

# SCALING ACCESS TO FINANCE FOR EARLY-STAGE ENTERPRISES IN EMERGING MARKETS LESSONS FROM THE FIELD

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Dutch Good Growth Fund

# Colophon

## Commissioned on behalf of:

The Dutch Good Growth Fund, part Investment funds for local Small and Medium Enterprises (SMEs), is a “fund of funds” investment initiative from the Dutch Ministry of Foreign Affairs. The initiative aims to improve financing for the “missing middle” – i.e. entrepreneurs who have outgrown micro-finance but do not yet have access to regular financial services. The Seed Capital and Business Development (SC&BD) program was established to increase the impact of the DGGF by providing technical assistance, seed capital and business support services to intermediary investment funds and local SMEs. The program incorporates a knowledge development and sharing component that supports research, tests assumptions and shares insights into financing SMEs in developing countries and emerging markets - fostering industry-wide knowledge exchange.

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Due to the limited availability and confidential nature of (performance) information, the conclusions in this paper are primarily based on the views of a limited number of experts and rely heavily on the interpretations of the authors. This paper is one step to a better understanding of the early-stage finance segment. More detailed quantitative research of a larger pool of funds and investors is required to obtain a more complete picture of the relative performance of the various early-stage finance providers operating in emerging markets and to draw firmer conclusions.

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# Executive summary

Many small and medium-sized enterprises in developing countries have difficulty securing the financial backing they need to grow. This group of businesses is often referred to as the 'missing middle': they have outgrown micro financing but do not yet have access to regular financial services. **While challenges are abundant for all missing middle segments as captured by the estimated USD 5.2 trillion MSME finance gap in developing countries<sup>1</sup>, early-stage enterprises face bigger hurdles, and the lack of financing is a major constraint to their growth.**

For the purposes of this report, the term "early-stage" is primarily a reference to the degree of maturity of a business and the degree to which a business has adequate financial and human resources to realize its potential. We focus on the challenge of financing **early-stage businesses that may be in pre-revenue or revenue stages, are in a pre-profit stage, but have demonstrated traction in the market and potential to scale up, and that are seeking to raise between USD ~10,000 and USD ~500,000 of investment.** Early-stage finance is typically about providing a combination of working capital and capital expenditure financing. It will often need to be non- "asset-based", meaning it is based primarily on future cash flow projections rather than on the amount or type of collateral the early-stage business can offer to a lender (since this is nonexistent in most cases). Such financing would embed some kind of business development support to assist the entrepreneur in the growth trajectory that securing external early-stage finance is supposed to facilitate. Early-stage businesses are often perceived by finance providers to be a particularly risky and challenging segment of the "missing middle" to serve given their limited track record, high failure rates, low collateral and high transaction costs.

The report seeks to explore **how to improve the scalability and viability of early-stage finance provision**, thereby reducing the need for philanthropic capital and subsidies to the local providers of finance and support to early-stage enterprises. To this end, we used a landscape exercise to define and prioritize "archetypes of early-stage finance provision" as the focus of this report. We selected business accelerators, business angel networks and venture capital funds - as three key archetypal models - as the main models to be studied in more detail, together with the broader category of supplemental "non-traditional" debt options. We selected and studied 15 early-stage finance providers in detail. We discussed our initial findings from the in-depth research with 40 field-builders in a workshop during which participants shared experiences, insights and perspectives, and helped us to challenge our emerging conclusions and identify key points of attention to address in finalizing the report.

## Refining archetypes towards improved operations

For *business accelerators*, additional experimentation around diversified revenue models and more efficient program support can improve financial performance. Accelerators would be advised to avoid dispersion and keep the focus on "accelerating" businesses. Areas to focus on are smart use of investment capital (i.e. reserving capital for follow-on investment) and income streams such as income from corporate partnerships, success sharing milestone fees, capital raising success fees have the potential to boost an accelerator's income. Furthermore, accelerators are optimizing their financial performance by improving their lead generation, deal selection and investment processes.

*Business angel networks*, with a limited track record in developing countries and emerging markets, still face numerous challenges. While the value of angel investing is gaining more recognition, there is still a need to educate stakeholders involved in angel investing activities: (i) angels on their role, the risk and reward balance of angel investing activities and the need to reserve sufficient capital for follow-on investments, (ii) entrepreneurs on the relationship with this unique investor profile, (iii) ecosystem players like accelerators so they can help entrepreneurs gain a better understanding of their financial needs and build businesses that are attractive and ready to receive angel investment. Though we identified a trend towards more professionally managed angel networks, this operating model needs further refinement.

For *early-stage venture capital funds*, many practical challenges remain. In particular, the trade-off between risks, impact, and returns is not always clear to potential investors, which often makes fundraising for these funds particularly challenging for the managers. Limited partners' return expectations do not always align with what is possible given low amounts of assets under management and/or small ticket sizes. Many existing funds are still pre-exit and are struggling with the undeveloped ecosystem, which can (i) make it challenging for their portfolio companies to get to the level where a VC fund can invest, (ii) get follow-on capital that cannot be provided by the early-stage VC themselves (such as venture debt) and (iii) find suitable exit opportunities, especially in the case of closed-end funds with their clear exit timelines. Further innovation and testing are required on all these fronts.

<sup>1</sup> IFC MSME Finance Gap, assessment of the shortfalls and opportunities in financing micro, small and medium enterprises in emerging markets, 2017. Available at: <https://www.smeffinanceforum.org/sites/default/files/Data%20Sites%20downloads/MSME%20Report.pdf>

*Supplemental, non-traditional lenders* can play an important role in the financing chain of early-stage enterprises by supplementing the three early-stage financing archetypes outlined in this paper, either simultaneously or later in the development of the company. However, because they provide debt, which assumes some certainty of future cash flow for repayment and/or assets for collateral, this is where the other archetypes' involvement has most potential to add value, by helping the companies to build stronger revenue streams and more predictable cash flow.

### **Fostering hybrid archetypes and crossover links between them**

An important insight is how the different archetypes could complement each other in serving early-stage enterprises. In often fragmented ecosystems where it is not rare to hear a VC fund manager say that they have not sourced any pipeline company from accelerators' cohorts, collaboration among local finance providers is critical so they help build investible businesses that can realize their growth potential.

No matter the archetype, the markets targeted by the current study need pioneers with an enhanced appetite for risk, but most importantly with the capacity to innovate and adapt the known models of providing early-stage finance to their operating ecosystem. In general, we see a positive trend: more finance providers are focusing on early-stage enterprises and they are looking to do so in a sustainable and scalable way. We already see hybrid models emerging such as, to name but a few:

- Ibtikar fund in the Palestinian territories: the fund's investment strategy is implemented through partnerships with local accelerators in the West Bank and Gaza to initially nurture start-ups. The most promising companies receive increasing investments (up to USD 1 million) from Ibtikar, together with hands-on non-financial support
- Lungo capital in Uganda engages with Ugandan business angels through a co-investment structure, in which angels chip in with 5% to 10% of the invested amounts. The enterprise receives financial services and bespoke tutoring. The active involvement of local angels increases Lungo's credibility, lowers transaction costs and provides access to a wealth of local knowledge. And angels can enter deals that are generally beyond their financial resources and diversification appetite.

### **Supporting the further development of the early-stage finance ecosystem**

Local finance providers will not be able to move the needle on their own, so their **operating ecosystems** need to prosper and develop into a more conducive and sustainable financial service offering for local early-stage enterprises. Investors and other finance providers have a critical role to play in supporting more of these innovations and experiments. It is essential that early-stage finance providers and their supporters engage in open conversations around financial return expectations and small ticket sizes. Agreeing on the type of "patient and catalytic capital" that is required is important to notably distinguish when to or when not to provide **subsidies**. In this sense, the current emphasis on blended finance, i.e. the strategic use of development finance and philanthropic funds to mobilize private capital flows offers exciting opportunities.

Given the relative youth of the early-stage enterprise finance sector, we do not have all the answers, but we have managed to arrive at a number of conclusions from experiences to date. There are still many unknowns. We have yet to see any detailed research addressing the total market size or potential from investing in early-stage enterprises – in fact, we have yet to see any research even quantifying the number of early-stage enterprises that may be investible, or the amount of financing that this segment of businesses requires. This report is a first contribution to building a more robust understanding of early-stage enterprise finance and stimulating constructive exchanges among finance providers and their funders and ecosystem partners in order to encourage the emergence of a more sustainable and scalable provision of early-stage finance to local enterprises in developing countries and emerging markets.

# 1. Context and research

## Serving the financial needs of “missing middle” enterprises in emerging markets and developing countries

The Dutch Good Growth Fund (DGGF) ‘Investment Fund Local SMEs’ is an initiative of the Ministry of Foreign Affairs of the Netherlands to improve the access to finance for ‘missing middle’ SMEs in a set of low- and middle-income countries. The ‘missing middle’ refers to enterprises whose financing needs are neither served by microfinance nor by conventional capital market players. In search for new models that provide adequate finance to missing middle enterprises, the DGGF invests in local financial intermediaries deploying innovative financing products that actually reach underserved SME segments, including early-stage businesses often lead by young entrepreneurs.

The deployment of the DGGF generates a wealth of knowledge, findings, lessons learnt and best practices that must be captured to accelerate sector wide learning. Practice-oriented studies are hence conducted to provide an understanding of various financing products in relation to specific missing middle segments, which is critical to spur innovative thinking on both the local finance providers and investors sides so products may be improved, and models may be more scalable.

### Purpose of the study

Following the first DGGF publication of its kind, i.e. ‘New perspectives on financing small cap SMEs in emerging markets: the case for mezzanine finance’<sup>2</sup> in 2016, the DGGF commissioned the present study to foster sector-wide learning and knowledge exchange on **financing options for early-stage SMEs** in low and middle-income countries. The report seeks to explore **how to improve the scalability and viability of early-stage finance provision**, thereby reducing the need for philanthropic capital and subsidies to the financial intermediaries that provide finance and support to early-stage enterprises.

This report intends to add insights to the existing literature by analyzing business models and uncovering success factors in a number of models commonly used to provide early-stage enterprise finance in low and middle-income countries. From our findings, we distilled actionable recommendations to further improve the effectiveness of early-stage financing and to mobilize more capital targeting early-stage enterprises. We hope these will be helpful to local finance providers, their investors and ecosystem partners.

### Structure of the report

The report first explores the general characteristics, relevance and developmental impact of **early-stage enterprises** in the context of this study. This is followed by an analysis of the main financing challenges faced by early-stage enterprises and how the specific ecosystem impacts the relevance, optimal approach and effectiveness of the financing options and selected financial intermediaries discussed in this report. In the subsequent chapters, we will discuss three types of financial intermediaries in detail:

- Business accelerators are short-term cohort-based programs which usually combine a relatively small equity investment with intensive mentorship, training and networking, with a special emphasis on raising follow-on capital.
- Business angel networks: angel investors are wealthy individuals who invest their own time and money in early-stage businesses. Business angel investors increasingly work through business angel networks (BAN), which are formal or informal collectives of angel investors who collaborate to make investments, including pooling financial resources and sharing responsibility for pre-investment and post-investment activities.
- Early-stage venture capital funds are investment companies managed by professional fund managers (also called General Partners or GPs) who manage investments with capital from investors (limited partners, LPs) with the aim of returning the original principal plus financial returns to the LPs.

In this report we will refer to these three (primarily equity-focused) types of intermediaries as “archetypes”, referring to these initiatives in a commonly used, “pure” form, as these kinds of intermediaries exist in many different many forms, and combinations of these archetypes are frequently used within a single initiative.

2 Available at: <https://english.dggf.nl/who-can-apply/publications/publications/2018/5/18/news---new-perspectives-on-financing-small-cap-smes>

We discuss in detail the operational characteristics and business models and factors contributing to failure or success of each of these three archetypes. The focus of the analysis is on (new) initiatives and mechanisms that have the potential to improve financial performance and increase sources of revenues, with the underlying objective of increasing both the total amounts of capital available and the effectiveness of early-stage enterprise finance in emerging and developing countries.

In order to provide a broader picture of early-stage finance options and initiatives, in chapter six we discuss a number of supplemental **non-traditional debt options** for early-stage companies as a fourth category of financing options:

- **Supplemental non-traditional debt:** working capital finance, leasing, “venture debt” (a combination of loans and active business support) and “mezzanine” (participating debt instruments or quasi-equity for which finance providers do not principally rely on the sale of equity to third parties in order to make financial returns).

These debt models will not be discussed in as much detail as the three “equity-led” archetypes. We will only highlight a number of prevalent models and initiatives. These debt options are often “supplementary”, because this usually pertains to financing that is provided alongside other forms of (primarily equity-based) financing. As early-stage SMEs typically do not qualify for (traditional) bank finance due to the lack of any track record and collateral, this report puts limited focus on bank financing.

Throughout the report, our emphasis is on the role of each of the archetypes in their operating ecosystem, including how they may interact with one another in a given entrepreneurial ecosystem.

The report ends with conclusions based on the individual chapters and provides a set of actionable recommendations as to what could be done to strengthen the sustainability and scalability of early-stage enterprise finance provision in low and middle-income countries.

## Methodology

The insights and learning outlined in this report were gathered through a combination of research tools. Primary research consisted of a literature analysis of publicly available information (see annex 2 for Key readings) on more than 300 early-stage financing providers in low and middle-income countries, including the websites of and relevant articles on specific finance providers. This literature review served as key input to map the early-stage financing landscape, which in addition to own sources, friends and family, and accelerators, incubators, business angels, venture capital funds, also includes banks, specialized (non-traditional) lenders, crowdfunding platforms and grant providers.

We used this landscape exercise to define and prioritize archetypes of early-stage finance provision as the focus of this report. We selected business accelerators, business angel networks and venture capital funds - as three key archetypical models - as the main models to be studied in more detail, together with the broader category of supplemental “non-traditional” debt options. The main reasons for our focus on these models are as follows:

- While all these models are not necessarily profitable without a form of philanthropic capital or subsidies (which is also the case in high income countries), they use commercial incentives and proven investment mechanisms and methods to stimulate entrepreneurship, thereby stimulating entrepreneurial ecosystems and contributing to economic growth.
- These models have in common that they receive a lot of attention in the development finance sector, as they combine finance provision with business skills training and support<sup>3</sup>.
- Although still in its infancy stages in low and middle-income countries, the number of providers is growing rapidly, as a result of which there is a growing level of data to be studied to draw preliminary conclusions.
- These models have been operating in developed markets for an extended period of time, and a number of lessons learned can be applied to low and middle-income countries.

After selecting the three main archetypes and supplemental non-traditional debt options to focus on, we selected 15 financial intermediaries that fall under the prioritized models. We studied each of these 15 early-stage finance providers in detail through interviews with the heads of the organizations, heads of operations, their investment managers, portfolio companies, and funders (see annex 3 for list of interviewees) on subjects such as their strategy, operations, contribution to their clients’ growth, as well as their financial performance and scalability and views on how these could be improved. Given the global scope of the study, our selection reflects different entrepreneurial ecosystems and country environments in order to present nuanced insights and trends.

3 Except for the asset-based non-traditional debt options discussed in chapter six



*Figure 1. Overview of the geographic scope of primary research*

We discussed our initial findings from the in-depth research with 40 field-builders in a workshop organized by the Dutch Good Growth Fund (DGGF) in collaboration with the Omidyar Network, USAID and the World Bank Group. Participants included representatives from a broad range of early-stage finance stakeholders, i.e. local intermediaries such as Flat6Labs, African Business Angel Network (ABAN), Novastar, Intellegrow, plus Development Finance Institutions such as International Finance Corporation (IFC) and Entrepreneurial Development Bank (FMO), foundations such as Shell Foundation and MacArthur Foundation, network organizations such as Aspen Network of Development Entrepreneurs (ANDE) and various other investors, advisors and experts. (See annex 4 for the full list of workshop participants).

During this workshop, we tested the initial findings and hypotheses that emerged from the research regarding constraints and success factors related to the different models. By sharing experiences, insights and perspectives, participants helped us to challenge our emerging conclusions and identify key points of attention to address in finalizing the report.





# 2. Characteristics of early-stage enterprises and financing challenges

## 2.1 Early-stage enterprises

For the purposes of this report, the term “early-stage” is primarily a reference to the degree of maturity of a business and the degree to which a business has adequate financial and human resources to realize its potential. This definition includes start-ups, but it can also include enterprises that have been in operation for several years that has identified an expansion opportunity, or enterprises that are already growing rapidly (also called “gazelles”) and have to deal with similar issues as startups. “Early-stage” therefore includes both start-up businesses and gazelles.

Early-stage entrepreneurs in low and middle-income countries are by no means a uniform group. They range from students founding their first enterprise to experienced professionals in a given sector or industry, translating varying levels of professionalization and management experience. For the purposes of this report, we focus on the financing of **early-stage businesses that may be in pre-revenue or revenue stages, are in a pre-profit stage, but have demonstrated traction in the market and potential to scale up, and that are seeking to raise between USD ~10,000 and USD ~500,000 of investment.**

## 2.2 Why early-stage enterprises are important

SMEs represent an important part of the economies of low and middle-income countries. SMEs – in particular the small percentage of high growth potential ones - are the main contributors to economic growth and important drivers of innovation and economic diversification. **Early-stage enterprises** – if they realize their growth potential - may play an important role within the broader group of SMEs:

- Early-stage enterprises always start small, but have the potential to significantly increase revenue, the number of employees and their valuation in the next few years. Companies that have successfully outgrown the “early stage” phase, have the potential to continue their growth path and become fast-growing SMEs. It is in this “**growth stage**” where the bulk of **new employment** and **new economic activity** is created.
- Early-stage enterprises are often existing business that could grow rapidly if they had access to appropriate, growth-oriented financing. Some of these enterprises have been in operation for several years but should still be considered early-stage if they are facing a potentially transformational change. Increased access to finance for such companies allows finance providers and their investors tapping into the **unlocked growth potential of existing companies.**
- Well-functioning entrepreneurial (and start-up) ecosystems are fertile grounds for **innovation**, skills development and contribute to a more dynamic and diverse economy.
- **Young entrepreneurs** represent a significant part of the early-stage entrepreneurial population. An Organization for Economic Cooperation and Development (OECD) report on *Unlocking the Potential of Youth Entrepreneurship in Developing Countries*<sup>4</sup> describes how for many young people in the developing world, entrepreneurial activity is the sole entry point into the labor market and the only way out of poverty. However, only a small portion of young entrepreneurs are able to translate entrepreneurship in substantial profits and job creation. The entrepreneurial ecosystem in which these entrepreneurs operate, and associated levels of education, managerial capital and business, as well as access to finance skills, are important determinants of how successful these entrepreneurs will be in scaling up their business.
- Early-stage enterprises in low and middle-income countries can be more apt to build their business models around solving real business and consumer challenges for **underserved populations** in sectors such as agriculture, financial services and renewable energy, and often leverage technological innovation.

## 2.3 Early-stage financing

Although difficult to quantify, the financing gap specifically for early-stage companies is significant. At the level of SMEs (so including more mature and larger SMEs), the World Bank has estimated the financing gap in developing countries

4 CNBC credits JP Morgan with the first true “private equity” transaction in 1901

to be USD 5.2 trillion<sup>5</sup>. Furthermore, the consensus is that lack of financing options is particularly problematic for the “missing middle” SMEs, i.e. enterprises that are too big for microfinance, but that are too small or too risky for regular banks and private equity firms. Several studies conducted to measure the financing gap have established that while challenges are abundant for all missing middle segments, early-stage enterprises face bigger hurdles, and the lack of financing is a major constraint to their growth. Often perceived by finance providers to be very risky and difficult to serve given their limited track record, high failure rates, low collateral and high transaction costs, early-stage enterprises are a particularly challenging segment of the “missing middle”<sup>6</sup>.

### 2.3.1 Demand for early-stage financing

Early-stage entrepreneurs mainly use their own resources and those of family and friends to fund their start-ups, and either fail or succeed by trial and error to achieve some degree of scale. Most companies that survive this first stage will at some point reach a moment at which they require external financing to obtain proof of concept, gain market traction or realize a significant expansion opportunity. There are a wide variety of instruments used by different types of organizations to finance early-stage enterprises at these stages.

Within the context of the above definition, “**early-stage enterprise finance**”, “**early-stage SME finance**” or simply “**early-stage finance**” will generally mean debt or equity financing that takes into consideration the need for an early-stage business to maintain sufficient working capital to see it through a rapid expansion from current revenues or from zero revenues. Such financing would generally provide for a significant grace period or other delay of redemption of the financiers’ principal or equity. It would also typically provide a combination of working capital and capital expenditure financing. Importantly, early-stage finance will often need to be non-“asset-based”, meaning it is based primarily on future cash flow projections rather than on the amount or type of collateral the early-stage business can offer to a lender (since this is nonexistent in most cases). Finally, such financing would embed some kind of business development support to assist the entrepreneur in the growth trajectory that securing external early-stage finance is supposed to facilitate.

### 2.3.2 Supply of early-stage financing

Besides entrepreneurs’ own resources and those of friends and family, a wide range of external sources may be able to provide financing to growth-oriented early-stage enterprises. Those include accelerators, seed funds (sometimes linked to incubators), business angels, venture capital funds, some micro-finance institutions and banks (with a very specific product), specialized (non-traditional) lenders, some impact investors, grant providers, crowd funding platforms, etc.

What all those sources have in common is that they face **major challenges in providing finance to early-stage enterprises**. Early-stage entrepreneurs usually have limited business management experience, plus low financial literacy and capacity in financial administration. Early-stage enterprises may be marked by varying levels of professionalization, but very often have weak governance structures, operating processes and financial controls. Furthermore, early-stage entrepreneurs often have limited awareness and understanding of their own financing needs and the available options to finance their business growth. As a result of this, for financiers, finding and closing investment deals is very time consuming, and the risks associated with investing in such small companies is high, given their limited stability, track record and market share<sup>7</sup>.

These challenges are common among early-stage companies around the world, and very familiar to anyone active in this space. But they tend to be even more significant in the specific ecosystems in which they operate.

The main **implications** of these challenges **for investors and lenders** serving the growth-related financial needs of early-stage enterprises are as follows:

- **High transaction costs:** the fact that most early-stage enterprises do not have strong record-keeping practices makes it challenging to understand the actual results of the business to date. In addition, low and middle-income countries often have limited comparable or market data available, making it challenging to understand the context that the

5 Access to finance for SMEs is limited: the latest MSME finance gap report published by the World Bank Group in February 2018 established that “countries in the low-income group have the largest proportion of fully or partially constrained MSMEs, that is, 67 percent (3 million MSMEs).” Out of a total of USD 8.9 trillion in potential demand for MSME finance, only USD 3.7 trillion is currently being supplied. Report available at: <http://www.smefinanceforum.org/post/msme-finance-gap-report>

6 “Missing middle” as defined by the Center for International Development, Harvard University, available at [https://sites.hks.harvard.edu/cid/cidresources/files/cid08\\_entrepreneurial\\_finance\\_lab.pdf](https://sites.hks.harvard.edu/cid/cidresources/files/cid08_entrepreneurial_finance_lab.pdf)

7 The IADB conducted a survey in Latin America (IADB, Banks and the missing middle), to find out why banks do not invest in SMEs. The main reason given was what they described as ‘informality’, which is for example associated with a lack of audited financial statements, credit history, guarantees, etc. Informality presents itself in various forms that are critical to the credit decision-making of banks. The smaller the business is, the more informal it may be. So it is hardly surprising to find that for the majority of banks surveyed, informality is a major obstacle, and one that prevents them from serving businesses that are smaller than those they are currently serving.

company is operating in. As a result, conducting due diligence and finding and generating (market information) is very time consuming.

- **High need for portfolio support.** Early-stage companies are often not “investment ready”. They need support (also called Business Development Support or Technical Assistance) throughout the investment process. This ranges from making companies more investment ready during the sourcing process, to spending resources on structuring information and making the company due diligence ready, to providing continuous post-investment support.
- **Low sourcing-to-investment conversion rates:** financiers often end up investing in only 1-6% of the companies that apply for financing. This means that for every investment that is closed, a substantial amount of time is spent screening a large number of (other) businesses.
- **High failure rates:** given the fact that early-stage enterprises are typically young companies, with limited track records and low market penetration, and are often managed by inexperienced entrepreneurs, many early-stage companies do not survive, and therefore many early-stage investments fail.
- **Lack of access to follow-on capital:** Financiers often do not have enough capital to make substantial follow-on investments, meaning that companies can struggle to raise successive rounds of capital in the appropriate forms.
- **Limited exit options.** Related to the previous point, financiers serving early-stage enterprises in low and middle-income countries often struggle to exit their equity investments, which is required if they are get their investment back with a (substantial) premium (or profit).
- **Significant foreign exchange and interest-rate risks.** Many financial intermediaries in low and middle-income countries receive their capital in hard currency from high-income countries (such as European and North American countries) but provide financing in local currency. As discussed in the DGGF report “New perspectives on Financing Small Cap SMEs in developing and emerging countries”, many financial intermediaries focusing on “missing middle” enterprises quote exchange rate losses as the main factor to negatively impact their financial returns.

From the perspective of early-stage finance providers, it is therefore difficult to realize positive financial returns, let alone risk-adjusted financial returns. **Few providers of finance to early-stage companies have proven commercial viability, though several show promising, but unrealized, returns.**

### 2.3.3 The early-stage financing gap

The challenges in relation to realizing financial returns described above limits the amount of capital available to invest in early-stage enterprises. The early-stage segment in developing countries is barely able to attract any commercial capital, and therefore mainly relies on (even if only partly) on **philanthropic capital and subsidies** from public and private institutions, and as a consequence has challenges in scaling up.

Several innovative early-stage finance providers are experimenting with **new approaches** that could lead to lower operating costs, increased effectiveness, higher returns and, over time, move closer to sustainability and scalability. In the chapters to follow, we uncover a number of key success factors in serving early-stage enterprises. However, many of the challenges described above often remain stubborn barriers to providing early-stage enterprise finance in a sustainable and scalable way in developing countries and in low and middle-income countries. In the key findings and recommendations chapter that concludes this report, we summarize initiatives that may help each archetype continue to make progress in surmounting these challenges.



# 3. Business Accelerators

## 3.1 Overview

### 3.1.1 Definition

Business accelerators are typically fixed-term, cohort-based programs that provide very early-stage enterprises with finance, intense mentorship, training, and fund-raising support during a fixed period, often culminating in an investor pitch event or demo day. The expectation is that some of the supported companies will grow to the point that they can attract interest from other (early-stage) financiers, such as angels or VC funds. Accelerators are relatively accessible, and frequently provide the first type of external financing and/or support that early-stage enterprises in low and middle-income countries receive.

Accelerator operating models vary widely in terms of their target sector and stage of enterprise, depth and quality of the services they offer, access for enterprises to capital raising support versus direct financial investment, and revenue models. Since this study focuses on archetypes that provide finance directly to enterprises, this report covers **accelerators** that **provide finance** to the companies in their cohorts. This is the purest model of acceleration and providing investment alongside non-financial support is one of the key distinguishing factors between accelerators and incubators.

Business accelerators have become important players within start-up ecosystems, helping predominantly innovative businesses to achieve growth faster and increase survival rates. A key characteristic of accelerators is that they make relatively large volumes of relatively small investments available, to prepare companies to attract larger investments. This means the share of accelerators as a direct financing source to early-stage companies is relatively small, but accelerators play an important role in helping many early-stage enterprises to arrive at a state where they are eligible for larger investments. In their 2016 Global Accelerator Report, Gust<sup>8</sup> estimates that in 2016 accelerators worldwide invested USD 207 million in 11,305 start-ups via 579 accelerator programs, broken down as follows:

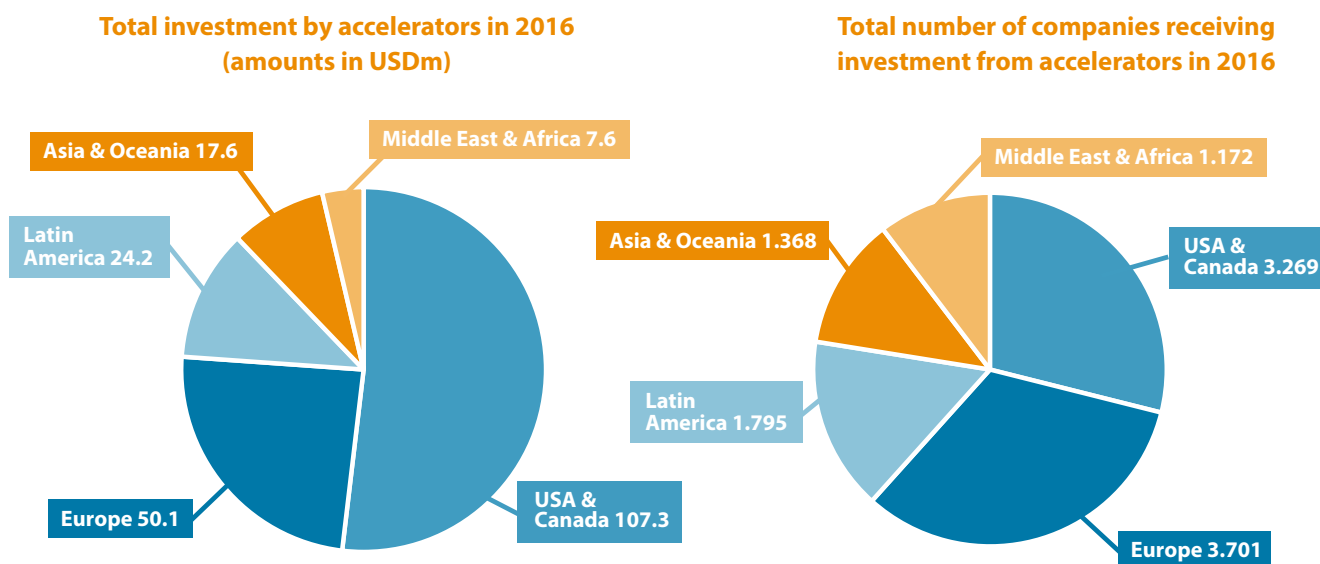


Figure 2. 2016 Gust report global accelerator investment data

### 3.1.2 Why business accelerators are initiated

According to Global Accelerator Learning Initiative (GALI) research, accelerated ventures grew revenues at a rate (+36.4%) that was roughly three times faster than the ventures that applied but were not accepted, and employee growth was also roughly three times higher<sup>9</sup>. Naturally, accelerators try to select companies with the highest growth potential, so the exact added value of accelerators is difficult to quantify. But there is consensus that accelerators have a positive effect on the

8 Source: [http://gust.com/accelerator\\_reports/2016/global/](http://gust.com/accelerator_reports/2016/global/)

9 Source: <https://www.galidata.org/>

growth and survival rates of supported companies, even compared with other key early-stage investors, such as leading angel investment groups<sup>10</sup>.

The benefit of accelerators is that they accelerate the learning cycle in a time-constrained format. This means that founders compress years' worth of learning into a period of just a few months. Although limited quantitative research has been conducted on the direct impact of accelerators on economic growth, accelerators do have a positive impact on regional entrepreneurial ecosystems, particularly with regard to the financing environment. Metropolitan areas where an accelerator is established subsequently have more seed and early-stage entrepreneurial financing activity, which appears not to be restricted to accelerated start-ups themselves, but spills over to non-accelerated companies as well —primarily due to an increase in investors<sup>11</sup>.

Accelerators are initiated and sponsored by different types of investors and funders, each of which may have different reasons to support accelerators. Accelerators are often independent organizations but can also be linked to an organization, such as a network, a university or an investor. The main sponsors of accelerators are:

- **Corporates.** Many accelerator programs are initiated and sponsored by corporations who do this for strategic purposes, such as early access to innovation and potential acquisition targets, or as part of their Corporate Social Responsibility (CSR) policy. Corporates are a growing category of funders of accelerators, but they often only finance on a cohort basis. In many high-income countries, as well as in emerging markets, corporates form the main funding source of accelerators.
- **Venture capital firms and/or high-net-worth individuals.** As they are struggling to identify and invest in interesting companies, they take the initiative of setting up or supporting the start-up of an accelerator that will generate a pipeline of investible local businesses.
- **Governments and/in partnership with international development partners.** Entrepreneurship is increasingly considered one of the ways to contribute to economic and employment growth through revenue growth and increased access to finance for local businesses. Acceleration provides an interesting tool for them to generate more enterprises with the potential to grow and benefit the economy.
- **Universities.** Some programs are initiated by universities, primarily to support student entrepreneurs. An important initiator of acceleration programs in high-income countries, this trend is expanding to more emerging markets.



10 However, this finding is not universal. So far, positive effects have been only attributed to leading accelerators. Source: <https://www.brookings.edu/research/accelerating-growth-startup-accelerator-programs-in-the-united-states/2016>

11 What Startup Accelerators really do (2016). Source: <https://hbr.org/2016/03/what-startup-accelerators-really-do>

### 3.1.3 Key operational characteristics of business accelerators

The following operational characteristics are typical of the accelerators studied for this report.

|   |   |
|---|---|
| <p><b>Objective</b></p>                  | <ul style="list-style-type: none"> <li>• Providing accessible support and financing to very early-stage enterprises, which often have little track record before acceleration.</li> <li>• The focus is on helping entrepreneurs obtain proof-of-concept, often by turning an idea into a minimum viable product (MVP) or achieving initial revenue and preparing a company for investment from other investors.</li> </ul>  |
| <p><b>Investment strategy</b></p>        | <ul style="list-style-type: none"> <li>• Sourcing: Early-stage enterprises enter accelerator programs through an application process that may include several rounds of online application forms and video-based or in-person interviews.</li> <li>• Investment instruments: In exchange for financing, accelerators often take equity stakes in accelerated companies<sup>12</sup>, usually a standard shareholding that is usually less than 15%.</li> <li>• Accelerators often also use grants, revenue-sharing agreements, convertible notes, and debt.</li> <li>• Ticket sizes range from USD 5,000 to USD 100,000. As these amounts are small, many companies seek follow-on funding soon after participating in an accelerator program.</li> </ul>   |
| <p><b>Non-financial support</b></p>      | <ul style="list-style-type: none"> <li>• Support is offered in a workshop or boot-camp setting over one to nine months. Common topics include investment readiness, marketing, financial management, and customer and product analysis.</li> <li>• Mentorship: access to the time, experience, and networks of sector-relevant mentors; usually from program alumni, business leaders, technical experts, or angel investors in the accelerator's network. Corporate partners sometimes offer their pro bono expertise directly to companies supported by the accelerator.</li> <li>• Training, for example in financial management and general investment readiness (preparing a company for investment).</li> <li>• Networking: offering access to potential investors, customers, suppliers, and other partners;</li> <li>• Infrastructure support, through access to shared workspaces or back-office services.</li> </ul>  |
| <p><b>Team &amp; organization</b></p>  | <ul style="list-style-type: none"> <li>• Team size: Accelerators typically have three to five staff to support cohorts of 10–15 early-stage enterprises. Accelerators run one or several cohorts of companies per year.</li> <li>• Team composition: Teams comprise 60–70% investment and program staff (to develop content and deliver support to enterprises) and 30–40% management and support staff (e.g., finance, marketing). Some accelerators separate program and investment functions, while others have teams that serve both simultaneously.</li> <li>• Team experience varies widely, from more technical backgrounds in engineering to entrepreneurship, business management, or finance and investment management.</li> <li>• Pro bono partnerships: pro-bono partnerships, as well as corporate sponsorships, can enable early-stage enterprises to access sponsor resources, such as marketing support, professional networks, or skills-based mentoring. When motivated by strategic interests, corporate sponsors may also help accelerators to exit their equity investments by acquiring successful enterprises. Efficient deployment of such resources can reduce workload and increase the productivity of accelerator staff.</li> <li>• Governance: Processes for program admission and investment decisions vary widely across accelerators. For example, some have external juries that select early-stage enterprises for both program support and investment, while in other programs internal management and program staff handle investment decisions.</li> <li>• Legal structure: Accelerators have widely varying structures, traditionally with a company operating alongside a parallel entity holding equity stakes in early-stage enterprises.</li> <li>• A recent trend is to operate an investment fund alongside the accelerator, with the fund structured along the lines of an early-stage VC fund and following on the initial investment from the accelerator with several rounds of larger ticket investments.</li> </ul> |

12 Saurabh Lall, Lily Bowles, and Ross Baird, "Bridging the 'Pioneer Gap': The Role of Accelerators in Launching High-Impact Enterprises," *Innovations: Technology, Governance, & Globalization* 8, no. 3/4 (Summer/Fall 2013): 106, [http://www.mitpressjournals.org/doi/pdf/10.1162/INOV\\_a\\_00191](http://www.mitpressjournals.org/doi/pdf/10.1162/INOV_a_00191).

### 3.1.4 Specific challenges of business accelerators in low and middle-income countries

The report Accelerating Start-ups in Emerging Markets<sup>13</sup> of May 2017 provides a good overview of insights from 43 accelerator programs in emerging markets. A number of specific challenges accelerators are facing in emerging countries are as follows:

- Ventures in low and middle-income countries are often even **less investment-ready** than those high-income countries. Therefore, accelerators in low and middle-income countries tend to place more emphasis on business skill development. However, the main reason for emerging market entrepreneurs to participate in accelerator programs is that they hope to obtain valuable fundraising contacts. This is often a mismatch: emerging market entrepreneurs rarely indicate that accelerator program gave them useful (fundraising) networks.
- Investment funds flow less freely in emerging markets. This makes it difficult for ventures to find proper **follow on investment**, and more challenging for accelerator program managers to facilitate equity investment during their programs.
- Different (cultural) **mindsets** regarding equity, in particular regarding the concept of having an external party in the company with influence over the company's decision-making. A particular area where this manifests itself is that of exiting a business.
- Program managers in emerging markets often have difficulty recruiting **good mentors and advisors**.

## 3.2 The economics of an archetypical business accelerator

In this section we will describe the economics of accelerators in low and middle-income countries. We will show the main operational and financial parameters of a typical accelerator using an illustrative simplified cash flow model. The purpose of this is to illustrate the workings of an "archetypical" accelerator, as well as a number of initiatives that can help an accelerator to diversify and increase its income. The assumptions in this model were derived from detailed interviews with the accelerators studied, as well as literature review and consultations with experts, as described in the methodology section. The assumptions in the model do not refer to one specific existing accelerator, nor are they a statistical average of the data of the studied accelerators. So, the purpose is to illustrate the underlying concept, and not to create an industry benchmark.

### 3.2.1 Portfolio development assumptions

In order to show the impact of the build-up phase of an accelerator, as well as the effects of exits on an accelerator's cash flows, we show the dynamics of a business accelerator over an eight-year period (the full model is included as annex 6).

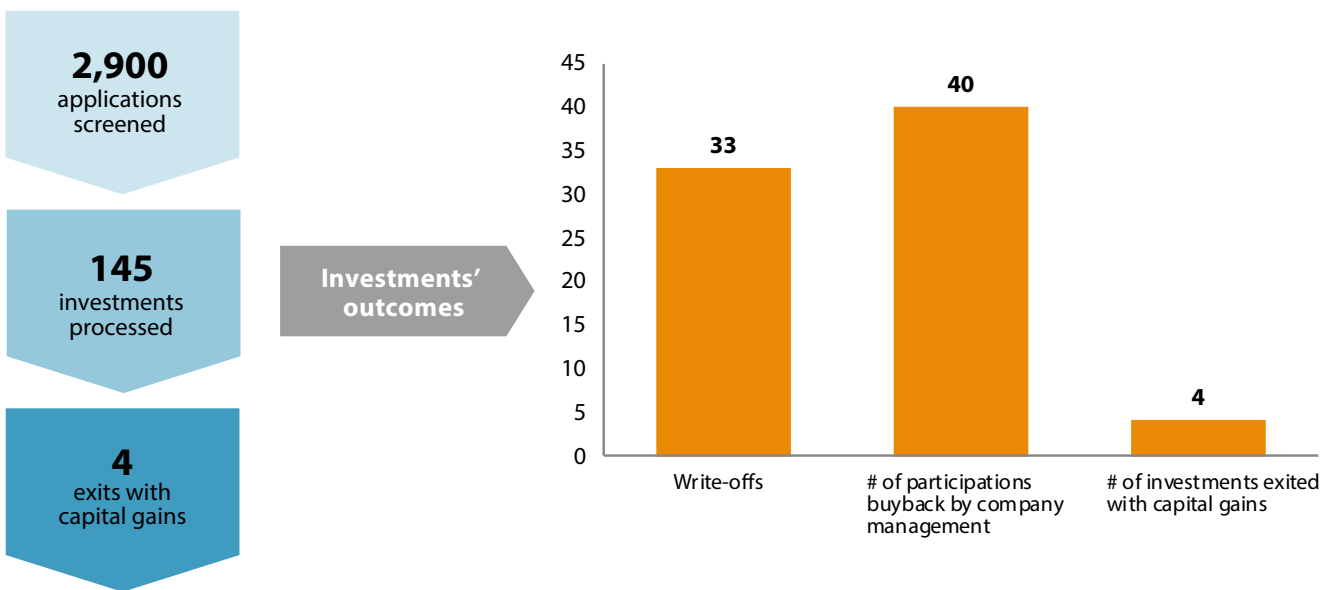
#### Key assumptions

| Metric                                | Comments  |
|---------------------------------------|---|
| Screening                             | <ul style="list-style-type: none"> <li>• Of the official applications that the accelerator receives per year<sup>14</sup>. In the first few years, there will be a ramp-up phase with an increase in numbers and - more importantly - an increase in the quality of applications received (in our model, from 200 in the first year to 400 applications reviewed per year from the third year), reflecting the fact that it takes time to build its value proposition and strategic positioning in the market.</li> </ul> |
| Acceptance rate (companies supported) | <ul style="list-style-type: none"> <li>• Reflects the percentage of the companies that receive finance and support following their official application. A highly selective process is part and parcel of acceleration, so acceptance rates are low, i.e. less than 10%, across markets (in our model, 5%).</li> </ul>  |
| Portfolio support                     | <ul style="list-style-type: none"> <li>• Accelerators support enterprises per cohort (our model foresees 20 companies per year in two cohorts lasting 3-6 months each).</li> </ul>  |

13 Source: <https://www.galidata.org/assets/report/pdf/Accelerating%20Startups%20in%20Emerging%20Markets.pdf>

14 NB: it is difficult to directly compare the number of screened companies across different accelerators, as definitions of what constitutes an "official applications" may be different. For example, some accelerators may count an email with a basic request and containing a short business plan as an official application, while others may only count a request as a formal application once information has been submitted in a standardized format and this meets basic criteria.

|                         |   |
|-------------------------|---|
| <b>Holding period</b>   | <ul style="list-style-type: none"> <li>Accelerators expect to exit participations in companies after a few years, ideally with capital gains (profit) through a (third party) sale of the accelerator’s equity stake, but in most cases through a sale back to the entrepreneur with limited proceeds, if exited at all (in our model, this happens after a four-year period).</li> </ul>   |
| <b>Successful exits</b> | <ul style="list-style-type: none"> <li>Exits, especially with capital gains, are rare in emerging markets (our model assumes that, starting after the portfolio build-up period of four years, there is only one successful exit per year).</li> </ul>  |
| <b>Write-offs</b>       | <ul style="list-style-type: none"> <li>Early-stage enterprises supported by the accelerators studied for this report record a survival rate of 50–80% over one to five years. However, enterprises tend to literally “survive” and not necessarily thrive after they graduate from the accelerator, due to the limited options available for follow-oWn support (for our model, we assume that 30% of each cohort will fail in the first three years).</li> </ul> |



*Figure 3. Overview of illustrative accelerator portfolio outcomes over eight years*

### **Portfolio development forecast**

In an eight-year period, our illustrative accelerator will have screened 2,900 applications from local companies, supported/ invested in 145 companies, and made four exits with capital gains.

As a consequence, the reality of accelerating early-stage enterprises in emerging markets today is that for a handful of exits with capital gains accelerators need to screen thousands of companies to support less than a couple of hundred.

### **3.2.2 Cash outflows**

As our model is a simplified cash flow model, we will look into investment costs and operating costs as cash outflows, to determine the total amounts that need to be covered by income from operations and investments, as well as philanthropic capital and subsidies, over an eight-year period.



## Key assumptions

| Metric                     | Comments  |
|----------------------------|---|
| Average ticket size        | <ul style="list-style-type: none"> <li>Is small and generally in the form of pure equity participations (in our model, we used USD 25,000 as an average ticket per company).</li> </ul>   |
| Team size and salary costs | <ul style="list-style-type: none"> <li>Requires a diversity of profiles to properly run the accelerator, including a manager, the staff working directly with the entrepreneurs (i.e. business development staff) and the more support functions, critical to building the value proposition and strategic positioning of the accelerator in the market (e.g. community and marketing manager). (In our model, the original team of four FTEs grows to five FTEs in the fourth year; the salary numbers are the total gross salary costs to be paid by accelerator).</li> </ul> |
| Other fixed costs          | <ul style="list-style-type: none"> <li>Fixed operating costs cover office rent, IT, travel costs, etc. (in our model they reach USD 35,000 per year)</li> </ul>   |
| Variable program costs     | <ul style="list-style-type: none"> <li>Include costs to be incurred to offer events, mentoring, and other business development services to accelerated companies (assumed at USD 20,000 per company).</li> </ul>  |

## Cash outflows breakdown forecast

The cash outflow breakdown forecast below is obtained by combining the portfolio assumptions with the costs assumptions. The amounts disbursed are calculated as the number of companies invested per year (20) times the average ticket size (USD 25,000). The variable program costs are calculated as the number of companies invested per year times the variable program costs (USD 20,000 per company). The totals show that the total cash needs (investment and operating costs) of the accelerator program for an eight-year period amount to over **USD 8.5 million**. The total amount of capital invested into ventures is USD 3.6 million, so around 42% of the total cash needs.

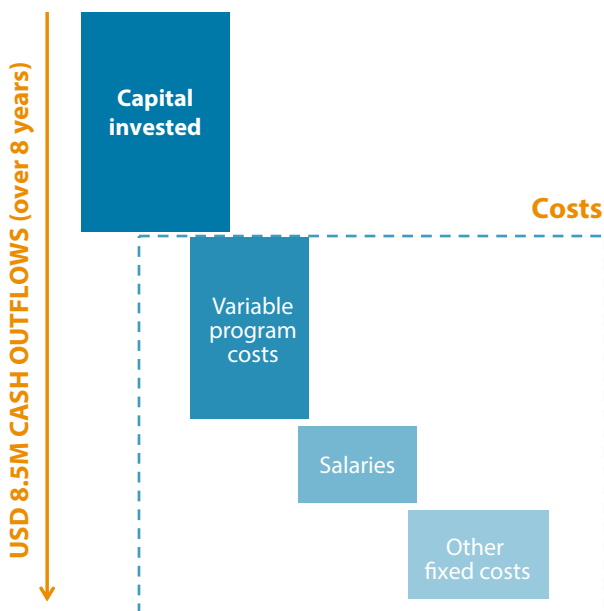


Figure 4. Cash outflows breakdown over eight years

Accelerating early-stage enterprises in emerging markets requires significant resources (several USD millions over the mid to long-term): if the capital invested in ventures represents a significant portion of the total cash needs, the programming and operational costs dedicated to supporting entrepreneurs actually represent the majority of the costs incurred. In practice, the ratio of programming and operational costs to investment capital of an accelerator is highly dependent on the development stage of the companies it works with. For programs working with very early-stage enterprises, programming and operational costs can be up to 300% of their total investment capital. For accelerators focusing on more mature early-stage enterprises this may be closer to 100% of total investment capital.

### 3.2.3 Revenues from investment returns

The previous section showed that the total cash needs required to fund the investments and operating expenses of our illustrative accelerator for an eight-year period amount to USD 8.5 million. This section discusses the cash inflows required to cover these costs and therefore to sustain the accelerator, as well as the various income sources that exist to generate these cash inflows.

An important notion to start this analysis with is the fact that, historically, the prevalent accelerator model has been to rely primarily on the successful sale of its equity participations (40-65% of the cases in high-income countries), with dynamics similar to venture capital, whereby a small number of very successful participations show exponential returns that are sufficient to offset the many failures. However, this model only works for a small minority of accelerators, i.e. revenues

from exits are the main source of revenue for around just 2-6% of European and North American accelerators<sup>15</sup>. Surveys also indicate that fewer and fewer accelerators are relying on this exclusive model and an increasing number are adopting more diversified revenue generation schemes (across high to low-income countries).

### Key assumptions

| Metric                             | Comments  |
|------------------------------------|---|
| Successful exits                   | Our portfolio assumptions on the number of successful exits reflect this notion of low success rates: in our model, only 5% will lead to a successful equity sale.  |
| Investment return (money multiple) | Calculated as the total amount received from a successful investment through an equity sale divided by the initial investment amount (in our model, 4.0x, so successful exits will yield 100,000 in our model). |

Based on these assumptions, in our example the total income from investments is only USD 100,000 per year, and only starting in year five (four years after the first investments were made). This means that, in our model, investment returns constitute **USD 325,000** in the total first eight-year-period, which is around 4% of the (required) income in that period.

Although eventual returns on investment could supply key revenue, in low and middle-income countries, exits for the early-stage enterprises accelerators support remain rare and will, in any event, take many years to achieve. Moreover, the few exits that we identified in our research only had an average internal rate of return of 18% (which would correspond with a four-year money multiple of around 2x), which confirms the notion that investment returns are far from sufficient to cover operating costs over the eight-year period assumed in our analysis. Accelerators therefore need additional sources of revenue to support their operating costs: (1) in the years before they can realize any investment returns and (2) that remain in excess of investment returns.

In developed countries, most accelerators have blended models. The cash-for-equity model is actually applied and seems to make sense in one out of 20 cases of accelerators; these are high-profile accelerators for high-profile ventures. Nesta research (in the UK) validates the recent decline in the validation of the cash-for-equity model<sup>16</sup>.

In the next section, we discuss a number of existing and less common ways to diversify income and generate revenues without relying on non-guaranteed grant funding and investment returns.

### 3.2.4 Non-investment income

As the total cash required to run our example accelerator for an eight-year period amounts to **USD 8.5 million** as shown above, and the assumed investment income is only **USD 325,000**, this means that **USD 8.2 million of non-investment income** from other revenue sources are needed to sustain the accelerator.

Philanthropic grants are currently an important source of funding for accelerators. In a recent study, 74% of accelerators said they relied on philanthropic grants.<sup>17</sup> However, incentives between grant providers and accelerators may be misaligned. Grants are often provided to support a couple of cohorts, sometimes in a specific sector or industry, and often with specific requirements and key performance indicators. This fosters a short-term strategy, which is not aligned with the long-term perspective of financial sustainability. Many accelerators we engaged with **expressed a desire to decrease their reliance on grants** to hedge against changing funding priorities and potential, corresponding decreases in funding, which have a direct negative impact on their sustainability path.

### 3.2.5 Other sources of revenue

#### Corporate partnerships income

Accelerators often acquire corporate sponsors to fully fund or subsidize specific programs or cohorts of early-stage enterprises that fit the sponsors' strategic and/or marketing interests. Beyond funding, corporate sponsorships can enable early-stage enterprises to access sponsor resources, such as marketing support, professional networks, or skills-based mentoring. When motivated by strategic interests, corporate sponsors may also help accelerators to exit their equity investments by acquiring successful enterprises.

15 Source: [http://gust.com/accelerator\\_reports/2016/global/](http://gust.com/accelerator_reports/2016/global/)

16 Source: Nesta Accelerator Program: <https://www.nesta.org.uk/feature/innovation-methods/accelerator-programmes/>

17 Ross Baird, Lily Bowles, Saurabh Lall, "Bridging the "Pioneer Gap" The Role of Accelerators in Launching High-Impact Enterprises. 2013. Available at: <https://assets.aspeninstitute.org/content/uploads/files/content/docs/ande/Bridging%20the%20Pioneer%20Gap%20The%20Role%20of%20Accelerators%20in%20Launching%20High%20Impact%20Enterprises%20.pdf>

A smart way of engaging with a corporate is to establish a long-term partnership through which corporates may have their internal teams accelerated towards the development of innovative products, services, processes or even spin-offs. And accelerators can use their relationship with the corporates to facilitate their client companies to integrate the value and supply chains of corporates.

### Consulting income

External consulting is an increasingly common source of supplemental revenue for accelerators, whose work with many early-stage enterprises cultivates valuable experience. To access this attractive expertise, corporations, development organizations, or others interested in early-stage enterprises or in innovation in specific sectors, may contract accelerators in consulting engagements. This may also allow accelerators to build further expertise and networks that are helpful for the early-stage enterprises in their programs. A smart way of using these contracts is to select the ones that will enable the team to spend time and resources on valuable efforts that feed directly into their core activity of providing quality programming to accelerated enterprises (e.g. the organization of relevant events for the entrepreneurial ecosystem stakeholders).

### Success-sharing milestone fees

Some accelerators charge early-stage enterprises a program fee, ranging from USD 100 to USD 5,000 per enterprise. Program fees may facilitate enterprise commitment to the program, but there is also a risk that excessively high fees can reduce the accessibility of accelerator programs for early-stage enterprises that cannot afford to pay them. A good way of aligning incentives while keeping the services accessible and affordable is to use success-sharing agreements. These enable the accelerator to receive compensation for the services it provides once an early-stage enterprise reaches a certain growth milestone agreed upon by both sides (e.g. the accelerator may get a percentage of the sales or revenue or profit growth of the business).

### Capital raising success fees

Many accelerators attempt to monetize the important role that they already play in helping to link early-stage enterprises participating in their programs to investors with additional, follow-on capital by charging a percentage-based success fee on external capital raised. This is where it is critical for accelerators to 1) actually “accelerate” the businesses in the sense of getting them to the market quickly, providing their product/service to actual customers and being able to demonstrate market traction to potential investors and 2) be well embedded in the local ecosystem, and to be especially well aligned with the financial players, including angel investors, so these players can turn to the accelerator as their pipeline generator for less risky investments (given the guaranteed revenues their customer base translates).

### Selling investors rights of first refusal

Investors often lack incentives to fund accelerator operations (e.g., screening, due diligence, and programming) when an accelerator should provide deal flow to investors. Although some 60% of impact investors have informal sourcing partnerships with accelerators, 47% say they have never sourced a portfolio company directly from an accelerator.<sup>18</sup>

Accelerators could co-design sourcing with their partner investors, including selection processes in line with specific investor criteria. While accelerators would still cover key programming, investors could facilitate certain program elements to foster familiarity with the accelerated businesses. Investors funding accelerator operations would be awarded the first right to co-invest in graduating enterprises.

More efficient graduation paths from accelerators to follow-on investors translated into increased numbers of closed deals with graduates of accelerator programs could form an additional source of revenue for accelerators.

### Summary financials

The accelerator reaches its stable phase in year seven (three years lead generation build-up, four years holding period), and the income from investments then amount to 9% of the accelerator’s required cash inflow. This is not far off the results of a survey of 50 programs, which showed that investment returns form around 8% of annual accelerator revenue<sup>19</sup>. Based on the above assumptions, including additional income sources as described above, our illustrative accelerator would still require around **USD 5 million** of philanthropic grants in order to sustain itself during the eight-year period.

18 Idem

19 Idem

## 3.3 How business accelerators are improving efficiency and effectiveness

The above analysis of the economics of typical accelerators shows the internal dynamics and the primary financial considerations of accelerators and their funding requirements. As we have seen, a key part of the problem is the relatively low success rate combined with the time-consuming and therefore expensive nature of running accelerator programs. Innovations are taking place to improve the efficiency of accelerators in low and middle-income countries, by optimizing the entire (pre-) investment process, as well as the effectiveness of the programs. In this section, we will discuss a number of the key success factors of accelerators that we defined in our research, and we will highlight a number of examples of institutions that have initiated promising initiatives on how these could be implemented.

### 3.3.1 Improving lead generation and selection processes

**Designing programs with business needs in mind:** Because of the objective (and track record) of acceleration facilitating access to finance for the entrepreneurs, they often put the emphasis on pitching, but the problem is that many focus solely on pitching. By training entrepreneurs to summarize problems, solutions and financial needs in three slides and a pitch of 3-5 minutes, accelerators are not successful in introducing their companies to fundraising networks as investible and investment ready. Good acceleration programs focus on the issues of the business itself (for example, focusing on the business model rather than business plan), priority and milestones-setting and the focus and structure of the thinking around the business model. Other key areas are customer understanding and access to markets and focusing on reducing the costs of doing business and increasing agility: making the business better, more efficient and more solid to take on growth. This makes supported companies more robust and therefore more attractive for investors.

**Efficient selection processes:** Accelerators typically have very low acceptance rates and very large pools of applicants; accelerators interviewed for this study had an average acceptance rate of just 3.25%. Selection plays an important role in performance: the quality of the applicant pool determines program performance. To avoid spending time and resources on low-quality applications, successful accelerators narrow their funnels quickly in the first selection round, making it important to have a clear profile of the enterprises they wish to target. Because enterprises applying to accelerators generally have little existing track record, successful accelerators focus on forward-looking characteristics, such as the ability of the team to scale, the potential market size and the projected business model. Enterprise buy-in and contribution is critical, and therefore it is also critical that enterprises be required to pay a success fee or agree to a revenue sharing arrangement. This already helps in the selection process, as the preparedness to contribute is indicative of the level of commitment of the companies to the accelerator program.

#### Village Capital

Village Capital was founded in 2009 and trains and invests in early-stage enterprises, primarily in agriculture, education, energy, financial services and health. Each cohort of 10–12 enterprises is selected through an online application process following the cohort's intended specific sector theme and geography. Village Capital operates through two entities: (1) a non-profit organization that provides programming to early-stage enterprises and (2) an investment arm that invests in the top two enterprises from each cohort. Two factors have contributed significantly to the efficiency and quality of Village Capital's selection process:

**1). Peer-selection investment process.** The early-stage enterprises in each cohort receive training together throughout the program, and they are encouraged to work together and share ideas. At the end of the program, all participants nominate two cohort members to receive investment. The idea is that all enterprises within a cohort become intimately familiar with each other's business models, strengths and weaknesses by the end of the program. This means that they are best placed to identify the most promising enterprises for investment from among their peers. Peer selection also reduces the level of due diligence Village Capital's investment arm must conduct, which in turn lowers the transaction costs of each investment.

**2). Sector focus: Village Capital programs are sector-specific,** which it has found enables the most effective collaboration among the members of each cohort. Village Capital determines each cohort's sector theme based on a combination of factors, including the supply of high-quality early-stage enterprises in that sector and demand from potential strategic acquirers or follow-on investors in a specific geography. A corporate sponsor of a specific program cohort also sometimes has specific sector interests. Programs are adapted to the local entrepreneurial ecosystem and are often delivered locally.

### 3.3.2 Optimizing investment process

**Investment-specific staff:** Accelerators that take equity or convertible debt in early-stage enterprises require internal team members with two sets of skills: one set focused on entrepreneurs' business management skills, competences and tools (including access to customers/market strategy and implementation plan, business plan and business model) i.e. program support; they also require another set with previous finance or investment experience focused on entrepreneurs' financial management skills and tools (including cash flow management) and preparation for investment (e.g. understanding of financial needs and potential financial instruments and sources, closing the deal, using external financing to boost business growth).

**Standard contract and valuation method:** Accelerators taking equity or convertible debt must manage their investment process efficiently, in addition to providing program support. They face the same high transaction costs set against small ticket sizes that are faced by other archetypes explored in the current report, but accelerator ticket sizes are generally much smaller still than typical investments made by the other archetypes. To keep transaction costs as low as possible, most of the accelerators engaged with for this report offered all potential portfolio companies the same standard investment contract and valuation method.

### 3.3.3 Embedding investment activities in financial ecosystem

**Focus on networking:** Early-stage enterprises often struggle to access high-quality networks, and a credible introduction is perhaps the most important benefit a respected accelerator program can offer. A point that a number of participants in this study made was that accelerators often focus too much on pitching alone, while more attention should be given to critically thinking about business models, client validation and cash planning. Feedback from accelerated early-stage enterprises confirms that the most effective support that accelerators can provide involves access to networks, including sector-specific connections to potential investors, suppliers, customers and other partners.

**Focus on follow-on financing:** We compared the funding supply chain with a relay race in which a sprinter passes on a baton to the next sprinter to carry an investee on to the next stage. The effectiveness of accelerators is heavily determined by the extent to which supported companies are able to raise follow-on financing. Therefore, when initiatives to strengthen early-stage entrepreneurship include setting up business accelerators, these accelerators should not be set up in isolation; they should be tailored with the availability of follow-on capital in mind. This might mean that accelerators reserve investment capital, so they can double or triple down on the most successful accelerated businesses, maximizing returns. It could also mean that accelerator programs are set up in conjunction with larger follow-on funding initiatives, following the example of Flat6Labs, which we will discuss below.

#### Flat6Labs

Flat6Labs Flat6Labs (F6L) was originally set up in Cairo in 2011 by, Hany Al-Sonbaty and Ahmed El Alfi, also the founders of venture capital firm Sawari Ventures. Ahmed El Alfi is also a founder of the GrEEK Campus hub, in order to provide a conducive ecosystem across the seed, early-stage and growth stages of local innovation businesses. F6L has been supporting early-stage enterprises with scalable and innovative ideas in cohorts of 10 enterprises over six months. Each enterprise benefits from a one-week boot camp of classroom lectures followed by mentoring and more tailored support, alongside an average equity investment of USD 14,000-40,000. Flat6Labs has a strong brand in Cairo, attracting a wide and high-quality pool of early-stage enterprise applicants and strategic partners, such as corporates. It has now expanded to other Middle East and North Africa (MENA) locations, including Jeddah, Abu Dhabi, Beirut, Tunis, and Bahrain[1]. To date, F6L has invested in close to 200 early-stage enterprises across the MENA region. In order to further foster the conduciveness of entrepreneurial ecosystems, F6L is pioneering a new model with the first closing of EGP-100-million Egypt fund- FAC, that aims to invest up to EGP 1 million in 100 Egyptian early-stage start-ups, providing them with training, mentorship and a suite of services to enable them to reach their customer base and scale their operations locally and regionally over the next five years. The new fund benefits from the pipeline of enterprises in the accelerator program. The aim is to use the placement of multiple small investments to ensure better selection of higher value investments and create a steady pipeline for the Egyptian venture capital market, while keeping the investment costs low by offering shared resources and services to batches of start-ups. Limited partners in FAC include Egypt Ventures (a company of the Egyptian Ministry of Investment and International Cooperation (MIIC)), the Egyptian-American Enterprise Fund (EAEF) and the IFC. About 50% of the investment capital is reserved for follow-on investment in high-performing portfolio companies, maximizing returns and fostering access to risk capital in pre-series A stage by increasing chances of co-investments from other early-stage finance providers. or triple down on the most successful accelerated businesses, maximizing returns. It could also mean that accelerator programs are set up in conjunction with larger follow-on funding initiatives, following the example of Flat6Labs, which we will discuss below.

**Closely collaborate with other early-stage finance providers:** Accelerators both help early-stage enterprises to access ecosystem networks and themselves benefit from close collaboration with other archetypes in the early-stage ecosystem. Other archetypes can offer follow-on investment or provide additional support to early-stage enterprises, increasing their chances of success. For example, Flat6Labs was founded by Sawari Ventures, a venture capital firm based in Cairo that also created the GrEEK Campus in order to provide a conducive ecosystem across seed, early and growth stages of local businesses. However, some angel investors and early-stage VC funds without such close accelerator links rarely source their deals from these programs, expressing the perception that accelerators teach enterprises how to pitch but that their polished pitches do not address business fundamentals on which investors base their investment decisions. Thus, close collaboration between accelerators and the other archetypes requires building greater understanding of what the follow-on supporters need to invest, so the program support can be adapted to address these issues. We have noted that operating multiple archetypes under the same organizational umbrella may foster understanding and alignment of each other's expectations and incentives.

### **Fundación Chile**

Fundación Chile (FCh), a private, non-profit organization the Chilean government established in 1976, has grown into a regional organization that runs both an accelerator program and the Chile Global Angels network. FCh is also currently raising an early-stage VC fund. (For more information on FCh's other programs, see the business angel networks chapter.) Its accelerator programs focus on four main sectors, in which Chile either has a competitive advantage or that FCh believes is key to continued economic growth: (1) renewable energy, (2) education and talent, (3) food and agriculture, and (4) mining. The accelerator program grew out of the original FCh model, which involved intensively incubating one or two companies each year and supporting them in-house to grow from early-stage enterprises into large, national businesses. The accelerator program now operates as part of FCh's Entrepreneurship Platform, working with 25–30 early-stage enterprises each year. A team of 13 manages the Entrepreneurship Platform, but early-stage enterprises can access FCh's full team of over 300 staff. Enterprises in the accelerator program benefit from operating within FCh's larger organizational umbrella, gaining access to FCh's first-hand experience building successful businesses, technical expertise within the four focus sectors, and wide networks both within Chile and regionally. Enterprises in the accelerator program can also access angel investors from the Chile Global Angels network, the members of which have provided them with follow-on investments and mentorship. Accelerated enterprises may soon have another source of potential follow-on funding from FCh's above-mentioned early-stage VC fund.

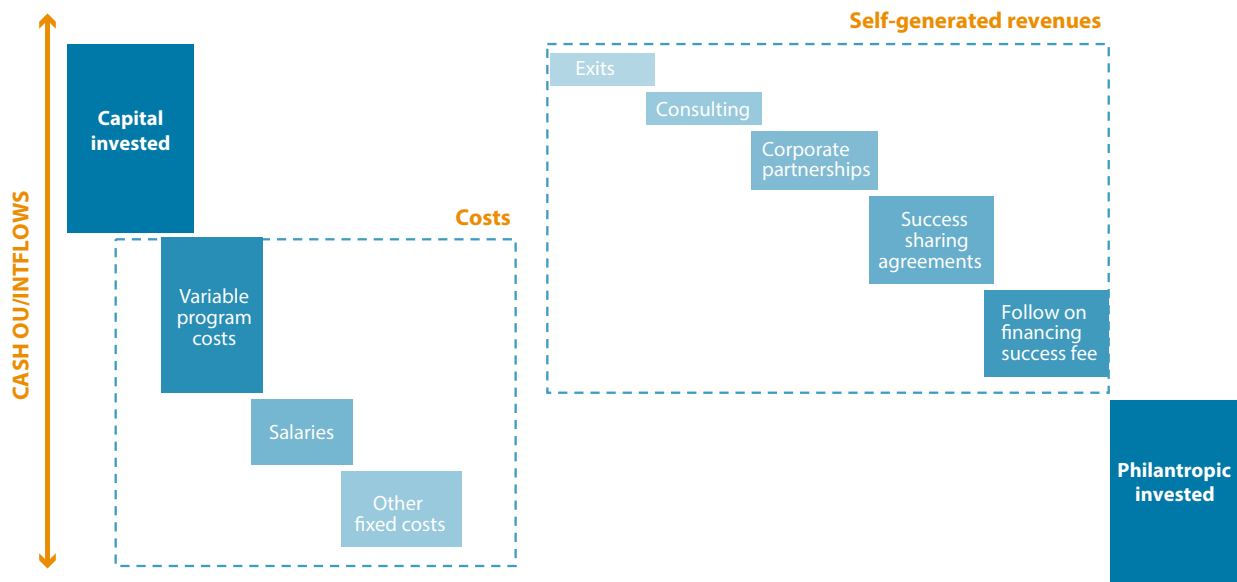
### **3.3.4 Increase available capital through clarity and consistency in impact definition**

Many accelerators, though successful, have not yet achieved sustainability and require additional funding support. Although funders would like to support accelerators, they often have undefined impact criteria and little data to identify "successful" accelerator operating models. Alignment among funders on success metrics for accelerator operating models would complement existing efforts by the Global Accelerator Learning Initiative to identify and measure the impact of accelerator programs on the early-stage enterprises themselves. A clearer definition of success metrics for the operational performance and impact of accelerators could lead to increased support for accelerators that successfully deliver desired outcomes, including those that most effectively and efficiently support early-stage enterprises. Some accelerators might need to restructure their programming, curriculum, or operating processes more than they need funding.

## **3.4 Conclusions**

It is now commonly acknowledged that early-stage businesses participating in business accelerators tend to have more and faster success in fundraising, revenue, and employee growth.

A challenge is that accelerators are still struggling to monetize this support. The inevitably high costs of programmatic support and low rates of investment return due to the low rates of success, long time horizons and limited opportunities to exit of early-stage enterprises make the financial sustainability of accelerators a key challenge. To date, to provide programmatic support, most models have relied on public or private grant funding, including from corporations and foundations.



**Figure 6.** Overview of cash in and out flows of illustrative accelerator

When comparing accelerators with incubators, for instance, it has become clear that incubators tend to have more reliable income from membership fees and working space/meeting rooms’ rental. Running an acceleration program from an incubator can help capture learning and improve operations. One current trend is accelerators setting up a fund to enable them to double or even triple down in the most successful businesses, maximizing returns. But this proposition has a number of challenges, as acceleration and investment are two different skillsets. Another point is that the fund management fee is not sufficient to provide in-depth acceleration support.

Smart use of investment capital (i.e. reserving some capital for follow-on investment in high-performing portfolio companies, maximizing returns and fostering access to risk capital in pre-series A stage by increasing chances of co-investments from other early-stage finance providers) and revenue streams such as revenue from corporate partnerships, consulting, success-sharing milestone fees, capital raising success fees, and selling rights of first refusal have the potential to boost the accelerator’s income and therefore reduce reliance on grants. Furthermore, accelerators are optimizing their financial performance by improving their lead generation processes, deal selection processes and investment processes, and increasing their effectiveness by embedding themselves more firmly in the ecosystem and ensuring optimal fit with follow-on financing options.



# 4. Business Angel Networks

## 4.1 Overview

### 4.1.1 Definition

**Angel investors** are high-net-worth individuals<sup>20</sup> who invest their own money and time in early-stage enterprises, hoping to realize a return from the long-term growth of the company.<sup>21</sup> **Business Angel Networks (BAN)** are formal or informal **collectives of angel investors** who collaborate to make investments, which may include pooling financial resources and sharing responsibility for pre-investment and post-investment activities. Business angel networks are still nascent in developing countries and emerging markets but could have the potential to play an important role in early-stage investing if they could facilitate the provision of enough capital for adequate follow on funding or have enough angels in the deal to support the business for several years, helping to fill a financing gap between the smaller ticket sizes of accelerators and other seed funders, and the larger ticket sizes preferred by early-stage VC funds and most non-traditional debt providers.

Business angel networks can be **member-led**, relying on volunteer angels from the network to take responsibility for managing the network, or **manager-led**, run by salaried, part-time or full-time staff. Several well-known regional angel networks in emerging markets include the Indian Angel Network, India (established in 2006, around 22 members); Angel Ventures, active in Mexico, Colombia, Peru, Chile and the USA (established in 2008, around 400 members); Chile Global Angels, Chile (established in 2009, around 30 members); Cairo Angels, Egypt (established 2011, around 45 members); the Lankan Angel Network, Sri Lanka (established in 2012, around 60 members); Lagos Angel Network (LAN), Nigeria (established 2014, around 70 members).

This report's specific focus on business angel networks as one of the key archetypes to be studied is due to the fact that these networks allow angel investors to invest more rigorously and to operate in a more professional and structured manner than angels investing on their own. Business angel networks improve efficiency and financial performance and reduce the risks of angel investment, and therefore have the potential to mobilize more angel investment capital for early-stage companies. This is confirmed by a study from Italy<sup>22</sup> that found that HNWI's who are part of a network will invest 16 – 30% more from their own wealth than they would do individually.

### 4.1.2 Why business angel networks are initiated

#### Economic development perspective

As indicated above, angel investing represents a potentially significant source of early-stage financing. According to the OECD, it is estimated that in high income countries the size of the total angel investment market (so including angels who do not invest via networks) is in the same range as the total venture capital market, as can be seen in the table below. Most reliable and comprehensive data could only be found for 2009, but recent trends observed in the US market notably provide enough insights to conclude that the estimated size of the markets captured in the table below have grown significantly.

20 HNWI's are defined as those having investable assets of USD 1 million or more, excluding primary residence, collectibles, consumables, and consumer durables

21 InfoDev, Creating Your Own Angel Investor Group: A Guide for Emerging and Frontier Markets (Washington, DC: World Bank, 2014), [https://www.infodev.org/infodev-files/angelgroups\\_guidbook\\_final\\_0.pdf](https://www.infodev.org/infodev-files/angelgroups_guidbook_final_0.pdf)

22 Bonini, Stefano and Capizzi, Vincenzo and Valletta, Mario and Zocchi, Paola, Angel Network Affiliation and Business Angels' Investment Practices (December 19, 2017). Journal of Corporate Finance, Forthcoming; Stevens Institute of Technology School of Business Research Paper No. 2856478. Available at SSRN: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2856478](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2856478)



Table 1 Estimated angel and VC comparative market sizes (in 2009)<sup>23</sup>

|                | “Visible” angel market size (share of total market in 2009) | Estimated size of angel market in 2009 | Total Venture Capital Market in 2009 * |
|----------------|---|--|--|
| United States  | \$469 million   | \$17.7 billion                         | \$18.3 billion                         |
| Europe         | \$383 million   | \$5.6 billion                          | \$5.3 billion                          |
| United Kingdom | \$74 million  | \$624 million                          | \$1.1 billion                          |
| Canada         | \$34 million  | \$388 million                          | \$393 million                          |

\*Note: VC market size includes VC investments in all stages: seed, start-up, early, expansion and later stage.  
All currency is in US dollars

Furthermore, both the number of high net worth individuals and their cumulative financial wealth, and therefore the potentially available capital for angel investments, are growing rapidly, notably in more emerging markets with promising trends particularly in Sub Saharan Africa. From 2015 to 2016, the total financial wealth of HNWI’s grew by 10.7% in Africa, by 8.9% in Latin America, by 5.0% in the Middle East. Cap Gemini<sup>24</sup> estimated the number of HNWI’s globally to be 16.5 million in 2016, with around 0.2 million of these in Africa, 0.6 million in Latin America, 0.7 million in the Middle East, 4.5 million in Europe, 5.2 million in North America and 5.5 million in Asia-Pacific. In total, the combined financial wealth of these HNWI’s has been estimated at USD 63.5 trillion (in 2016).

In addition to providing investment capital, angel investing can add value to early-stage entrepreneurs, as angel investors are usually experienced professionals who provide strategic and operational advice and coaching to the companies they invest in, like accelerators and venture capital firms but usually in a less structured and formal manner. Furthermore, angels usually provide their investees with access to their business networks and are often instrumental in securing (follow-on) financing. Compared with venture capital firms, angel investors are typically more flexible on financing terms, and they are often relatively patient to allow time for normal company maturation. These factors make angel investors an attractive source of funding to early-stage enterprises.

Global repartition of HNWI’s in 2016

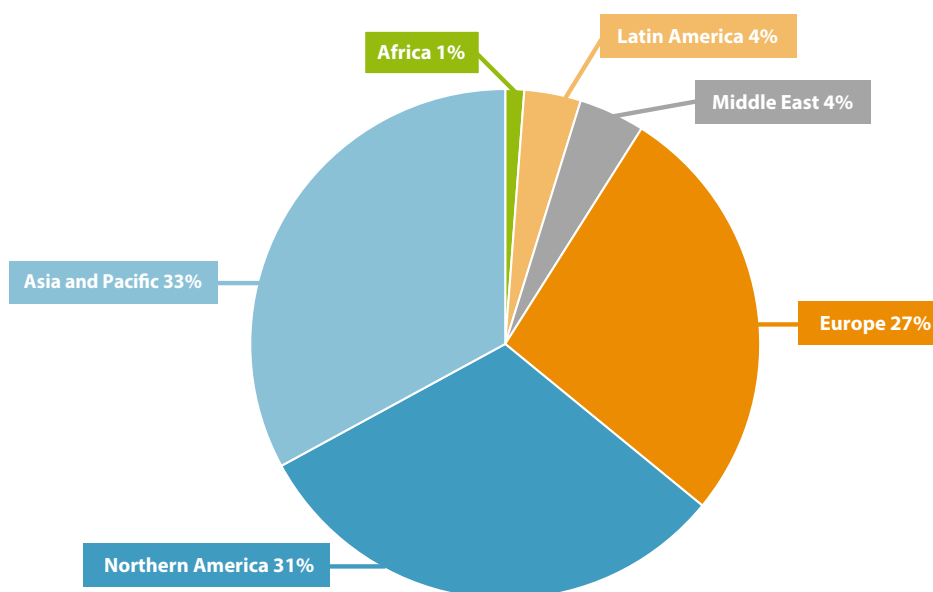


Figure 7. Cap Gemini 2016 estimated repartition of HNWI’s globally

23 Source: Comparison of business angel and venture capital markets. OECD 2011

24 Source: Cap Gemini World Wealth Report 2017, available at: <https://www.worldwealthreport.com/>

## Angel perspective

From the perspective of individual angel investors, advantages of investing through a business angel networks are:

- **Knowledge.** Few, if any, individual angel investors possess all the skills and knowledge necessary to accurately and objectively evaluate an investment opportunity. Group evaluation provides multiple points of knowledge about the market, management, and financial assumptions, and by encouraging group members to challenge assumptions and opinions in a way not typically done by individual investors.
- **Risk reduction.** Using a network reduces the risk in several ways. Angel networks allow people to syndicate on a deal and share the risk. It also reduces risk by allowing angels to diversify their investments across several deals. Furthermore, the group evaluation mentioned above also entails risk reduction, as investing with more investors brings “checks and balances” and allows for better informed investment decisions. The HNWIs who make up the membership of a BAN can roughly be divided into two separate categories: (former) entrepreneurs, who have cashed in on their business and have been exposed themselves to angel investing and know and value the BAN approach, and executives, who have less knowledge and feel less secure in the angel investing space. This last group tends to be significantly more risk averse than those in the former category. It is especially for this group that the BAN acts as a de-risking mechanism, as the members feel more secure when investing in a group.
- **Efficiency.** Individual deal screening is time consuming and inefficient. Angel networks have more resources than individual angels and allows for joint due diligence and investment support. Though member-led networks can be more cost-efficient, as a business angel network grows in size and operations, so does the need for more professional management. Manager-led networks can aggregate resources to secure staff, interns, and facilities to enhance the deal process.
- **Influence.** The pooling of investment capital gives angels greater economic power and influence, which allows for more influence over key company decisions and enhances investment terms negotiations. Angel networks can also have an influential voice collectively when raising regulatory and policy issues with government and can contribute to the creation of new and better policies.<sup>25</sup>
- **Networking.** Angels often see a network it as an outlet for previous professional experience and expertise and obtain fulfillment from sharing their knowledge with early-stage enterprises and with other angels. Being part of an angel network also entails belonging to a group of like-minded influential business people.



25 Creating Your Own Angel Investor Group: A Guide for Emerging and Frontier Markets. Washington, DC: World Bank. 2014. Available at: <http://www.infodev.org/publications/angel-investor-guide>

### 4.1.3 Key operational characteristics

The following operational characteristics are typical of the business angel networks we studied for this report.

|   |  |
|---|--|
| <p><b>Objectives</b></p>               | <ul style="list-style-type: none"> <li>• Helping angel investors who are members of the network to obtain financial returns from investing in early-stage enterprises with high growth potential, through;           <ul style="list-style-type: none"> <li>- Matchmaking between investment opportunities and angel investors; forming syndicates on deals.</li> <li>- Providing training, advice and other forms of support to members of the angel network throughout the investment process (screening, due diligence, contracting, investment management, reporting, exiting)</li> </ul> </li> <li>• <b>Raising awareness</b> about angel investing and being a voice in policy discussions regarding early-stage investing</li> </ul>  |
| <p><b>Investment strategy</b></p>      | <ul style="list-style-type: none"> <li>• <b>Sector focus:</b> Although angel investing in developed markets is often associated with the technology sector, angel networks in emerging markets are typically sector-agnostic, although sector-focused networks do exist, and individual angel members often have sector preferences based on their existing expertise<sup>26</sup>.</li> <li>• <b>Ticket sizes:</b> the investments made by the angels through angel networks vary between USD 20,000 and USD 150,000 in size. Deals are usually co-investments made by multiple angels within a network or by smaller syndicates within the network (with individual tickets of USD 5,000 to USD 25,000).</li> <li>• <b>Investment instruments:</b> Angels usually invest in exchange for convertible debt or ownership equity<sup>27</sup>. Some entrepreneurs in emerging markets sometimes perceive equity as a grant rather than as an investment with return expectations and business valuation is complex; as a result, we have noted a trend towards using more convertible loans and revenue/royalty-based lending agreements as they are often better understood by entrepreneurs.</li> </ul> |
| <p><b>Non-Financial support</b></p>  | <ul style="list-style-type: none"> <li>• Individual angel investors provide <b>mentorship</b> in the form of their time, expertise, and experience, as well as offering credibility based on their own reputations and access to their networks. However, the quality and level of the support provided do vary.</li> <li>• The business angel network itself may also provide <b>portfolio support</b> in the form of workshops and training courses for entrepreneurs that focus on topics such as financial management and growth strategy.</li> </ul>  |
| <p><b>Team and governance</b></p>    | <ul style="list-style-type: none"> <li>• Staff composition: angel networks are usually managed by a core administrative team of one to five staff, supporting two to six deals per year</li> <li>• Staff background: employees of angel networks often have previous experience in investment management or finance, but with teams small in size, most focus on network management and less on deal activity or investment support.</li> <li>• Governance: Investment decision-making processes and legal structures vary widely per network and geography; based on local regulations, tax considerations, and angels' personal preferences.</li> <li>• Angels often make investment decisions individually, although those who invest through a syndicate may authorize a representative from the syndicate to lead the relationship with the entrepreneur, the due diligence process and make investment decisions on behalf of other members as the "lead angel".</li> </ul>  |

26 InfoDev, Early Stage Innovation Financing Facility, Discussion Draft (Washington, DC: World Bank, 2014). Available at: <http://www.eban.org/wp-content/uploads/2014/09/5.-Early-Stage-Innovation-Financing-ESIF-Facility-Document.pdf>

27 A. Sahay and V. Sharma, Entrepreneurship and New Venture Creation (New Delhi: Excel Books, 2009). Available at: <https://books.google.co.ke/books?id=QGsCnAsWT0cC>.

#### 4.1.4 Specific challenges and needs of angel networks in low and middle-income countries

The practice of angel investing is globally associated with a number of common challenges. Both in high income and in low and middle-income countries, new angel investors are not always sufficiently aware what it means to be an individual investor in an early-stage company. Angel investing is very hands-on, and monitoring investments and safeguarding interests can be very time consuming, both for angels and entrepreneurs. Angel investing is also risky, and angel investors can be discouraged by failed investments or stories about failed investments from other angels.

While the interpersonal dynamics between angels and entrepreneurs comes with complexities, angels also often do not possess knowledge of typical technical issues related to their investment, in particular legal and financial issues such as shareholding rights, corporate governance, accounting, reporting and financial management of the company, and how to act in case the company is not doing well and/or needs more funding. Furthermore, in low and middle-income countries there are large differences in the nature and maturity of entrepreneurial ecosystems (including in areas outside the main economic centers).

The above issues are, to a certain degree, generic and common for angel investing around the world. In addition, low and middle-income countries are facing a number of other specific issues. Many low and middle-income countries have regulatory frameworks that may discourage, or at least fail to encourage, angel investment and/or the creation of start-ups. Such countries often have weak entrepreneurial ecosystems, which means that there are fewer innovative start-ups to invest in. And especially in areas involving new technologies, it can be challenging for entrepreneurs to find angels with both money to invest and the industry expertise required to add value to start-ups. Lack of government leadership in providing institutional support for private investing also makes doing deals more difficult. Other factors that can make doing deals difficult in some countries are corruption and a lack of professionalism on the part of investors, bankers, entrepreneurs and government officials, which makes deal sourcing, bank financing and deal completion very challenging.

## 4.2 The economics of an archetypical business angel network

In this section we will describe the economics of an archetypical business angel network in a low or middle-income country. The analysis of the economics of business angel networks is different from accelerators and VC firms due to the fact that business angel networks do not provide capital themselves. Business angel networks are effectively service providers to angel investors. In our analysis, we will mainly discuss the economics **at the level of the network organization itself**, but we will also elaborate on the economics of angels investing **through the network**.

Since business angel networks in emerging markets are still in their infancy and there is very little reliable data on their operations, we based our indicative financial parameters of business angel networks on information from the specific business angel networks that we engaged with, as well as literature reviews and consultations with experts, as described in the methodology section (see also annexes 3 and 4). The numbers serve to illustrate the workings of an “archetypical” business angel network and to illustrate the impact of a number of (potentially new) initiatives that can help business angel networks to diversify and increase their revenue. So, the purpose is to illustrate these points, and not to create an industry benchmark.

### 4.2.1 The economics of the network

#### Member-led versus manager-led angel networks

The operating costs of angel networks vary widely and depend on factors such as the management model (member-led or manager-led), the number of members being serviced, the number of companies screened, the number of investments closed and monitored, and the depth of other services offered.

Member-led networks rely on volunteers, and therefore the operating costs of running the angel network are variable and can be relatively low. The main costs of member-led networks are events, legal, training and travel-related costs. According to the persons we interviewed for this study, member-led networks can be quite effective, and often have even more early success than manager-led networks, as angel investing relies on trust among members of the network and peers can more easily mobilize other angels to invest. However, especially when angel networks become larger, angels often lack the time to properly manage the network themselves and require more robust back-office services.

A growing trend is to professionalize angel networks to help coordinate activities within the network. Manager-led angel networks employ a manager and potentially also other staff to run the network. Besides the variable costs mentioned earlier (events, legal, training and travel-related costs), manager-led angel networks therefore also face additional overhead costs such as staff salaries and rent. As the focus of this report is on scaling models of early-stage finance provision, in our analysis of the economics of angel networks, we will focus on manager-led networks.

## An archetypical business angel network organization

Below we discuss the main cost and revenue components of an archetypical business angel network. We will use an illustrative business angel networks with the following parameters to illustrate the different cost and revenue drivers.

### Key assumptions

| Parameter                                | Comment  |
|--|--|
| <b>Number of members</b>                 | The membership base of business angel networks varies widely across markets and level of maturity of the BAN, but we observe that they commonly have 20 to 50 members (our illustrative business angel network has 40 members).  |
| <b>Number of companies screened</b>      | Angel networks source and screen large volumes of applications, often up to several hundred per year. A significant part of the deal flow tends to come through the angels in the network (our illustrative business angel network processes 200 new leads per year).  |
| <b>Number of deals closed</b>            | Conversion rates are low across markets, i.e. less than 10% (in our model, out of the 200 companies screened per year, 20 companies are selected to pitch to investors, and of these four companies receive investment from one or more members of the angel network).   |
| <b>Amount invested per year</b>          | As mentioned above, the investments made by the angels through angel networks vary between USD 20,000 and USD 150,000 in size (in our model, we assume an average ticket size of USD 100,000, making the amount invested through the network USD 400,000 per year).  |
| <b>Required staff to run the network</b> | Naturally, the required team is highly dependent on how active the network is, and the depth and value addition of the services provided to the members (in our model, to facilitate 40 members and provide support in closing four deals per year the network would need to have around two staff, one director and one junior person). |

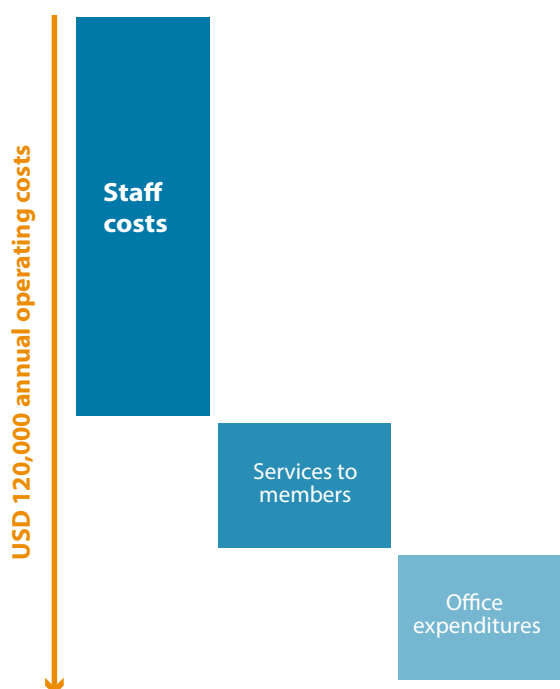


Figure 8. Annual operating costs breakdown of an illustrative BAN

### Operating costs

The costs of running a business angel network will depend upon the management structure and operating processes chosen by the members. It is appropriate to consider what costs the network wishes to carry before commencing operations, so members can draft an operating budget and options to pay for the costs decided upon. The expenses that a network could decide to pay for are discussed below. It is assumed that our illustrative BAN is fully operational with a stable membership base, a dedicated team and some track record, so the figures do not include any initial set-up costs for a simplified analysis.

| Cost factor   | Comment   |
|---|---|
| <b>Management</b>                                     | Different networks have different processes to the remuneration of managers, but salary and some form of bonus are common. Bonuses are usually based on factors other than investment performance due to the personal nature of the investments being made. Most managers should not be seen to be “managing” investments on behalf of the members. It is difficult to obtain details of salaries paid to managers due to confidentiality (in our model we used USD 75,000 for a full-time manager to capture the diversity of target markets where living costs can be very high).     |
| <b>Administration</b>                                 | As the network expands, staff may be required to assist the gatekeeper or to handle purely administrative tasks. Maintaining an up-to-date list of members, arranging meetings, circulating proposals, chasing up and monitoring information and general administration may well be best handled by someone dedicated to the job (in our model we used USD 25,000 for a full-time staff member).  |
| <b>Meetings</b>                                       | Typically, the network members will meet once per month to discuss pipeline and investment proposals, to take part in the pitching sessions, to make investment decisions and in smaller groups throughout the investment process and to facilitate post-investment monitoring (our model foresees USD 3,000 costs per year).   |
| <b>Member services, relations &amp; communication</b> | Some networks organize separate social networking opportunities for their members in order to build a group culture. All angel networks face the challenge of how to keep their members involved and engaged in the periods between the times they are fired up about specific exciting deals (e.g. angel networks often have a newsletter (our model foresees USD 2,000 per year to facilitate this).  |
| <b>Office expenses</b>                                | Office rent, IT, travel costs, etc. Sometimes office space is provided by one of the members of the network or a partner organization (e.g. chamber of commerce, incubator). A website is usually set up to provide a reasonably cheap presence and brand identity, which can help communication to members by incorporating a dedicated members-only section (all estimated to incur USD 5,000 per year in our model).   |
| <b>Professional service fees</b>                      | Legal and accounting fees may be incurred in the establishment of the network, and there will be annual costs for accounting and reporting (USD 2,000 in our model).  |
| <b>Entrepreneur cultivation &amp; relationships</b>   | The network can offer support and training to potential investees (mentoring or help with business planning or pitching). Costs could include costs for meeting rooms, travel, etc. (in our model, they come in at USD 1,500 per year).   |
| <b>Transaction costs</b>                              | Many networks divide the majority of due diligence tasks between the members interested in the deal. However, there are likely to be travel costs and specialist legal and intellectual property due diligence that needs to be budgeted for. The network needs to consider whether the legal and other transaction costs of completing a deal are shared by all members in the network (particularly if only a few members invest), and in particular how to deal with costs incurred in a deal that for whatever reason does not materialize (Our model foresees USD 5,000 per year). |
| <b>Post investment relations</b>                      | The network needs to work out who is going to monitor the performance of investments post deal, and how such information is to be circulated to other members. There will be a degree of cost involved (USD 1,500 per year, in our model).  |

The annual costs of running our illustrative business angel network amount to **USD 120,000** per year. In the next section we will look at the various revenue sources that can be used to cover these annual operating costs.

## Revenues

The three main sources for the generation of the revenue required to cover the costs incurred by a network are members, investees and third parties.

| Revenue factor                             | Comment  |
|--|--|
| <b>Members</b>                             |  |
| <b>Membership fees</b>                     | Annual membership fees tend to vary widely across markets but in low and middle-income countries are typically less than USD 500 per year. Some networks also charge a one-off joining fee, though this tends to be in area locations where finding new members is easy (for our illustrative archetype, we assume the membership fees to be USD 500 per year per member)  |
| <b>Member deal fees (success fees)</b>     | Some BANs also charge a deal fee to members at the point of investment (which can be as much as 5% of the amount invested by each individual). This can be instead of or in addition to an annual membership fee. In the case of the latter this might be seen as fair where not every network member participates in every deal, and the “deal fee” is used largely to pay the costs associated with facilitating each individual deal (for our illustrative BAN, we assume that the additional income from member deal fees is 2.5% of the total amount invested per year)   |
| <b>Event participation fees to members</b> | A network may charge members attending meetings or other events a small fee to cover room charges and catering. A number of networks specifically do not separately charge for their monthly meetings, but rather use the annual membership fee to cover these costs, on the basis that if members feel they have already paid for an event they are more likely to attend.  |
| <b>Investees</b>                           |  |
| <b>Pre-investment</b>                      | Investee companies might in some rare cases be charged application, assessment or presentation fees (fees to participate in a pitch event or dinners with members of the angel network). In this case, fees are often repaid if the pitch results in a successful deal. A clear advantage of this is that it shows commitment from investees and discourages inappropriate applications. But it may also lead to disappointment if pitches do not lead to investment. Deal fees are sometimes charged to the investee company; often seen as fairer (fees are only paid if the efforts of the BAN lead to investment; for our illustrative BAN we assume that the only investee fees are USD 100). |
| <b>Post investment</b>                     | Monitoring of investments and alignment of investors and investees is time consuming. One of the advantages of a business angel network is that it allows several individual investors to act as a group. The manager of the BAN can act as liaison between the investees and the investing angels, but the board position is fulfilled by individual investors who can pass on their knowledge to the management of the investee company (they may get a board fee for this role).  |

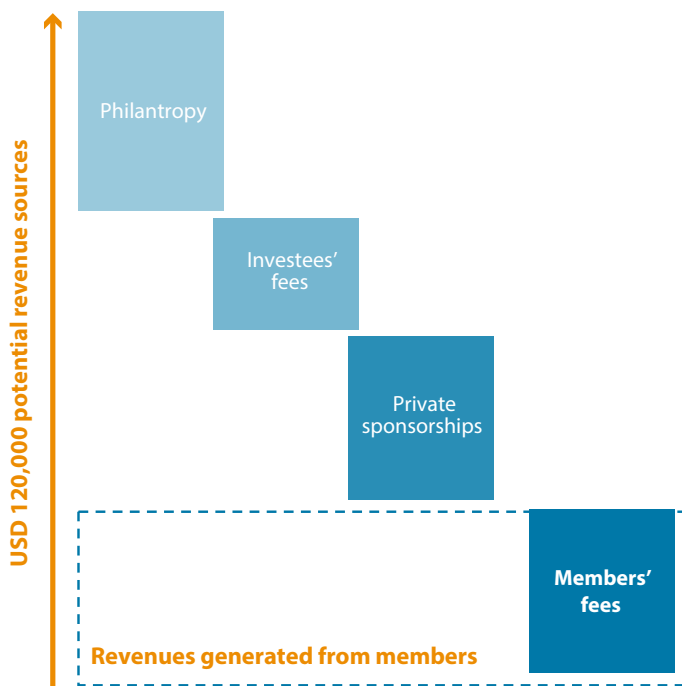
## Third parties

### Sponsorship from private organizations

Sponsors can provide income and practical help and advice. At a simple practical level, a sponsor may be able to provide meeting rooms at no cost. Sponsors may also agree to limit charges for their services in certain circumstances. For example, a legal firm may agree not to charge in the event of a deal not completing. A sponsor may offer to undertake some of the administrative functions on behalf of the network, for example in gathering monitoring information or acting as a point of contact for potential new members or entrepreneurs. For a sponsor to part with hard cash the network needs to consider carefully what it can offer in return, without harming the network in any way. Network members are likely to be put off attending pitching events if a sponsor is constantly trying to sell their services. It is vital that the network partners with quality firms that enhance the network's own reputation. A few high-profile sponsors, who can each gain real benefit from engaging with the network, would appear to be better than having many sponsors paying small amounts. There are various options open to the network to give sponsors the return they need on their sponsorship fees. Most are looking for visibility, with the members of the network, the entrepreneurs pitching and the investee companies (for the illustrative BAN, based on the level of sponsorships observed in emerging markets and developing countries, we assume cash sponsorship income of USD 30,000 per year).

### Government, philanthropy

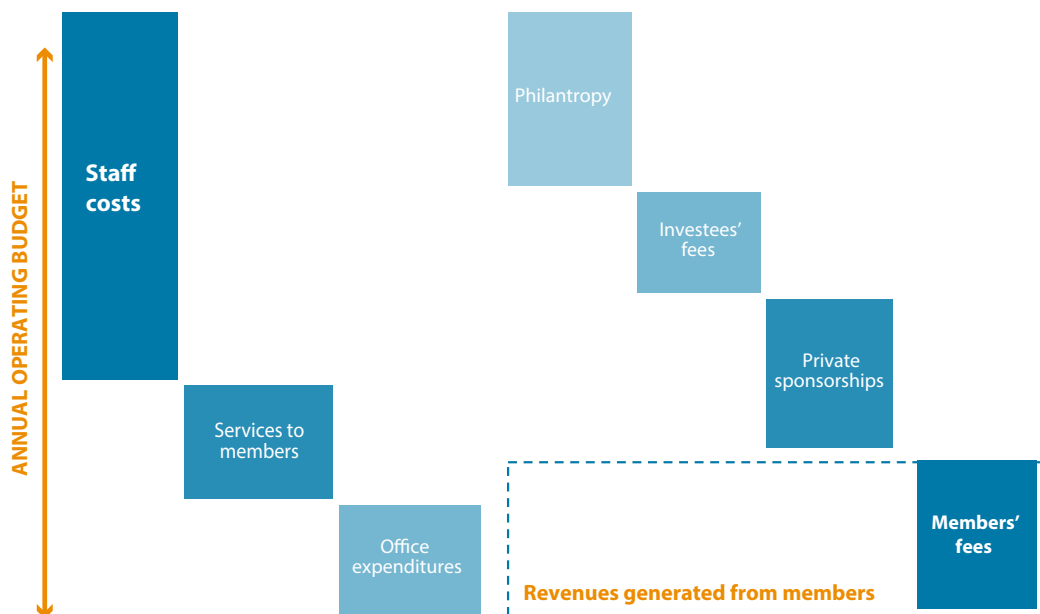
In our example, we assumed that the difference between annual operating costs and sources of revenue outlined above is covered by a grant of USD 38,000 per year. This is in line with existing programs, such as IDB's Xcala program, which covers 50% of the operating expenses of new BANs in the Caribbean region for a fixed period. In other countries, we see a similar role played by governments and other public or development institutions.



The revenue generated from its members, investees and sponsors as discussed above amounts to USD 82,000, which is not sufficient to cover the annual operating costs of USD 120,000 per year. Filling this gap by reducing costs without reducing the quality and depth of the services is difficult. Increasing revenues by charging higher fees to members has also proven difficult, as it is hard to value the service offering to members above USD 500 per year and the goal is to catalyze angel investing into local enterprises, not to deplete their resources to fuel the network's operations. As we can derive from the above, an archetypical manager-led business angel network needs to be smart about how it handles its costs and generates income. Experts we consulted were not aware of any BAN running on a commercial model. Many manager-led business angel networks need some form of support in order to sustain their operations.

Figure 9. Breakdown of potential sources of revenues of an illustrative BAN





**Figure 10.** Annual operating budget of an illustrative BAN

We will describe later how BANs are improving efficiency and effectiveness and illustrate this with a number of market best practices.

#### 4.2.2 The economics of investing through the network

The two main ingredients that determine the performance of a portfolio of angels are the financial returns of the companies that are successful, and the number of companies in the portfolio that are successful. However, when assessing the financial performance of angel investing, it is vital to understand that angel investments are of a highly personal and private nature. Angels often do not make investment decisions based solely on rational financial grounds. This means that, even when investing through an angel network, each angel bases their own portfolio (or has their own investment strategy) based primarily on personal preferences, such as affinity with a certain sector, mission or even individual. Therefore, it is not possible to define “archetypical angel investments” or describe a “typical angel investor portfolio”.

In addition, as discussed before, data is simply not available. The experts engaged for this study confirmed that solid data on the financial returns realized through angel investing is even scarce in high-income countries, where angel investing has a more significant track record. In low and middle-income countries, there is no quality data on angel investing, let alone specific data on angel investing through BANs. However, we did manage to obtain a number of insights into the returns of angel investing from the interviews we conducted, although the information is largely anecdotal and return estimates are mainly based on unrealized returns.

According to our interviewees, the portfolio companies that were successful were typically valued between five and 10 times the original angel investment in subsequent fundraising rounds. However, it was generally estimated that some 70% of businesses that receive investment from business angels fail to grow sufficiently to return any capital. Recent research confirms this<sup>28</sup>.

In the absence of reliable data available, we had to base ourselves on assumptions shared in target markets and assumed that 30% of the companies achieve valuation increases of 5 – 10 times the original angel investment and that 70% of investments fail, this could result in a possible average portfolio return of around 3 times the original investment, providing the investor is making numerous investments. Given the long holding periods of angel investing (7-10 years), this would translate to average overall returns of 7-10%. These assumptions may seem quite high, especially in comparison with data available from markets like the USA, but the BANs we interviewed for this study that had effected few exits confirmed this range for unrealized returns from follow-on funding.

It is important to recognize that, according to for example Scott Shane research<sup>29</sup>, around 40% of angel investments in the developed market of the USA only ever lose money. Unless this is recognized, the necessary support and subsidy to early stage investors will not be properly appreciated and will not be built into programs. As a result, angel-type investing in particular will fail to develop properly.

28 Tereza Tykiová, 2018. “Venture capital and private equity financing: an overview of recent literature and an agenda for future research,” *Journal of Business Economics*, Springer, vol. 88(3), pages 325-362, May.

29 Shane, S. A. (2009). *Fool's Gold: The Truth Behind Angel Investing in America* New York: Oxford University Press.

## 4.3 How business angel networks are improving efficiency and effectiveness

To address some of the key challenges of operating as an angel network in emerging markets and developing countries, we introduce several initiatives, identified through our research and expert consultations, that may improve angel networks' sustainability and deal activity. Some angel networks are already testing some of these initiatives, although it is too early to identify results; other initiatives have potential but lack active experimentation by networks.

### 4.3.1 Professionalization and efficiency

**Evolutionary growth:** Many successful business angel networks have followed a gradual and evolutionary path of professionalization. The network is started by a relatively small group of like-minded individuals, who build acquaintance and trust among each other. They only start professionalizing by engaging a manager after a few initial investment deals have been completed, when the need arises for a more structured investment approach. As a result of this professionalization, they are able to attract new members and capital and broaden the deal flow pipeline beyond the network of the initial BAN members, retaining and sharing lessons learned from previous investments, etc. While other ways of setting up and professionalizing BANs can also be successful, it cannot be emphasized enough just how important trust among angel members is to the success of a BAN.

**Cairo Angels** started in 2011 as a few friends who met once each quarter to review potential investment opportunities, but it has since grown into a network of about 45 angels who invest in early-stage enterprises in the MENA region, focusing on scalable business models and technology. Cairo Angels has long been run by one general manager to keep operating costs low, and it is based within a central meeting and co-working space for early-stage enterprises in Egypt. However, the network has expanded the range of services it provides to its members including hosting about five pitch events per year in Cairo, but also in their chapters in London and Dubai. As a result, the team has expanded to include five staff members, at the time of writing this report, including a dedicated investment team responsible for sourcing pipeline and handling the DD process and negotiations on behalf of the network members once they show enough interest and a team dedicated to the technical partnership with the MINT incubator. They have also recently launched an annual conference to raise awareness about angel investment and help the different angel networks across the MENA region to meet each other and syndicate deals.

**Reducing costs:** without reducing the quality of their services. BANs that have been successful in doing this have been able to operate in a smart way and to build on valuable existing resources. This can be the use of widely accepted standardized term sheets and shareholder agreement templates. Smart partnerships, such as being hosted by a parent organization and benefitting from its back-office structure, public relations (PR) power and networks can also be beneficial. Networks might be hosted by an organization such as a Chamber of Commerce or an incubator, lowering the operating costs of the network.

**Cooperation with early-stage VC funds and business accelerators:** Pipelines for angel investments often come through individual investors' personal and professional networks, and due diligence may be difficult to coordinate among multiple angel investors. Within the business angel networks we studied, an average of 36 early-stage enterprises were screened for every investment. However, partnerships with accelerators and early-stage VC funds operating in the same region can increase the efficiency of both sourcing and due diligence and potentially decrease investment risk through co-investment. For instance, Iungo Capital in East Africa partners with local angel investors to co-invest in its portfolio companies. Chile Global Angels operates within Fundación Chile (FCh), beneficially sourcing through their accelerator program. Chile Global Angels members can pick the highest-potential early-stage enterprises from the accelerator, taking advantage in the due diligence process of FCh's experience working with the enterprise throughout the accelerator program towards investment readiness. Moreover, because both the accelerator program and the angel network operate out of the same FCh office, angels in the network have a higher level of trust in the quality and the readiness for investment of the enterprises coming from the accelerator.

With its accessible location and established brand identity, **Cairo Angels** is deeply embedded in Egypt's entrepreneurial ecosystem and has created several partnerships with other key players—such as Flat6Labs, a regional accelerator, and the annual Rise Up Summit—to provide a regular pipeline of potential investees. Cairo Angels provides critical investment guidance to its angel investor members to help them lower risk and increase returns, which in turn spurs further investment activity. For example, the network promotes co-investment within its membership and encourages members to invest in two phases to reduce risk. The first phase comprises smaller ticket sizes (e.g., USD 5,000 from each individual angel for a pooled investment of USD 10,000 to USD 20,000), as angels reserve larger investment amounts for successful enterprises through subsequent rounds of up to USD 150,000 in pooled investment. Cairo Angels also stresses that the financial investment is only half of the investment process; the network expects members to provide active mentorship to portfolio companies in conjunction with their financial support.

**Chile Global Angels**, which has more than 30 members, is the angel investing network run by Fundación Chile (FCh), a private, non-profit organization established by the Chilean government in 1976. Chile Global Angels is the largest angel network in Chile and one of the most active in Latin America.

Started initially as a standalone angel network, Chile Global Angels now collaborates with FCh's accelerator program under its entrepreneurship platform, *Emprende FCh*, which allows FCh to support enterprises throughout the cycle of business growth. An enterprise could receive seed funding and technical assistance from the accelerator program to jumpstart its business, followed by angel investment to allow it to scale.

Chile Global Angels tends to invest in pooled ticket sizes of USD 100,000 to USD 200,000, which is relatively small compared to the average capital requirements of the early-stage enterprises in which it invests. This encourages co-investment with other funders in order to increase the available support that portfolio companies can access, while also reducing risk for individual angels.

**BAN sharing in investment returns:** One suggested potentially interesting new initiative that could lead to an additional source of revenue for the network in the long term is for BANs to participate in investment returns, creating an additional revenue stream. This could for example be done through a carried interest mechanism. Membership contracts between networks and individual members would stipulate that the network itself benefits from deals closed, to some degree, from investment returns. This could lead to better alignment between the manager and the member angels, and more robust and targeted sourcing and screening of early-stage enterprises. But this assumes that the BAN has helped to create value and still adds some value post investment and at exit.

### 4.3.2 Using angels more effectively

**Educating and managing expectations of angels:** Angel investors in emerging markets are often inexperienced in early-stage investing and require guidance on both the technical and strategic aspects of angel investing. More specifically, on the investment strategy front angels need exposure to the reality that many initial investments in early-stage enterprises will fail. This means that for an optimal approach angels would make numerous investments in smaller ticket sizes, so that any returns generated by the successful investments would compensate for the ones that do not perform so well. Taking this approach allows angels to diversify their portfolios, reducing risk and exposure to individual portfolio companies. As a recent publication on angel investing in European markets reported, 80% of returns on angel investments came from only 9% of portfolio companies.<sup>30</sup> This is why preparing entrepreneurs for angel investing (a role that should ideally be played by accelerators) is crucial: it helps them to understand what angel investing is about, whether it is the appropriate financing mechanism for them at a specific stage in the development of their business and prepares them to engage in a constructive relationship with the angel investor(s).

**Reserving sufficient capital for additional funding:** This is another area in which education is required for business angel investors. Many angels in low and middle-income countries seem to think that they simply need to provide one or two rounds of funding before a venture capitalist takes over the process. As a result, they are not reserving nearly enough cash for follow-on investments. Once individuals have been encouraged to become angel investors and provided with basic skills, they need to be provided with adequate support capital to ensure follow-on funding for the next stage in their growth cycle. The vast majority of angel investments do not receive follow-on funding from venture capital, and it is down

30 Centre for Strategy & Evaluation Services (CSES), Evaluation of EU Member States' Business Angel Markets and Policies (Kent, UK: CSES, 2012). Available at: [http://business-angels.de/wp-content/uploads/2013/10/ba-rep\\_en.pdf](http://business-angels.de/wp-content/uploads/2013/10/ba-rep_en.pdf).

to the angel investors themselves to fund the business to the exit stage. Many sophisticated angel investor networks now deliberately seek out investment opportunities that they believe will not require VC funding at any time prior to an exit.

**Network “champions”:** In addition to the trends and success factors summarized above, all of which help stimulate investment activity within angel networks, networks also need internal angel “champions,” who often take the role of “lead investor.” Angel champions, who tend to have more credibility and trust with fellow angel investors than the network staff, can encourage other angels to invest, led by example, and help to keep network members engaged and member turnover low over the long-term. Network champions are often a critical factor in an active angel network as they usually account for 20-30% of angel network membership.

**Syndication and angel groups:** Forming smaller syndicates within angel networks can increase deal activity by simplifying coordination and fostering trust. Angels can extend their own trusted contacts through the angel network to invest in a larger number of companies. Business angel networks increasingly facilitate angels to co-invest via syndicates to lower the risk for individual angels by enabling them to invest smaller amounts in more deals. This is also a valuable way of transferring know-how between new angels and more experienced investors who may take the role of “lead investor.” For instance, the Lagos Angel Network (LAN) encourages syndication within its network to increase deal activity and make collaboration between angels easier. As explained above, in syndication two to three individual angels come together and pool their funds to invest in larger deals facilitated by the angel network. Groups are an alternative to BANs: they represent a collection of angels who habitually invest together, using common processes and legal documentation.

**Quality of mentorship:** Non-financial portfolio support, such as mentorship and access to angels’ business networks, is key to creating potential returns from portfolio companies. The World Bank has linked the provision of such support to improved performance of early-stage enterprises: in a World Bank study of portfolio companies, those that received significant advisory support from their angel investors achieved returns of 3.7 times the original investment, compared with a multiple of 1.3 times for those with low participation by their mentors.<sup>31</sup>

The **Lagos Angel Network (LAN)** is a non-profit entity that brings together business angels in Nigeria to provide early-stage financing to local enterprises. Initially a member-run network, LAN has transitioned to support a full-time professional team that manages the activities and administration of the network.

The network has strict membership fees and qualification requirements, including a minimum annual investment of NGN 1,000,000 (approximately USD 5,000 per year) over five years.<sup>32</sup> These stringent requirements ensure that only the most committed and capable angels join the network and incentivize members to actively participate. Even with these restrictions, however, the network has grown to approximately 70 members, who invest in four to six companies each year.

**Different tiers of membership:** Angels may have a differing ability to contribute membership fees. When increasing the membership base, set clear guidelines and ensure solid communication around membership tiers and rewards at different levels (e.g. first access to deals for higher membership tiers), so all types of members remain involved and part of the network in the long run. This can lead to increased and more diverse membership, with fees collected from the entire network: increased diversity of deal sizes, increased number of deals, increased turnover and employee base of invested companies.

### 4.3.3 Support of public and development institutions

**Financial support of angel networks:** To keep start-up costs low, angel networks have traditionally relied on member-led management models in the early days of a network, with members contributing time and resources. Business angel networks often need additional, external funding and support to demonstrate the benefits they provide sufficiently enough to attract both local angel investors as members and high-quality early-stage enterprises seeking investment. Areas in which policy-makers have acted to develop the angel financing market include providing support directly to national angel associations or federations, as well as networks and groups to help defray operating expenses. National angel associations and networks help raise awareness about angel investment, which is a critical step in building the market. Xcala<sup>33</sup>, an initiative of the Inter-American Development Bank in Latin America and the Caribbean, has been one ecosystem player helping to address some of these hurdles in developing new angel investment networks by providing training and financial support directly to BANs.

31 InfoDev, Early Stage Innovation Financing Facility, Discussion Draft (Washington, DC: World Bank, 2014). Available at: <http://www.eban.org/wp-content/uploads/2014/09/5.-Early-Stage-Innovation-Financing-ESIF-Facility-Document.pdf>.

32 Source: <http://www.lagosangelnetwork.net/membership/angels/>.

33 Source: <http://xcala.org/en/>

**Tax incentive programs:** Focus on income tax deduction for investments made, to encourage the transfer of investment from relatively safe investments in, say, real estate to the more high-risk and illiquid assets represented by angel investment in early-stage enterprises. Tax incentive programs are aimed at increasing the number of angel investors, as well as addressing tax asymmetries in profits and losses. Countries such as the United Kingdom, with long-standing angel tax incentive programs, cite the impact the programs have had on increasing angel investment activity, which in turn creates jobs and economic growth (and therefore greater tax returns). Even the USA, which can be seen as the most developed capital market in the world, has over 30 states with programs focused on incentivizing individuals to become angel investors. Tax incentives can be used to encourage HNWIs to invest their capital in their own country. Otherwise, high net worth individuals may be encouraged to make angel investments, but they may venture outside their own country to seek high-quality investment deals globally. However, tax incentives can be difficult to structure and must be targeted appropriately (they can only be fully effective within a functioning investment ecosystem), especially if we want to avoid the risk of spoiling the market, making it important to monitor and evaluate the impact of tax incentives.

**Skills development:** While most policies have focused on the supply side, other policy actions have focused on demand-side actions, which may help to increase the quality and sourcing of deals. Developing human capability, whether on the investor or the entrepreneur side, is critical.

**Co-investment:** which can be provided either by the government or private investors - can leverage the angels' investments or allow them to benefit from higher returns. A range of alternative structures for government-backed angel co-investment funds are available and should be implemented to provide additional capacity to this asset stage. Such funds can also ensure that there is no "talent flight", with companies receiving initial angel investing locally and then quickly moving to other geographies to secure follow-on funding. Collaboration with funds that can certify the angels alongside whom the fund will co-invest, while investment decisions remain with the angel investors, can lead to increased deal activity, increased amounts of co-funding raised by companies and increases in turnover and the employee base of the companies invested in. But this requires experienced angels who have managed a few successful exits and the supervision of a professional fund manager.

## 4.4 Conclusions

Business angel networks face many challenges in low and middle-income countries, where this sector is still in its infancy. Even though the value of angel investing - including its position in the early-stage enterprise finance ecosystem - is gaining recognition, there is still a need to educate stakeholders involved in angel investing activities: (i) angels on their role beyond providing capital, the risk and reward balance of angel investing activities and the need to reserve sufficient capital for follow-on investments, (ii) entrepreneurs on the relationship with this unique investor profile, (iii) ecosystem players such as accelerators, so they can help entrepreneurs better understand their financial needs and build businesses that are attractive and ready to receive angel investment. We have noted a number of interesting emerging trends that all demonstrate the value of operating in a more connected and conducive ecosystem.

Due to the limited track record of business angel network activities in developing countries and emerging markets, there are still key questions regarding the optimal operating model and sustainability of these networks, which today relies mainly on membership fees. Although we identified a trend towards more professionally managed angel networks, this operating model needs further refinement to test and validate ways to increase and diversify revenues through the monetization of added value services to members and ecosystem stakeholders, while reducing costs by operating in a smart way, building on existing resources.



# 5. Early-stage Venture Capital (VC) funds

## 5.1 Overview

### 5.1.1 Definition

Private equity encompasses a wide range of strategies, including growth capital, leveraged buyout and venture capital (VC). Venture capital is a subset of private equity and refers to investing specifically in early-stage companies. In their portfolio build up, some VCs focus on very early-stage companies, including companies that are still in proof of concept or pre-revenue stages. Other VCs tend to focus on slightly later stage companies and expansion financing, or even growth and acquisition financing, although the latter is typically more referred to as “private equity”.

A venture capital fund is an investment vehicle managed by a fund manager (also called “General Partner” or GP), who invests in companies with the intention of exiting each investment after (typically) three to seven years. The fund’s capital is provided by a number of investors in the fund (also called Limited Partners or LPs). The fund’s goal is to return the original capital plus a certain financial return to the LPs, usually after an agreed period, typically 10 years. VCs mainly use equity instruments, with the goal of exiting their successful participations at a value of multiple times the initial investment<sup>34</sup>.

VC is the riskiest type of PE investment strategy because it is about assessing the entrepreneur and the business fundamentals first, rather than focusing on the (frequently nonexistent) track record. This is why VC funds tend to invest in innovative, high-risk companies with high growth potential. But the number of these investments that fail is still higher than those that succeed. As a consequence, VC funds maintain very close relationships with their investee companies and add value by providing support in the areas of strategy, operations, marketing and human resources, legal and financial management. VC funds also invest in small tickets and take a phased approach, entailing that they make larger follow-on investments in successful companies to accompany their growth paths and to maintain a sufficiently large share in the company at exit.

Total VC investments in low and middle-income countries totaled USD 9.8 billion in the year 2013<sup>35</sup>, corresponding to 20.8% of venture capital investments worldwide, from only 2.4% in the year 2000, reflecting a strong growth in venture capital activity in low and middle-income countries. Over the past 10 years, managers located in low and middle-income countries have set up nearly 600 venture capital funds and secured an aggregate USD 47 billion in capital, which equates to 16% of capital raised by firms based in North America and 43% in Europe.

Level of VC funds fundraising in emerging markets in Q2 2018

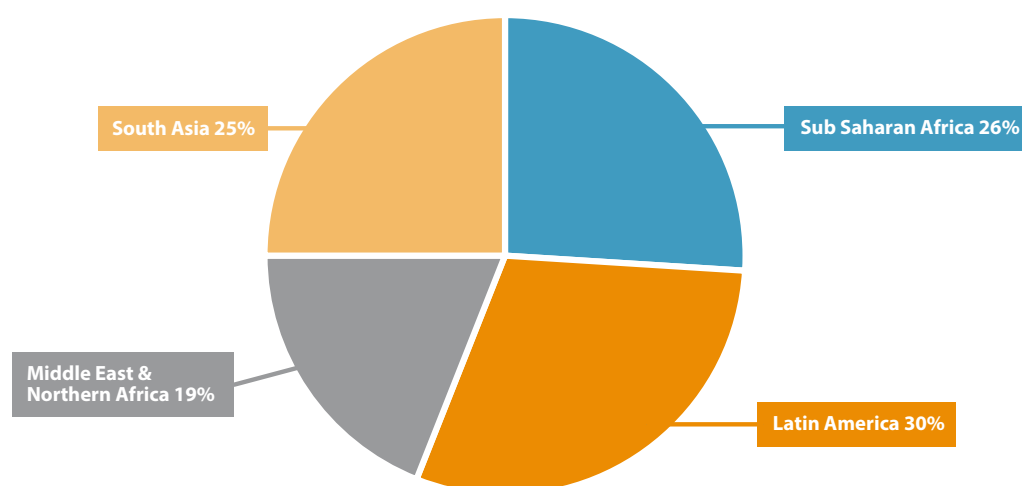


Figure 11. Value Walk Q2 2018 VC fundraising data in emerging markets

34 Which can be anywhere from >3x, >10x or even >20x, depending on factors such as sector, focus and objective of the fund. Many publicly funded venture capital funds do not even target positive returns, which means that the fund slowly depletes its capital under management. The main objective of these funds is to stimulate innovation and entrepreneurship, which is seen as a common good and as such it is justified to invest public funds in a fund with negative returns.

35 Source: <https://www.valuwalk.com/2018/05/venture-capital-in-emerging-markets>

At the start of Q2 2018, 190 venture capital funds based in emerging regions were fundraising, with the largest proportion (30%) being raised by managers located in Latin America, followed by firms based in Sub-Saharan Africa (26%), South Asia (25%) and the MENA region (19%).

### 5.1.2 Why early-stage VC funds are initiated

Venture capital is generally seen as a proven mechanism for providing capital to high-risk, high-touch, early-stage enterprises. The venture capital industry, which is most advanced in the USA, boasts that many of today's successful tech companies, such as Apple, Microsoft, Facebook, Amazon, Google and Intel have all been backed by VC funds at some point in their growth path. In these cases, part of the value creation is a result of the sophisticated mechanisms that create alignment between investors (LPs), investees and VC fund managers. VC fund management teams consist of high-caliber investment professionals who are very selective in terms of the companies they support. Companies that do receive investment get a lot of attention and support. VC managers devote a significant amount of support time and effort to help the companies they invest in to grow. Furthermore, contracts are usually set up in such a way that the management teams of investee companies have strong financial incentives to sell their companies to larger investors or strategic buyers within a few years after receiving investment from the VC. VC Fund managers select, structure and manage their investments taking into account this exit a few years later.

VC fund managers are also incentivized to commit themselves to maximizing long-term financial returns to their investors. A common structure is that of the "2/20 model", which is the pure "Silicon Valley" VC model. In this structure, a fund management team has a management fee that results in salaries that are relatively low compared with other salaries for high caliber people in the financial sector. The standard management fee percentage for commercial funds (in high-income countries) is 2%. Key members of the fund management team are required to invest in the fund themselves, usually something in the range of 1% of the fund size but are entitled to 20% of the fund's profits above a certain minimum return (called the "hurdle rate"). This variable remuneration, or "carried interest", can be a significant financial compensation for fund managers, especially when a VC fund is large and provided that the fund is successful. In emerging markets, we have noted that this pure VC model has to be tweaked to fit the operating market conditions: the management fee may have to be in the range of 2-3%, the carry might be lower than 20% and some do not have hurdle rate or small rates in the range of 6-10%.

LPs and fund managers have various reasons to initiate and invest in VC funds. For commercial investors in high-income countries, VC has to be a proven, though high-risk, asset class with relatively high volatility between the financial returns of different VC funds. However, in spite of the financially-driven incentive mechanisms described above based on the "traditional" VC model, not all VC firms are primarily financially driven. A major distinction needs to be made between "independent" or "captive" VC firms. Independent VC firms are run by private individuals, and raise capital from various outside sources, normally institutional sources and on a commercial basis. A captive VC firm is a subsidiary of a financial institution or a corporate investing on behalf of its parent group or its clients. When this is a corporate, the venture capital firm is a subsidiary of a corporate and seeks to invest in technologies or companies of strategic or operational importance to that particular corporate.

One specific type of venture capital firm is those affiliated to governments, local authorities, state enterprises or international development institutions with a mission to promote particular policies, such as innovation, regional development, employment, etc. For instance, World Bank organization the International Finance Corporation (IFC) is a top investor in every emerging region, with 91 known venture capital commitments to funds operated out of emerging markets. The majority (70%) of the most active investors in low and middle-income countries are government agencies<sup>36</sup>.

36 Source: <https://www.weforum.org/agenda/2015/07/which-countries-have-the-most-venture-capital-investments/>

### 5.1.3 Key operational characteristics of early-stage VC funds

|   |  |
|---|--|
| <p><b>Objective</b></p>                        | <ul style="list-style-type: none"> <li>• Provide a combination of <b>finance</b> and <b>support</b> to fast-growing early-stage companies, with the objective of exiting within a few years.</li> <li>• Providing LPs with a <b>targeted financial returns</b> and/or <b>impact</b> realized through the fund's investments.</li> <li>• <b>Indirect goals</b> can be to support entrepreneurship, innovation, new technologies, economic development.</li> </ul>   |
| <p><b>Investment Strategy</b></p>              | <ul style="list-style-type: none"> <li>• <b>Phased approach:</b> Given the expectation that many investments will fail, early-stage VCs typically place numerous smaller first bets on portfolio companies, while reserving a portion of investment capital for follow-on investments to “double-down” on the successful enterprises, in a phased investment approach.</li> <li>• <b>Ticket sizes:</b> Average ticket sizes over the multiple phases range from USD 300,000 to USD 500,000 but may be as low as USD 20,000 or as high as USD 5 million and above.</li> <li>• <b>Investment instruments:</b> Predominantly equity and milestone-linked convertible debt notes, although some funds do use other structures, such as revenue-share arrangements. This can be a helpful strategy in low and middle-income countries with underdeveloped financial sectors and with limited exit options. Even in the case of debt-based instruments risk is significant, as the companies are often not yet cash positive.</li> </ul>   |
| <p><b>Non-financial support</b></p>           | <ul style="list-style-type: none"> <li>• <b>Portfolio support:</b> The funds work closely with portfolio companies, offering strategic and operational support ranging from business model articulation, growth strategy support, operating systems, preparation for and subsequent capital raising support. This is done with a view to add value to the investment and prepare for a potential exit to a follow-on private equity fund or a strategic investor.</li> </ul>   |
| <p><b>Team &amp; organization</b></p>        | <ul style="list-style-type: none"> <li>• <b>Team size:</b> Early-stage VCs with initial AUM of USD 10-20 million often have lean teams of 4-5 people supporting an average of 25 portfolio companies.</li> <li>• <b>Team composition:</b> On average, approximately 40-50% are investment professionals, 20-30% are portfolio support staff, and 20-40% are management and back-office support.</li> <li>• <b>Team backgrounds:</b> Most investment and portfolio support professionals often have finance, consulting backgrounds or previous entrepreneurial experience.</li> <li>• <b>Location:</b> The quality of both quantitative and qualitative information necessary to evaluate the financing of an early-stage business is so limited that VCs have to resort to spatial proximity and local expertise or knowledge to gather the information required to mitigate their significant financial risk. Proximity between the VC team and their investees is also necessary for post-investment monitoring and proper portfolio management, to facilitate frequent and open interaction between the VC and the entrepreneur.</li> </ul>  |
| <p><b>Governance &amp; organization</b></p>  | <ul style="list-style-type: none"> <li>• <b>Early-stage VC fund management teams</b> are responsible for sourcing and screening leads, negotiating terms with investees, conducting due diligence, closing transactions and monitoring and reporting on the investees' performance.</li> <li>• A fund's <b>Investment Committee</b> gives final approval to transactions prepared by the investment team. Investment Committees are independent of the fund's management team to create a system of checks and balances. Investment committee members are often representatives of the fund's main investors or people with specific expertise relevant to the fund.</li> <li>• Many VC firms also have <b>Advisory Committees</b> to advise on strategic and operational matters and investment policy related matters, such as interpretation of the fund's investment criteria.</li> <li>• Reports on the overall progress and performance of a fund and its management are discussed in <b>LP meetings</b>, which usually take place once or twice a year and in which all LPs are present or represented.</li> <li>• <b>Legal structure:</b> Limited life funds are most common, and range between 5-10 years.</li> </ul> |



### 5.1.4 Specific challenges and needs of early-stage VC funds in developing countries

Compared with VC firms in high-income countries, VC firms in low and middle-income countries often operate in environments with relatively fewer investment opportunities, fewer exit options, and often in environments with weaker legal systems and sometimes politically less stable and financially more volatile environments. At the same time, many of these countries are also dynamic, fast-growing economies, with rapidly emerging middle classes, and many companies have been able to scale up quickly as they have been able to find new ways to serve the specific needs of consumers in these markets. And, for VC funds themselves, many markets offer the additional advantage of there being fewer VC firms they have to compete with to pick up the best companies.

A lot of VC firms in low and middle-income countries have a strategy of “replicate and adapt”, which means that they often focus on companies with business models that have been proven elsewhere, and then replicated and adapted to an emerging markets context. Such businesses constitute the bulk of venture capital in low and middle-income countries to date. While most businesses in the proven models segment serve middle-income populations and above, there is a growing subset that serves low and lower-middle-income populations.

The paper “Determinants of venture capital investments in emerging markets”<sup>37</sup>, describes a number of factors that have a positive impact on venture capital investment success. The first is that of a cultural distance between the country of the venture capitalist and the portfolio company. The paper shows that cultural differences promote ex ante screening, which in turn leads to improved venture capital performance. Furthermore, a developed stock market is found to have positive impact on venture capital performance. The paper also noted that that having local co-investors increases the likelihood of success. A brief analysis focusing specifically on determinants in emerging markets found that the legal index, cultural distance and stock market development are significant predictors of venture capital success for both developed and emerging economies.

## 5.2 The economics of an archetypical early-stage VC Fund

### 5.2.1 Fund performance dynamics

Since the companies that early-stage VCs invest in are generally young, high-risk companies, many of its portfolio companies will be unsuccessful. A fund’s investment returns are driven by a few high-performing investments that make up for the losses, pay for the costs of operating the fund and generate profit on top of that in order to generate positive net returns for the fund’s investors. In some cases, this can be quite extreme, with only 10% of the investments accounting for over 90% of the returns. This mechanism makes financial performance of VC funds relatively volatile and unpredictable, and it also illustrates the importance of a VC fund having enough scale and enough deals in the fund to diversify portfolio risk.

Another important notion is the fact that the fund’s actual “realized” financial returns are only known at the end of the life of the fund. Especially when the main profits are expected to come from a few exits, it can be difficult to estimate what the eventual performance of the fund will be during most of the fund’s lifetime. This is one of the key factors that make it difficult to assess the financial performance of VC firms in low and middle-income countries, as most of the currently active funds were set up in the last decade and there are still very few funds that can actually report their realized cash returns at this point in time.

37 Groh, Alexander Peter & Wallmeroth, Johannes, 2016. “Determinants of venture capital investments in emerging markets,” *Emerging Markets Review*, Elsevier, vol. 29(C), pages 104-132.

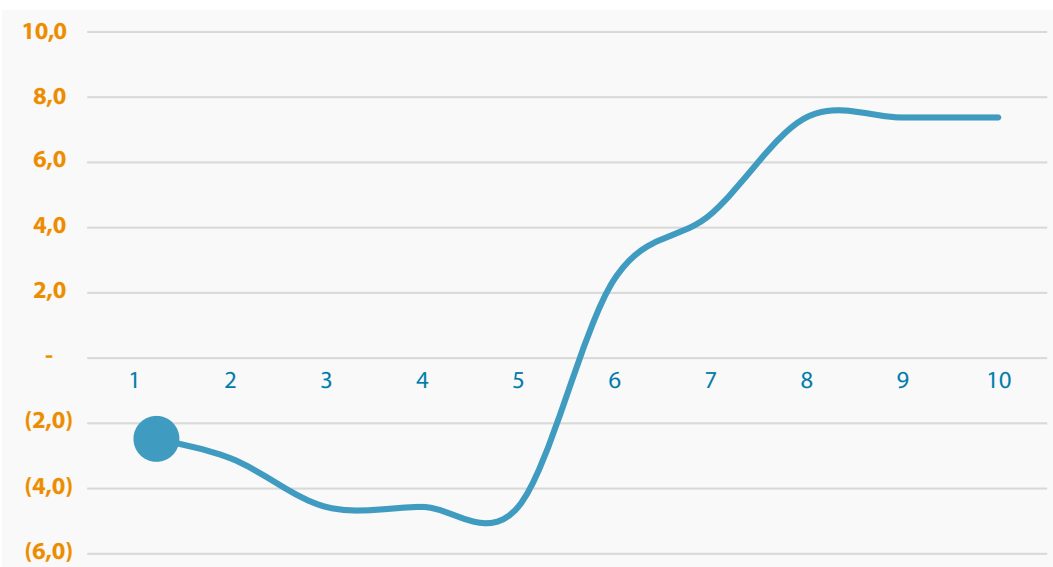


Figure 12. Illustrative representation of VC fund J-curve

Unrealized investment returns and thus performance based on “accounting profit” rather than on hard cash returns evolve over the lifetime of the fund. This is a concept known as the J-curve (shown in the figure above). The J-curve illustrates that at the beginning of the fund its value drops below the original capital invested, as the fund “consumes” fees and no portfolio companies have seen an increase in value. Late in the life of the fund, ideally the “winners” in the portfolio are valued significantly above their initial costs give the fund a positive overall internal rate of return (IRR).

## 5.2.2 Financial characteristics of early-stage VC funds

|   |  |
|---|--|
| <p><b>Revenue model and cost structure for fund managers</b></p> <p>%</p> | <ul style="list-style-type: none"> <li>• <b>Assets under management (AUM):</b> Starting around USD 10 million to USD 20 million for smaller, often non-commercial structures, while fully commercial VC funds often require sizes of USD 50-100 million to execute their investment strategy properly.</li> <li>• <b>Management fees / Costs:</b> If VC vehicles are set up as funds, then management fees are the main source of revenue for the managers of these funds. Such fees typically range between 2–3% of AuM. Some VCs, especially smaller ones, are set up as investment companies for which costs are recognized directly on the company’s balance sheet. Total operating costs over the life of the fund can vary considerably and can be between 3% and over 15% of AuM over the life of the fund.</li> <li>• <b>Carried interest:</b> Managers also participate in investor returns, typically receiving carried interest of 10-20% above a hurdle rate of 0-8%.</li> <li>• <b>TA Facilities:</b> Some VCs can make use of grant funding to support operating expenditure and technical assistance to their investees.</li> </ul> |
| <p><b>Fund economics</b></p> <p>↑</p>                                     | <ul style="list-style-type: none"> <li>• <b>Valuation increase:</b> Successful portfolio companies (which, again, make up a minority of a portfolio) can achieve significant valuation growth over the life of a fund. As a result, valuation increases for such portfolio companies at exit can be a high multiple of initial investments.</li> <li>• <b>Internal rate of return (IRR):</b> Commercial VC funds expect to realize a gross IRR of 18-30%; net returns to investors after fees can be significantly lower, depending on factors such as the size of the fund and currency fluctuations. Realized net returns to investors on their investments in VC funds in low and middle-income countries vary significantly, from losing most of the fund’s capital to achieving net IRRs of 20% and more. However, returns towards the high end of this range are rare, and even high-performing smaller funds are generally expected to generate returns of 0 – 10% to LPs, who are mainly interested in the developmental impact of VC funds.</li> </ul>  |

### 5.2.3 An archetypical early-stage VC fund cash flow model

In order to illustrate the workings of an archetypical VC fund, we present an illustrative financial model we have developed, including assumptions derived from detailed interviews of the VC funds we studied, as well as a literature review and consultations with experts, as described in the methodology section. The assumptions in the model do not refer to one specific existing VC fund, nor are they a statistical average of the data of the VC funds we studied. So the purpose is to illustrate the underlying concept, and not to create an industry benchmark.

In order to show the impact of the J curve of a VC fund, as well as the effects of exits on the fund performance, we show the dynamics of a 10-year, closed-end VC fund that only invests through equity participations. Note that the model does not assume any taxes, and also a number of details, such as dividend payments from investees, board fees, etc. are left outside the model (the full model is included as annex 7).

#### Key assumptions

| Metric                       | Comments  |
|------------------------------|---|
| <b>Fund size</b>             | We observe an increasing trend of closing VC funds at less than USD 20 million (in our model, USD 13 million)   |
| <b>Fund duration</b>         | The investment phase during which investments are made into new companies is followed by a portfolio monitoring phase, during which the fund manager helps their investee companies to grow, which may include “doubling-down” or “tripling-down”, which means that high-performing companies receive a second or third round of (usually larger) investment, and an exit phase, during which it exits its investments (our model depicts a 10-year closed-end fund with an investment period of five years).   |
| <b>Management fee</b>        | The fund’s operating budget is a function of the percentage of the total AUM (in our model 2.5%).   |
| <b>Average ticket sizes</b>  | Following the phased approach mentioned above, we distinguish three investment rounds, (with the following ticket sizes in our model: <ul style="list-style-type: none"> <li>• Seed investments: USD 40,000</li> <li>• Round 1 investments: USD 200,000</li> </ul> Round 2 investments: USD 500,000   |
| <b>Deals closed</b>          | Still in line with this phased approach, from the initial companies invested in only the subset of the most highly performing companies will receive one to two additional rounds of (larger) financing, which means that the number of deals closed will be bigger than the number of companies invested in (in our model, 75% of companies receive follow-on funding from one phase to another).  |
| <b>Portfolio performance</b> | Although projecting the IRRs of individual deals at the moment of investment is an “educated guessing game”, VCs will conduct thorough analysis and scrutinize the company’s business plan and financial projections and form their own views on them. VC firms will generally target and structure each investment so that it could return 3-10 times the original investment amount if the investor’s best guess were to materialize, knowing that only a few investments will achieve this (or an even better performance). Early-stage VCs construct financial models projecting the performance of their own fund based on assumptions around the proportion of their portfolio companies that will fail and become write-offs, and those that will perform moderately, or perform extremely well (in our model, we assumed that out of the 20 companies the fund invested in (the seed investments), five are successful exits, the remaining 15 companies are complete write-offs: none of the capital invested is returned to the VC funds. |

In practice, the investment speed in the first years depends on the fund management team’s networking and pipeline generation efforts before starting. In some cases, funds have already lined up numerous potential deals before or during their fund-raising process, and once they raised their fund and start operations they can quickly close deals. However, sometimes the opposite is the case, and fund managers have very little deal prospect identification before they start.

This is especially the case with fund managers from high-income countries who only move “overseas” (e.g. to the low or middle-income country where their fund will be based) after fund raising. Many such fund management teams find that it takes them much longer than expected to find and close good deals, and often the first deals are of lower quality, due to the pressure LPs put on the fund management team to close deals while they do not yet know the market well.

### Fund performance forecast

| Metric   | Comments  |
|--|---|
| <b>Portfolio returns of the fund (gross returns)</b> | These are the fund’s returns before the costs of operating the fund (which consists of management fees and operating costs). This is basically calculated as the internal rate of return of all cash flows from the fund into investee companies (modeled as cash outflows from the perspective of the fund) and the cash inflows from the investee companies into the fund (cash inflows). The cash flows are a function of the invested amounts, targeted returns at individual deal level, and the portfolio performance as modeled using the four portfolio performance categories specified above (In our model, the fund’s gross returns or portfolio IRR are 15%). The capital gain (cash returned minus cash invested) generated by the portfolio is USD 6.2 million. |
| <b>Net returns of the fund (to LPs)</b>              | These can be calculated by working out the IRR of all cash flows from and to the LPs (In our model it is assumed that the amounts required to cover the investments and the management fees are drawn from the LPs each year). As of year six, the fund makes no new investments in companies, while in that same year investments made in year one are being returned with a profit. The surplus of these cash flows (minus the management fee) is returned to LPs. The net returns or 10-year IRR of this fund is 5%. The net capital gain, which is the amount returned to LPs less the amount invested by LPs (and equals portfolio capital gain less management fees less fund set-up costs), is USD 2.2 million).   |



Figure 13. VC fund GP illustrative annual operating costs

#### GP annual budget

- The annual management fee is intended to cover:
  - Primarily team costs (in our model, given the amount of deals to be handled by this fund, a team of four investment staff would be appropriate, i.e. a ratio of one staff member to five companies and one support staff member);
  - Overhead costs, including accounting, legal, office costs and travel, marketing and communication-related costs.
- The GP also has to plan for **fund set-up expenses**, which are the costs of fund raising, legal, financial and tax advice, registration, marketing, etc. Commonly, the fund management team may (pre-) fund a part of these costs from their own resources or through grants and/or may have them paid (retroactively) out of the fund (e.g. by the investors’ contribution to the fund).

#### 5.2.4 Fund investor versus fund manager economics

For early-stage VC funds, it is important to distinguish between the economics for the fund and its investors on the one hand, and those for the managers of such funds. The principal difference is that funds are supposed to deliver a risk-adjusted return to their investors, which is typically in the double-digit IRR range, while managers are supposed to charge a fee that covers their costs and

allows them to operate sustainably, but not derive a significant profit at the expense of the fund return. This is also the reason why fund managers are required to invest in the fund and why they receive carry, as otherwise the incentives between fund investors and fund managers would be misaligned. Theoretically, managers could also target higher gross returns to maintain LP net returns at higher management fees. In practice, this may not be realistic in the emerging market environments in which VC funds operate, although some managers have strategies revolving around the higher IRRs that early-stage companies offer (IRRs typically drop off as companies mature).

In a nutshell, small ticket sizes and/or fund sizes lead to disproportionately high necessary management fees, which lead to insufficient returns to investors. This in turn means that very early-stage companies, although a desirable target from an impact point of view, may simply not be attainable for commercially-oriented VC funds, unless their growth prospects are

so explosive that large follow-on investments are possible. Conversely, this means that in impact-first VC funds focusing on risky early-stage enterprises and smaller ticket sizes, GPs and LPs will have to be open to paying higher management fees and accept significantly lower LP net returns.

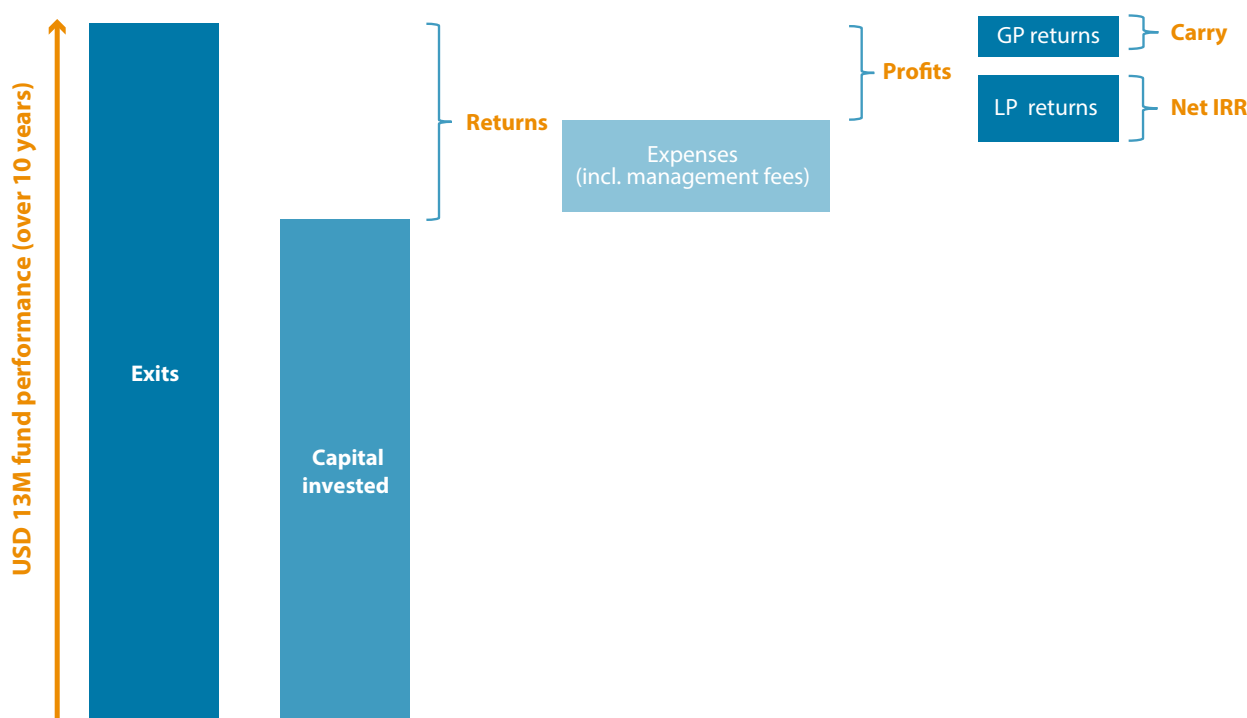


Figure 14. Illustrative VC fund performance outcomes over ten years

## 5.3 How early-stage VC funds are improving effectiveness and financial performance

In a nutshell, an early-stage VC fund operating in emerging markets must manage risk, return and impact. Articulating these trade-offs is a key factor of success for early-stage VC funds. To address some of the key challenges of operating a VC in low and middle-income countries, we introduce several market practices and initiatives, identified through our research and expert consultations. These can be seen as key success factors or at the very least factors that have the potential to improve the efficiency and financial performance of a VC fund.

### 5.3.1 Operational efficiency

**Fast screening and due diligence:** Good VC managers get to “no” fast and avoid spending time with companies that are unlikely to pass investment committee review. Early-stage VCs in emerging markets face the challenge of disproportionately high sourcing and due diligence costs in relation to the relatively small ticket sizes at which they invest. They must often spend time and resources conducting initial due diligence on large numbers of early-stage enterprises to find one investment – the models that we studied reviewed an average of over 60 enterprises for each investment made. Getting to “no” fast allows funds to reduce the time and resources spent on initial due diligence and lower average transaction costs.

**Sector focus:** The low lead-to-deal conversion rate and the high-touch nature of VC makes the investment process very time consuming. Furthermore, VC firms that have no specific sector focus need to invest time to understand the market context of an investment proposal in a new sector or rely on external experts to evaluate business plans. VC firms usually keep a list of experts they can consult for specific topics. Focusing on a limited number of sectors has disadvantages, as it limits the number of available deals. However, sector focus allows VC funds to evaluate deals much more quickly. Furthermore, it allows funds to pro-actively search for investments. And by specializing in limited sectors, VC fund managers also build up knowledge that is valuable to investee companies, making the VC fund a more attractive partner.

**Acción Venture Lab** provides capital and technical assistance to innovative early-stage enterprises in fintech across the globe. It is often the first institutional investor into its portfolio, placing between USD 300,000 – USD 500,000 in equity in its initial investment (with the ability to mobilize follow-on capital in later rounds). To date, Venture Lab has deployed nearly USD 20 million across 39 early-stage enterprises operating in more than 30 countries. It combines capital with hands-on strategic and operational portfolio support both at and below the board level. Acción Venture Lab attributes its success to a deep focus on the financial services and fintech sectors, which allows it to leverage learning across the portfolio for sourcing and due diligence, as well as portfolio support. Additionally, it is quick to deploy capital to its investees, with a due diligence process that averages only three months and is based on a well-structured process and standardized templates.

### 5.3.2 Non-financial support

**Two-tiered portfolio support:** Portfolio companies often lack sufficient human talent. This is why VC investors frequently combine two-tiers of support, with both board-level involvement and operational-level involvement. Both levels of support are often provided using management staff and will make use, for instance, of a specific background in management consulting. Use of third-party technical assistance providers is common in situations where the expertise required is not available in-house. However, too much free support can create perverse incentives – it is critical that portfolio companies have “skin in the game” when paying for support costs, to ensure they see value in these offerings.

**Ecosystem partnerships & networks:** The most successful early-stage VC funds also have an extensive ecosystem of partnerships and networks with other investors, accelerators, entrepreneurs, and professional service providers. These networks can help source high-quality early-stage enterprises, provide support for existing portfolio companies, and potentially provide links to additional follow-on investment. Sector or geography focus and local team presence is helpful in building strong networks.

### 5.3.3 Portfolio strategy

**Making no investment is better than making a bad investment:** An important lesson from a number of successful VC funds is that it takes time to really get to know the specific market well and build the knowledge to thoroughly evaluate deals, but also to develop networks to verify the professional reputations and business ethics of management teams of the companies they invest in. Many VC firms have spent a long time in fund raising before they can finally set up operations and start managing their fund. LPs that commit their capital have bought into a vision. One prevalent phenomenon is that LP representatives often also want to show results to their superiors, and push GPs to close deals (too) soon after commencing operations. As a result of this pressure to close deals in a certain time period, many VC fund managers are less critical with respect to their first few deals, and these first few investments are often the worst performing deals in a portfolio. A number of successful VCs have resisted this pressure from LPs, and deliberately waited to do their first deal(s) until after they felt very comfortable with a particular deal.

**Staged investment approach:** VC funds need to reserve a sufficient portion of their capital for follow-on investments. This helps funds spread their bets across many early-stage enterprises through smaller initial ticket sizes, weed out unsuccessful enterprises quickly, and then double-down on successful enterprises through follow-on investments. This approach allows funds to maximize returns on the most successful investments, by increasing the fund’s stakes in these enterprises and ensuring that the enterprises have access to the capital needed for continued growth without spending scarce resources on fundraising from a new investor.

**Novastar Ventures** is based in Kenya and is pioneering the VC investment model in the East Africa region. Through the USD 80 million Novastar Ventures East Africa Fund I, Novastar invests in start-ups with disruptive business models that serve low-income households with high-quality goods and services.

By taking a “fail early and cheaply approach”, Novastar Ventures aims to catalyze innovation, entrepreneurship and investment activities in East Africa. Given the very early-stage of development of the businesses Novastar engages with, scrutiny is more on entrepreneur capability than the initial business plan. With this in mind, the fund takes small initial equity stakes in several very early-stage businesses in order to identify the exceptional entrepreneurs who are designing and executing innovative business models to profitably serve East Africa’s aspiring mass market. Novastar Ventures is “prepared to invest as little as USD 100,000 in an unproven business model with high potential”, as long as the entrepreneur demonstrates entrepreneurial character, capacity and ambition. The businesses that do not demonstrate sufficient traction with the small initial investment “fail early and cheaply”. They benefit from a number of useful lessons from the investment, without consuming large amounts of investor capital. While for the businesses that do show promise, the fund is able to follow the growth trajectory of the business through multiple capital rounds, with up to USD 6 million tailored to the company’s stages of development<sup>38</sup>.

**Adopt a portfolio strategy that blends early-stage with later-stage investments:** As our economic analysis shows, it may be not be sustainable to only invest in very early-stage enterprises in emerging markets. Funds can allocate parts of their fund to investments in early-stage enterprises with follow-ons, as well as later-stage enterprises at larger ticket sizes.

**Reserving enough cash for follow-on investments:** Enterprises often underestimate how much cash they will need along their growth path. VCs should therefore reserve enough capital for follow-on investments. Established VC funds hold back roughly two-thirds of the fund for “reserves”. For example, in reality a USD 25 million fund may mean that only USD 10 million is earmarked for initial investments in new companies. The rest will be held back to double down on winners, to extend the runway of companies that are doing well and, sometimes, to bail out unsuccessful companies.

Aavishkaar pioneered the venture capital methodology to serve low-income market segments in India. It was one of the first funds to look for investment opportunities in rural areas and focuses on intensive handholding in the first 1-2 years after investment. The fund is the first institutional investor in 92% of its early-stage portfolio companies.<sup>39</sup>

Aavishkaar currently has approximately USD 200 million in AuM over a number of different VC funds. The firm began investing with low ticket-size deals averaging USD 200,000 to USD 300,000, but the average investment amount has grown over time, to USD 7 million for their fourth fund. This increase has allowed Aavishkaar to provide more follow-on capital to portfolio companies but is also an adaptation of its business model to the increased demand from businesses that are rapidly scaling in India. Aavishkaar believes this is driven by the increased availability of high-quality talent with a good understanding of investor expectations.<sup>40</sup> Some of Aavishkaar’s portfolio companies have recorded tremendous growth and have collectively raised more than USD 450 million in follow-on funding from external investors. This means that for every USD 1 Aavishkaar has invested, companies have raised 4 times this in other capital.<sup>41</sup> With its sixth fund, Aavishkaar Bharat Fund (which reached a first close in November 2017), Aavishkaar is deploying capital in a very strategic manner to enable it to continue to participate in early-stage businesses: Aavishkaar the portfolio to comprise 50% early-stage companies and 50% more mature companies.

### 5.3.4 Exit strategy

**Focus on strategic acquisitions for exits:** exits through public stock offerings are extremely rare, especially in emerging markets. As a result, the best avenue for early-stage VCs to achieve an exit from their investments in emerging markets is through the strategic acquisition of their portfolio companies by a larger corporation or a private equity firm that is interested in companies that have been “de-risked” by VCs and can absorb significant amounts of capital. Good VC managers consider demand for specific sectors, business models, or innovations from potential acquirers when making

38 Source: <http://www.novastarventures.com/#about>

39 Source: Aavishkaar, Aavishkaar Impact Report, 2016, available at <https://www.aavishkaar.in/images/download/publications/Aavishkaar%20Impact%20Report%202016.pdf>

40 Idem

41 Idem

investment decisions, and actively cultivate their own LPs or relationships as potential strategic acquirers of their portfolio companies.

**Link early-stage VC funds to large debt facilities:** Why? Venture debt is an interesting yet underexplored instrument to provide non-dilutive growth capital to early-stage enterprises. Early-stage VC funds are not normally able to provide such debt themselves. What they can do is create venture debt facilities either as standalone funds or as “side-car vehicles” to their early-stage VC funds, i.e. accessible to the managers to extend debt to enterprises.

## 5.4 Conclusion

While it is comparatively easy to point to best practices and key success factors for operating early-stage VC funds sustainably in low and middle-income countries, a number of practical challenges remain. In particular, the trade-off between risks, impact, and returns described above is not always clear to potential LPs, who also at times use confusing language to describe what they are seeking. This often makes fundraising for these funds particularly challenging for the managers. As the above section on economics has shown, LP return expectations do not always align with what is possible given low levels of AUM and/or small ticket sizes.

Many existing funds are still pre-exit, which means that they have yet to realize the returns promised, and this raises the question of whether these funds that look successful early on will be seen as sustainable once they reach the end of their fund life. In addition, early-stage VC funds struggle with the undeveloped ecosystem, which can (i) make it challenging for their portfolio companies to get to the level where a VC fund can invest, or (ii) get follow-on capital that cannot be provided by the early-stage VC itself (such as venture debt, see below) and (iii) find suitable exit opportunities, especially in the case of closed-end funds with their clear exit timelines. Last but not least, early-stage VC managers often face challenges similar to those of their portfolio companies, such as accessing high-quality talent in emerging markets.





# 6. Supplemental, non-traditional lenders

## 6.1 Overview

### 6.1.1 Definition

The vast bulk of external financing for early-stage ventures (other than from friends and family) is provided by one or more of the aforementioned archetypes: accelerators, angel investors or early-stage venture capital funds. These three archetypes provide critical growth capital for permanent working capital, business development, research and capital expenditures. These three archetypes invariably use equity-like financial instruments, with convertible notes being considered an equity product.

There are also other sources of capital for early-stage ventures that might be called non-traditional (non-bank) and supplemental and are typically some type of debt product. These sources can be regarded as supplemental for two reasons. Firstly, they are often only available for early-stage ventures once they have been de-risked by a significant amount of capital from one of the three archetypes that has buttressed the company's balance sheet, and secondly, they do not always provide the lion's share of the capital required for the venture.

### 6.1.2 Asset or non-asset based? Participating or non-participating?

These sources of supplemental, non-traditional debt can be placed along two descriptive axes: (1) asset-based and non-asset-based loans, which are related to collateral requirements, and (2) participating or non-participating, which is related to whether or not the lender receives some additional return, or "kicker", from the success of the business. Of course, the less a lender requires collateral for its loan (non-asset based), the more they might require a "kicker" to compensate for greater risk due to the lack of collateral, everything else being equal. Any such kicker can take a number of forms, including stock warrants to the lender, conversion rights or some percentage of revenues or profit generated.

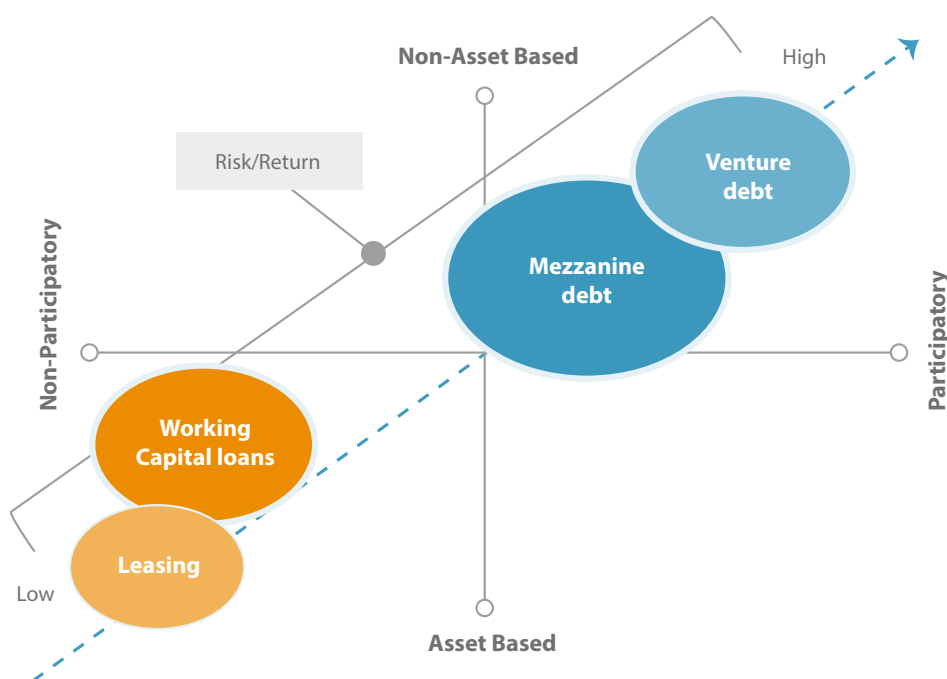


Figure 15. Illustrative representation of supplemental non-traditional debt provision

This non-traditional debt can be a very important source of capital for early-stage enterprises, serving those enterprises that require some additional capital but are not ready for a larger Series A round of equity or quasi-equity capital from a private equity firm, but also cannot access traditional commercial loans due to a lack of historical financial records, negative cash flow or insufficient collateral. Indeed, these elements result in a risk profile that is usually higher than is deemed acceptable by traditional commercial lenders. This is where the non-traditional lenders may step in with other types of financial solutions distinguished by the tenure of the financial instrument, cash flow timing, and collateral requirements, if any.

### 6.1.3 Asset-based, Non-participating lenders

- The two most common forms of asset-based, non-participating lenders are leasing companies and non-bank financial institutions (sometimes banks, actually) that provide working capital loans. Leasing companies provide financing of three to four years for machinery, equipment and the like. In this case, the machinery or equipment itself serves as the collateral; the debt provider purchases the asset and then leases it to the borrower. Ownership transfers to the borrower once the purchase price plus a leasing interest rate has been paid in full.
- Non-bank financial institutions, such as finance companies, can provide working capital loans, which typically have a term of less than one year and require collateral, such as trade accounts receivables and other types of expected future cash flows. In other words, the debt provider uses future expected revenue as collateral for loans, a type of collateral well suited to early-stage enterprises operating within established value chains, such as agriculture, manufacturing or trade. Such enterprises therefore have reliable and recurring revenue but require working capital to cover operating costs and pay suppliers while waiting for customers to pay invoices in the short term. Different techniques may be used, such as: purchase order financing, invoice discounting and factoring.
- Both leasing companies and asset-based working capital providers do not require an upside participation, as the leasing companies have the financed equipment as collateral and the working capital providers have a security interest in future cash flows and are more short-term in nature.

### 6.1.4 Non-asset based, participating lenders

- Venture debt is early-stage financing that is forward looking in that the credit approval is based on cash flow projections and the management team and can qualify companies with little history but significant potential. Venture debt has similarities to conventional convertible debt, but whereas conventional convertibles might be for 12 to 24 months, venture debt might be for four to five years. Repayments, collateralization and use of hybrid instruments are tailored to each deal. Venture debt is participatory through the use kickers, typically warrants and/or preferential conversion rights. It is not a widespread approach; it requires a skillset that combines venture capital and debt-related competencies and it can be costly as the approval criteria can be unconventional and deal terms are tailor-made. It may be complementary to equity financing. Venture debt gets its name from the fact that lenders are willing to accept more uncertainty and variability on future cash flow than providers of mezzanine debt, which is outlined below. As such, this would target earlier stage companies.
- For more mature early-stage companies, such as those with a firm revenue base and either at break-even or near break-even, mezzanine debt, also known as structured debt, is used by some impact funds to support a company's growth. A structured loan can have a term of four to seven years, together with a certain flexibility on principal payments, and have different combinations of interest rates and kickers. For example, a mezzanine loan could have a high fixed interest rate of 12 percent along with either warrants or conversion rights. Or, such a loan could have a lower fixed rate of, say, seven percent but with the lender receiving a certain percentage of ongoing revenues, perhaps with additional kickers in the form of warrants or conversion rights.
- Some non-traditional debt providers serve both early-stage enterprises and more mature, profitable SMEs. Adopting this type of portfolio diversification helps to mitigate the risk of serving early-stage enterprises.

Within the ecosystem of early-stage financing, supplemental, non-traditional debt providers can be a key link in the early-stage financing value chain, financing both those enterprises which have received investment from early-stage VCs or angels and require follow-on working capital to continue on their growth path. It can also suit those enterprises that are not (yet) ready for equity or quasi-equity investors, such as private equity funds, which might require a much larger investment size than required by the company.

## 6.2 Key factors of success

From our engagement with non-traditional debt providers and despite the wide variety of models, we identified certain key factors for success in both the core operating model and the investment process of these debt-financing providers.

**Repeat borrowers:** Serving existing clients with additional loan products enables providers to amortize the costs of building relationships and assessing credit over multiple transactions. Early-stage enterprises also benefit from the corresponding access to larger loan sizes offered by the same debt provider as they grow and see their capital needs change. This is certainly true for those asset-based lenders that can have high volume models, whose margins can be lower and for which maintaining low customer acquisition costs is critical.

**Credit-approval process:** Also related to keeping transaction costs low, successful non-traditional lenders use various mechanisms to ensure not only that they have an effective credit approval process, but an efficient one as well. These

mechanisms can include having a two-tiered credit approval process, in which individual staff and/or their supervisor screen out unqualified applicants and approve smaller loans, while a full credit committee approves larger ticket sizes and loans to higher risk borrowers.

**IntelleGrow** provides customized debt finance to SMEs in India. Established in 2012 as part of the Aavishkaar-Intellect Group, it focuses on six sectors among others: (1) agricultural supply chain, (2) clean energy, (3) education, (4) financial inclusion, (5) affordable healthcare, and (6) water sanitation & hygiene. IntelleGrow has developed quick and efficient processes to progress from origination to loan approval, disbursement & monitoring. Their credit-assessment process yields a decision in approximately 50–70-man days, requiring only 12 hours of executives' time, with two-day field audits performed by chartered accountants. Unlike other non-traditional debt providers we engaged with, IntelleGrow eschews hard collateral, focusing on business cash flows and management-team quality to gauge creditworthiness. Partnerships with ecosystem stakeholders help reduce the time and resources IntelleGrow needs for sourcing and credit assessment. For example, a warehouse lending partner provides a pool of potential clients; the startup ecosystem generates leads for loans to early stage companies, government information portals provide easy-to-access data on those potential clients; and bank partners share risk on joint, unsecured loans. Over time, IntelleGrow has expanded their enterprise portfolio to include later-stage enterprises, given the demand for this type of finance in India.

**Data-driven approach:** The use of data can help to efficiently assess borrowers and even predict repayment probabilities, an area that is still being explored and tested out by a new generation of digital lenders. By leveraging digital platforms and data-driven approaches, digital lenders can streamline onboarding and assessment processes and build a structured credit rating tool to circumvent the traditional obstacles to SME lending. The loan application process may take place entirely online, which enables lenders to make credit decisions in just a few days.

**Root Capital** is a non-profit social lending institution that aims to increase rural prosperity in poor, environmentally vulnerable places in Africa and Latin America by lending capital, delivering financial training, and strengthening market connections for agricultural SMEs. Working capital is provided against receivables and purchase orders as collateral in a typical structure; about 15-20% of Root's portfolio is made of 3-7-year loans secured against fixed asset collateral. To leverage its prior sector experience as effectively as possible and build networks to decrease the costs of credit assessment and sourcing, Root Capital has evolved to focus on specific, well-developed agricultural value chains with low off take risk (e.g. coffee, cocoa, nuts and staple crops). Root Capital believes financing and capacity building are complementary. It employs a train-the-trainer model using external local consultants to provide technical assistance usually focused on financial management to businesses, both before and after financing, helping potential borrowers become more credit-worthy and, after financing, improving loan repayment rates. Internally, Root Capital invests in research and analytics to measure the impact and efficiency of its loan disbursements. Root Capital also regularly evaluates its operating model using a data-driven approach to identify successes and areas for improvement. For example, a recent study analyzed the financial performance and impact of 1,200 loans to build a decision-making tool that balances the trade-offs between financial return and impact across an overall portfolio, as well as for individual loans.

**Cost effective monitoring:** Non-traditional debt providers often monitor their loans through at least quarterly visits or calls to borrowers. Some lenders have also implemented cost-effective training methods, such as train-the-trainer models or shared training videos. Maintaining a portfolio of borrowers who are geographically close to each other is key in enabling frequent visits and technical assistance, where needed, in order to lower default risks. For lenders with a more participatory model, which typically have larger ticket sizes and can of course benefit from the success of a borrower, providing technical assistance to their borrower can be a critical factor in realizing both strong repayment rates and benefiting from kickers (warrants, revenue participation, conversion rights, etc.) in the loan agreement.

**Equity for Tanzania** (EFTA) is a Tanzanian finance company specialized in serving agricultural SMEs and farmers. They provide equipment loans of up to USD 60,000 using a lease-financing technique in which the equipment itself serves as collateral.

EFTA maintains high repayment rates by frequently monitoring borrowers and requiring down payments as a sign of commitment. Indeed, EFTA takes a relationship-based approach to investment, not only partnering directly with suppliers to provide lower prices and after-sale services to farmers, but also frequently engaging with its clients to improve loan performance. Because EFTA loan officers often visit borrowers, EFTA focuses on clients that are within three hours travel of an EFTA office. To further improve repayment rates, EFTA requires borrowers to demonstrate commitment through down payments of 10–30% on the equipment, using technological solutions to deny access to equipment in the event of default, such as sensors that prevent the operation of EFTA-financed tractors.

**Value chain focus:** Providers of non-traditional debt financing can source and vet businesses primarily through referrals from existing clients and from buyers, suppliers, or other players in the value chain. As such, focusing on specific value chains allows debt providers to build deep networks for sourcing deals and to leverage previous sector experience when assessing credit and supporting portfolio companies.

**Cross-subsidization:** Non-traditional debt providers may provide both small-ticket-size loans to very early-stage enterprises and larger loans to later-stage enterprises, allowing them to support the proportionally higher credit-assessment and transaction costs of smaller, riskier loans with the greater profits of larger loans.

## 6.3 Conclusions

Non-traditional debt providers can play an important role in the financing chain of early-stage enterprises by supplementing the three early-stage financing archetypes outlined in this paper, either simultaneously or later in the development of the company.

However, because they provide debt, which assumes some certainty of cash flow for repayment and/or assets for collateral, they would typically come in at a later stage than perhaps an accelerator or angel investment. Mezzanine debt could come into play even later than early-stage financing, when companies have a much stronger revenue stream and more predictable cash flow.



# 7. Key findings and recommendations

Early-stage enterprise finance providers are diverse; there is no “one size fits all”. They differ greatly in terms of their respective investment strategy, service offering, funding sources, revenue model, cost structure, organization (including their staff), and their track record. However, they do share two common denominators: it is about providing risk finance and limited scale makes economics difficult. The uncertainty emerging from the lack of historical financial records, cash flow levels and insufficient collateral that characterize early-stage enterprises result in a high-risk profile that the four archetypes we explored are trying to address. Given the relative youth of the early-stage enterprise finance sector in emerging markets and developing countries, we do not have all the answers, but it is possible to draw a number of conclusions from experiences to date.

## The ecosystem context

It is important to bear in mind that the relevance, optimal approach and effectiveness of the early-stage finance archetypes discussed in this report are highly dependent on the maturity and sophistication of the ecosystems in which they operate. An ecosystem reflects the collective endowment of economic development activities in a country, as suggested in the figure, and correlates with the maturity (in terms of breadth and depth) of local institutions. In more sophisticated ecosystems there tends to be a greater natural propensity for members to work together for a particular cause, such as supporting the development and acceleration of gazelles. In “more sophisticated” cases, ecosystem participants provide a multifaceted portfolio of services and offer client start-ups and expanding firms an array of services that encourage their sustainability and scalability. By contrast, in less robust situations they offer fewer service options and tend to force ventures to adapt to the limits of local program offerings.



Figure 16. DGGF #ClosingTheGap illustration of entrepreneurial ecosystems

Therefore, in light of the above, when considering the role accelerators, angel investors, venture capital and debt providers may play in the development and growth of early-stage business development, it is important to consider the sophistication level of local ecosystems. Although success or failure of early-stage local enterprises primarily depends on specific market circumstances, more robust ecosystems mean more specialized contributions that may encourage the success of these companies. Without enough or many viable institutional options, one may generally expect fewer complementary support options to encourage small business development. What that means for local early-stage finance providers is that constraints on their ability to tie-in complementary resources will be in proportion to the underdevelopment of the ecosystem. In essence, one could think of such entrepreneurship support platforms as a team sport. The quality of the team is a function of the availability of a diverse range of institutional support options and how effectively this works in a holistic way.

Players in this sector will perform differently depending in part on the cost of making each investment, as well as the cost of selling investments. **If the individual and institutional finance chains are weak or poorly constituted, then exit options are limited.** Exit options are often most constrained in the least developed markets. Hence, the pursuit of these platform options needs to reflect the sophistication of local entrepreneurial support ecosystems, **and models need to be adapted accordingly.** In short, the funding supply chain could be compared to a relay race; ideally, one could safely pass on the baton to the next sprinter to carry an investee on to the next stage in their development, at relatively frequent, regular intervals. However, in some markets – the least developed markets – an investor may be expected to run for longer before a reasonable hand-off – or exit – can occur. When an exit opportunity does present itself, the seller’s ability to negotiate for a greater exit value may

be limited due to the lack of options. Herein lies the challenge of investing in entrepreneurship in the least developed countries. Any investment approach needs to reflect the sophistication of local ecosystems and construct their funding modality accordingly.

## Recommendation #1: Refining archetypes towards improved operations

Although high risk and correlated high costs remain inherent to serving the financial needs of early-stage enterprises, several options have been identified to improve the operations of the different archetypes, with the potential to generate efficiency gains, resulting in lower costs alongside diversified and increased revenue sources.

For **business accelerators**, additional experimentation around diversified revenue models and more efficient program support can improve financial performance. Accelerators would be advised to avoid dispersion and keep the focus on “accelerating” businesses. Further refinement of their key performance indicators focused on capturing market traction and lower business risk, rather than successful fundraising and high valuation, can only help in that direction. Areas to focus on are smart use of investment capital (i.e. reserving capital for follow-on investment in performing portfolio companies, maximizing returns and fostering access to risk capital by increasing the chances of co-investments from other early-stage finance providers) and income streams such as income from corporate partnerships, success sharing milestone fees, capital raising success fees have the potential to boost an accelerator’s income and therefore reduce reliance on grants. Furthermore, accelerators are optimizing their financial performance by improving their lead generation, deal selection and investment processes. They are also increasing their effectiveness by becoming more embedded in the ecosystem and ensuring the optimal fit with follow-on financing options.

**Business angel networks**, with a limited track record in developing countries and emerging markets, still face numerous challenges. While the value of angel investing - including its position in the early-stage enterprise finance ecosystem - is gaining more recognition, there is still a need to educate stakeholders involved in angel investing activities: (i) angels on their role (especially beyond providing capital), the risk and reward balance of angel investing activities and the need to reserve sufficient capital for follow-on investments, (ii) entrepreneurs on the relationship with this unique investor profile, (iii) ecosystem players like accelerators so they can help entrepreneurs gain a better understanding of their financial needs and build businesses that are attractive and ready to receive angel investment. We have noted a number of interesting emerging trends, all of which demonstrate the value of operating in a more connected and conducive ecosystem. However, key questions persist regarding the networks’ optimal operating model, which today relies mainly on membership fees. Though we identified a trend towards more professionally managed angel networks, this operating model needs further refinement to test and validate ways to increase and diversify revenues through the monetization of added value services to members and ecosystem stakeholders, while reducing costs by operating in a smart way, building on existing resources.

For **early-stage venture capital funds**, many practical challenges remain. In particular, the trade-off between risks, impact, and returns is not always clear to potential LPs, which often makes fundraising for these funds particularly challenging for the managers. LP return expectations do not always align with what is possible given low amounts of AUM and/or small ticket sizes. Many existing funds are still pre-exit and are struggling with the undeveloped ecosystem, which can (i) make it challenging for their portfolio companies to get to the level where a VC fund can invest, (ii) get follow-on capital that cannot be provided by the early-stage VC themselves (such as venture debt) and (iii) find suitable exit opportunities, especially in the case of closed-end funds with their clear exit timelines. Further innovation and testing is required on all these fronts.

**Supplemental, non-traditional lenders** can play an important role in the financing chain of early-stage enterprises by supplementing the three early-stage financing archetypes outlined in this paper, either simultaneously or later in the development of the company. However, because they provide debt, which assumes some certainty of future cash flow for repayment and/or assets for collateral, this is where the other archetypes’ involvement has most potential to add value, by helping the companies to build stronger revenue streams and more predictable cash flow.

## Recommendation #2: Fostering hybrid archetypes and crossover links between them

An important insight is how the different archetypes could complement each other in serving early-stage enterprises. In often fragmented ecosystems where it is not rare to hear a VC fund manager say that they have not sourced any pipeline

company from accelerators' cohorts, collaboration among local finance providers is critical so they help build investible businesses that can realize their growth potential.

No matter the archetype, the markets targeted by the current study need pioneers with an enhanced appetite for risk, but most importantly with the capacity to innovate and adapt the known models of providing early-stage finance to their operating ecosystem. In general, we see a positive trend: more finance providers are focusing on early-stage enterprises and they are looking to do so in a sustainable and scalable way. It has been demonstrated that providing finance to later-stage small and medium-sized enterprises in emerging markets and developing countries can be profitable but replicating this success for earlier-stage businesses still requires further innovation and experimentation.

We already see hybrid models emerging such as, to name but a few:

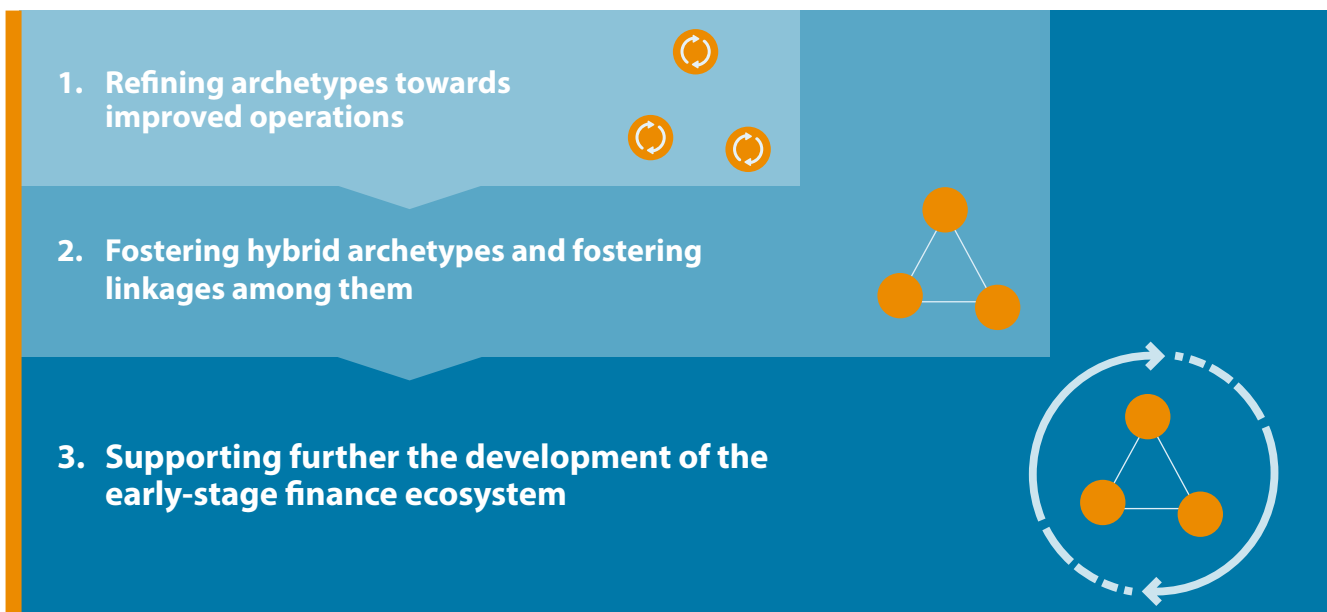
- Ibtikar fund in the Palestinian territories: the fund's investment strategy, by combining investment capital and hands-on portfolio management, bridges the gap between seed stage investments and Series A. Ibtikar partners with local accelerators in the West Bank and Gaza to initially nurture start-ups. The most promising companies receive increasing investments (up to USD 1 million) from Ibtikar, together with hands-on non-financial support.
- Lungo capital in Uganda: Lungo engages with Ugandan business angels through a co-investment structure, in which angels chip in with 5% to 10% of the invested amounts. This co-investment model is expected to be beneficial for all parties involved. The enterprise receives financial services and bespoke tutoring. For Lungo capital, the active involvement of local angels increases its credibility, lowers transaction costs and provides access to a wealth of local knowledge. The flip side of this is that angels can enter deals that are generally beyond their financial resources and diversification appetite.

## Recommendation #3: Supporting the further development of the early-stage finance ecosystem

In many developing countries, implementing investor-led venture finance platforms like accelerators, angel investors and VC funds can be challenging, and such initiatives often struggle to achieve a sustainable and significant scale in the least developed countries. These challenges may be perceived as representing unquantifiable risk and additional costs to conduct business and may effectively reduce an investor's appetite to support smaller businesses. In part, this is attributed to the additional cost of providing non-financial services alongside financial services. Indeed, accelerators, angel investors and VCs usually feature management follow-up support in one way or another as a complement to their funding to help de-risk their investments, amplify ROIs, or otherwise improve the potential for intra-portfolio synergies. Yet, to do so on a commercial basis may be difficult. Especially when ticket sizes are smaller, it becomes challenging to make the economics work.

Applying financial products (e.g. pure equity or straight debt) in their "pure" form from developed markets to a diversity of emerging markets is not yielding the expected results, but risk, return and impact performance expectations need to be adjusted to the realities of the local operating ecosystems, including adopting a more patient approach (including "patient capital") to enable returns to realize and base expectations on actually realized performance in target markets instead of using other markets' reference points. Similarly, copy-cats of archetypes (e.g. an accelerator model from the Silicon Valley) are not making the cut, but pioneers are needed with an enhanced appetite for risk and experimentation, enabling local finance providers to realize proofs of concept, implementing new models that may borrow features from the different archetypes but are tailor-made to addressing the specific early-stage finance needs in their operating ecosystem.

Local finance providers will not be able to move the needle on their own, so their operating ecosystems need to prosper and develop into a more conducive and sustainable financial service offering for local early-stage enterprises. Investors and other finance providers have a critical role to play in supporting more of these innovations and experiments. **It is essential that early-stage finance providers and their supporters engage in open conversations around small ticket sizes, actual risk, financial return expectations and impact potential. Agreeing on the type of "patient and catalytic capital" that is required is important** to notably distinguish when to or when not to provide subsidies. In this sense, the current emphasis on blended finance, i.e. the strategic use of development finance and philanthropic funds to mobilize private capital flows – including from domestic sources - offers exciting opportunities.



**Figure 17.** Early-stage finance ecosystem development: the suggested way forward

Given the relative youth of the early-stage enterprise finance sector in emerging markets and developing countries, we do not have all the answers, but we have managed to arrive at a number of conclusions from experiences to date. Each chapter of this report explores topics that are directly relevant for that archetype, although we expect many of the topics explored may be relevant across archetypes. There are still many unknowns. We have yet to see any detailed research addressing the total market size or potential from investing in early-stage enterprises – in fact, we have yet to see any research even quantifying the number of early-stage enterprises that may be investible, or the amount of financing that this segment of businesses requires. This report is a first contribution to building a more robust understanding of early-stage enterprise finance and stimulating constructive exchanges among finance providers and their funders in order to encourage the emergence of a more sustainable and scalable provision of early-stage finance to local enterprises in developing countries and emerging markets.



## Annex 1: List of abbreviations

|              |   |
|--------------|---|
| <b>ABAN</b>  | • African Business Angel Network                        |
| <b>ANDE</b>  | • Aspen Network of Development Entrepreneurs            |
| <b>AUM</b>   | • Assets Under Management                               |
| <b>BAN</b>   | • Business Angel Network                                |
| <b>BDS</b>   | • Business Development Support                          |
| <b>CSR</b>   | • Corporate Social Responsibility                       |
| <b>DGGF</b>  | • Dutch Good Growth Fund                                |
| <b>EFTA</b>  | • Equity For Tanzania                                   |
| <b>F6L</b>   | • Flat 6 Labs   |
| <b>FMO</b>   | • Entrepreneurial Development Bank                      |
| <b>FCh</b>   | • Fundación Chile                                       |
| <b>GP</b>    | • General Partner                                       |
| <b>IADB</b>  | • Inter-American Development Bank                       |
| <b>IFC</b>   | • International Finance Corporation                     |
| <b>IRR</b>   | • Internal Rate of Return                               |
| <b>KPI</b>   | • Key Performance Indicator                             |
| <b>LAN</b>   | • Lagos Angel Network                                   |
| <b>LP</b>    | • Limited Partner                                       |
| <b>MENA</b>  | • Middle East and North Africa                          |
| <b>MVP</b>   | • Minimum Viable Product                                |
| <b>OECD</b>  | • Organization for Economic Cooperation and Development |
| <b>ROI</b>   | • Return On Investment                                  |
| <b>SME</b>   | • Small and Medium Enterprises                          |
| <b>TA</b>    | • Technical Assistance                                  |
| <b>USAID</b> | • United States Agency for International Development    |
| <b>VC</b>    | • Venture Capital                                       |

## Annex 2: Key readings

### Business accelerators

1. [Accelerating Startups in Emerging Markets: Insights from 43 Programs](#), GALI Report (2017)

**Description:** Examines potential factors driving performance differences for accelerator programs in emerging markets versus those in high-income countries.

2. [What's Working in Startup Acceleration: Insights from Fifteen Village Capital Program](#), GALI Report (2016)

**Description:** Identifies trends and insights regarding the accelerator selection process, partnerships, program content and other entrepreneur support

### Business angel networks

3. [Creating Your Own Angel Investor Group: A Guide for Emerging and Frontier Markets](#), infoDev / World Bank (2014)

**Description:** The manual takes the reader through the decision steps to create an angel network, teases out problems faced and offers potential solutions.

4. [The Globalization of Angel Investments](#), Bruegel (2015)

**Description:** Key findings from the analysis are two-fold. Firstly, angel investors have a positive impact on the growth of the firms they fund, their performance, and survival. Secondly, they find that the selection of firms that apply for angel funding is different across countries.

5. [The Globalization of Angel Investments: Evidence Across Countries](#), Harvard Business School (2016)

**Description:** This paper examines investments made by 13 angel networks across 21 countries. It compares applicants just above and below the funding cut-off and find that these angel investors have a positive impact on the growth, performance, and survival of firms, as well as their follow-on fundraising. The positive impact of angel financing is independent of the level of venture activity and entrepreneur-friendliness of a particular country. However, the development stage and maturity of start-ups that apply for angel funding (and those that are ultimately funded) is inversely correlated with the entrepreneurship-friendliness of a country, which may reflect self-censorship by very early-stage firms that do not expect to receive funding in these environments.

### Early-Stage VC funds

6. [Impact of Early Stage Equity Funds in Latin America](#), Lerner, Josh and Tighe, James and Dew, Steve and Bosiljevac, Vladimir and Leamon, Ann and Díez-Amigo, Sandro and Garcia Robles, Susana (2016)

**Description:** Case study of three venture funds and their impact over time on their specific early-stage ecosystems and portfolio companies. Report is long (200 pages), but worth skimming because it collects detailed data on all three venture funds, as well as selected portfolio companies.

7. [Why An Equity-Only Investment Strategy Overlooks Many Promising Entrepreneurs](#), Village Capital (2017)

**Description:** Short idea piece summarizing the disadvantages of an equity-only strategy and proposing alternative structures.

### Supplemental, non-traditional lenders

8. [Toward the Efficient Impact Frontier](#), Root Capital (2017)

**Description:** Root Capital analysis and framework to support data-driven decision-making at the level of either a single loan or an entire portfolio, to optimize for impact and return.

9. [New Approaches to SME and Entrepreneurship Financing: Broadening the Range of Instruments](#), OECD 2015

**Description:** Deep dive into financing instruments for SMEs with sections dedicated to asset-based financing and alternative debt, describing technical structures, profiles of SMEs suitable for each instrument, as well as enabling factors.

10. [New perspectives on financing small cap SME's in emerging markets](#), Dutch Good Growth Fund (2016)

**Description:** The report by DGGF provides an understanding of the specificities, diversity (and complexities) of mezzanine finance instruments, that blend elements from traditional Private Equity (PE) and debt financing into one financial product. This study is the first of its kind and represents a first step into building small cap SME mezzanine finance as an asset class on its own.

## Annex 3: List of Interviewees

| Business accelerators        |  |
|------------------------------|--|
| <b>Flat6Labs</b>             | <ul style="list-style-type: none"> <li>• Ahmed Galal – Founder, Taskty</li> <li>• Aliaa El Sherif – Head of International Cooperation</li> <li>• Amira Elsayed - Manager of Foreign Agreements Department</li> <li>• Amr El-Abassy - Senior Officer - Investment &amp; Venture Capital Department</li> <li>• Dana Kater – Founder, Coterique</li> <li>• Dina el-Shenoufy - Chief Investment Officer</li> <li>• Douaa Hazem Yassin - Senior manager - Investment &amp; Venture Capital Department</li> <li>• Willie Elamien - Managing Director</li> </ul>  |
| <b>Fundación Chile (FCH)</b> | <ul style="list-style-type: none"> <li>• Andres Pesce – Head of Business Development</li> <li>• Christian Raab – Country Manager – Chile, First Solar</li> <li>• Enrique Mena – Co-founder, Snuuper</li> <li>• Jamie Riggs – Head of Entrepreneurship, FCH</li> <li>• Leah Pollak – Investment Officer, FCH</li> <li>• Lode Verdeyen – CEO, Engie Factory</li> <li>• Marcos Almendra Alberto – Co-founder, Izit Foundation</li> <li>• Marcos Kulka – General Manager, FCH</li> <li>• Melissa Cheong – Chief Investment Officer, Zoma Capital</li> <li>• Sofia Grez – CFO, Venture Capital</li> <li>• Tadashi Takaoka – Head of Entrepreneurial Division, Chile Economic Development Agency, Corfo</li> </ul> |
| <b>Start-up Chile</b>        | <ul style="list-style-type: none"> <li>• Alex Hanke Sepulveda – Founder, Telefonica</li> <li>• Gaspar Espejo – Founder, Waya</li> <li>• Johanna Harker – Founder, Telefonica</li> <li>• Rocio Fonseca – Executive Director, Start-up Chile</li> </ul>  |
| <b>UC Innovation Center</b>  | <ul style="list-style-type: none"> <li>• Daniel Zuniga – CEO, Khapto</li> <li>• Jose Remesar – CEO, Heat Concrete</li> <li>• Marta Garcia-Huidobro – Alliances and Scouting, UC Innovation Center</li> <li>• Natacha Marimi – Coordinator, Brain Chile</li> </ul>  |
| <b>Village Capital</b>       | <ul style="list-style-type: none"> <li>• Allie Burns – Managing Director, Village Capital</li> <li>• Bidisha Bhattacharyya – VP Emerging Markets, Village Capital</li> <li>• Greg Bennet – Investment Analyst, Village Capital</li> </ul>  |

| Early-stage VC funds                  |  |
|---------------------------------------|--|
| <b>Aavishkaar</b>                     | <ul style="list-style-type: none"> <li>• Pradeep Pathiyamveeti - Managing Partner, Aavishkaar</li> </ul>   |
| <b>Acción Venture Lab</b>             | <ul style="list-style-type: none"> <li>• Ameer Parbhoo – Director of investments, Acción</li> <li>• Ashley Lewis – Investment Officer, Acción</li> <li>• David Del Ser – Practice Director, Bankable Frontier Associates</li> <li>• Ivan Mbowe – CEO &amp; Co-founder, Umati Capital</li> <li>• Samir Bhatia – CEO &amp; Co-founder, SME Corner</li> <li>• Sanjay Sharma – Managing Director, Aye Finance</li> <li>• Tahira Dosani – Managing Director, Acción</li> </ul>                              |
| Business Angel Networks               |  |
| <b>Cairo Angels Network</b>           | <ul style="list-style-type: none"> <li>• Aly Shakalany – Chairman / Angel Investor, CAN</li> <li>• Con O'Donnell – Angel Investor, CAN</li> <li>• Hossam Taher – Founder, Orcas</li> <li>• Menna AbelRahman – General Manager, CAN</li> </ul>  |
| <b>Lagos Angel Network</b>            | <ul style="list-style-type: none"> <li>• Tomi Davies – President, LAN</li> </ul>   |
| Supplemental, non-traditional lenders |  |
| <b>Equity For Tanzania (EFTA)</b>     | <ul style="list-style-type: none"> <li>• Coy Buckley – CEO, EFTA</li> <li>• Dominic Lema</li> <li>• Mr. Kangisa</li> <li>• Sean Carey – Associate Director, AgDevco</li> <li>• Valerie Fraser – Investment Manager, EFTA</li> </ul>  |
| <b>Intellegrow</b>                    | <ul style="list-style-type: none"> <li>• Akbar Khan – CEO, IntelleGrow</li> <li>• Anuradha Ramachandran – Director of Investments, Omidyar Network</li> <li>• Geentash Bamanian – CEO &amp; Co-founder, RentMojo</li> <li>• Nitin Rajan – Deputy CEO, IntelleGrow</li> <li>• Prasanna Rao – Founder &amp; CEO, Arya Finance</li> <li>• Rajan Jeneja – CIO, IntelleGrow</li> </ul>  |
| <b>lungo Capital</b>                  | <ul style="list-style-type: none"> <li>• Roeland Donckers – Co-founder lungo Capital</li> </ul>  |
| <b>Root Capital</b>                   | <ul style="list-style-type: none"> <li>• Ben Schmerler – Senior Director, Root Capital</li> <li>• Catherine Gill – EVP Investor Relations &amp; Communications, Root Capital</li> <li>• Diane Ives – Fund Advisor, Kendeda Fund</li> <li>• Esther Mareka – Loan Officer, Root Capital</li> <li>• Mike McCreless – Senior Director, Root Capital</li> <li>• Simon Winter – Board Member, Root Capital, SVP Development, TechnoServe</li> <li>• Willy Foote – Founder &amp; CEO, Root Capital</li> </ul> |

## Annex 4: DGGF Practitioners' Workshop

|   |   |
|---|---|
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| <b>ANDE</b>   | <ul style="list-style-type: none"> <li>• Randall Kempner – Executive Director</li> </ul>  |
| <b>Ankur Capital</b>  | <ul style="list-style-type: none"> <li>• Krishnan Neelakantan – Senior Director</li> </ul>  |
| <b>Bertha Center for Social Innovation &amp; Entrepreneurship</b> | <ul style="list-style-type: none"> <li>• Susan de Witt – Innovative Finance Senior Project Manager, Bertha Center for Social Innovation and Entrepreneurship at the Graduate School of Business in Cape Town</li> </ul>                                   |
| <b>Ceniarth</b>   | <ul style="list-style-type: none"> <li>• Harry Davies – Senior Associate</li> </ul>   |
| <b>Dutch Ministry of Foreign Affairs</b>                          | <ul style="list-style-type: none"> <li>• Mirco Goudriaan – Policy Coordinator Dutch Good Growth Fund</li> </ul>   |
| <b>Enclude Capital</b>  | <ul style="list-style-type: none"> <li>• Steven Van Weede – Managing Director, advisory team</li> </ul>   |
| <b>European Commission, DG Near</b>                               | <ul style="list-style-type: none"> <li>• Fulvio Capurso – Policy Officer, Financial Instruments and cooperation with IFIs</li> </ul>  |
| <b>Flat6Labs</b>  | <ul style="list-style-type: none"> <li>• Dina Osama el-Shenoufy – CIO</li> </ul>  |
| <b>FMO</b>  | <ul style="list-style-type: none"> <li>• Jorrit L. Dingemans – Manager Private Equity</li> </ul>  |
| <b>Global Development Incubator</b>                               | <ul style="list-style-type: none"> <li>• Alice Gugelev – Director</li> <li>• Erika Boll – Senior Portfolio Associate</li> </ul>   |
| <b>IFC</b>  | <ul style="list-style-type: none"> <li>• Dipta Shah – Investment Officer</li> </ul>   |
| <b>Individual Experts</b>   | <ul style="list-style-type: none"> <li>• Nelson Gray – Angel Investor, LINC Scotland and Archangel</li> <li>• Drew Von Glahn – Senior Advisor</li> </ul>  |
| <b>InfoDev</b>  | <ul style="list-style-type: none"> <li>• Aun Rahman – Access to Finance Lead</li> </ul>   |
| <b>IntelleGrow</b>  | <ul style="list-style-type: none"> <li>• Akbar Khan – CEO</li> </ul>  |
| <b>Lagos Angel Network</b>  | <ul style="list-style-type: none"> <li>• Tomi Davies – President, LAN</li> </ul>  |
| <b>MacArthur Foundation</b>                                       | <ul style="list-style-type: none"> <li>• John Balbach – Impact Investments</li> </ul>   |
| <b>Novastar</b>   | <ul style="list-style-type: none"> <li>• Andrew Carruthers – Co-founder and Managing Director</li> </ul>  |
| <b>Omidyar Network</b>  | <ul style="list-style-type: none"> <li>• Chris Jurgens – Director</li> <li>• Stella Klemperer – Strategy Manager</li> </ul>   |
| <b>Root Capital</b>   | <ul style="list-style-type: none"> <li>• Brian Milder – Executive Vice President for Strategy &amp; Innovation</li> </ul>   |
| <b>Shell Foundation</b>   | <ul style="list-style-type: none"> <li>• Sam Parker – Director</li> </ul>   |
| <b>Small Foundation</b>   | <ul style="list-style-type: none"> <li>• Sally Walkerman – Senior Executive</li> <li>• Tim Brosnan – Founder and Executive Chair</li> </ul>   |
| <b>Startupbootcamp</b>  | <ul style="list-style-type: none"> <li>• Marc Wesselink – Managing Partner</li> </ul>   |
| <b>Triple Jump</b>  | <ul style="list-style-type: none"> <li>• Davide Loriggiola – Investment Manager, Seed Capital DGGF</li> <li>• Julia Kho – Knowledge Manager</li> <li>• Mark Van Doesburgh – Co-founder</li> <li>• Marnix Mulder – Director, Market Development</li> </ul> |
| <b>U.S. Global Development Lab, USAID</b>                         | <ul style="list-style-type: none"> <li>• Liz Chacko – Partnerships Advisor in the Center for Transformational Partnerships (CTPs)</li> <li>• Rob Schneider – Division Chief for Global Partnerships</li> </ul>  |
| <b>Village Capital</b>  | <ul style="list-style-type: none"> <li>• Allie Burns – Managing Director</li> </ul>   |
| <b>World Bank Group</b>   | <ul style="list-style-type: none"> <li>• Simon C. Bell – Global Lead for Finance, Finance &amp; Markets Global Practice</li> </ul>  |

## Annex 5: Additional expert contributors

|   |  |
|---|--|
| <b>Business accelerators</b>                | <ul style="list-style-type: none"><li>• Nicholas Coloff, Argidius Foundation</li><li>• Harry Devonshire, Argidius Foundation</li><li>• David Monkman, National Community Development Fund</li></ul>                          |
| <b>Business angel networks</b>              | <ul style="list-style-type: none"><li>• Paulo Andrez, angel investor</li><li>• Nelson Gray, angel investment development expert/angel investor</li><li>• Jeremy Bauman, New Dominion Angels &amp; World Bank Group</li></ul> |
| <b>Supplemental non-traditional lenders</b> | <ul style="list-style-type: none"><li>• Tom Gibson, SME Think</li><li>• Bob Webster, SEAF</li></ul>  |
| <b>Early-stage VC funds</b>                 | <ul style="list-style-type: none"><li>• Tom Gibson, SME Think</li><li>• Clemens Gerteiser, TJ/DGGF</li><li>• Davide Loriggiola, TJ/DGGF</li></ul>  |

## Annex 6: Policy recommendations

Early-stage business can be an important catalyst and can play an important role in jumpstarting emerging markets by generating revenue and creating new jobs. But these businesses frequently need a guiding hand to help them turn their ideas into viable businesses, particularly regarding their access to finance. Venture funding programs like those described in this report can help entrepreneurs to grow new businesses that can provide work for many people. But while these funding platforms have a proven track record of helping new businesses to succeed, more can be done to maximize the effectiveness of these economic development tools. To that end, we propose a set of policy recommendations aimed at stimulating job creation in less developed countries.

Specific recommendations:

- Widen the scope of governmental and donor-funding programs to support venture-funding platforms. Successful platforms leverage government support in many ways, including matching grant programs for the purchase of business development services, as well as subsidies to improve the sustainability of setting up such platforms, or to improve the attractiveness to investors investing in funds allocated by these mechanisms. This will help make sure even more entrepreneurs can gain access to the help they need to launch successful new businesses – businesses that create jobs, revitalize neighborhoods and commercialize new technologies, thus strengthening local, regional and even national economies.
- Encourage venture funding platforms to follow best practices. Where additional funding is channeled into such mechanisms to create new jobs, ensure those funds come with restrictions and accountability. Programs that adhere to good principles and best practices generally outperform those that do not. To ensure that they are making the best use of the public or donor funds they receive, new platforms should be required to implement industry best practices and serve as dynamic models of sustainable, efficient business operations – much like they expect their clients to do.
- Standardize outcome measures across these platforms. To assess whether venture funding platforms receiving public and donor funding are achieving their goals, consider implementing ways to monitor returns on investment by requiring programs that receive public support to collect the data about their program, clients and graduates on a regular basis. The amount of taxes paid by client firms and their employees, the number of jobs created by portfolio clients and graduates, and other similar data points could be used as measures of the return on public investment created by such venture funding platforms.
- Develop and Implement a more robust national innovation policy. While economists may differ on a broad range of related topics, there is a fairly broad consensus that the role of the federal government should include support for basic research, education, and provision of a good regulatory climate.

Complementary policy recommendations:

- Improve government and donor support for seed, angel and venture capital funding
- Consider spending and taxing policies that help foster innovation and reduce costs for new high-growth businesses
- Encourage recipients of federal research and contract funding to form collaborative agreements with venture funding programs that operate within local regions
- Support research park infrastructure and the development of Communities of Innovation
- Support proof-of-concept funding. Introduce pilot programs to develop proof-of-concept funding to support follow-on efforts to commercialize university-owned technology.
- Connect public university researchers with private companies, and foster more private sector involvement near nationally funded research clusters
- Introduce R&D and investment tax credit programs to encourage private investor support of venture development
- Encourage entrepreneurship as a national goal, and include entrepreneurship in STEM initiatives

# Annex 7: Business accelerator eight year operations forecast

| Accelerators: 8 years operations forecast                                       |       |       |         |         |         |         |         |         |                                    |
|---|-------|-------|---------|---------|---------|---------|---------|---------|------------------------------------|
| Portfolio   | 1     | 2     | 3       | 4       | 5       | 6       | 7       | 8       | Totals                             |
| # of new companies screened   | 200   | 300   | 400     | 400     | 400     | 400     | 400     | 400     | 2,900                              |
| Leads to investments conversion rate  | 5,0%  | 5,0%  | 5,0%    | 5,0%    | 5,0%    | 5,0%    | 5,0%    | 5,0%    |                                    |
| # of new companies receiving investment   | 10    | 15    | 20      | 20      | 20      | 20      | 20      | 20      | 145                                |
| Write-offs after 1 year   | -     | 1,0   | 2,0     | 2,0     | 2,0     | 2,0     | 2,0     | 2,0     | 13                                 |
| Write-offs after 2 years  | -     | -     | 1,0     | 2,0     | 2,0     | 2,0     | 2,0     | 2,0     | 11                                 |
| Write-offs after 3 years  | -     | -     | -       | 1,0     | 2,0     | 2,0     | 2,0     | 2,0     | 9                                  |
| Write-offs  | -     | 1,0   | 3,0     | 5,0     | 6,0     | 6,0     | 6,0     | 6,0     | 33                                 |
| # of investments exited with capital gains                                      | -     | -     | -       | -       | 1,0     | 1,0     | 1,0     | 1,0     | 4                                  |
| # of participations buyback by company management                               | -     | -     | -       | -       | 6,0     | 8,0     | 13,0    | 13,0    | 40                                 |
| Cumulative # of investee companies in portfolio                                 | 10    | 24    | 41      | 56      | 63      | 68      | 68      | 68      |                                    |
| <b>Assumptions</b>  |       |       |         |         |         |         |         |         |                                    |
| # of new companies screened per year  | 400   |       |         |         |         |         |         |         | Ramp up phase in yr 1 and yr 2     |
| Write offs: 30% of new investments in 3 years after investing, 10% in each year |       |       |         |         |         |         |         |         | 5,0%                               |
| Exits: success rate   |       |       |         |         |         |         |         |         | % (Choose a round number)          |
| <b>Key assumptions</b>  |       |       |         |         |         |         |         |         |                                    |
| Average ticket size   | 25,0  |       |         |         |         |         |         |         | USDk / company                     |
| Total salary costs*   | 100,0 |       |         |         |         |         |         |         | USDk / fte / year                  |
| Total salary costs*   | 50,0  |       |         |         |         |         |         |         | USDk / fte / year                  |
| Total salary costs*   | 30,0  |       |         |         |         |         |         |         | USDk / fte / year                  |
| Total salary costs*   | 10,0  |       |         |         |         |         |         |         | USDk / fte / year                  |
| Office costs, travel, etc   | 35,0  |       |         |         |         |         |         |         | USDk / year                        |
| Variable program costs  | 20,0  |       |         |         |         |         |         |         | USDk / company                     |
| *Including pension insurance, social benefits, etc                              |       |       |         |         |         |         |         |         |                                    |
| <b>Key assumptions</b>  |       |       |         |         |         |         |         |         |                                    |
| Multiple of successful exits  | 4,0x  |       |         |         |         |         |         |         | Avg holding period                 |
| Yearly income   | 100,0 |       |         |         |         |         |         |         | USDk                               |
| Yearly income   | 50,0  |       |         |         |         |         |         |         | USDk                               |
| Companies achieving milestones %  | 40,0% |       |         |         |         |         |         |         | % Milestones fees                  |
| Companies successfully raising capital %  | 50,0% |       |         |         |         |         |         |         | % Follow on financing success fees |
| Formula calculating the amount required to cover costs                          |       |       |         |         |         |         |         |         |                                    |
| <b>Cash outflows</b>  |       |       |         |         |         |         |         |         |                                    |
| Capital invested  | (250) | (375) | (500)   | (500)   | (500)   | (500)   | (500)   | (500)   | (3,625)                            |
| Manager salary costs  | (100) | (100) | (100)   | (100)   | (100)   | (100)   | (100)   | (100)   | (800)                              |
| Senior Bus. Dev. Mnggr. salary costs  | (50)  | (50)  | (50)    | (50)    | (50)    | (50)    | (50)    | (50)    | (400)                              |
| Additional Senior Bus. Dev. Mnggr salary costs                                  | (30)  | (30)  | (30)    | (30)    | (30)    | (30)    | (30)    | (30)    | (250)                              |
| Junior Bus. Dev. Mnggr. salary costs  | (10)  | (10)  | (10)    | (10)    | (10)    | (10)    | (10)    | (10)    | (80)                               |
| Other support staff salary costs  | (35)  | (35)  | (35)    | (35)    | (35)    | (35)    | (35)    | (35)    | (280)                              |
| Other fixed costs   | (200) | (300) | (400)   | (400)   | (400)   | (400)   | (400)   | (400)   | (2,900)                            |
| Variable program costs  | (645) | (900) | (1,125) | (1,175) | (1,175) | (1,175) | (1,175) | (1,175) | (8,545)                            |
| Total cash outflow  |       |       |         |         |         |         |         |         |                                    |
| <b>Cash inflows</b>   |       |       |         |         |         |         |         |         |                                    |
| Income from exits   | 100   | 100   | 100     | 100     | 100     | 100     | 100     | 100     | 325                                |
| Corporate partnerships income   | 50    | 50    | 50      | 50      | 50      | 50      | 50      | 50      | 800                                |
| Consulting income   | 80    | 120   | 160     | 160     | 160     | 160     | 160     | 160     | 400                                |
| Success sharing agreements income   | 30    | 45    | 60      | 60      | 60      | 60      | 60      | 60      | 1,160                              |
| Follow on financing success fee income  | 260   | 315   | 370     | 370     | 420     | 445     | 470     | 470     | 435                                |
| Total cash inflows  | 385   | 585   | 755     | 805     | 755     | 730     | 705     | 705     | 3,120                              |
| Philanthropic capital   | 645   | 900   | 1,125   | 1,175   | 1,175   | 1,175   | 1,175   | 1,175   | 5,425                              |
| Total income + philanthropic capital  |       |       |         |         |         |         |         |         | 8,545                              |



## Annex 8: Early-stage VC fund ten-year operations forecast

| Fund design parameters    |        |                          |  |  |  |  |  |  |    |                 |
|---------------------------|--------|--------------------------|--|--|--|--|--|--|----|-----------------|
| Total fund size (USDk)    | 13,000 |                          |  |  |  |  |  |  |    |                 |
| Seed investment (USDk)    | 40     | Successful exit 1        |  |  |  |  |  |  | 1  | Number of deals |
| Round 1 investment (USDk) | 200    | Successful exit 2        |  |  |  |  |  |  | 1  |                 |
| Round 2 investment (USDk) | 500    | Successful exits 3-5     |  |  |  |  |  |  | 3  |                 |
| Management fee (p.a.)     | 2,5%   | Write-offs               |  |  |  |  |  |  | 15 |                 |
| Carried interest          | 20,0%  | Total companies invested |  |  |  |  |  |  | 20 |                 |

|                              | Year              | 1   | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | Total |
|------------------------------|-------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Investments</b>           |                   |     |       |       |       |       |       |       |       |       |       |       |
| Seed investments             | # of transactions | 4   | 4     | 4     | 4     | 4     |       |       |       |       |       | 20    |
|                              | USDk              | 160 | 160   | 160   | 160   | 160   |       |       |       |       |       | 800   |
| Round 1 investments          | # of transactions | 3   | 3     | 3     | 3     | 3     | 3     |       |       |       |       | 15    |
|                              | USDk              | 600 | 600   | 600   | 600   | 600   | 600   |       |       |       |       | 3,000 |
| Round 2 investments          | # of transactions |     | 2     | 2     | 2     | 2     | 2     | 2     |       |       |       | 10    |
|                              | USDk              |     | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |       |       |       | 5,000 |
| Total # of investments       | # of transactions | 4   | 7     | 9     | 9     | 9     | 5     | 2     | -     | -     | -     | 45    |
| Total amount invested        |                   | 160 | 760   | 1,760 | 1,760 | 1,760 | 1,600 | 1,000 | -     | -     | -     | 8,800 |
| Accumulated amounts invested |                   | 160 | 920   | 2,680 | 4,440 | 6,200 | 7,800 | 8,800 | 8,800 | 8,800 | 8,800 | 8,800 |

|   | Year              | 1   | 2     | 3     | 4     | 5     | 6     | 7      | 8      | 9      | 10     | Total  |
|---|-------------------|-----|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|
| <b>Expenses</b>                             |                   |     |       |       |       |       |       |        |        |        |        |        |
| Amounts in USDk                             |                   |     |       |       |       |       |       |        |        |        |        |        |
| Managing partners                           | Count             | 2   | 80    | 160   | 160   | 160   | 160   | 160    | 160    | 160    | 160    | 1,600  |
| Investment officers                         | Salary costs p.a. | 2   | 35    | 70    | 70    | 70    | 70    | 70     | 70     | 70     | 70     | 700    |
| Support staff                               | Count             | 1   | 20    | 20    | 20    | 20    | 20    | 20     | 20     | 20     | 20     | 200    |
| Salary costs                                | Count             | 5   | 250   | 250   | 250   | 250   | 250   | 250    | 250    | 250    | 250    | 2,500  |
| Accounting, legal, office costs             | Salary costs p.a. | 40  | 40    | 40    | 40    | 40    | 40    | 40     | 40     | 40     | 40     | 400    |
| Travel, marketing and communication costs   | Salary costs p.a. | 35  | 35    | 35    | 35    | 35    | 35    | 35     | 35     | 35     | 35     | 350    |
| Fund set up expenses                        |                   | 200 |       |       |       |       |       |        |        |        |        | 200    |
| Total expenses                              |                   | 525 | 325   | 325   | 325   | 325   | 325   | 325    | 325    | 325    | 325    | 3,450  |
| Accumulated expenses                        |                   | 525 | 850   | 1,175 | 1,500 | 1,825 | 2,150 | 2,475  | 2,800  | 3,125  | 3,450  | 3,450  |
| Total outlays (amounts invested + expenses) |                   | 685 | 1,085 | 2,085 | 2,085 | 2,085 | 1,925 | 1,325  | 325    | 325    | 325    | 12,250 |
| Accumulated outlays                         |                   | 685 | 1,770 | 3,855 | 5,940 | 8,025 | 9,950 | 11,275 | 11,600 | 11,925 | 12,250 | 12,250 |

|  | Year | 1     | 2       | 3       | 4       | 5       | 6       | 7       | 8       | 9     | 10    | Total  |
|--|------|-------|---------|---------|---------|---------|---------|---------|---------|-------|-------|--------|
| <b>Performance</b>   |      |       |         |         |         |         |         |         |         |       |       |        |
| Number of exits  |      |       |         |         |         | 1       | 1       | 1       | 1       | 1     | 1     | 5      |
| Exit amount (USD)  |      |       |         |         |         | 1,750   | 3,750   | 1,750   | 1,750   | 6,000 | 1,750 | 15,000 |
| Gross profits (Exits - investments)                                      |      | (160) | (760)   | (1,760) | (1,760) | (1,760) | 150     | 2,750   | 1,750   | 6,000 | 1,750 | 6,200  |
| Fund profits (gross profits - expenses)                                  |      | (685) | (1,085) | (2,085) | (2,085) | (2,085) | (175)   | 2,425   | 1,425   | 5,675 | 1,425 | 2,750  |
| Accumulated fund profits   |      | (685) | (1,770) | (3,855) | (5,940) | (8,025) | (8,200) | (5,775) | (4,350) | 1,325 | 2,750 | (550)  |
| Management carry   |      |       |         |         |         |         |         |         |         |       |       | 2,200  |
| Net fund profits (Gross fund profits - Management carry) / LP cash flows |      | (685) | (1,085) | (2,085) | (2,085) | (2,085) | (175)   | 2,425   | 1,425   | 5,675 | 875   | 2,200  |
| <b>Gross IRR</b>   |      | 15%   |         |         |         |         |         |         |         |       |       |        |
| <b>Net IRR</b>   |      | 5%    |         |         |         |         |         |         |         |       |       |        |

