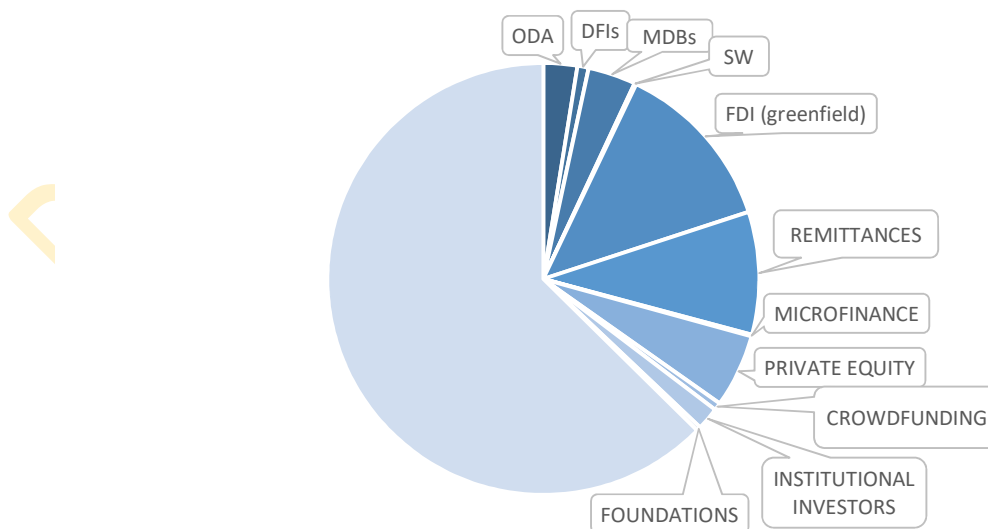
Figure 2 below illustrates the status of public and private financial flows stemming from the main channels of finance, based on an estimation of the proportion that contributes to the SDGs.

Based on our calculations in advanced countries, the public sector could finance one third of the needs and the private sector most of the rest. Overall, we conclude that nearly 90% of investment needs can be addressed in advanced countries. In emerging markets and developing economies, public and private finance have comparable contribution potential. The share of private finance in emerging and developing countries would need to double to approach the ratio of advanced countries. Overall, only 48% of SDG investment needs are being addressed, or could be addressed in emerging and developing countries. For Africa alone, the figure drops to 15%.

One major reason neither public nor private sector financing flows, *in the current trajectory*, are sufficient to bridge the SDG financing gap, is that there is insufficient alignment between economic sectors (investment areas) and needs (impacts areas). In other words, we face a business model gap, or a gap in business solutions that address impacts directly, rather than as externalities.

The next section details our observations on this business model gap. A full review of investment needs, financing flows and the resulting financing gap is available in the appendix to this paper.

Figure 2: SDG financial flows relative to SDG investment needs



Source: Authors

² Private financing on commercial terms due to the active and direct involvement of MDBs leading to commitment, World Bank definition (2016)

2. Putting impact at the centre of strategies will reduce the SDG bill and catalyse private sector solutions

An impact-based approach - using impacts as a starting point to business, finance and public solutions - can bring a step change in bridging the SDG financing gap. By applying an impact-based approach to business models and to public programmes respectively, the public sector and the private sector can:

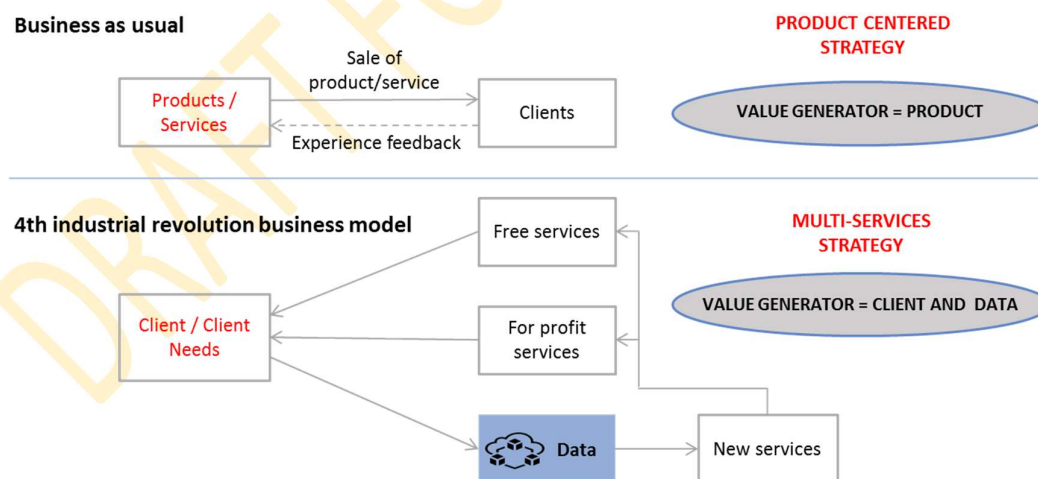
- minimise cost to impact ratios, which means reducing the overall bill for the SDGs,
- create impact-based financial flows,
- crowd-in private finance and optimise public spending.

Ultimately this amounts to revisiting the dynamics of public- private sector interactions.

What are the SDGs? Simply put they ask for the fulfilment of people's needs (the social dimension), within the physical boundaries of our planet (the environmental dimension), recognising that business and jobs are the key to achieving this (the developmental dimension). In short: the SDGs are about achieving a series of positive impacts and avoiding a set of negative impacts, inviting the question of how these impacts are delivered.

In our current economy, few business models are based on impacts; rather, impacts are generally positive or negative externalities to business models and operations. But this is starting to change: as shown in Figure 3 below, new technologies and the 4th industrial revolution are increasingly putting individual needs at the heart of their business models and could well become the basis for impact-based business models, since needs and impacts are so closely related.

Figure 3: Business model evolution



Source: Authors

However, this convergence has yet to be fully exploited, in particular in terms of the financial solutions that can derive from placing needs or impacts at the centre of the equation. There is, as of yet, much more scope to increase revenue generation, to reduce costs and to manage risks through impacts.³

³ World Business Council for Sustainable Development (2018) and Schwab (2016)

Below we explore three major strategies to deploy an impact-based approach in support of SDG financing. Each strategy is bent on reducing cost to impact (cut the bill) and mining the revenue generating potential of positive impacts. They are not mutually exclusive, and can all be considered in the search for the most competitive business models and the most effective SDG programmes at local and national levels.

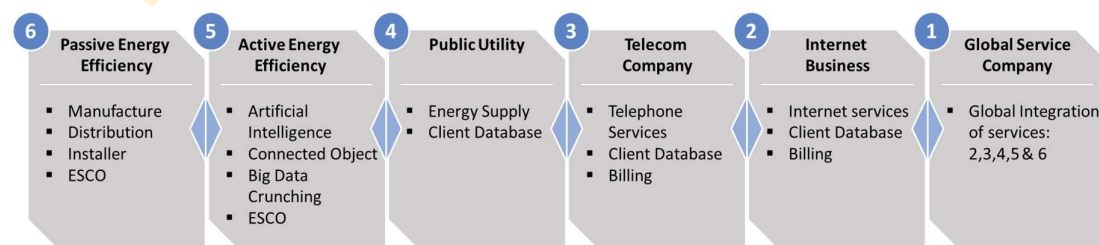
Identifying and integrating impact value chains

By working backward from impacts, we can identify impact value chains. Impact value chains map relevant economic actors and their respective positioning in the delivery of impacts via goods and services. Analysis can help understand who could play an integrative role in the chain: both the public sector and end beneficiaries can coordinate with a private “chain leader”, whose own business interest is to optimize technical solutions and bring down the cost of each link of the chain in order to scale down cost to impacts.

Energy efficiency and emission reductions in private households provide a good illustration: a classic, “investment driven” approach is to identify types of retrofit that would drive energy savings, possibly taking advantage from a supportive government programme. The next step is to convince homeowners to make investments that will result in energy savings. Since the return on such investments is not immediate, some countries extend tax, cash or credit incentives to convince them. To justify these incentives, they create controls at the investment and credit levels, with significant administrative costs. As a result, multiple economic actors in this energy efficiency value chain - step in to offer their solution: change the windows, the roof, the boiler, opt for active energy efficiency solutions (smart meters, Internet of Things, etc.). Unfortunately, most homeowners are not energy efficiency experts, so they are neither equipped to make the best choices, nor in a position of strength to negotiate prices. Bad technical decisions and lack of negotiating power result in high costs to impacts, or even no retrofit (and no impact) at all if the homeowners cannot afford them.

In an impact-based approach, we can take the need, in this case a reduction in energy consumption, as the basis of an impact value chain. As per Figure 4 below, there are multiple sectors and businesses within each sector with a role in delivering energy efficiency; however not all of them are equally close to the beneficiaries of energy provision and energy savings, and while all are individually involved and contributing, there is little integration and connections between them. This results in lower energy efficiency gains, and unrealized business opportunities. The question becomes, which player or players could integrate the value chain by becoming a dedicated services company? This company, an energy efficiency expert whose business model is driven by achieving energy savings will be able to make the right investments decisions and to negotiate the prices for a program aiming at a predefined targeted number of homeowners, who will then be repaid “on-bill” through realised energy savings.

Figure 4: Impact value chains: energy efficiency



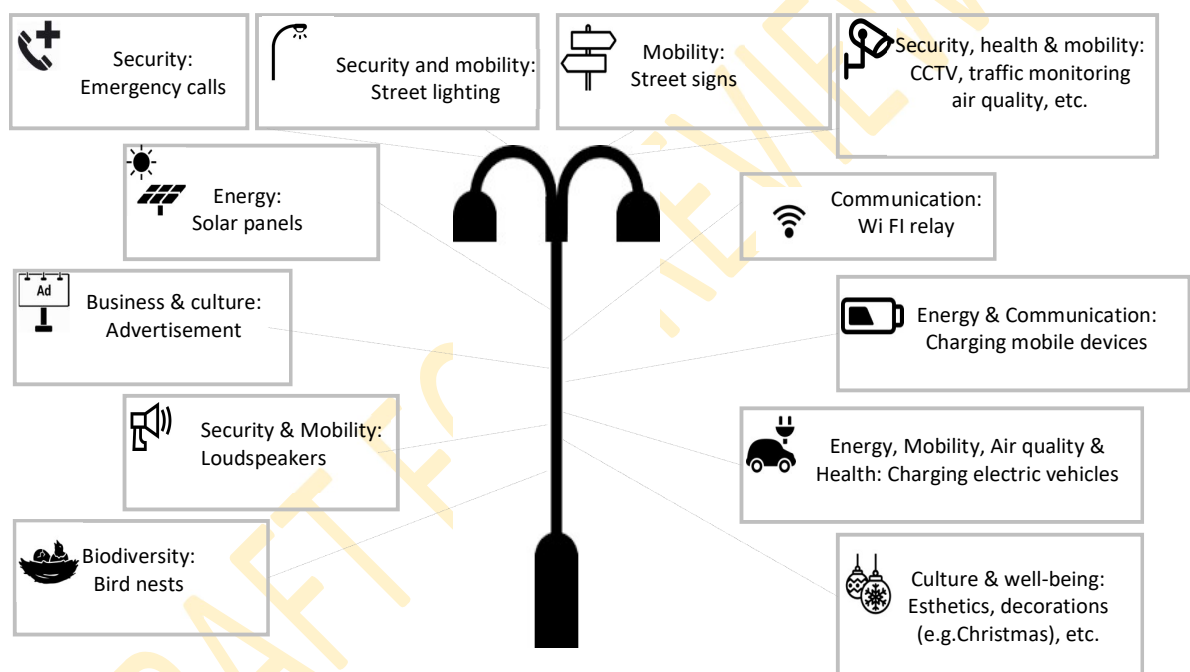
Source: Authors

Favouring multi-impact solutions

Focusing on impacts also means identifying opportunities to develop investment or business solutions that can address more than one impact. This is a simple way to reduce cost to impact ratios. Further cost reductions are made possible by the fact that some impacts are revenue generating, compensating for those which are not.

Public lighting devices provide an example of an investment solution that can address multiple impacts and generate revenue from its impacts. Figure 5 below illustrates the many impact areas a lamp-post can contribute to, including energy efficiency, personal safety, mobility, access to energy, and air quality.

Figure 5: The multiple impacts of a lamp-post



Source: Authors

The multi-function lamp-post delivers multiple impacts, bringing down cost to impacts, leading to an increased efficiency in public investment programmes. However, public authorities would typically issue separate tenders to address different needs: installing LED technology to meet energy saving targets, installing cameras for traffic and safety monitoring, etc. This is comparatively expensive and often results in less infrastructure installation, particularly when the investment comes from a public source.

As an added benefit, the multi-impact lamp-post can pay for itself, because some of the impact services it delivers have a financial value: solar energy for recharging, data resulting from traffic or air quality monitoring, advertising space. This shift in business model from product to multiple services results in additional savings for scant public resources.⁴

⁴ European Innovation Partnership on Smart Cities and Communities (2017)

Involving private sector players along the supply chains

Finally, an impact-based approach can uncover major opportunities to involve upstream and downstream businesses based on their own interest in seeing positive impacts materialise.

Rural livelihoods provide an example: rural communities often struggle to fulfil basic needs, such as access to energy or education. This leads to rural migration as new generations seek better livelihoods, which in turn creates new issues, for example on food security, because there are fewer individuals to work in the fields, raise cattle or take part in local trade. At first sight, this may seem like an issue for people and governments rather than business, but rural livelihoods are also material to businesses who depend and rely on agricultural production, including food processing companies and commodity traders. This business interest can be leveraged: downstream stakeholders can support the producers, for example by backing investments into seed or machinery. This helps to ensure a sufficiently decent living for farmers to stay on the land and pursue an agricultural livelihood, while becoming a part of the business model of those dependent on the produce.

This strategy could well apply to many other instances where beneficiaries do not have the means to pay for services, for instance public services such as energy and public transportation in emerging and developing countries. The point is to uncover convergence between business interests and people needs.

Towards an impact-based economy

For businesses, an impact-based approach means that sustainable development becomes a strategic commercial opportunity. Those companies and entrepreneurs that master impact will be the ones to reap the benefits of new multi trillion markets, including in developing countries. For governments, applying an impact-based approach is a key lever to accelerate the emergence of an impact-based economy, which will deliver more impacts at a lower cost.

The private sector's attention is starting to turn to impact as a business model driver. Car, tyre or car equipment manufacturers are starting to self-identify as providers of "mobility". A few first movers are starting to move upstream and downstream of the "impact value chains" they belong to: car manufacturers moving to batteries and artificial intelligence; energy public utilities moving to energy efficiency; off-grid renewable energy providers moving to batteries and the car industry or the reverse; the world's major technology companies' growing interest in healthcare, education, energy distribution, or again mobility. The 4th industrial revolution is providing the technical basis for the impact-based economy to emerge.

However, most companies are still mostly incidental impact providers, in the sense that they are currently part of "impact chains", but their primary focus remains to sell traditional goods and services. The emergence of new, impact-based business models, where impacts have an intrinsic financial value, has yet to fully materialise. No "mobility company" as such has yet really emerged. The same is true for "energy efficiency", "smart cities", "new healthcare", "new education", "food security", "circular economy", and the list goes on.

For the public sector, the impact-based approach constitutes a major opportunity to reduce costs and optimise spending. There are ways in which it can catalyse and accelerate the emergence of such businesses.

Perhaps the single most significant lever it holds is public planning and the definition of programmes,

ultimately expressed through tendering processes and requests for proposals. The latter could be used as a tool to challenge the private sector to deliver solutions with the best cost to impact ratios and stimulate competition on impact that would drive the emergence of multi-impact solutions (such as the lamp-post example), accelerate the emergence of service companies that take integrated approaches to issues such as energy efficiency and mobility, and crowd in private investors who might increasingly step in to take part of the risk or investment load from the public sector as it becomes compellingly clear that the prosperity and well-being of communities is the best way to grow markets and remain competitive.

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3. The finance sector will accompany the Impact Journey

The finance sector is the only non-public stakeholder that cuts across all sectors of the economy. With its specific expertise and of course as the largest source of finance, it is the other major player (alongside governments and business) in a position to drive positive impact in the economy.

By taking a holistic approach to impact management, the finance sector can both create new business opportunities and better manage risks.

The finance sector is taking part in an evolution alongside the economy, moving from no consideration of impacts to an increasingly sophisticated understanding, avoiding negative impacts and actively pursuing positive ones.

For negative impacts, strategies such as exclusion lists and safeguard policies (e.g. Equator Principles for project finance) are being complemented with scenario-based approaches that seek to ensure alignment with international targets, such as the Paris Agreement to keep climate change within a 2°C increase.⁵

The pursuit of positive impacts is mostly taking place via taxonomies and certification systems, as illustrated by policy developments such as the EU Action Plan⁶ and its green taxonomy as well as by market developments, such as the Green Bond Principles⁷. Impact investing raises important questions of impact measurement and management, and additionality. The World Benchmarking Alliance's ambition to provide publicly available benchmarks on SDG alignment for the most influential companies is going in the same direction.⁸ These analytical approaches are complemented by financing strategies blending public and private funds, pay-for-success approaches, and more generally the investments of many public or private financing institutions with explicit social, economic or impact goals (more on these topics in the glossary).

But challenges remain. It is still difficult to identify, measure and manage impacts. Impact and scale seem to be in inverse proportions. Taxonomies necessarily exclude large parts of the economy, and additionality is hard to pursue.

To be clear, positive impact is not absent in today's economy. Some businesses, activities and/or sectors can be seen as primarily carrying positive impacts, for instance renewable energy. Others are often viewed as carrying negative impacts. The vast majority sit in between: agri-business, construction, transportation and technology, to name a few. In fact, all human and business activity comprises both, positive and negative impacts.

This is broadly recognised and increasingly acknowledged, including in standards. For instance, the EU taxonomy states the need to avoid negative impacts between stated environmental objectives and the need to comply with ILO standards. But few use holistic impact analysis as a starting point. The Impact Management Project⁹ is a notable exception: it established several dimensions of impact for investors to look for and base their assessments and decisions on, including positive and negative impacts.

⁵ As recommended by Task Force on Climate-related Disclosures TCFD (2018)

⁶ European Commission (2018)

⁷ International Capital Market Association (2018)

⁸ World Benchmarking Alliance (2018)

⁹ www.impactmanagementproject.org

The purpose of impact analysis should not be to frame areas for exclusion, but to move the whole economy forward. Understanding both the positive impacts and negative impacts of business activity allows actors to manage or remediate negative impact, as well as step up or encourage positive ones.

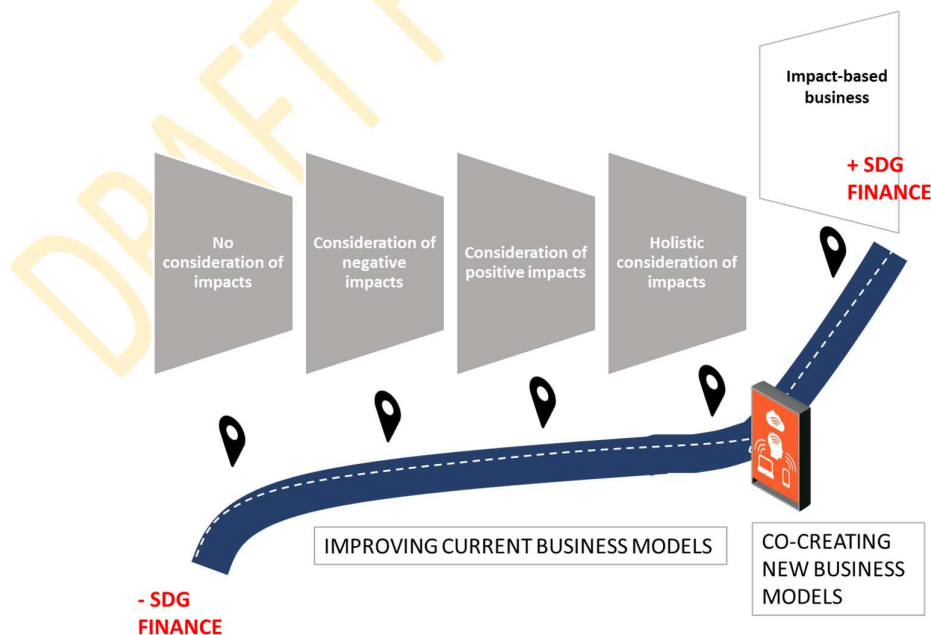
At the same time, more familiarity with and a refined understanding of impacts will make their use as business model drivers more apparent, and the business opportunity will be increasingly evident. The impact-based models we described are a complete break from existing business models where impacts are externalities; accordingly, they will first be driven by a limited number of early adopters. While the impact-based economy will not simply replace the current economy, the scale of business it will unleash means that early adopters will not be alone for long. The same holds true for financial institutions, where first-movers will become partners to private and public clients and investees in the development of impact-based business.

Current business models, with ‘impact enhancements’, could suffice to cover SDG gaps in advanced economies, where basic developmental and social needs are mostly addressed. For emerging and developing economies, however, impact-based business models are critical – effectively they amount to the emergence of a new form of development. Emerging economies, with their dual characteristics, combining both so many of the SDG needs but also many strengths such as large markets, strong economies and financial sectors, have a critical role to play and can lead the way for less developed economies.

Whether improving current business models or creating new ones, impact is the critical organising concept that can help achieve the SDGs, and a holistic approach is needed to maximise results. In the following section we present the Principles for Positive Impact Finance, which provide a common framework to do just this.

Figure 6 illustrates evolving understanding of impacts, and how a holistic consideration of impacts can accelerate the Impact Journey.

Figure 6: The Impact Journey



Source: Authors

4. The Principles for Positive Impact Finance are a global framework for the Impact Journey

There are multiple standards and frameworks contributing to the understanding and mainstreaming of impact. The Principles for Positive Impact, with their holistic definition of impact, provide an umbrella framework to promote clarity and the convergence of multiple impact-focused approaches and standards. By the same token they are set up to drive positive impact across the economy, and hence to accelerate the journey towards positive impact and the achievement of the SDGs.

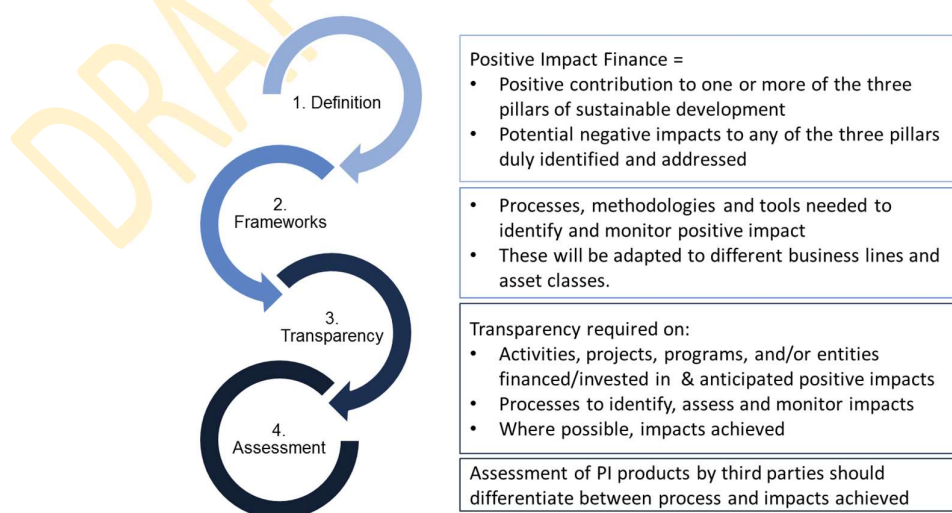
The Principles for Positive Impact Finance were developed with the dual goals of bringing clarity to markets on impacts, and of scaling up finance for the SDGs by driving positive impact across the economy.

There are many standards and initiatives and approaches seeking to drive positive impact, see appendix), but these are generally sector or theme focused, or established to meet the narrower needs of certain market participants. As a result, we lack a holistic picture of positive and negative impacts.

As per the Principles for Positive Impact Finance, “positive impact business and finance serves one or several of the three dimensions of sustainable development (social, developmental, environmental), providing any negative impacts have been duly addressed” (see Figure 7 below).¹⁰ The Principles require transparency on both process and outcomes. This holistic and transparent approach, requiring both negative and positive impacts to be considered across the three dimensions of sustainable development is a source of deeper insights on impacts, and leaves less room for ambiguity in practices.

The Principles are not exclusive of any impact theme or area, industry or sector. As a result, they provide a vehicle to drive positive impact across the economy, as opposed to a ring-fenced set of activities.

Figure 7: The Principles for Positive Impact Finance

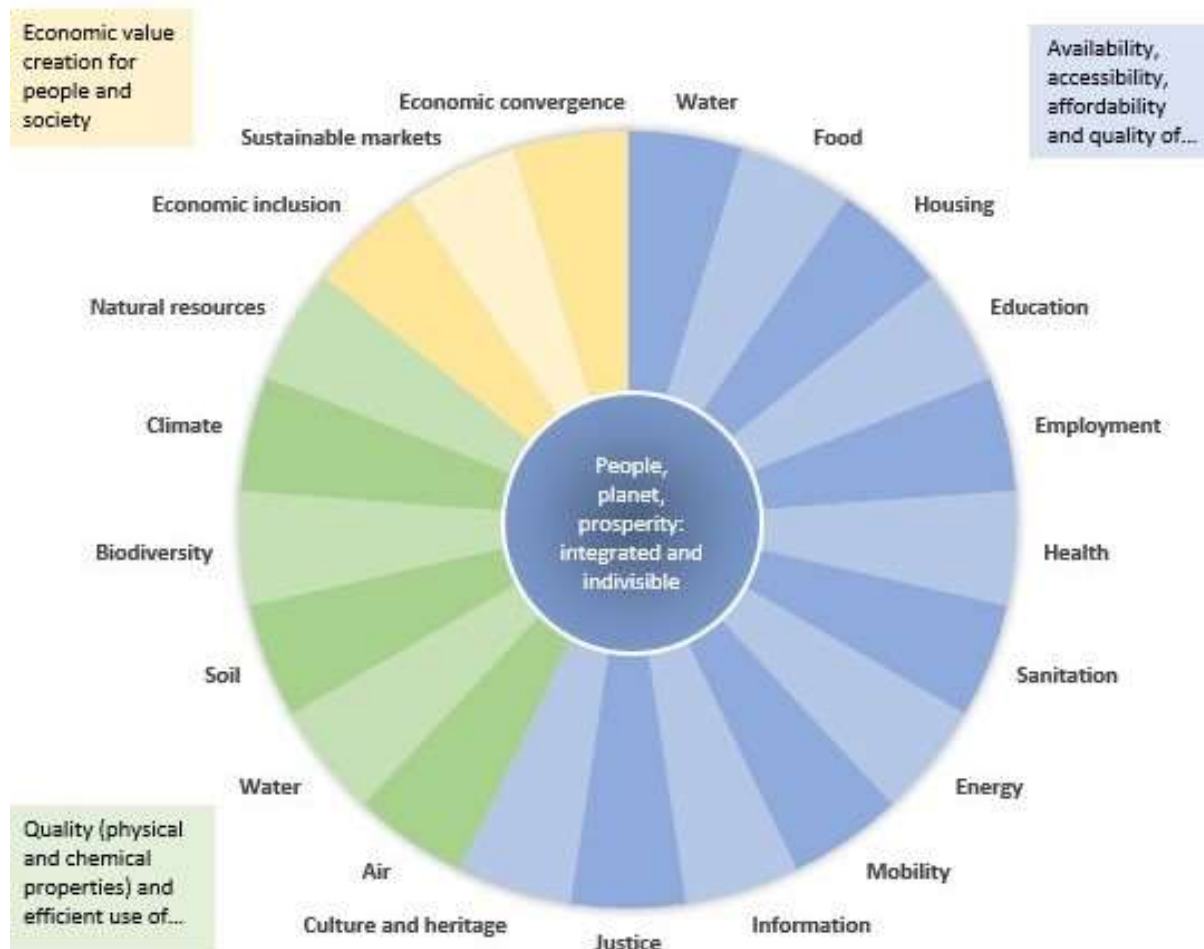


¹⁰ United Nations Environment Programme – Finance Initiative (2018)

Holistic impact management

How to identify potential positive and negative impacts? A holistic approach has to rely on a set of impact categories that can be used to capture negative and positive impacts across the three pillars of sustainable development. Figure 8 below shows the impact categorization proposed by the Positive Impact Initiative.¹¹ The relative significance of impact categories will vary depending on the businesses, projects or portfolios under consideration; the ensuing steps of impact analysis and management will be shaped accordingly.

Figure 8: The PI Impact Radar (draft)



Source: Authors

Analysis continues with impact measurement and monitoring, including the determination of KPIs and predictive models related to significant impact categories. These are areas in which the Positive Impact Initiative is active: few such models or methodologies are available and we are collaborating with research organizations and other civil society organisations working on the same topics.

¹¹ Draft version currently under consultation. Finalised version will be available at the time of publication.

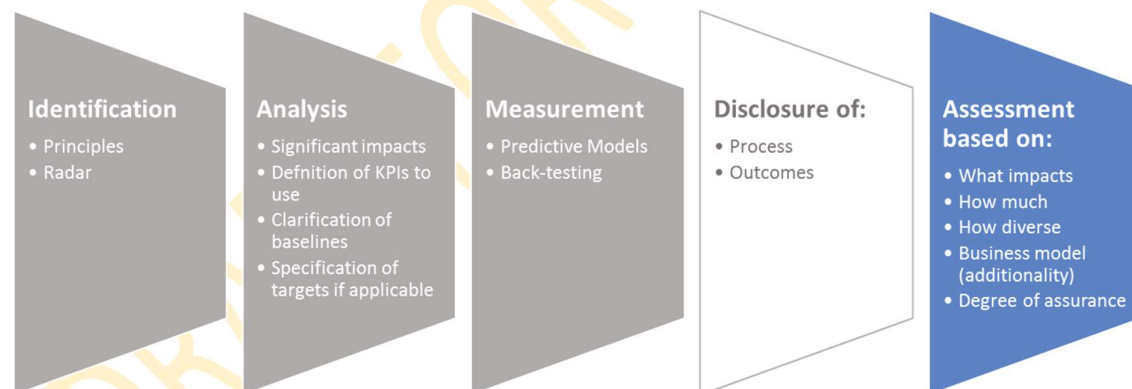
Predictive business models and measurement methodologies should include contextualized baselines: different businesses or projects in different countries or regions are not facing the same SDG gaps. Job creation for example must be contextualized, just as GHG emissions targets are different from country to country. Baselines, the minimum level from which positive impact can be claimed, should not be confused with targets, which vehicle an ambition. They can however be linked to targets as established by international standards (e.g. the 2-degree target set by the Paris Agreement).

It should be noted that financial institutions are not usually in the “driving seat”; they use their leverage on impacts that are managed by third parties, whether corporate or sovereign. This leverage will typically be stronger in project finance and private equity; corporate lending will present a range of profiles. With investment products, the leverage will often be limited to a decision to proceed or not with an investment (though asset managers and asset owners tend to have a continuous dialogue with issuers they are investing in). In all instances, the expectation of the Principles is for players to use the leverage they have to maximum effect.¹²

Last but not least, how to assess or rate the quality of impact of business and finance? This is not only about the type and scale of impacts, but also about business models and additionality, and about the level of assurance brought by third party verifications and second opinions.

Figure 9 below summarises the core aspects of impact management, from identification to assessment.

Figure 9: Holistic impact management



Source: Authors

¹² At the time of writing work is underway with banks and investors to develop guidance on how to apply impact analysis to different asset classes such as corporates, project finance, SMEs, real estate, etc. and on what positive impact compliant products look like.

5. We need an impact ecosystem to accelerate Positive Impact and achieve the SDGs

Everyone has a role to play in driving positive impact for the achievement of the SDGs. Ultimately what is implied is a re-invention of public-private and civil society interaction. The 4th industrial revolution, with its data enabled service orientation, provides the means to achieve this. The onus is now on all of us to take this opportunity to produce the societal, development and environmental benefits that we need. We call for the ecosystem for positive impact to be built together.

The SDG financing gap is first and foremost a business model gap. It cannot be resolved by financial institutions alone. Whether from the public or private sector, or from civil society, everyone has a role to play to drive positive impact and achieve the SDGs. For a new take on public-private interaction, based on an impact paradigm:

- **governments and municipalities** can develop impact-based programmes, issue positive impact tenders, and set up appropriate public-private governance structures to deliver the programmes;
- **businesses** can understand and identify impact value chains, and develop impact-based business models;
- **financial institutions** can develop their capacity for impact analysis to deliver positive impact financial products and advise their corporate and sovereign clients and investee companies;
- **Multilateral and Development Financial Institutions (MDBs and DFIs)** are primed to play a catalytic role as intermediaries between the public and the private sector, particularly in emerging economies;
- **service-providers** can offer the tools and services (methodologies, metrics, consulting, assessment, verification, second opinions, etc.) to support the development of positive impact business and finance;
- **academia & NGOs** need to contribute research to help the common language of impact to become loud and clear, for example by working on impact definitions, indicators and predictive models;
- **individuals** can express their preferences and participate in impact forums and actions;
- **international organisations** have an important role to play in ambition and standard-setting and in convening all parties.

With the Principles for Positive Impact Finance, the foundations for a common 'impact' language are in place, but this is merely the beginning. Much more needs to be done, starting with the following:

Tools for holistic impact analysis

The Principles for Positive Impact Finance are a starting point, and while several tools to enable the convergence towards holistic impact analysis exist or are in development, much remains to be done. Further work is needed to set up operational frameworks, to understand and define indicators, and to determine baselines that make sense.

Databases

The more we work with impact, the more data and data-sharing we will need. Data is currently scattered across documents, sites and databases – these need to be aggregated and organized. A few places to start include:

- Sustainable technologies and technological innovations
- Government programmes, policies, rules and incentives
- Financing solutions – schemes and structuring
- Disruptive business models: R&D, industrial development (e.g. multi-service lamp-post)

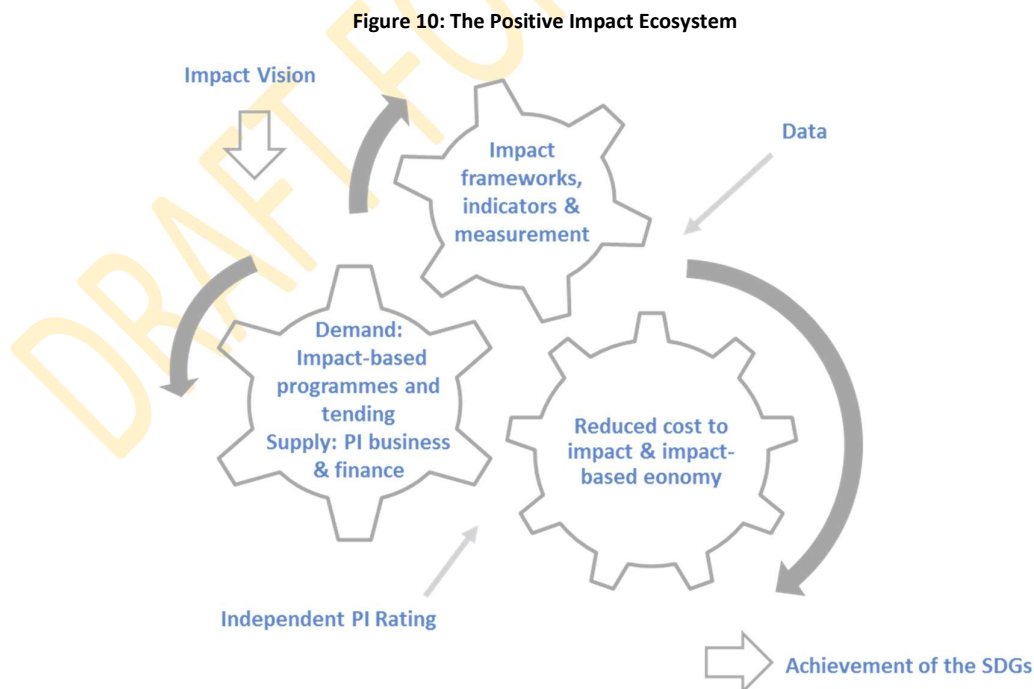
Impact-based rating

Ratings are an important market instrument, and a rating mechanism based on the Principles for Positive Impact Finance would serve to drive positive impact in the market. To do justice to the holistic approach conveyed by the Principles, it is critical that such a mechanism be as independent and free of conflicts as possible – namely by avoiding payment of ratings by issuers). Delivery should be flexible and provide options, for instance the possibility to apply both investors' algorithms and those eventually proposed by the Positive Impact Initiative.

Tools and services to facilitate new public-private interaction

The new dialogue between public and private is about developing a functional interaction between demand and supply of positive impacts - Governments and local authorities can use requests for proposals to challenge the private sector to deliver solutions with optimal cost to impact ratios, while business and finance can drive innovation as they develop the skills to internalise impact in their business models. New facilitation and advisory services will be needed to support and accelerate this conversation.

Figure 10 summarises the positive impact ecosystem we need to build together to achieve the SDGs.



Source: Authors

Positive Impact Movement

It is clear by now that rethinking impact is not just for financial institutions. It is for corporates, it is for national and local public authorities, it is for academia, for civil society and for everyday people. The United Nations Environment Programme Finance Initiative (UNEP FI), as the pioneer network of financial institutions has put us in the starting blocks with the work of the Positive Impact Initiative, but what we need now is a movement.

For the ecosystem to emerge and interactions to reconfigure themselves around impact we need everyone around the table in full co-ownership. We call for the imminent launch of this movement and welcome co-founders.

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Appendix: SDG investment needs, financials flows and the financing gap

Introduction

What do we really know about SDG investment needs? What is the status of public and private financial flows? What is the nature and scope of the financing needs?

For the purposes of this report, we review existing data to better understand present trends, and what is needed to bridge the financing gap. Our aim is not to revise or challenge existing figures; rather it is to make sense of them at an aggregate level. Existing reviews tend to have a narrow focus, and we lack an aggregate view of needs, flows and gaps.

This is for good reason: there is only partial data, some macroeconomic and some microeconomic, some measured in stock and some in flows. The more granular the data we seek, the less accurate it becomes. But we believe understanding the data landscape is a necessary exercise to better understand the data gaps and, in their wake, the SDG financing gap.

Because of the gaps, we had to make several hypotheses, assumptions and extrapolations. All our assumptions are open to discussion and challenge – they are made to trigger debate and further research on the data we really need to finance the SDGs.

We first focus on SDG investment needs; we then turn to actual or committed public and private SDG financial flows, to then infer the financing gap.

The SDG financing gap is defined here as the difference between the investments needed to meet the SDGs (SDG investment needs) and the associated level of financing (SDG financial flows). Investment needs should not be confused with financing gaps: not all SDG-related investments face a financing dilemma. This simple distinction is important if the task at hand is to mobilise finance towards the gap, not just towards the SDGs writ large.

We sought to distinguish between Advanced Economies and Emerging Markets and Developing Economies (EMDE)¹³, with a specific focus on Africa: this is because data consistently shows that this is the continent of greatest need.

All data comes from public sources. There are further methodological insights below, including the different assumptions and hypotheses we made.

¹³ Derived from UN Country Classification

1. SDG investment needs

Based on a review of available data, this paper estimates worldwide SDG investment needs to be US\$ 6 trillion per year on average. Of this, advanced countries represent US\$ 1.5 trillion per year while emerging markets and developing countries represent US\$ 4.5 trillion. Africa alone represents one third or US\$ 1.5 trillion of the emerging markets and developing countries' investment needs.

Basic concepts, methods and caveats

We draw a distinction between total and incremental annual SDG investment needs. The latter are the additional effort on top of the current annual level of investments to reach the SDGs. The former combines the current (existing) annual level of investments with the incremental annual investment needs.¹⁴

Existing efforts to quantify SDG investment needs rely mostly on economic frameworks that describe in which sectors money needs to be invested but assessing SDG investment needs is a more complex matter. SDG investment needs are not sector-aligned, because each SDG goal can be addressed by a multitude of impacts across different sectors. Interdependencies, synergies as well as trade-offs¹⁵ across different economic sectors contributing to sustainable development affect the assessment of SDG investment needs and lead to double counting, difficulties in assessing cross-sector impacts, potential omissions, etc.

Most studies will refer to economic infrastructure (energy, transport, telecommunications, water and sanitation...) and social infrastructure (health, education) as the key to achieving the SDGs. Equally relevant is the assessment of many cross-cutting issues such as poverty, safety, humanitarian relief, gender equality, climate change adaptation and mitigation, and their implication in terms of investments¹⁶. Furthermore, it should be noted that some of these cross-cutting issues might be more relevant to certain countries or regions than others, for instance with poverty. Finally, cross-cutting issues are not well covered by existing estimates.

We focus here on assessing indicative figures of total SDG investment needs. To analyse the SDG investment needs by region or country group, we considered global aggregated figures. Several country classifications exist: the World Bank classifies countries either by region or by income group. The UN classifies countries either as developed or developing. According to the UN, "the distinction is intended for statistical convenience and does not express a judgement about the stage reached by a particular country or area in the development process. And it remains relevant to the Sustainable Development Goals which currently uses for global reporting the definition used in the final report of the Millennium Development Goals (MDG)".

For our purposes, we classify countries as either Advanced Countries or Developed Economies¹⁷, or Emerging Markets and Developing Economies (EMDE), as defined by the World Economic Situation and Prospects (WESP).

Nearly one third of the countries in the EMDE groups are African. Almost all low-income countries are African, and Africa represents nearly half of the Developing Countries. Most research reports tend to

¹⁴ Schmidt-Traub (2015)

¹⁵ UNTT (2013)

¹⁶ Schmidt-Traub (2015)

¹⁷ In this paper, we will use interchangeably advanced or developed.

agree that much effort will be needed for low- and lower middle-income countries to achieve the SDGs. Africa still lags in terms of efforts to reach the SDGs. In 2016, Africa's average SDG index score was 44.23 while EMDEs group average score was 53 and advanced countries average score was 75. If we isolate Africa from the EMDE score, the average increases to around 58.65. Therefore, we focus specifically on Africa within the EMDE groups. The SDG Index is published by the Bertelsmann Stiftung and the Sustainable Development Solutions Network (SDSN) on where each country stands regarding the achievement of the SDGs.¹⁸

Assessing SDG investment needs

In a first attempt at quantification, the United Nations Conference on Trade and Development (UNCTAD, 2014) estimated total SDG investment needs at **US\$ 5-7 trillion per year** at the global level. As per table 1, UNCTAD provided a breakdown per sector for developing countries leading to an estimated US\$ 3.3-4.5 trillion per year to achieve the SDGs by 2030, with developing countries representing at least 64% of total investment needs.

Table 1: Estimate of SDG investment needs in developing countries

UNCTAD total investment required in developing countries	
Annualized \$ billion 2015-2030	
Power	630 – 950
Transport	350 – 770
Telecommunications	230 – 400
Water and sanitation	~410
Food security and agriculture	~480
Climate change mitigation	550 – 850
Climate change adaptation	80 – 120
Health	~210
Education	~330
Total	3270 – 4520

Source: Authors' analysis based on UNCTAD (2014)

Other relevant studies from New Climate Economy (NCE, 2014), McKinsey (2013), or the World Economic Forum (WEF, 2013) focus on assessing infrastructure investment needs, widely believed to be the largest component of SDG investment needs. WEF (2013) estimates that US\$ 5 trillion of annual investments in infrastructure will be needed on a business-as-usual scenario to achieve the SDGs, and an additional US\$ 0.7 trillion under a 2°C scenario. Similarly, McKinsey (2013) reports that the world will need to invest about US\$ 57 trillion per year in economic infrastructure, equivalent to 3.5% of GDP through 2030. NCE (2014) estimates that on average the world will need around US\$ 89 trillion over 2015 - 2030 and an additional US\$ 4 trillion under a low carbon scenario.

¹⁸ <http://www.sdgindex.org/overview/>

Table 2: Global estimated of investment needs

	World Economy Forum (2013) Average \$ billion 2010-2030		McKinsey (2013) Average US\$ billion 2013 - 2030	NEC (2014) Average US\$ billion 2015 - 2030
	Business as usual scenario	2°C scenario		
Energy / Power	619	758	718	3097*
Buildings & industry**	613	944		
Transport & associated infrastructure***	1650	1837	1400	911
Telecom	600	600?	559	476
Water	1320	1320?	688	1422****
Agriculture	125	125?		
Forestry	64	104		
Adaptation (not collated with other sector)	Not estimated	85 - 121		
Total	4991	5773 - 5809	3365	5906*****

Source: Authors' analysis based on WEF (2013), McKinsey (2013) and NEC (2014)

* Energy investment needs include power generation, transmission & distribution, fossil fuels, energy use for transport, buildings and industry

** Primarily energy efficiency

*** Transport & associated infrastructures include rail, road, ports and airports. WEF data includes transport vehicles. In the WEF 2°C scenario, the same figures are used for road, rail, port and airport infrastructures.

**** Water & waste included

***** Low carbon scenario result in average US\$ 5471 billion per year

Having reviewed the different studies and research reports, we retain the oft-cited UNCTAD figures as our starting assumption in our attempt to assess the global SDG investment needs, keeping in mind the different challenges and issues inherent to the figures.

We assume the needs to be **US\$ 6 trillion**, the average range from UNCTAD estimates. We retain the upper range of the estimate i.e. **US\$ 4.5 trillion** as our assumption of EMDE SDG investment needs.

Considering the efforts required to achieve the SDGs, we assume Africa to weigh one third of total global investment needs, or US\$ 1.5 trillion. Assumptions about African investment needs vary from one study to another. Schmidt-Traub (2015) estimates US\$ 614 – 638 billion annual incremental financing needs related to the SDGs. Chinzana et al. (2015) estimate that Africa will require a GDP growth rate of 16.6% over 2015 -2030 to realize the SDGs, equivalent to an investment-GDP ratio of 87.5% per year, or US\$ 1.7 trillion (UNCTAD, 2016).¹⁹ These figures provide an insight on the remaining potential gap or incremental SDG investment needs, but not on total SDG investment needs in Africa.

¹⁹ UNCTAD (2016)

Table 3: Estimates of SDG investment needs per geography

Defined scope	SDG investment needs
Advanced countries	1.5
Emerging and developing countries	4.5
of which, Africa	1.5
Total	6

Source: Authors' assumption based on UNCTAD (2014), UNCTAD (2016).

Conclusions

So, what does the review reveal in terms of what we do and do not properly understand about SDG investment needs, and what are the implications?

Firstly, although data is particularly scarce in EMDEs, what we can be most confident about is the “where” question: the gap is in EMDEs, with most countries in Africa. It should be a priority to understand regional data needs and to collect the data.²⁰

Secondly, the “what” question is more difficult to establish. The SDGs are impact-oriented and do not always translate directly into economic sectors, yet most estimates are typically established at a sector level, reflecting the current construct of the economy. Indeed, while this data is ill suited to the job, it remains the best available proxy. Going forward identifying and collecting impact data is therefore also a priority.

Finally, there is the “how much” question: methodological and data gaps leave us with a fair amount of uncertainty.

On the one hand, the misalignment between investment areas and impact areas implies that the magnitude of the needs may well be misrepresented, as non-sector related investments, such as energy resource efficiency, gender equality or biodiversity are omitted. Other sectors run the risk of being double counted when they address multiple SDGs.

On the other hand, estimates rely on historical data and hence tend to ignore the type, volume and sequencing of required investments, which is likely to vary depending on sector, country or goal. As we also know, past investments are a poor predictor of the future, since they won’t reflect structural changes in the economy, technological disruptions, and other evolutions.

Figures are therefore indicative. There is a critical need for impact data. It is also important to consider the potential costs reductions that can be brought about by harnessing digital and AI powered business models in the context of the fourth industrial revolution that is underway.

²⁰ Some of the studies reviewed for this paper use proxies to reflect global or regional figures. For instance, the 2013 McKinsey report on infrastructure investment needs considers 84 countries representing nearly 90% of the world’s GDP. There are gaps even among those 84 countries, with fewer than half supplying data on the different asset classes over a ten-year period, data for low-income countries being the most difficult to find. Figures on education, health or even agriculture are often limited to developing countries.

2. SDG financial flows

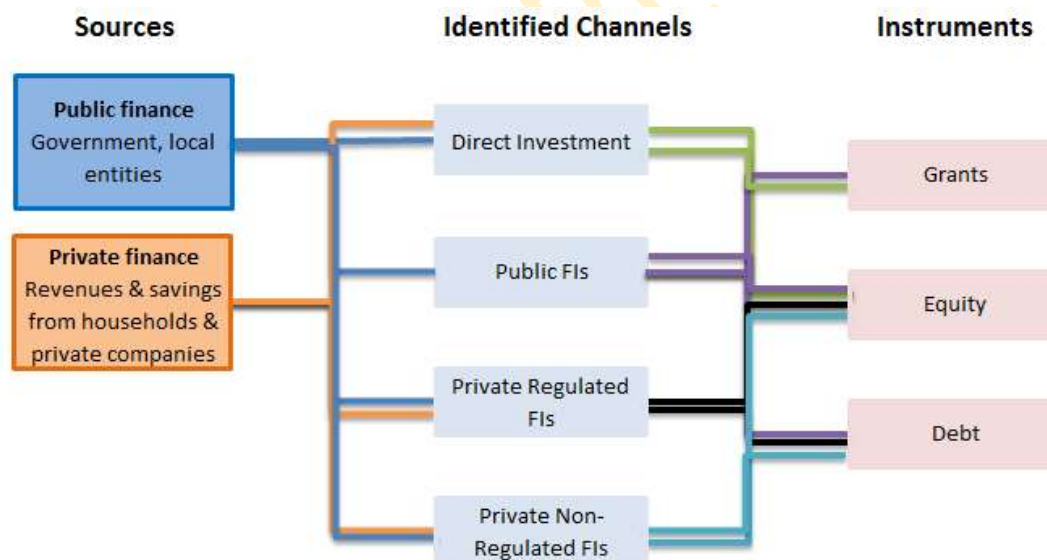
Based on a review of available research and data, this paper estimates worldwide SDG financial flows at US\$ 3.5 trillion per year on average. Of these flows, we estimate that US\$ 1.6 trillion come from public sources, and US\$ 1.9 trillion come from private sources.

Developed countries already receive US\$ 1.4 trillion per year, so the remaining gap to address is of less than 10%. Emerging markets and developing countries receive US\$ 2 trillion, with the remaining gap at US\$ 2.5 trillion per year. Africa receives US\$ 221 billion, and a gap of US\$ 1.3 trillion per year remains.

Basic concepts, methods and caveats

In assessing financing flows, we identified and made distinctions between the main *sources* of flows, their *channels*, *intermediaries* or *asset pools*, as well as the financial *instruments* employed. This effectively combines *top down* and *bottom up* approaches for existing flows. We looked at both public and private financial flows, with a special focus on combined flows (e.g. *blended finance*). As figure 11 shows, figures become harder to track the more specific one tries to get.

Figure 11: Sources, channels and instruments of financial flows (in US\$ billions)



Source: Authors' analysis, based on Schmidt-Traub (2015), World Bank Data, OECD Data, United Cities and Local Governments UCLG (2013), EDFI Report (2015), MDBs' annual reports, SDGfunders Data, IFAD, Massolution crowdfunding report (2015)

We focused on flows, as opposed to stocks, because it is the flows that are critical to achieving the SDGs. This is of course challenging because available data tends to reflect "accumulated finance" i.e. assets under management (AUM) or balance sheet data (outstanding loans), as opposed to flows. In our attempt to infer the annual flows from AUM data, we assumed the average life of investments to be 10 years, therefore positing that annual flows would represent one tenth of AUM.

We further estimated that portion of annual flows dedicated to SDG financing as consistent with the

current percentage of investments into infrastructure.

We also attempted to determine the proportion of existing and identifiable flows that can meet SDG investment needs, mainly by considering the objects of the financing. While those assumptions are far from being accurate, we considered them to be good enough proxies. That being noted, there is a lack of data on annual public and private flows serving the SDGs: these are not being tracked. We therefore made many strong assumptions to estimate the flows and how they serve SDG investments. We focused on country level, as opposed to regional data, also leading data gaps (mainly in emerging and developing countries). The exercise could well under- or overestimate the figures.

Throughout this paper the reference year is 2015 with a focus on yearly financing flows unless specified otherwise.²¹

All data has been converted to US\$ for consistency. When available, we used Forex (FX) rates from the MDBs & DFIs annual reports. Otherwise we referred to public information as of December 31st 2015.

Table 4: Forex exchange rates

	EUR	GBP	DKK	NOK	SEK	AED	JPY	UA	CHF	EU(SDR)
Per US\$	0.9185	0.6783	6.8727	8.8603	8.4352	3.673	112.68	0.7216	0.9952	0.7217

Source: Authors' calculation based on MDBs/DFIs annual reports (2015) and public forex historical databases

Public financial flows

Sources

The main sources of public financing flows are government revenues at the national and local levels. National governments earn revenue from tax collection, and other sources such as income from public entities and government-owned corporations. At the local level, revenue stems mainly from local taxes, grants and subsidies, and other sources such as social contributions, tariffs and charges.

There is currently no accurate estimate on the share of public revenue dedicated to SDG financing. In the past, the United Nations recommended that at least 20% of GDP in developing countries tax revenue would be required to reach the MDGs.²² The SDSN (2013) recommended that countries allocate at least 20 % of Gross National Income (GNI) in domestic resources to sustainable development.²³

Assuming that most SDG investment needs are infrastructure-related, we used estimates of infrastructure investments to assess the proportion of government revenues allocated to SDG investment needs. We adjusted weightings to reflect efforts the public sector should make to address SDG investment needs, in consideration of their current tax collection systems, as well as of the likelihood of private sector involvement.

Relying on estimates from a joint report by the Organisation for Economic Co-operation and Development (OECD) and United Cities and Local Governments (OECD & UCLG, 2016), we calculated

²¹ We choose 2015 as the reference year for our study of financial flows mainly because of the availability of data.

²² OECD (2014)

²³ Schmidt-Traub & Sachs (2015)

government revenues at local level as representing 23.8 % of government revenues (in current US\$) and subtracted 52.6% from this, representing transfers from government and/or international entities.

Table 5: Sources of public financial flows (in US\$ billions)

	National government revenues	Local government revenues	Total
Advanced countries	379	60	438
Emerging & developing countries	903	102	1005
Africa	75	6	83

Source: Authors' analysis based on World Bank Data (2015), UCLG (2013)

To estimate public sector contribution to SDG investment needs, we made the following assumptions:²⁴

- We made the assumption that advanced economies could allocate 5% of national and local government revenues to SDG financing going forward. Our assumption relies on the fact that advanced countries invest 3.2% of GDP in economic infrastructure (McKinsey, 2016), with 40% financed by public resources (NCE, 2016). Our 5% estimate is based on the combination of these two figures. The proportion of public resources going to infrastructure investment remains relatively stable until 2030.
- Using the same method, we assumed that EMDEs could allocate 20% of their national and local government revenues to SDG financing. EMDE countries invest 4.4% of GDP in economic infrastructure (McKinsey, 2016), with 60% financed by public resources (NEC, 2016), leading to our 16% estimate. To fill the infrastructure financing gap, EMDE countries should allocate 6.8% of GDP to infrastructure spending, equivalent of 24% of public resources. We used the average between the current level and the expected level of investment.
- We also assumed that Africa could allocate 25% of national and local government revenues to SDG financing. According to the annual report of the Infrastructure Consortium for Africa (2015), African national budgets financed around US\$ 28.4 billion (34.1%) of the US\$ 83.4 billion committed to infrastructure in 2015. We chose to make a more conservative assumption.

With those assumptions, we were able to compute an estimated contribution of the public sector to SDG financing. The implication is that in advanced countries, the public sector could finance approximately US\$ 0.4 trillion, or 29% of domestic SDG investment needs, – not considering official development assistance (ODA) financing – whereas emerging and developing countries' public sector financial capacity is approximately US\$ 1.2 trillion, or 26% of domestic SDG investment needs. The figure is much lower for the African continent, where capacity is approximately US\$ 128 billion (including ODA financing), or 9% of the continent's SDG investment needs. As a result, we estimate current overall public financing flows to be approximately US\$ 1.6 trillion, or 27% of the SDG

²⁴ Local government revenues represent 23.8% of public revenue. Their revenues comprise grants & subsidies from central government (52.6%), local tax revenue (31.7%) and other revenues such as social contribution, tariff/user charges and fees from local public services... (15.7%). Source: OECD/UCLG (2016). We derive our estimates of local government revenues from these estimates.

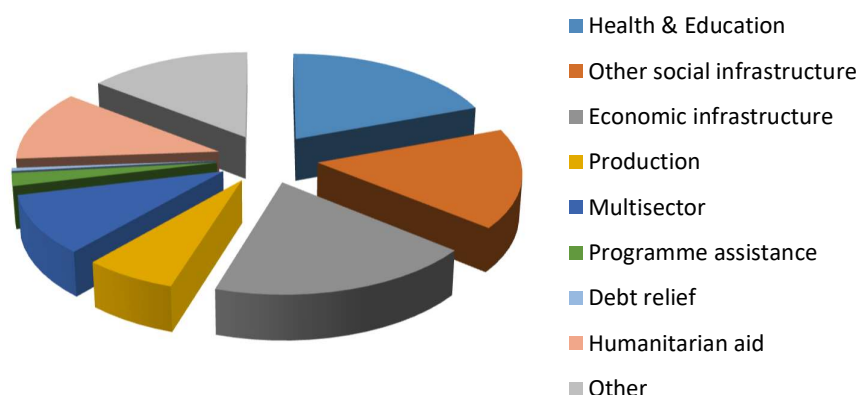
investment needs. We now take a closer look at how effectively public financing flows serve the SDGs.

Channels & instruments

In the absence of dedicated data at the government and local authorities' levels, we turned to figures on public financing flows channelled through ODA, multilateral agencies, DFIs and export credit agencies for insights.

ODA. The World Bank (2015) estimated flows from net ODA and official aid received as amounting to **US\$ 152 billion** for 2015, including US\$131 billion from the Development Assistance Committee (DAC) countries.²⁵ There is a wide dispersion of ODA allocation across recipient countries and across countries with similar levels of income. Africa received about a third of net ODA flows. Overall, infrastructure appears to be the largest beneficiary.²⁶

Figure 12: ODA by sector in emerging and developing countries, 2015



Source: Authors' analysis based on World Bank (2015), OECD (2015)

For some sectors, ODA is relatively well documented, for example by the OECD. Grants dominate in sectors where private finance is lacking the most, such as health or education.

However, not all ODA flows qualify as direct contributions to SDG investment needs: part of what now counts as ODA (scholarships to study in the donor's higher education institutions and administrative costs of aid agencies in donor countries and of awareness promotion of development cooperation in particular) is in fact *in-donor* spending and does not directly contribute to sustainable development financing and therefore to sustainable development, per the Brookings Institution report.²⁷

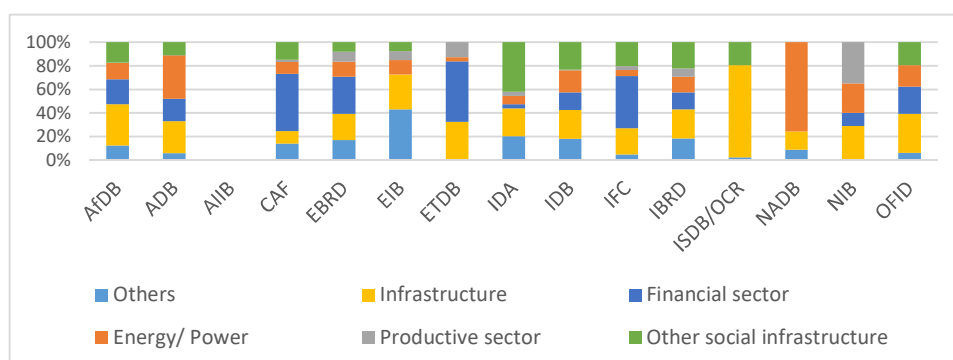
²⁵ ODA from DAC countries is estimated to be US\$ 131 billion in 2015 (OECD, 2015)

²⁶ Economic Infrastructure and Services covers assistance for networks, utilities and services that facilitate economic activity. It includes, but is not limited to: Energy, Transportation and Communications (OECD definition). Social Infrastructure covers efforts to develop the human resource potential and ameliorate living conditions in aid recipient countries. It includes, but not limited to: Education, Health, Water supply, sanitation and sewage (OECD definition).

²⁷ Kharas and Rogerson (2016)

MDBs and DFIs. MDBs committed **US\$ 215 billion**²⁸ in 2015, with major investments in infrastructure and energy, as per figure 13. Over the past six years, MDBs²⁹ have committed over US\$ 158 billion to climate finance. In 2015 only, reported climate finance commitments amounted to US\$ 25 billion³⁰, mainly in emerging and developing countries.

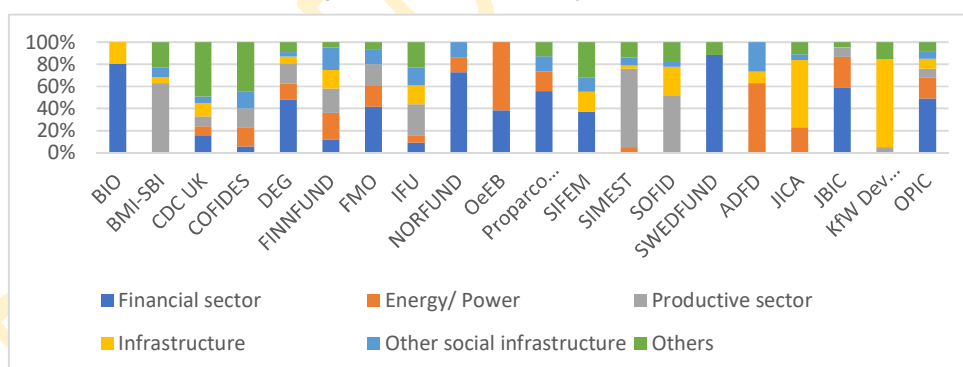
Figure 13: MDBs' spending by sector, 2015



Source: Authors' analysis based on MDBs' annual reports (2015)

In 2015, the 20 largest DFIs committed approximately **US\$50 billion**³¹ globally. As figure 14 shows, most funds went to the banking and financial sectors, as well as to power and infrastructure. We estimate that 86% of those flows are in the form of debt and only 7% in the form of equity. Sub-Saharan Africa accounts for 31% of European DFIs investment portfolio.

Figure 14: DFIs' investments per sector, 2015



Source: Authors' analysis based on DFIs' annual reports (2015)

It should be noted that a substantial part of ODA is channelled through DFIs or MDBs. This raises double counting issues, because it is difficult to identify the share of ODA that is invested through DFIs or MDBs. Nevertheless, in its assessment of ODA from DAC countries, OECD (2015) estimated that 28% are allocated to multilateral institutions.

²⁸ Data derived from annual reports and converted in US\$.

DFIs: BIO, BMI-SBI, CDC UK, COFIDES, DEG, FINNFUND, FMO, IFU, NORFUND, OeEB, Proparco (AFD), SIFEM, SIMEST, SOFID, SWEDFUND, ADFD, JICA, IBIC*, KfW Dev Bank, OPIC. MDBs: AfDB, ADB, AIIB, CAF, EBRD, EIB, ETDB, IDA, IDB, IFC, IBRD, ISDB/OCR, NADB, NIB, OFID.

²⁹ African Development Bank (AfDB), Asian Development Bank (ADB), European Bank for Reconstruction and Development (EBRD), European Investment Bank (EIB), Inter-American Development Bank and the group.

³⁰ World Bank et al. (2016)

³¹ Data derived from annual reports and converted in US\$.

Export Credit Agencies (ECAs)³². ECAs are an important channel of public SDG financing flows. They play a critical role in promoting the export of capital goods of developing countries. It is particularly difficult to track ECA flows, because they come in part in the form of guarantees or insurance. Their role is therefore often indirect, acting as a catalyst and enabler of investments, especially in countries perceived to be high-risk. In 2015, export credit for medium- and long-term transactions amounted to **US\$ 131 billion**³³, with only three countries, China, Japan and Korea, providing about half of the export credit support. The OECD provides additional insights into the arrangement of official export credits:³⁴ Of US\$ 56.3³⁵ billion of “committed” credits, Africa received 9%. In terms of sectors, Transport & Storage account for nearly 40%, Industry for 22% and Energy Generation and Supply 13%.³⁶

Sovereign Wealth Funds (SWFs). SWFs weigh US\$ 4 trillion in AUM and typically invest about 2% of their assets in infrastructure, and a relative high proportion in emerging and developing countries. In our attempt to identify the annual flows from SWFs and absent good data, we assumed the estimated average life of investments to be 10 years and therefore annual flows to represent one tenth of the AUM. We also assumed that the major contribution of SWFs towards SDG investment needs was mainly via infrastructure financing, incidentally the biggest component of SDG investment needs. Using World Bank (2015) data on SWF investment in infrastructure as a proxy³⁷, we estimate that SWFs could bring an additional annual **US\$ 8 billion** to SDG financing.

Conclusion & outlook for public financial flows

We estimate public financing flows (domestic and international) that have the capacity to serve SDG investment needs at approximately **US\$ 1.4 trillion**. This is a rough estimate given data gaps and assumptions, but we believe it is an adequate and useful proxy. Figures show that the supply of public money pales in comparison with the demand side (US\$ 6 trillion of SDG investment needs). They also highlight, once again, how large the challenge looms for Africa. As Figure 15 shows, African governments allocating 25% of their revenue would enable them to achieve only 8% of their SDG investment needs. In short, the poorer the country, the more private sector input will be decisive to meet the SDGs.

³² ECA flows include guarantees and loans. While considering guarantees, we are probably double counting these flows both on the public and private side.

³³ US EXIM Competitiveness Report (2016)

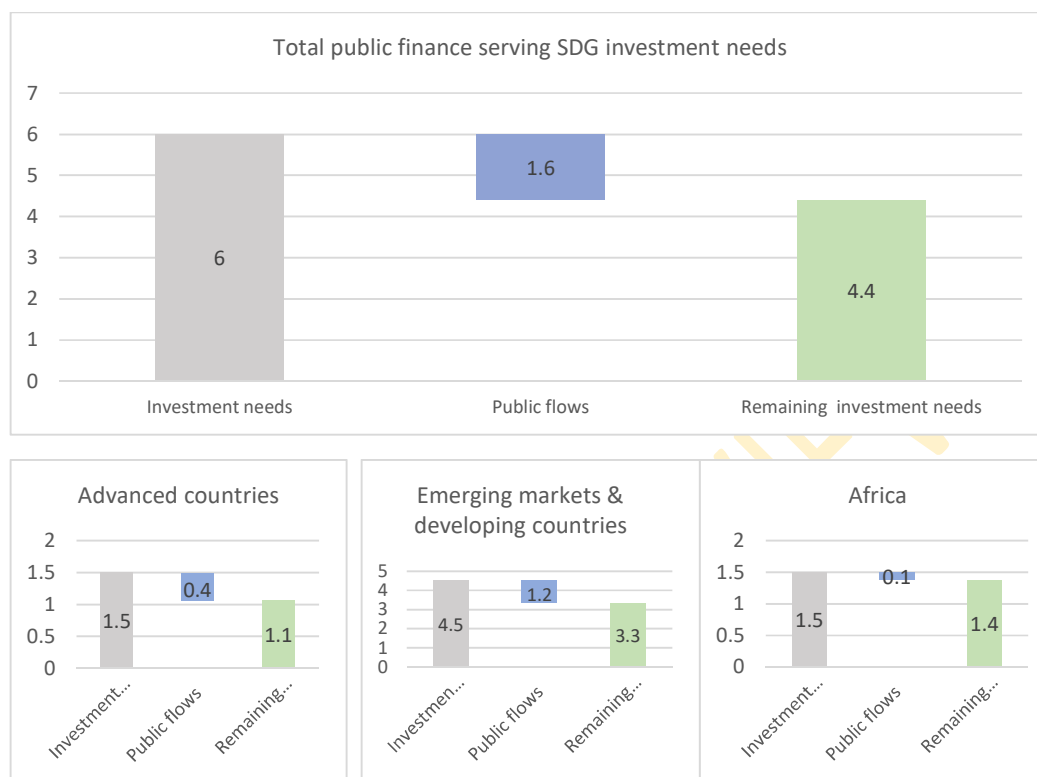
³⁴ “The arrangement on Guidelines for Officially Supported Export Credits” provides a framework on terms and conditions of officially supported export credits. Although all “export credits from official sources” are supported on Arrangement terms and conditions by the majority of OECD member countries, some countries provide official export credits on other than Arrangement terms and conditions. Since these transactions generally have not been reported according to the agreed individual transaction reporting system, only statistics on Arrangement official export credits are presented.

³⁵ The amount represents value of “committed” credits that were provided directly or that were insured or guaranteed (OECD).

³⁶ Over the period 2007 – 2016 (OECD)

³⁷ SWF currently invest 2% on average in infrastructure. Source: World Bank Finance & Markets, PPIAF (2015)

Figure 13: Public finance serving SDG investment needs - advanced vs emerging markets & developing countries and Africa (in US\$ trillions)



Source: Authors' analysis based on World Bank Data, OECD Data, UCLG (2013)

Despite pressure on public budgets in advanced countries, there is arguably still room for manoeuvre to increase action in favour of SDGs domestically. This is compounded by the somewhat narrower scope of SDG priorities in advanced countries, often limited to environmental issues. Reality is more contrasted in emerging and developing countries, where few have the same resources as in advanced countries, given lower tax collection and hence public resources. According to the OECD (2014), half of Sub-Saharan African countries still mobilise less than 17% of GDP in tax revenues, the minimum threshold the UN considered necessary to achieve the MDGs. By way of comparison, the average tax revenue raised by OECD countries is close to 35% of GDP.

For African countries specifically, public financing resources remain highly dependent on international aid such as ODA. According to the OECD (2015), ODA represents 30% of all external incoming flows in Africa, against 17% in emerging and developing countries. To make matters more complex, SDG priorities in emerging and developing countries are broader, with social and economic issues dominating. This is even more pronounced in Africa.

Increasing contributions to the SDGs from the public sector in EMDEs would require an increase of public transfers from advanced countries – and potentially from the BRICS (Brazil, Russia, India, China and South Africa) - to developing countries. However, budget pressures in advanced countries make this unlikely.

Private Financial Flows

Sources

The sources of private finance are household savings and corporate profits. They can be invested directly in the SDGs, or via the finance industry, banks or other financial institutions such as pension funds, insurance companies, hedge funds, and even foundations.

We again find significant data gaps when trying to gauge private financing flows to the SDGs, consistent with gaps we found researching SDG investment needs and public financing flows. In this case, it is because private flows are not typically linked – or tagged – to the SDGs.

For our purposes, we will use gross savings³⁸ as a proxy for the source of private flows. According to the United Nations Development Programme (UNDP), it is estimated that only about 10% of current infrastructure investments come from the private sector.³⁹ Considering that infrastructure represents the largest component of SDG investment needs, and probably where private sector intervention will make the most sense, we made the working assumption that:

- Advanced countries allocate 10% of their gross savings to sustainable development.
- Emerging and developing countries allocate 10% of their gross savings to sustainable development.
- African countries allocate 30% of their gross savings to sustainable development, rather than 10%, because of high remittances.

Table 6 captures these figures.

Table 6: Sources of private financial flows (in US\$ billions)

	Gross savings	Estimated contribution to SDGs	Gross savings serving SDGs
Advanced countries	9253	10%	925
Emerging & developing countries	9827	10%	983
Africa	324	30%	97

Source: Authors' analysis based on World Bank data (2015)

Based on these assumptions, it follows that private finance could potentially address almost 62% of the total investment needs in advanced countries, more than twice the public sector contribution. In emerging and developing countries, private financing could match public sector financing, at roughly 22% of investment needs. As far as Africa is concerned, private finance is barely higher than public finance and would contribute to 6% of SDG investment needs.

Once more, the figures point to the centrality of Africa in seeking to address the global SDG financing gap.

³⁸ World bank data (2015)

³⁹ What kind of blender do we need to finance the SDGs?, UNDP

Channels & instruments

As we did for public flows, we reviewed specific private finance channels and intermediaries to better understand how and where private flows currently serve the SDGs. It is predictably difficult to identify those that dedicate all or part of their activities to financing of the SDGs; for instance, it is difficult to earmark bank deposits to SDGs, except perhaps from foundations, microfinance and, to some degree, from remittances. We considered institutional investors a good proxy for listed bond and equity markets. In the end, we reviewed the following channels, which we estimate cover most of the identifiable private flows: direct investments (Foreign Direct Investment (FDI); traditional financial institutions (institutional investors, remittances, foundations, microfinance); alternative financial institutions (private equity, crowdfunding).

i) Direct investments

Foreign Direct Investments (FDIs). In 2015, UNCTAD estimated overall FDI⁴⁰ inflows, a key source of private finance, at approximately US\$ 1.7 trillion. How exactly FDI maps to the SDGs remains uncertain. However, noting that nearly half of greenfield FDI is related to service industries such as energy, water, construction, transport and telecommunications, we chose to focus only on those investments⁴¹ as a proxy for flows that directly contribute to new SDG investments. UNCTAD estimated greenfield FDI flows at **US\$ 773 billion annually**, which we therefore retain as FDI contribution to SDG investments.

In 2015, emerging and developing countries accounted for 65% of all greenfield FDI, or US\$ 500 billion. The African continent received 9%, or US\$ 67 billion. Countries with the highest investment needs are not necessarily the main recipients of FDI.

ii) Traditional financial institutions

In many cases, institutional investors' size is measured in AUM, whereas SDG investment needs are measured in flows. We have estimated annual flows using AUM amount over the average life of investments.

Institutional Investors (primarily pension funds & insurance companies). According to the World Bank (2015), OECD institutional investors hold **US\$ 80 trillion**⁴² in AUM, with an average 1% held in infrastructure and 10% in emerging and developing economies. Emerging markets institutional investors hold **US\$ 5 trillion** in AUM, they invest an average 0.5% in infrastructure and a higher proportion in emerging and developing economies than OECD average. Other institutional investors (asset and wealth managers) weigh **US\$ 20 trillion** with an average 1% invested in infrastructure, and a very small proportion in emerging and developing economies.

According to the OECD (2015), pension funds invest mostly in fixed income and public equities. Despite potential large demand, investment in infrastructure remains limited. In most advanced countries, pension funds investment in emerging markets infrastructure remains opportunistic. They tend to invest domestically, or in regions with very low perceived risk. Political instability and financial markets volatility are the main concerns behind their lack of interest.

⁴⁰ FDI refers to an investment made to acquire lasting interest in enterprises operating outside of the economy of the investor. (UNCTAD, Balance of Payments Manual: Fifth Edition (BPM5) (Washington, D.C., International Monetary Fund, 1993).

⁴¹ A type of foreign direct investment where a parent company builds its operations in a foreign country from the ground up.

⁴² World Bank Finance & Markets, PPIAF (2015)

In our attempt to identify relevant annual flows from institutional investors, and absent clear and specific data, we again made some assumptions. We estimated the average life of investments to be 10 years and therefore annual flows to represent one tenth of AUM. We also assumed the largest contribution of institutional investors towards SDG investment needs to stem from infrastructure financing, incidentally the biggest component of SDG investment needs. Using World Bank data (2015) as a proxy⁴³, we reach the conclusion that institutional investors could bring an additional **US\$ 102.5 billion** for SDG financing annually. OECD institutional investors could contribute US\$ 80 billion, while emerging market institutional investors could contribute US\$ 2.5 billion. Other institutional investors could contribute US\$ 20 billion.

Remittances⁴⁴. In 2015, the World Bank estimated remittance flows at US\$ 552 billion. This is by far the most important form of private flows. Out of the **US\$ 429 billion** remittance flows received by emerging and developing countries, Africa accounts for 15.7%, or US\$ 67 billion. This confirms the importance of their contribution to SDG financing needs, either directly or via remittance-backed financial products. Remittances account for more than three times the amount of ODA (US\$ 152 billion) in emerging and developing countries. According to a study of 71 developing countries by the International Fund for Agricultural Development (IFAD, 2017), only 25% of remittances are saved or invested, and only 23% from the savings and investments are channelled through financial institutions. This report shows remittances to have a significant effect on poverty reduction:⁴⁵ a 10% increase in per capita remittances contributes to a 3.5% decline in the share of poor people in the overall population. Half of the income received through remittances is spent on agriculture-related expenses. 75% of family remittances are used for immediate needs such as food, shelter and bill payment, whereas the remaining 25% is dedicated to building more secure and independent futures through better education, improved health, savings and investing in assets and income generating activities. We used IFAD estimates on the proportion of remittances saved or invested as a proxy and assumed that no more than 25% of remittances can potentially serve SDG investment needs.

Foundations. Flows channelled from foundations are well documented, because of donor transparency demands. Flows can frequently be tracked per SDG, although their actual impact is more challenging to assess. In 2015, foundations dedicated **US\$ 19 billion** to SDG funding, mainly in the form of grants.⁴⁶ Africa received US\$ 1 billion, and all emerging and developing countries (including Africa) twice that amount. Foundations distributed approximately US\$ 112 billion across the different regions and over the 2010 – 2015 period. Breaking this down per SDG, education (Goal 4) received US\$ 37.6 billion, health (Goal 3) received US\$ 36 billion, and peace-building and related impact (Goal 16) received US\$ 12.9 billion.

Microfinance. The provision of financial services to unemployed or low-income individuals or groups has been widely encouraged and acclaimed for years, resulting in a continuous rise of aggregated capital deployed to US\$ 102 billion, reaching 132 million clients. It is strongest in South Asia and the Latin America & Caribbean regions, and mostly targets and succeeds with women and rural areas. Microfinance mainly aims to increase financial inclusion, reduce poverty by creating jobs and supporting small and medium-sized enterprises (SMEs) and empowerment of vulnerable communities. We have estimated yearly flows from microfinance institutions at **US\$ 7.5 billion**⁴⁷

⁴³ OECD institutional investors currently invest 1% on average in infrastructure, emerging market institutional investors currently invest 0.5% on average, and other institutional investors currently invest 1% on average (World Bank Finance & Markets, PPIAF, 2015).

⁴⁴ Remittances are defined as cross-border, person-to-person payments of relatively low value. The transfers are typically recurrent payments by migrant workers to their relatives (IFAD, 2017).

⁴⁵ IFAD (2017)

⁴⁶ SDGfunders/ Foundation Center (2015)

⁴⁷ Portfolio value in 2014 was US\$ 87.1 billion and annual growth for the year 2015 was estimated in a convergence report, Microfinance Barometer 2017 to be 8.6% (Convergence, 2017).

iii) Alternative financial institutions

Private equity. In 2015, private equity⁴⁸ funds raised an aggregate **US\$ 329 billion**⁴⁹. Advanced countries received 88% of this, and emerging and developing countries the remaining 12%. Africa's share of emerging and developing countries private equity allocation is 11% or US\$ 4.5 billion (considerably more than microfinance). Data on the social, economic and environmental impacts of private equity investments is generally not publicly available, so we cannot fully appreciate the impact of private equity on the SDGs. We therefore arbitrarily assume that private equity could potentially allocate 25% to SDG investments. Looking forward, some expect private equity to play an increasingly important role in Africa, given growing appetite for risk, expertise of local markets and a move towards more sustainable and impactful investment.⁵⁰

Crowdfunding emerged after the 2008 financial crisis, aiming to provide new sources of seed or early-venture capital to underserved businesses or sectors. It is more developed in advanced countries and is still emerging in other markets and Africa. In 2015, the crowdfunding industry raised **US\$ 34.7 billion in total**⁵¹, US\$ 24 billion in advanced countries and US\$ 10.7 billion in emerging and developing countries, only US\$ 24 million of which in Africa. Lending accounted for 73%, grants and donations for 20% and equity 7%. The World Bank (2013) estimates that up to 344 million households in the developing world have the means to deploy up to US\$ 96 billion⁵² a year by 2025 in crowdfunding investments. It is unclear how exactly crowdfunding contributes to SDG investments. Nearly 80% of funds raised in 2014 served businesses and entrepreneurs, social causes and real estate. However, because the essence of crowdfunding is to provide finance to underserved categories, we consider that the entire flow raised contributes directly to the SDGs.

Conclusion & outlook for private financial flows

Just like public financing flows, private financing flows serving the SDGs are difficult to identify: they are not consistently monitored and there are important data gaps. With that in mind, our review leads us to estimate annual private financing flows at **US\$ 1.9 trillion (figure 16)**. This is more than public flows but still considerably below the level of incremental SDG investment needs.

As with public flows, it is apparent that advanced economies receive far more private finance than emerging and developing countries, the African continent receiving the least of all. We have seen that even blended finance, a tool promoted by development institutions, is considerably lower in developing countries and in Africa than in more prosperous parts of the world. Interestingly, the largest financial flows are perhaps not where one would expect them. In advanced countries, institutional investors are playing a key role in unlocking more private finance towards SDG investments. In emerging and developing countries, remittances and FDIs appear to be the most important private flows. While those external flows have steadily increased over the past years, it remains to be seen whether their scale (in billions) can truly address the SDG financing gap (in trillions).

⁴⁸ Private equity is capital provided by retail and institutional investors directly invested in private companies.

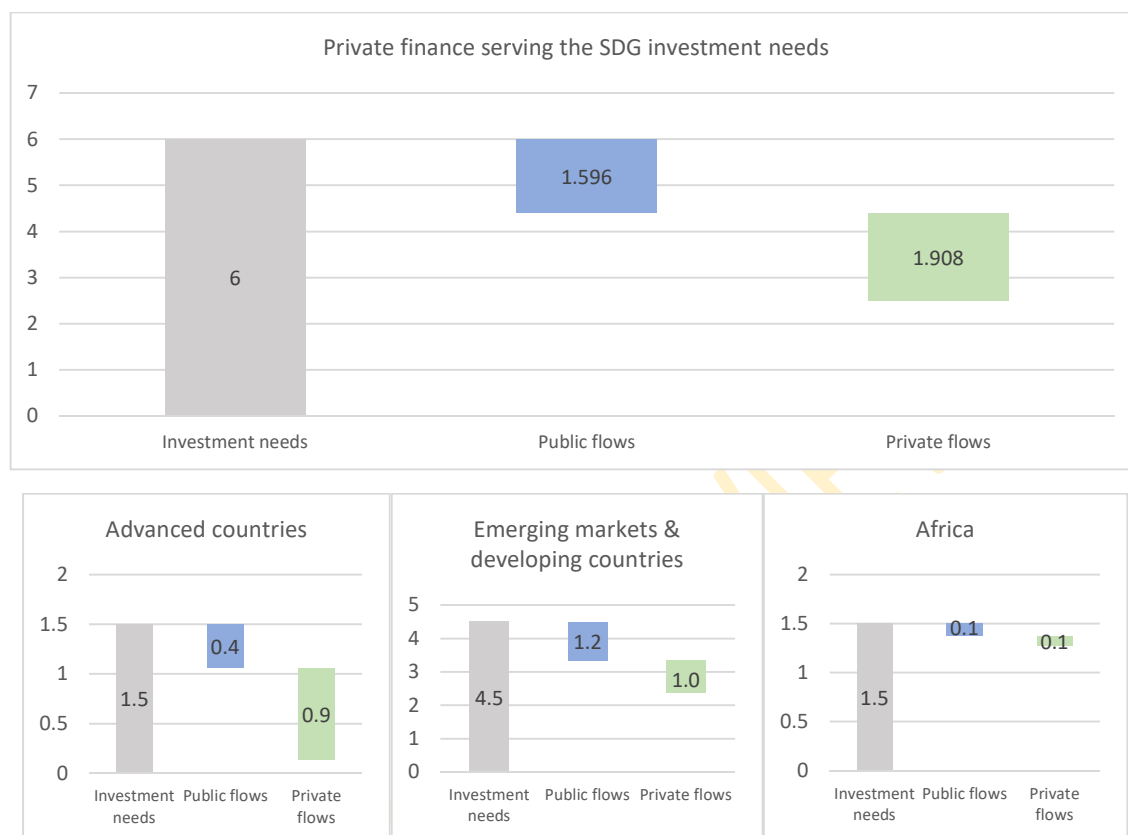
⁴⁹ Prequin (2017)

⁵⁰ PwC (2016)

⁵¹ Massolution Crowdfunding Industry Report (2015)

⁵² "These households have an income of at least US\$ 10,000 a year, and at least three months of savings or three months savings in equity holdings" (World Bank, 2013).

Figure 14: Private finance serving SDG investment needs - advanced vs emerging markets & developing countries- and Africa (in US\$ trillions)



Source: Authors' analysis based on World Bank data

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List of Abbreviations and Acronyms

AUM	Assets Under Management
ADB	Asian Development Bank
AfDB	African Development Bank
BRICS	Brazil, Russia, India, China and South Africa
COP	Conference Of Parties
DAC	Development Assistance Committee
DFIs	Development Financial Institutions
EIB	European Investment Bank
EBRD	European Bank for Reconstruction and Development
EMDE	Emerging and Developing Economies
FAO	Food and Agriculture Organization
FDI	Foreign Direct Investment
GDP	Gross Domestic product
GHG	Greenhouse Gas
GNI	Gross National Income
IDA	International Development Association
IEA	International Energy Agency
KPI	Key Performance Indicator
LIC	Low Income Countries
LMIC	Low and Middle-Income Countries
MDBs	Multilateral Development Banks
MDGs	Millennium Development Goals
ODA	Overseas Development Assistance
OECD	Organisation for Economic Co-operation and Development
PPPs	Public-Private Partnerships
RFP	Request for proposals
SDGs	Sustainable Development Goals
SMEs	Small and medium-sized enterprises
TCFD	Task Force on Climate-related Financial Disclosures
UNCTAD	United Nations Conference on Trade and Development
UNEP FI	The United Nations Environment Programme Finance Initiative
UNSDSN	United Nations Sustainable Development Solutions Network
WB	World Bank
WBCSD	World Business Council for Sustainable Development
WEF	World Economic Forum

Glossary

Blended finance

According to the World Economic Forum (2015), blended finance is the “strategic use of development finance and philanthropic funds to mobilize private capital flows to emerging and frontier markets”. OECD (2018) defines blended finance as “the strategic use of development finance for the mobilisation of additional commercial finance towards sustainable development in developing countries”.

Crowdfunding

An Internet enabled way for businesses or other organizations to raise money in the form of either donations or investments from multiple individuals.⁵³

Divestment

Avoiding and disposing of investments in specific types of assets for financial, ethical or political purposes. A report states that 430 institutions and 2,040 individuals have committed to divesting a total of US\$2.6 trillion (0.04% of total equity market of \$69 trillion) in coal, tar sands and other polluting assets (Reneweconomy, 2016). Arabella Advisors (2016) reports an increase to US\$5.2 trillion for 688 institutions and 58,399 individuals. What percentage is allocated or reallocated to SDG investments is not being monitored.

Export Credit

An export credit is an insurance, guarantee or financing arrangement which enables a foreign buyer of exported good and/or services to defer payment over a period of time. Export credits are generally divided into short-term, medium-term (usually two to five years repayment) and long-term (usually over five years). As defined by OECD.

Financial flows

A measure of dedicated or committed amount of finance related to a set period of time.

Financing gap

The difference between the investments needed to meet the SDGs (SDG investment needs) and the associated level of financing (SDG financial flows).

Foreign Direct Investment (FDI)

An investment made to acquire lasting interest in enterprises operating outside of the economy of the investor.⁵⁴

Foundations

Non-profit organisations that provide or donate funds for charity purposes.

⁵³ World Bank (2013)

⁵⁴ UNCTAD, Balance of Payments Manual: Fifth Edition (BPM5) (Washington, D.C., International Monetary Fund, 1993.

Impact

Impact is used here as a generic term to refer to the *change effected* by an activity or entity on people, the environment and the economy.

Impact-based business models

Business and financing models where impacts themselves are the source of repayment or revenue.

Impact investing

An investment approach with intentional social and environmental objectives and spanning both market rate and concessionary approaches to financial returns. Impact investing has grown considerably over the past years. In 2015, the GIIN annual survey reported **US\$ 15 billion** of new committed capital to impact investments.⁵⁵ Impact investment represented US\$ 77 billion in AUM in 2015, with Sub-Saharan Africa absorbing 19% of the AUM according to a Ferdi study (2016). According to the same study, microfinance is a key sector for impact investment, representing 32% of assets managed, contributing to SDG 1 & 9. While impact investment is gaining in popularity (US\$ 22 billion US\$ invested in 2016), flows are mostly to OECD and donor countries, with investors more cautious about riskier developing markets.⁵⁶

(Incremental) Investment needs

Investments needs are a measure of total investments needed to meet the SDGs. Different from financing gap (see definition above). Incremental investment needs are a measure of investments needed to meet the SDGs when existing investments have been accounted for.

Official Development Assistance (ODA)

Loans made on concessional terms and grants by Development Assistance Committee (DAC) and non-DAC countries towards ODA recipients' countries.

Pay For Success (PFS)

This approach mobilizes private capital in social programs to address issues (recidivism, housing, youth unemployment, health and education) that traditionally rely on philanthropic or government funding, and thereby shift financial risk from service providers to investors. PFS contracts are known as Social Impact Bonds (SIBs) or Social Development Bonds (SDBs). Private capital is provided upfront to support social programs and is repaid by an outcomes payer (government, MDB or DFI respectively) only if contractually predetermined performance outcomes are achieved. These public-private partnerships are designed to deliver long-term social impacts and simultaneously provide a fair risk return to financial institutions; however, with limited applicability (complex frameworks, no fixed guidelines for impact assessment) and long-term scope, it is reaching only a modest market with an estimated \$392 million raised for 108 projects over seven years. In 2017, two social impact bond issues targeted Africa for a total of US\$ 29 million⁵⁷.

⁵⁵ GIIN (2017) (https://thegiin.org/assets/GIIN_AnnualImpactInvestorSurvey_2017_Web_Final.pdf)

⁵⁶ GIIN (2017)

⁵⁷ Social Finance (<https://sibdatabase.socialfinance.org.uk>)

Private equity

Capital provided by retail and institutional investors invested directly or via funds in private companies. Prequin (2017) estimated the aggregate capital raised in private equity at US\$ 329 billion.

Remittances

Cross-border, person-to-person payments of relatively low value. The transfers are typically recurrent payments by migrant workers to their relatives (IFAD, 2017).

Specialised lending

Distinct from standard lending because loans either restrict use of funds towards a project with a specific objective, or to pursue an evolution of the borrower's business model towards a specific objective, in our context towards greener or sustainable practices or products and services. Green loans are an increasingly widely recognised example of the first type of specialised lending, linking loan issuance with financing "green" projects such as energy efficient real estate or renewable energy. Certain products link interest rates or even ongoing financing to sustainability performance.

Sustainable development

Economic development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Sustainable finance

Finance that seeks alignment with sustainable development targets and policies.

Sovereign Wealth Funds (SWFs)

State-owned investment funds or entities that are commonly established from balance of payments surpluses, official foreign currency operations, the proceeds of privatizations, governmental transfer payments, fiscal surpluses, and/or receipts resulting from resource exports (SWF Institute). SWFs report their data in terms of stock of investment (AUM). SWFs weigh US\$ 4 trillion in AUM⁵⁸.

Green bonds

These ring-fence use of proceeds to green entities and projects, usually related to renewable energy and energy efficiency.⁵⁹ 2016 saw a record issuance of **US \$87.2 billion**⁶⁰ of 'labelled' green bonds, up from \$42 billion in 2015 and an even higher figure for 2017 global issuance reached US\$ 155.5 billion⁶¹. Including 'climate-aligned' bonds (a broader definition of bonds used to finance low carbon and climate-resilient infrastructure), green bond issuance was estimated at US\$694 billion in 2016. Despite the significant growth, the larger figure represents less than 0.5% of global bond markets (US\$150 trillion). Private sector issuance still lags the public sector: in 2016 over 60% of outstanding bonds were issued by public entities.

⁵⁸ World Bank (<http://blogs.worldbank.org/psd/institutional-investment-infrastructure-view-bridge-development-agency>)

⁵⁹ Climate Bonds Initiative (2015)

⁶⁰ Climate Bonds Initiative (2015)

⁶¹ Green Bond Highlights 2017, Climate Bonds Initiative

Themed indices

Indices that “tag” corporate contributions to sustainability themes, such as carbon emissions or the SDGs.

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