Catalytic Capital Consortium

Addressing Capital Gaps

A GUIDE TO STRATEGIC DEPLOYMENT OF CATALYTIC CAPITAL

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Catalytic capital is a vital form of impact investing that accepts disproportionate risk and/or concessionary returns relative to a conventional investment in order to generate positive impact and enable third-party investment that otherwise would not be possible.

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CASE STUDIES AND EXAMPLES USED IN THIS GUIDE

Agricultural small business finance in Africa	Rooftop solar for small businesses in India	Employee ownership conversions in the United States
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Executive Summary

The world faces critical financing gaps across a whole range of urgent impact needs. Catalytic capital is a crucial tool for addressing many of these challenges, yet it remains in short supply. How do we deploy it as strategically and powerfully as possible?

This guide seeks to answer precisely that question by applying a more nuanced and comprehensive approach to addressing capital gaps, through all stages of the investment strategy cycle. It provides guidance on how to identify situations, assess gaps, diagnose barriers and formulate interventions in a targeted way. It builds on existing guidance and frameworks, such as the three roles of catalytic capital introduced by Tideline/C3, and is intended for active catalytic capital investors familiar with the fundamentals of the practice.

How this guide advances catalytic capital practice

- **Separating investee characteristics from investment barriers.** Being a small agricultural enterprise and in rural Africa are characteristics. Barriers emerge from misalignments between those characteristics, and the prevailing requirements and norms of capital providers. This distinction matters because barriers are what we need to remove, while many characteristics are inherent and often inextricably linked to intended impact.

- **Granular targeting of situations at different depths of capital constraint.** "Trillion-dollar" gaps are too broad to act upon meaningfully. In reality, these typically encompass a range of situations, each with its own unique barrier profile, financing parameters, and impact potential. Disaggregating these allows more intentional choice about where to cut in based on impact ambitions, capabilities and appetite for challenge.

- **Considering barriers comprehensively—not just rational, deal-specific factors, but also market-level and psychological mindset barriers.** Mindset barriers (lack of awareness, unfamiliarity, negative attitudes) often cause opportunities to be dismissed before rational analysis begins and can persist even after rational barriers are eliminated. Addressing these could require fundamentally different responses.

- **Forcing explicit discussion of any 'graduation' thesis.** Efforts to graduate opportunities to conventional market acceptance are predicated on effectively removing all key barriers. Making the relevant assumptions explicit and discussable mitigates the danger of wishful thinking, leading to more robust strategies and realistic expectations.

- **Taking a holistic approach that extends beyond catalytic capital itself.** Effective responses may require grant funding for technical assistance, efforts to influence other market actors, and advocacy for market rules changes. Understanding the full portfolio of potential responses—and opportunities for collaboration—enhances strategic impact.

How this guide is structured

The guide is organized into four chapters that build progressively from analysis to action:

CHAPTER 1: **UNDERSTANDING CAPITAL GAPS** establishes the conceptual foundation, introducing the investment barriers framework that distinguishes rational barriers (risk, return, cost, liquidity) from mindset barriers (awareness, familiarity, attitudes). It demonstrates how to disaggregate large financing gaps into specific situations at varying levels of capital constraint, using the example of agricultural small business finance in Africa.

CHAPTER 2: **RESPONDING TO CAPITAL GAPS** explores the assessment of whether barriers are transient (addressable through Seeding and Scaling roles) or structural (requiring Sustaining support). It describes two categories of response—investment and grants for technical assistance—illustrated through the case of financing rooftop solar for small businesses in India. It also briefly introduces two further categories of response: influencing other market actors and influencing changes to market rules.

CHAPTER 3: **FROM ANALYSIS TO ACTION** walks through the full analytical process from situation segmentation and barriers analysis, to formulation of a comprehensive response portfolio that is focused on enabling a situation to "graduate" ultimately to conventional capital. This is done using an extended case study of employee ownership conversions in the United States. This chapter also explains the importance of examining barriers at both the direct and indirect investment levels.

CHAPTER 4: **IMPLEMENTING THE APPROACH** offers practical, step-by-step guidance for applying the framework:

Step 1	*Step 2*	*Step 3*	*Step 4*
DESCRIBE	**ANALYZE**	**EXTEND**	**RESPOND**
			

Key implications for investors

- **Invest time in diagnosis before deployment.** A robust understanding of the specific barriers causing a capital gap—not assumptions about what investees need—should ground deployment decisions. A lack of understanding sets us up for failure, and this is particularly amplified when investing and collaborating with others who bring their own assumptions to the table.

- **Have a market-level orientation.** Investors typically operate deal by deal, but the catalytic effect we seek is often at the market level, especially if we are seeking to "graduate" situations to mainstream acceptance. Having the proper orientation helps ensure that each transaction truly supports and advances the more profound shifts we are aiming for.

- **Get granular before going strategic.** Clear targeting of situations is critical. Vagueness leads to confusion about barriers and misalignment of investment parameters, which can then result in adverse outcomes including thwarted deals, wasted capital and impact disappointments.

- **Look beyond the rational.** Mindset barriers are real barriers that require tailored responses, not just more forceful rational argumentation with better data. Because these barriers are often automatic mental blocks, different tactics may be necessary to address and disarm them.

- **Consider whether barriers could be removed, and, if so, how.** Lay out assumptions and hypotheses for barrier removal, and test them with others bringing diverse perspectives. Then, when formulating interventions, assess the likely time-limited nature of each.

- **Think beyond capital per se.** Catalytic capital is a powerful tool but it may not be sufficient on its own to address all key barriers. Consider the full portfolio of potential responses—grants for capacity building, engagement with peer investors, and advocacy for regulatory change. This often also means identifying opportunities for strategic collaboration with others, because not all actors are well-positioned to pull all of these levers themselves.

- **Embrace adaptation without viewing it as failure.** In complex systems, strategies must evolve as you learn. Build in mechanisms for monitoring not just your outputs but also broader market changes, and be prepared to pivot as your understanding sharpens.

Why Focus on Capital Gaps?

In common usage, a gap is an "empty space" so one would expect capital gaps to be marked by the absence of capital available to potential investees, and sometimes that is true. However, in many other cases, capital is available but not in the amounts, and on terms and conditions, appropriate to the investee.

Take, for example, the many small businesses unable to provide the collateral required by lenders or are being offered financing at unaffordable or discouraging terms and conditions, as described in analysis from the IFC. While capital may theoretically be available, it is so misaligned with the needs and constraints of enterprises that little ends up flowing into those areas.

As described in this 2024 article by the author, these capital gaps arise in diverse contexts around the world. Some examples documented by C3 grantees include rental housing in Europe, Black and Indigenous communities in the United States, artisanal enterprises in India, and "hard tech" climate ventures globally.

The problem is that catalytic capital is in short supply against the scale of global needs. Climate action in emerging markets and developing countries requires annual investments of at least $2.3 trillion. The global SME (small- and medium-sized enterprise) financing gap exceeds $5 trillion. Much of this is beyond the reach of conventional capital. Catalytic capital's current deployment, while valuable, represents small interventions against gigantic problems.

We urgently need our catalytic capital to work harder than it ever has before. The premise of this guide is that achieving this requires a robust analysis of the capital gap being addressed, unpacking the causes of the gap, and developing a systematic and strategic response.

Failing to do so can critically hinder our effectiveness. For instance, catalytic capital is often deployed with the belief that it is moving investees along a "graduation" pathway to conventional capital (i.e., the "Scaling" role of catalytic capital). However, if we overlook key barriers and mount an inadequate response, we may find ourselves moving no closer to that ultimate outcome.

That is not all. Individual investments, no matter how well-structured, operate within broader market contexts that may resist the changes we seek to enable. A guarantee may reduce risk for one lender, but if regulatory frameworks discourage the broader sector from serving the target population, the impact remains isolated. A successful first-time fund manager may struggle to raise follow-on capital if investors lack comfort with the strategy or asset class, regardless of demonstrated performance.

For catalytic capital investors, this guide presents both a framework and a call to action. It will explain and demonstrate key aspects of the approach by applying them to real-world case studies, and show how these elements come together to shape a catalytic capital strategy. For those interested in applying this to their own practice, the final chapter of this guide provides step-by-step practical guidance for implementation and signposts to further relevant resources.

1.

UNDERSTANDING CAPITAL GAPS

Starting with the demand-side perspective is crucial to understanding capital gaps. If appropriate financing is not reaching the hands of investees, there is effectively a capital gap, regardless of what capital providers believe they are offering.

Barriers vs Characteristics

What prevents capital from flowing and creates gaps? We can think of these as **barriers to investment**, which primarily arise from the misalignment between investees' characteristics and needs, and prevailing market requirements and norms. For example, the risk-adjusted return may be lower than conventionally accepted by investors, due to conditions surrounding the investee and the context in which they operate. Understanding and responding to these misalignments is key to addressing any capital gap.

It is essential that we separate investee characteristics from barriers, clarifying our view of where the actual problem lies. Being a small enterprise in the agricultural sector of rural Africa is merely a description of what and where an investee is, and such attributes are typically tied to the intended impact (such as alleviating rural poverty and increasing food security). It is misalignments between those characteristics and prevailing investment channels, practices and requirements that can give rise to barriers.

To continue with the same example, small businesses typically have higher levels of financial constraint, lower levels of assets that could serve as collateral for borrowing, low investment readiness, and limited data on their creditworthiness—these are **characteristics**. These can lead to mismatches with products offered by lenders in terms of ticket size and collateral requirements, as well as heighten credit risk and transaction costs borne by lenders beyond the usual tolerances—these are **barriers**.

Working in the agriculture sector brings further challenges: the characteristic of strong seasonality in cashflows can lead to additional product mismatch as conventional loan repayment schedules do not account for seasonality, and also to exaggerated perception of credit default risk as reflected in non-performing loan (NPL) rates based on payment delays, as seasonal effects could well cause these without necessarily signifying underlying borrower weakness.

Figure 1 presents this analysis.

Figure 01

SMALL AGRICULTURAL ENTERPRISES IN AFRICA – INVESTMENT

Investee Characteristics	Barriers to Investment
• **Smaller, non-diversified business** • **Financially constrained** (e.g., delays on receivables, low liquidity) and may **lack quality collateral** • Varying levels of capacity and professionalization leading to **lack of investment readiness** • **Lack creditworthiness data**	• **Higher risk** due to business size and profile; lack of collateral; lack of data on creditworthiness • **Higher transaction costs** relative to ticket size • **Mismatch in product terms and conditions** (e.g., ticket size, payment flexibility, term length, collateral requirements, pricing, application process)
• **Agriculture sector:** variety of activities incl primary production, processing, inputs, distribution • Strong **seasonality in cashflows** • Timeframe shaped by **planting & growing cycles** • Many activities are asset heavy requiring **capex**, while seasonality drives high **working capital** need • **Business volatility** due to exogenous factors e.g., weather	• **Lower returns and higher exogenous risk** in agri vs other sectors • **Mismatch in product terms and conditions** (e.g., payment schedule for seasonality) • **Complexity cost of arranging multiple capital types** (i.e., capex + working capital) • **Longer timeframe** often needed for returns • **Heightened perceived risk as NPLs skewed** by seasonal cashflows

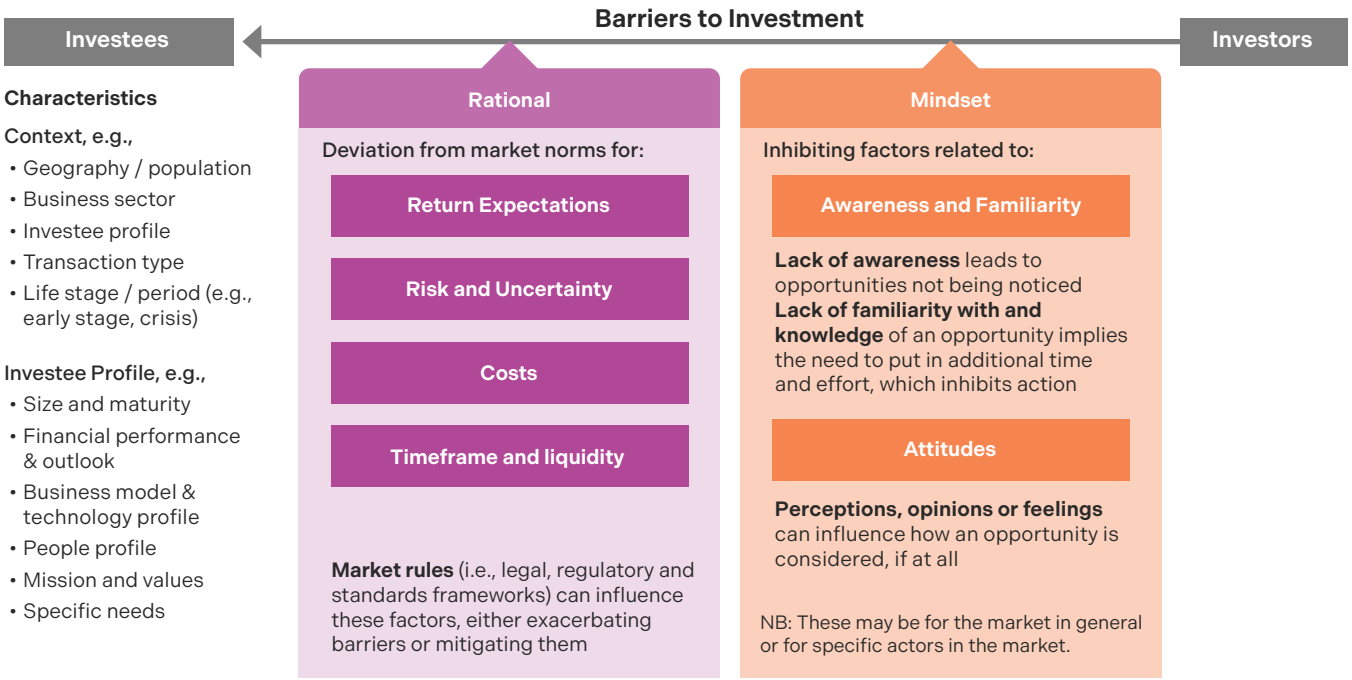
These distinctions are important because the barriers are what we need to overcome. Characteristics may be changed as part of a response to the capital gap, but many characteristics are inherent to investee situations and could be difficult if not impossible to change. For instance, new techniques could generate better data on the creditworthiness of small businesses. However, a characteristic such as cashflow seasonality in agriculture is unlikely to change, therefore requiring adaptation to resolve the barrier (such as redesigning product features and requirements to account for seasonality) while accepting that the underlying characteristic is fixed.

A Framework for Barriers

Figure 2 provides an overview of the kinds of barriers that can lead to the formation and persistence of capital gaps.

Figure 02

INVESTMENT BARRIERS FRAMEWORK



Rational barriers are self-explanatory and are the obvious drivers of capital gaps: risk, return, costs and liquidity could all be barriers where they deviate from market norms that investors conventionally would accept. Another way to see it is that these barriers represent mismatches between demand-side (i.e., investee) characteristics and needs, and conventional supply-side (i.e., investor) requirements. These barriers may be related to each other—e.g., higher transaction costs could result in lower risk-adjusted return expectations—but it is helpful to describe all the key factors distinctly, even if they overlap in this way, because it allows us to see more clearly how to respond.

We should note that these rational barriers can be shaped by market rules (i.e., legal, regulatory and standards frameworks), either exacerbating barriers or mitigating them. Financial sectors are typically

highly regulated relative to others, so market rules (typically imposed by state actors) can be significant in shaping financing flows.

Taking the example of small agricultural businesses again, IFRS (International Financial Reporting Standard) 9 and capital adequacy ratios set by central banks directly influence banks' risk appetite, and this likely constrains the volume of lending to small agricultural businesses, which are perceived to be a high-risk client segment.

By the same token, changes to market rules could potentially reduce barriers or introduce compensatory advantages to offset them. The conversion of businesses to employee ownership (a topic we will discuss further in Chapter 3) is another area where rules frameworks have clearly shaped the development of markets. In the United States and the United Kingdom, favorable tax regimes surrounding specific types of structures have successfully incentivized their adoption in those jurisdictions, overcoming other barriers to investment.

However, not all barriers to investment are grounded in the rational sphere. We tend to think of finance, as we do many other areas of human endeavor, as a field where decisions are made based on objective analysis and facts. However, in this field, as in others, people often act—or fail to act—based on pre-existing attitudes or a lack of knowledge or familiarity.

For investors, these **mindset barriers** often kick in early in the thought process, such that some investment opportunities do not even get a chance to be appraised rationally. This obviously occurs where there is a lack of awareness among investors, as it typically results in opportunities not being seen at all. Where investors have awareness but little familiarity and understanding, consideration of opportunities could also be inhibited, as additional time and effort would be needed to build the knowledge and confidence necessary for a proper evaluation, with an uncertain payoff.

Mindset barriers could also involve negative attitudes (i.e., perceptions, opinions or feelings) towards any aspect of the opportunity. Such attitudes may even be described in financial terms (e.g., by saying something is too risky) but without necessarily having robust data and analysis to back it up. Therefore, such views can persist even where there is evidence to the contrary, such as on the performance of women-led businesses, or the financial resilience of employee-owned companies.

Figure 3 applies this analysis to our example of small agricultural enterprises in Africa, building on our analysis in Figure 1, with local mainstream lenders (i.e., banks and other large lending institutions) assumed as the financing channel.

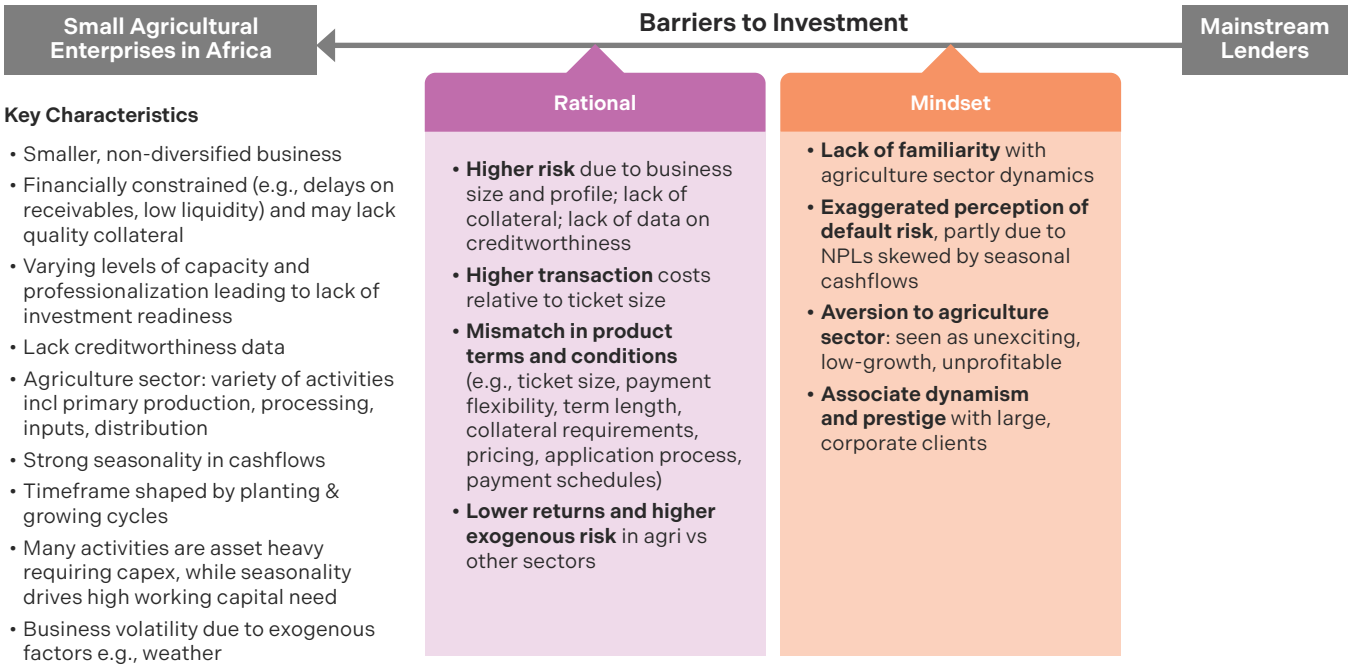
Let's take a closer look at the mindset barriers in this case. There is a lack of familiarity with the agriculture sector and its dynamics, which inhibits consideration of opportunities in this area. However, that lack of familiarity also contributes to an exaggerated perception of credit default risk, partly due to the issue discussed earlier of NPL rates being skewed by seasonality in cashflows. There could also be a general aversion felt towards the agriculture sector, seen as unexciting, low-growth and unprofitable, as opposed to the association of large corporate clients with power and prestige.

It is worth noting that the attitudinal barriers described here are not entirely detached from facts and observations, but may rest on flawed interpretations of data, or on generalizations made from incomplete or biased data. This is particularly easy to do in areas we do not understand deeply.

Even where attitudinal barriers are grounded in current realities, they operate differently in the mind to rational analysis and this has important implications for how we address barriers (see sidebar on page 11 "Thinking Fast vs Slow"). For instance, attitudes could lag significantly behind changes in objective reality, such that successful efforts to overcome rational barriers might still fail to get investment to flow because the institutions involved (or, more precisely, the people within those institutions) continue to be constrained by outdated perceptions and opinions.

Figure 03

SMALL AGRICULTURAL ENTERPRISES IN AFRICA – BARRIERS FRAMEWORK APPLIED



This example also tees up an important discussion about actual versus perceived risk. Traditional financial theory assumes that capital flows to opportunities based on rational analysis of risk-adjusted returns. In reality, investment decisions occur within a complex psychological landscape where actual risk and perceived risk interact to create barriers that may have little to do with mathematical probabilities.

In common understanding, actual risk represents the statistical, measurable probability of loss based on historical data and quantifiable factors—metrics like default rates and volatility measures can be analyzed to help us understand this rationally. Perceived risk is the subjective assessment of danger as interpreted by individual investors, shaped by psychological factors, recent experiences, and cognitive biases that may distort judgment, as discussed above in relation to mindset barriers. Divergence between the two can be a key factor in causing capital gaps.

Why do we see so much divergence? One reason could be that these situations are unfamiliar to most investors, meaning they lack the data and analyses that would help them understand the actual risk. In these cases, bringing the right data and analyses to bear through a process of appropriate engagement and dialogue, fostered by trusted parties, may help correct this divergence, with the caveat that it can still be difficult to break through attitudinal barriers.

The other reason is that many situations have probability distributions that are fundamentally unknowable. Over a century ago, the economist Frank Knight elucidated the distinction between "risk" (where probabilities can be calculated) and "uncertainty" (where they cannot). Many investment situations involve genuine uncertainty: How will an innovative disruptor perform once competitors respond? How will an industry fare across multiple economic cycles? What are the odds of a long-tail event such as a disease pandemic or climate shock? Under Knightian uncertainty, no amount of historical analysis can provide definitive answers to foster a convergence of views.

The psychological dimension helps explain why capital gaps can persist even when no significant rational barriers exist. Like all humans, investors exhibit ambiguity aversion, preferring known, well-understood risks over unknown uncertainties, even when the uncertain option can statistically be shown to be superior. This is often then compounded by the phenomenon of loss aversion, the tendency to feel losses much more intensely than equivalent gains. We also feel the emotion of regret more intensely when negative outcomes result from acting (i.e., commission) instead of not acting (i.e., omission), and when there has been a deviation from established norms. We naturally seek to protect ourselves from experiencing such emotions.

Taken all together, these underlying psychological drivers can put up powerful attitudinal barriers to situations that lie outside the mainstream of investing interest and experience.

Thinking Fast vs Slow

Attitudinal mindset barriers are related to what the Nobel Prize-winning behavioral economist Daniel Kahneman called "System 1" thinking. This is what humans use most of the time to make quick, intuitive and seemingly automatic responses, as opposed to "System 2" thinking, which is slower, more deliberate and analytical, but also requires effort and attention, and therefore is often not engaged. In this way, System 1 can kick in to dismiss some investment opportunities before any analytical assessment occurs.

Some of the heuristics (i.e., mental shortcuts) commonly deployed by System 1 include the following:

- **Availability heuristic:** making judgments based on how easily examples come to mind (e.g., recently hearing about droughts and crop failures might cause someone to overestimate the likelihood of such events)
- **Representativeness heuristic:** making judgments based on how much a description matches an existing mental representation or stereotype (e.g., associating client size with business growth potential and profitability, even if the opposite is true statistically)
- **Affect heuristic:** making judgments based on emotional reactions (e.g., discounting agricultural finance opportunities because of a distaste for farming activities and rural areas)

Kahneman has also described how System 1 tends to overweight small probabilities and this is exacerbated further when outcomes are vividly described. This means that rare events that we know of through description rather than experience—such as droughts reported in the media with images and narratives of wrenching consequences for the people involved—can become overly magnified in the mind and perceived to be a more common occurrence than they actually are.

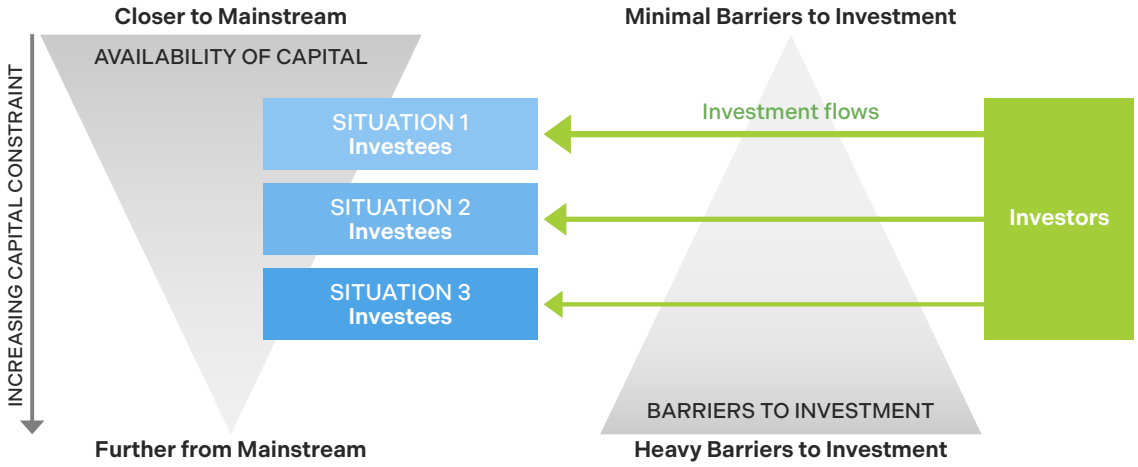
Not All Gaps Are Created Equal

"Trillion-dollar" financing gaps help draw attention to needs, but they are so large that it is hard to know how to address them. A bird's eye view of a large gap is necessarily high-level, and glosses over the diversity and complexity across different situations that exist within that gap. Key barriers to investment, and the actions required to address those barriers, can vary substantially across situations within those areas, as would the kind of impact achieved by resolving them. We therefore need a more granular and nuanced view of specific situations, allowing us to target them more effectively.

In any large area of financing shortfall, we could think of there being a variety of situations at varying depths of capital constraint: some are near the surface with relatively few barriers in the way, while others are in the deeps, weighed down by many barriers. These situations would typically also have different profiles of specific impact that could be achieved. This presents investors with a choice about where to invest: some may prefer to be closer to the conventional mainstream, where less flexibility is required, while others may choose situations that are deeply capital-constrained because of a specific impact ambition.

Figure 04

SITUATIONS AT VARYING LEVELS OF CAPITAL CONSTRAINT

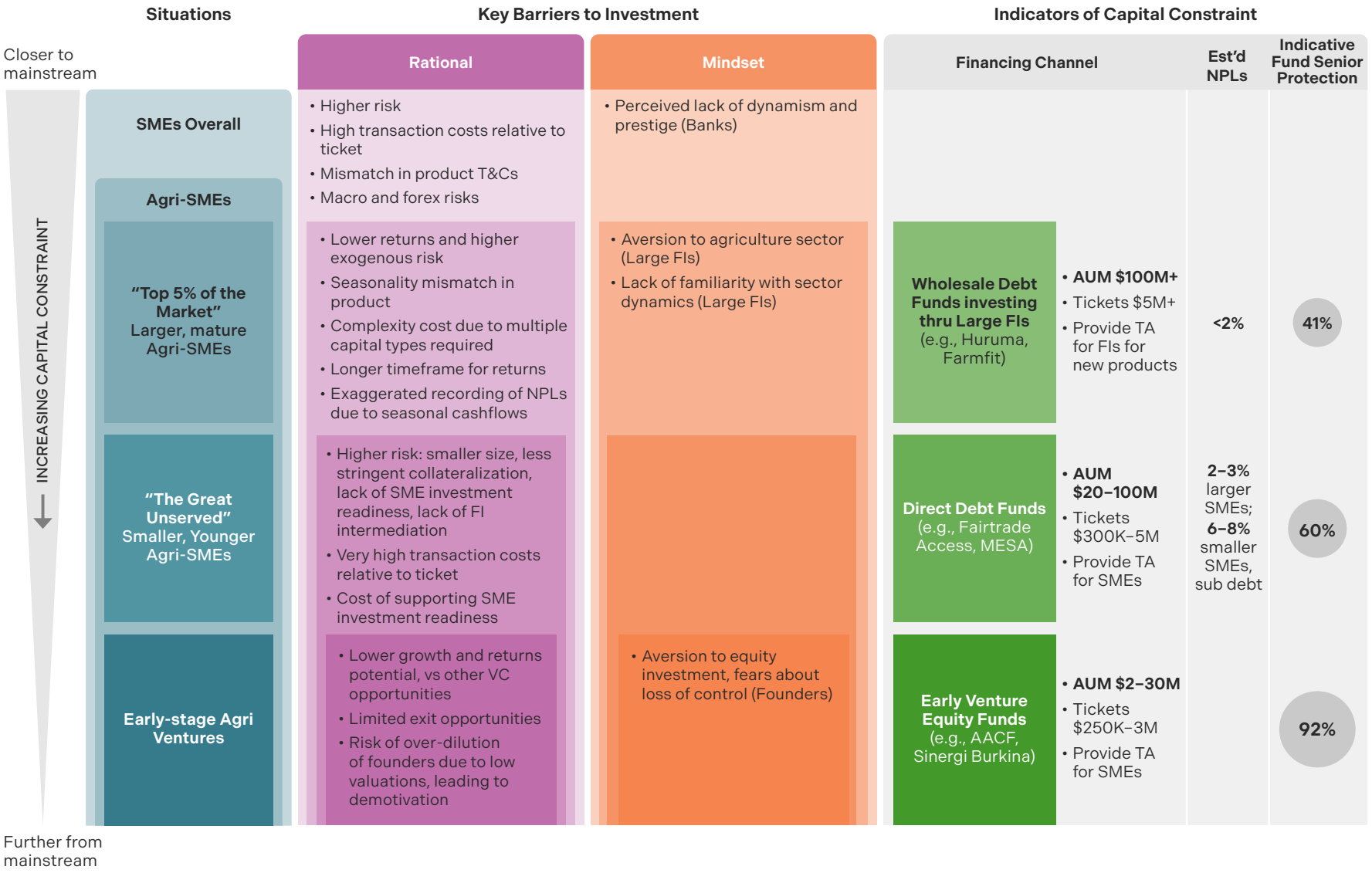


Let us return to the discussion of the capital gap in financing small agricultural enterprises in Africa. Astute readers may have noticed in the analysis shown earlier in Figure 1 that the lower half of the chart (which relates to the agricultural sector only) adds an incremental layer of challenges to the upper half of the chart (which relates to small businesses overall).

Taking this further is the analysis summarized in **Figure 5**, adapted from recent work carried out by ISF Advisors, because even within the agricultural small- and medium-sized enterprise ("agri-SME") sector there is a need to be more granular in distinguishing specific situations. In this analysis, we can see situations ranging from the "Top 5% of the Market" where we find the largest and most established agri-SMEs, through "The Great Unserved" representing the vast majority of agri-SMEs that are smaller and younger, to "Early-stage Agri Ventures," which is a nascent situation in need of equity investment. **With each step down, we encounter progressively greater barriers to the flow of investment.**

Figure 05

AGRI-SME FINANCE IN AFRICA – SITUATIONS, BARRIERS AND INDICATORS



The chart also shows the key financing channels that have emerged to specifically target and serve these investee situations with appropriate products and terms, ranging from wholesale debt funds that pursue intermediated strategies via large financial institutions, through direct debt funds, to early venture equity funds. In each channel, strategies and products have to be aligned to meet investee characteristics and needs, and address the key barriers indicated.

For example, products for the agri-SME sector need to have repayment schedules that accommodate the strong seasonality of cashflows, a feature that is missing from the typical offerings of larger financial institutions (e.g., banks, MFIs), even those that do reach the larger agri-SMEs. Because of this, wholesale debt funds that finance this segment through financial institutions provide technical assistance (TA) support to those institutions to help them better understand investee needs and tailor their products accordingly, incurring additional costs in this channel.

Meanwhile, direct debt funds serving smaller and younger agri-SMEs tend to find that these investees have low levels of professionalization and robust systems, which means that they often need to provide TA to those enterprises, as well as accepting the higher risk that comes with non-intermediated strategies.

Different situations present investors with a choice about where to invest: some may prefer to be closer to the conventional mainstream, where less flexibility is required, while others may choose situations that are deeply capital-constrained because of a specific impact ambition.

ISF Advisors' analysis of a sample of funds indicates how financing parameters change as one goes deeper into the capital gap—this provides us with indicators of increasing capital constraint. For instance, expected NPL rates increase dramatically as we go from wholesale to direct debt (and even within direct debt, depending on borrower profile and loan security). The analysis also indicates the level of senior protection provided (including guarantees) in these blended finance funds, and here we can see a clear progression of greater senior protection being put in place as we move deeper into the gap.

Understanding all of this clearly helps to calibrate and align expectations when structuring and underwriting new funds in each of these channels, and ensure that channels operate in a way that is responsive to the needs and challenges of each situation. Indeed, ISF Advisors' work on this project was commissioned in part to inform the implementation of the FASA Fund, a multi-donor initiative to provide catalytic subordinated capital to agri-SME funds in Africa.

The experience of applying this framework suggests a number of typical situational variables that are associated with increasing capital constraint, including the following:

1. **Stage of development of investee (e.g., enterprise, fund), the model/technology/strategy they are pursuing, and/or the market (or segment) they are operating in:** this tends to constrain the early stage overall, but the constraint is not always greatest at the earliest stage of development—for instance, Prime Coalition describes three distinct "Valleys of Death" in the development journey of "hard-tech" climate ventures, relating to technology, commercialization and market expansion respectively.

2. **Stage of development of investment instrument and asset class in the investee's context:** as with #1, the early stage is generally constrained (as seen in venture equity for African agri-SMEs above)

3. **Size of investee and/or investment:** while investee and investment size are distinct variables, they tend to be correlated, with the smaller end being more constrained (as seen in the case of smaller agri-SMEs above)

4. **Profile of investee leadership team:** greater constraint has been observed for, e.g., women-led fund managers, non-white fund managers

5. **Business model and sector risk-adjusted returns potential:** greater constraint has been observed for business models and associated market / sector with fundamental attributes that moderate or limit risk-adjusted returns, e.g., low margin, slow growth, high exogenous risk, asset heaviness, limited scale economies

6. **Geography:** greater constraint would be expected for, e.g., remote areas far from investor locations, countries perceived to lack macroeconomic stability, local-currency demand (especially soft-currency demand) from non-local capital sources

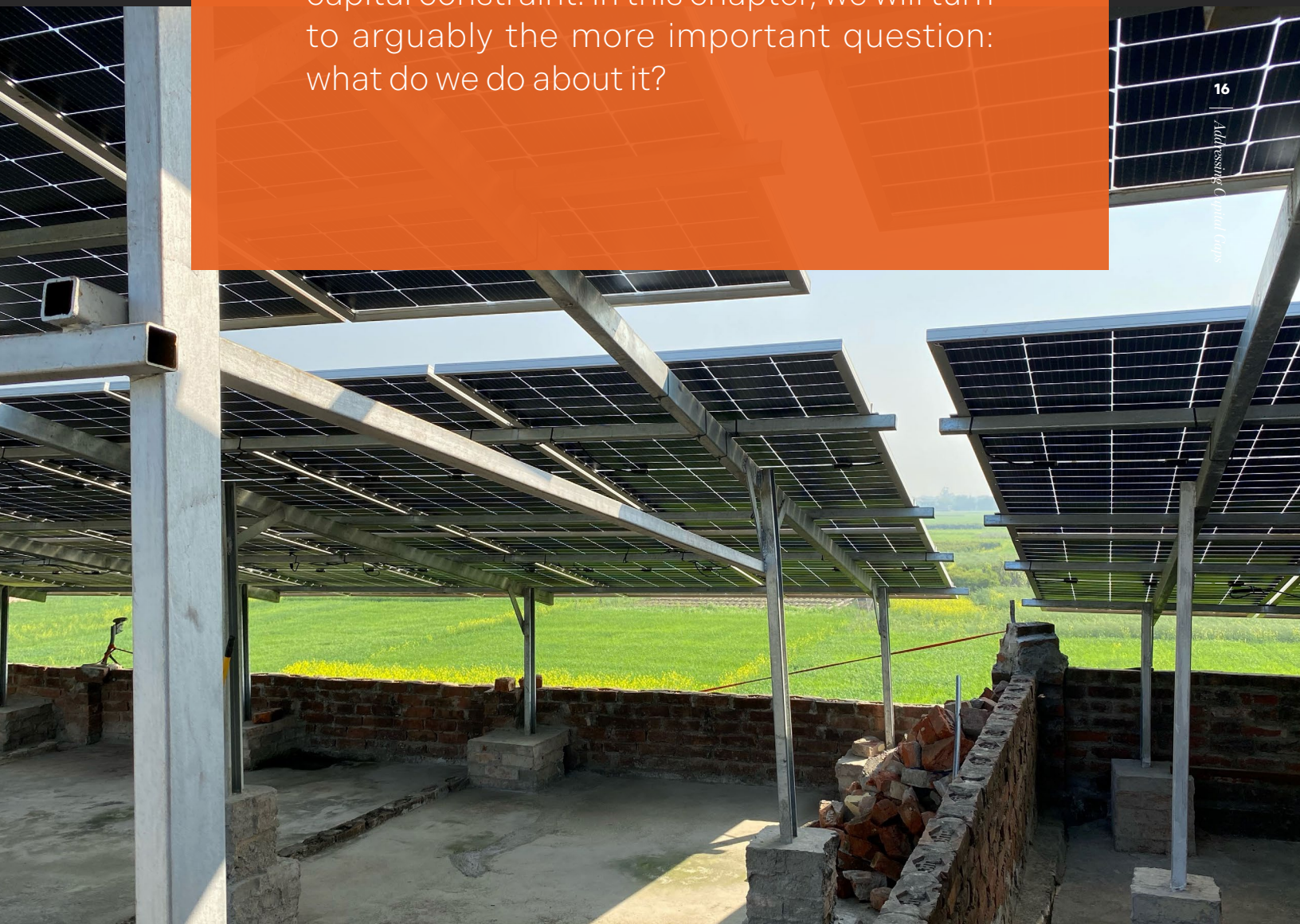
7. **Impact intention embodied in unconventional terms:** as we will see in the example of employee ownership conversions in the United States in Chapter 3, different decisions about how to invest can result in different kinds and degrees of impact, and choices that push for more ambitious impact (such as prioritizing profit distribution to employees over external investors, or giving employees stronger governance rights) can lead to greater capital constraint. Another example is that of Pacific Community Venture's Oakland Fund offering a 0% interest rate because of its emphasis on social justice and restoration in helping historically marginalized communities rebuild in the wake of the COVID-19 pandemic.

Beyond these specific variables, any areas in general that lie outside mainstream investors' scope of familiarity or fall foul of their cognitive biases will likely face increased capital constraint.

2.

RESPONDING TO CAPITAL GAPS

In the previous chapter, we discussed how to describe and understand gaps, disaggregating situations that could be facing different barriers and varying severities of capital constraint. In this chapter, we will turn to arguably the more important question: what do we do about it?



The Three Roles of Catalytic Capital

As set out in Tideline/C3's 2019 report, we see broadly three roles of catalytic capital: Seeding, Scaling and Sustaining.

Seeding is where catalytic capital supports nascent solutions such as investment vehicles that have novel aspects to their strategies, structures or instruments, or that are run by a new investment manager (so-called "first-time fund manager" or a manager with limited track record). These situations involve a high level of uncertainty, which makes it challenging to attract investment.

The **Scaling** role comes into play after these pioneering solutions demonstrate early success but still suffer from limited track record, sub-scale size and often under-developed markets. All these issues mean that these solutions struggle to attract capital, so catalytic capital is needed to help strategies and managers expand, with the aim of achieving the necessary size and track record so that further catalytic capital support is no longer required.

Meanwhile, the **Sustaining** role of catalytic capital responds to an ongoing (i.e., long-term) need for investments that accept concessional returns or disproportionate risk, for which full commercial viability cannot be envisaged in the foreseeable future.

Transient vs Structural Constraint

An important question about barriers is: are they fixed and immutable, or could they be improved or even removed? This goes to the heart of the catalytic capital approach and relates particularly to the catalytic capital role that is appropriate in addressing any gap.

In the C3 Advancing Practice Guidance Notes, we explained that, in the **Seeding** and **Scaling** roles, the need for catalytic capital is considered **transient**, with ultimate success being the closing of the capital gap at the market level so that mainstream impact or even fully commercial investors can pursue similar opportunities down the line without the involvement of catalytic capital. In contrast, the **Sustaining** role assumes that the need for catalytic capital is **structural**, meaning that the capital gap is expected to persist in the long term. As these roles are distinct from one another and imply different ways of deploying capital, any capital gap analysis that informs a catalytic capital strategy should also assess the potential to improve the key investment barriers identified.

Figure 6 revisits the agri-SME in Africa example and provides a high-level assessment of the potential to improve barriers. This assessment is accompanied by a summary rating indicating our assessed level of feasibility for improving barriers, along with an explanatory rationale, i.e., a hypothesis for how this might be achieved. Where the feasibility assessment is high, it implies that mainly catalytic capital is required in the Seeding and/or Scaling roles; where it is low, it suggests that the Sustaining role is called for. Rationales tend to fall into one of two categories.

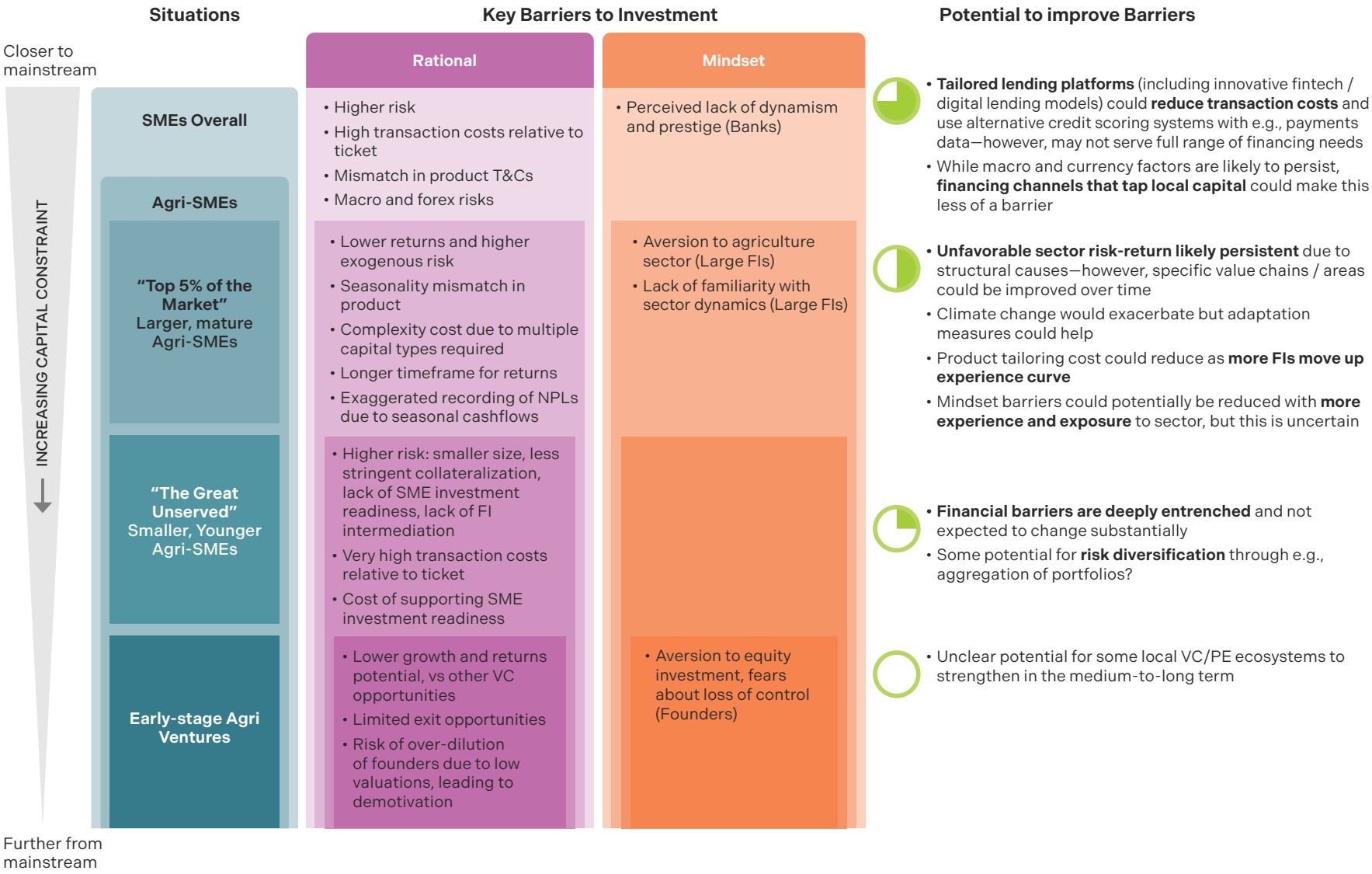
The first relates primarily to early-stage challenges, such as a lack of experience and a limited track record for new solutions (e.g., products, structures, strategies, technologies, industries, markets) where barriers are typically expected to decrease with increasing activity and data over time. In the example just given, the cost of product adaptation for the agriculture sector borne by financial institutions would likely reduce over time as those institutions move up the experience curve. Another common scenario is the uncertainty barrier of investing in innovative business models and industries that have yet to be fully proven out. For example, India's microfinance and affordable housing finance sectors have both dramatically demonstrated the acceleration and scaling that is possible once this barrier is broken through.

The second category relates to barriers that would not dissipate with more experience alone but could be reduced through specific innovations and changes: an example from Figure 6 would be the potential of alternative credit scoring algorithms (based on trading data, etc.) to help lenders serve small businesses that do not have established credit scores or even much of a credit history. Ultimately, these assessments will always rely on subjective judgment that can vary substantially depending on perspective, knowledge, risk appetite, and other factors. Later in this chapter, when we examine responses specifically, we will also discuss how adding a time horizon to responses can serve as a sense-check on this assessment.

While we should endeavor to use factual analysis to inform these perspectives wherever possible, these views are necessarily speculative. **That said, making these views and assumptions explicit also makes them discussable, facilitating a process of debate and refinement that otherwise could not occur.** This, in turn, allows the assessment to be refined and strengthened, and for different investors to align on the appropriate catalytic capital role and other specific responses to the gap.

Figure 06

AGRI-SME FINANCE IN AFRICA – POTENTIAL TO IMPROVE BARRIERS



The assessment of potential to improve barriers is necessarily speculative, but making this explicit also makes it discussable, allowing the assessment to be debated, refined and strengthened.

We should also recognize that distinctions between the three roles of catalytic capital are often blurred in practice, for two reasons.

One is that many transactions integrate elements of more than one role, as described in the C3 Advancing Practice Guidance Notes. For example:

- There could be a follow-on fund (Scaling) that adds novel elements or new countries to the strategy (Seeding); or
- A fund could integrate both transient and structural capital gaps, the first expected to be reduced over time as the strategy matures and its track record increases (Scaling), but with a remaining structural gap that persists in the long term due to the unchanging risk-return aspects of the underlying assets (Sustaining).

The other is the inherent uncertainty around these assessments and predictions, which is reflected in the gradation of summary ratings shown in Figure 6. Because it is difficult to be sure about whether barriers can be improved, over time we may also come to revise our assessments of them and, with that, the appropriate role for catalytic capital to play. For instance, a Seeding strategy in a nascent market may run into unexpectedly strong and immutable barriers, which may lead to future strategies having more Sustaining intentions and characteristics.

It is therefore advisable to incorporate effective mechanisms for learning and adaptation into any strategy—see Chapter 4 for further discussion of this. **It is critical that the adaptation and pivoting of strategies in this way is not seen as a failure, but as a necessary aspect of how we approach capital gaps in the real world.**

Given the inherent uncertainty around assessments and predictions, the adaptation and pivoting of strategies is not a failure but a necessary aspect of how we approach capital gaps in the real world.

Responding to Barriers

Catalytic capital responds to and addresses capital gaps left by conventional capital: this remains the central focus for our discussion. Having a clear understanding of the specific barriers for a given situation helps us to formulate the right investment parameters—such as appropriate instruments, pricing and terms, or tailored approaches to due diligence—that adapt to and potentially even resolve those barriers.

However, catalytic capital investment on its own may not be able to address all the key barriers leading to capital constraint, so there may also be a need for complementary levers or interventions beyond investment per se, such as grants to fund technical assistance for investees, as we will explore in the following case study.

CASE STUDY: FINANCING ROOFTOP SOLAR FOR MSMES IN INDIA

Case Study Context

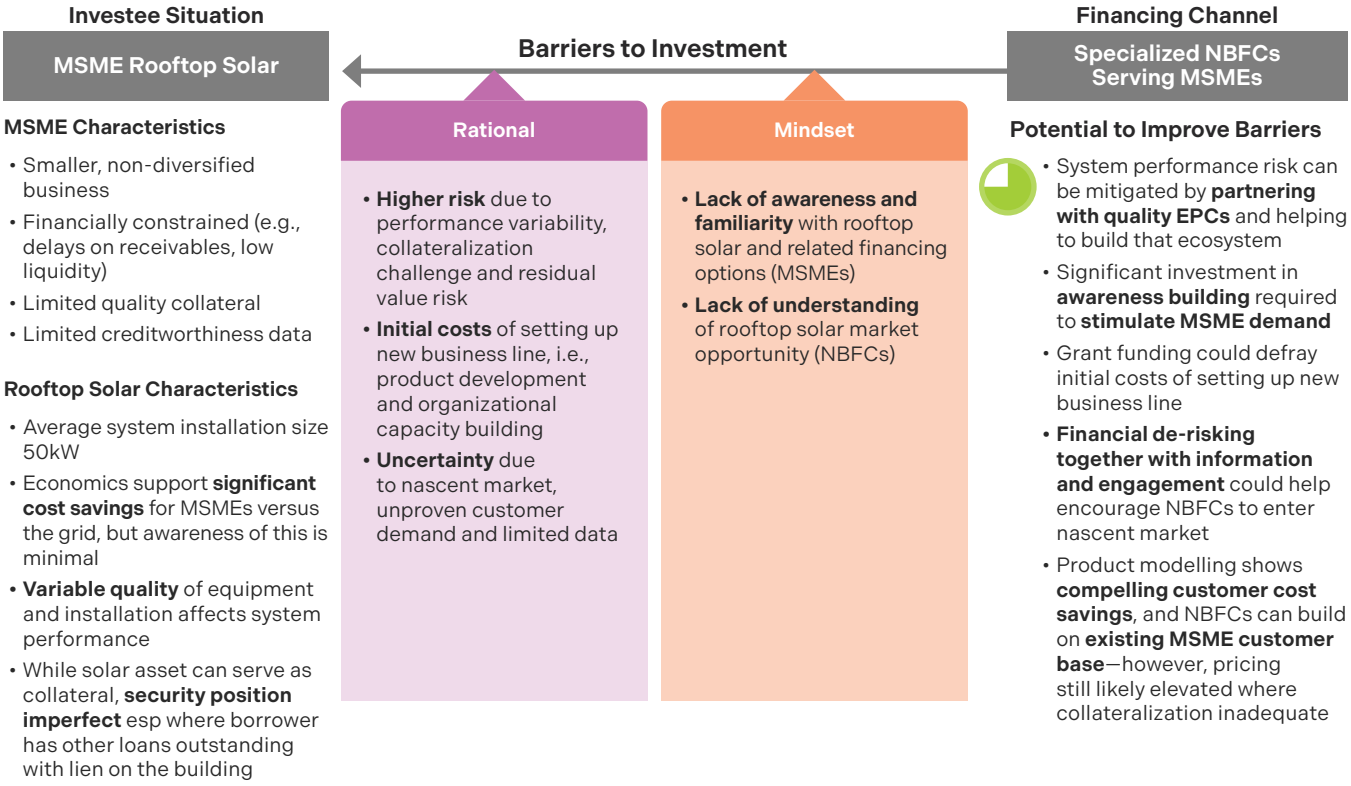
MSMEs (Micro, Small and Medium-Sized Enterprises) account for 25-30% of total power consumption in India, and these installations therefore have large-scale potential to mitigate carbon emissions while helping smaller businesses reduce their energy costs. It is estimated that this represents a $9 billion market opportunity for 15 GW of installed solar capacity, which could drive 15 million tons of CO_2 emission reductions per year.

Where our story begins in 2018, there is both a lack of financing products being offered for these installations despite attractive economics for both lenders and clients, and low effective demand because MSMEs are generally unaware of the potential savings to be gained: this is a classic chicken-and-egg situation that is typical of many nascent impact markets.

While the MSME segment in India is underserved by banks (as in many other geographies), some specialized Non-Bank Finance Companies (NBFCs) are already serving this segment with a tailored approach, offering the potential to leverage an existing financing channel for rooftop solar. By undertaking credit analysis based on cashflow, market and behavioral assessments, this channel has already resolved some of the key challenges of financing smaller businesses that we discussed in the previous chapter.

Figure 07

MSME ROOFTOP SOLAR IN INDIA – SITUATION, CHANNEL, BARRIERS AND POTENTIAL TO IMPROVE



Barriers Analysis

However, a range of key barriers still lead to capital constraint here, as shown in Figure 7. These NBFCs are unfamiliar with rooftop solar and have no reason to move into it, given the lack of demonstrated demand from MSME clients. The quality of both equipment and installation is highly variable, a problem closely linked to the fragmented landscape of Engineering, Procurement and Construction (EPC) service providers that install these systems. This leads to a high risk of system performance issues that could jeopardize customer savings and ultimately loan repayments.

Credit risk is also elevated where the business has limited other collateral to pledge, as the solar asset itself is typically inadequate. Finally, any move to set up this new line of business would incur significant incremental costs, in product development, organizational capacity building, marketing and so on.

The assessment of potential to improve barriers starts to indicate whether and how these could be overcome. Risks associated with system performance can be reduced by better organizing the EPC ecosystem, vetting and partnering with quality installers. Meanwhile, the low awareness among MSMEs can be addressed through information and marketing campaigns that build on existing NBFC networks and credibility. Getting NBFCs to make the move would require addressing multiple barriers, from

engaging with them to foster understanding, to defraying the initial costs of a new business line, to financial de-risking to support moves into such a nascent space.

Daunting as all this might seem, this assessment sounds an optimistic note: once these measures have done their work, barriers could be structurally and permanently reduced. For example, once this line of business becomes established for NBFCs, we could dispense with the information, TA and de-risking measures described above. Meanwhile, on the upside, modeling points to feasible product designs that deliver attractive customer cost savings, lender margins, and internal rates of return (IRRs), indicating a commercially viable proposition: there is thus an incentive (on paper, at least) for NBFCs to consider this seriously. One caveat is that inadequate collateralization for some customers may result in elevated pricing, similar to other MSME products.

In this case, our overall analysis suggests that the potential to improve barriers is moderately high. This would indicate that the appropriate catalytic capital roles here are Seeding and Scaling, with a moderately high potential for this market situation to eventually graduate to conventional capital, as has been achieved with the existing core business lines of the NBFCs.

Responding to Barriers

What can be done to address this gap? We can build on the ideas above to formulate a set of appropriate responses. As shown at a high level in **Figure 8** and further detailed in **Table 1**, we can link each response to one or more barriers being addressed, so that the overall set of responses could act in combination to reduce or even ultimately remove the capital constraints in this situation, i.e., achieving the goal of graduation of this market situation to conventional capital.

In this case, two responses specifically address the deployment of catalytic capital investment (highlighted in green in Figure 8 and Table 1). **One is a risk-sharing facility to de-risk lenders' entry to this nascent market**, which in the real world was a USAID/DFC credit guarantee extended to participating NBFCs via Encourage Capital, covering pari-passu 30-50% of loss in event of defaults in the MSME lending portfolio—this helps mitigate the downside risk of making the move, while ensuring that lenders still have "skin in the game."

The other investment response is growth private equity investment in partner NBFCs from Encourage Solar Finance, managed by Encourage Capital. This can be seen as an anchor to the overall strategy, as it establishes a meaningful partnership between Encourage Capital (which is leading the pursuit of this market opportunity) and selected NBFCs, and bolsters those lenders' capital bases in support of growth into new opportunities.

This also directly addresses NBFCs' mindset barrier regarding lack of understanding, since Encourage Capital brings expertise and confidence in this area. Arguably, this is a more effective response than, say, merely sharing information with and attempting to influence these NBFCs without any genuine financial partnership; in essence, Encourage Capital is also committing its "skin" to the game.

While these investment responses are critical to enabling NBFCs to enter this new market segment, they are unable to resolve the capital gap fully, as multiple barriers (related to, e.g., system performance risk and lack of customer awareness) persist. **Without addressing these, fundamental market dynamics, and consequently the economics of the business model, would remain compromised—essentially, we would be nudging partner NBFCs towards a likely failure.**

Therefore, the other four responses (shown in blue in Figure 8 and Table 1) describe steps taken to address those other barriers, ranging from building a quality EPC installer ecosystem, to building NBFCs' capabilities and capacities to run this new business line well. These responses are TA interventions, which are typically funded by a grant. In this case, KfW, the German development finance institution that has invested in Encourage Solar Finance, has also provided a TA grant to support these four areas of work, managed by Encourage Capital.

When outlining potential responses, it is helpful to indicate the expected timeframe for each response, as shown in the last column of Table 1. Apart from its relevance to planning and resourcing responses, this also serves as a sense check on the assessment of potential to improve barriers as discussed in the earlier part of this chapter, and therefore also on whether the catalytic capital role is being deployed in the Seeding and Scaling roles (i.e., addressing a transient gap), or in the Sustaining role (i.e., addressing a fixed, structural gap). As explained earlier, these views are necessarily speculative and should be seen primarily as a thesis to guide investment and complementary actions.

In this example, the analysis suggests that the gap is transient, or more accurately, one that could be rendered transient if the barriers are effectively resolved. The role of catalytic capital here is best described as Seeding, where there is a general need to address "the Challenge of the New" as described in C3 Advancing Practice Guidance Note #1. Note that the novel elements being addressed in this example are not only those relating to financial structures, but also to the broader market structures and dynamics (e.g., MSME awareness of rooftop solar) to which that finance is inextricably connected.

Early Results

Through June 30, 2025, Encourage Solar Finance's portfolio companies have already financed 3,378 MSMEs for 131 MW of new solar capacity, representing 103% and 50% of fund targets, with 5 years still to run. At a market level, this progress has surfaced a promising area of commercial opportunity that is now on the radar of financial institutions more broadly. Bajaj Finance, a major NBFC in India, has called green finance one of its "Top 3 Megatrends" and announced ambitions to deliver solar finance to MSME and retail customers in the coming year. Meanwhile, the Small Industries Development Bank of India (SIDBI), a key lender to the NBFC sector, has raised $315 million of fresh financing over the past year, specifically to scale up MSME finance solutions.

Figure 08

MSME ROOFTOP SOLAR IN INDIA – RESPONSES TO BARRIERS

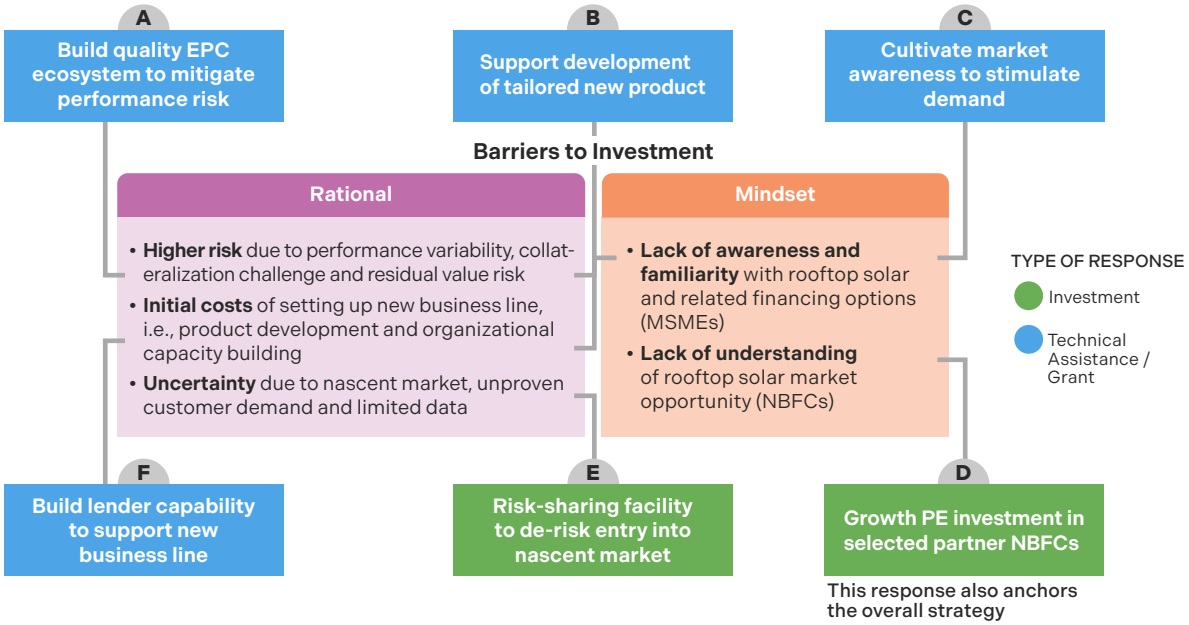


Table 1

MSME ROOFTOP SOLAR IN INDIA – DETAIL OF RESPONSES TO BARRIERS

Response	Detail	Time-Limited?
A Build quality EPC ecosystem to mitigate performance risk	• Develop standards for EPC assessment; conduct training for market participants • Vet and partner with high-quality EPCs for installations	Yes, short term
B Support development of tailored new product	• Develop new product with repayments calibrated for customers to see immediate and ongoing cost savings versus the grid • Offer multiple customer options to respond to diversity of customer base and low familiarity with rooftop solar (and therefore varying levels of customer confidence), including Leasing option that allows customers to evaluate performance with low risk and avoids challenges with security position in solar asset where customer has other collateralized loans	Yes, short term
C Support development of tailored new product	• Conduct customer awareness campaigns in key industrial clusters with local business associations / chambers of commerce to stimulate interest in and demand for rooftop solar	Yes, short-to-medium term
D Growth PE investment in selected NBFCs	• Growth equity investment in selected NBFCs from an aligned investor, supporting expansion of lending as well as providing expertise and networks	Yes, medium term (graduation to conventional capital if broader market acceptance is achieved)
E Risk-sharing facility to de-risk move into nascent market	• Partial first-loss facility to help mitigate uncertainty for lenders of entering a nascent market segment with an innovative product, while ensuring that lenders have "skin in the game"	Yes, short-to-medium term
F Build lender capability to support new business line	• Tailored training for lender staff to educate them on new market segment and offerings including technical details • Consultant support to help lender build robust standards, systems, policies and technology tools	Yes, short-to-medium term

Further Types of Response

Since our discussion of responses to barriers has already ranged beyond investment per se, one might ask: **are there other kinds of responses that could be helpful?**

In addition to investment and TA/grant, the two categories we have discussed so far, this guide suggests two further categories of potential response, informed by a broader understanding of market systems (see more on this in Chapter 4). We will introduce these briefly here and provide illustrations and more detailed explanations in the next chapter.

- **A third category of response is Influencing Market Actors,** which means working to change the knowledge, attitudes and behaviors of other market actors, such as peer investors that can and should be considering opportunities in the situations we are targeting. Of course, such responses should be grounded in an understanding of reality, including the motivations, incentives, binding constraints and psychological dynamics of the market actors, and consider feasible strategies for effective influence rather than merely being a wish-list of desired actions from others.

- **Our final category of response is Advocacy for Rules Change**, which means informing and engaging public policy makers, legislators, regulators, standards setters and other relevant stakeholders that create, evolve and enforce the framework of market rules (e.g., laws, regulations, standards) that in turn guide (or constrain) the behavior of market participants. As noted in Chapter 2, the financial services sector tends to be more highly regulated than most, so these changes could be highly consequential.

  For example, in a recent report on unlocking local African pension fund capital for small business finance, the Collaborative for Frontier Finance describes active efforts advocating with national regulators for changes ranging from increasing investment limits in South Africa to streamlining offshore investment authorisation in Zambia, to accelerating fund set-up processes in Ghana.

Not all of these responses are suitable for all types of institutions that deploy catalytic capital, as we have expanded beyond the investment response alone. For example, some investors may have TA facilities and will therefore be able to deploy such support, while many others will not. Meanwhile, some investors will be willing to engage peers and other market actors as part of their work, while others will be less so.

Our intention in laying out the full range of responses is not to suggest that all catalytic capital investors must do all of these things, but rather to suggest they be considered where appropriate for a given investor's capabilities, resources, position and role, and, where they are not, signal possibilities for collaboration with other kinds of actors (e.g., advocacy nonprofits, industry associations, market facilitators) that are better placed to take action.

3.

FROM ANALYSIS TO ACTION

In this chapter, we will use another case study—on converting small- and medium-sized businesses to employee ownership in the United States—and step through it from analysis of barriers into a set of potential responses, putting together all the elements we have discussed so far.

EMPLOYEE OWNERSHIP CONVERSIONS IN THE UNITED STATES

Case Study Context

Employee ownership (EO) is an approach that shifts economic value, and sometimes decision-making power as well, to a broad base of workers in a business. It is relevant across diverse business sectors, from professional services to automotive manufacturing. There is evidence that EO can improve financial performance, reduce staff turnover, enhance job quality and wages, and provide wealth-building opportunities while reducing gender and racial inequality. At scale, this has the potential to transform economic opportunity and inclusion at a societal level.

In the United States, there is now a window of opportunity for business conversions to EO due to the "Silver Tsunami"— as baby boomers retire in the coming years, over $10 trillion in assets is expected to transition to others. While some of this will be passed on within families, the majority will not: in these cases, the usual options are to sell to a trade or private equity buyer.

Within this landscape, a growing number of innovative funds and vehicles are offering business owners another option: selling to their employees. Because employees may not be able to put up the cash to acquire the business, these conversions typically require external financing whereby financiers are repaid out of the future cashflows of the business. In many cases, there can be tax advantages for sellers and the ongoing business. Where the right conditions are met—such as a robust leadership succession plan in place, sufficient profitability and limited need for further capital infusions—this can deliver benefits for all involved: sellers, workers and financiers.

There are a variety of EO structures that can be used, from ESOPs (Employee Stock Option Plans) to EOTs (Employee Ownership Trusts) to worker cooperatives. While we can only touch on these at a high level here, further information can be found in this overview for investors and funds update. There has also been a move within conventional private equity towards what is described here as broad-based employee participation, which can deliver substantial payouts to employees upon exit—while this is seen by many in this field as not being "real EO," including it here illustrates the wide range of situations that exist.

We will also make some assumptions here that we

- Are a philanthropy seeking to scale up the number of EO companies through conversions, to address entrenched social wealth inequalities in the United States;
- Can make investments (e.g., underwriting funds) as well as deploy grant funding, and support influencing and advocacy activities where appropriate; and
- Seek opportunities to structurally close capital gaps and therefore prefer situations with strong graduation potential, i.e., where investment barriers can be removed over time so that conventional capital can ultimately flow unaided at scale (corresponding to the Seeding and Scaling roles).

Identifying Situations

Transform Finance estimates that EO conversions in the United States represent a $1 trillion financing opportunity, only a tiny fraction of which is currently being served. This is a big headline gap, which helps in getting people to pay it heed, but as always we need to get more granular in order to meaningfully discuss what to do about it.

There are many ways to segment the EO conversion space, and a diversity of different structures and approaches, so things can quickly get complicated. As our intention here is primarily to explain a way of thinking and working rather than to provide extensive information on EO itself, we have deliberately simplified our segmentation to show just three selected situations. Therefore, while the information contained in this analysis does accurately reflect situations and approaches in the real world, bear in mind that it is not a comprehensive view of the entire EO landscape.

The three situations we have chosen show different combinations of investee characteristics, impact profile and addressable market size, as well as different financing channels, barriers and potential for improvement of those barriers (and therefore different potential for structural graduation to conventional capital). These situations are:

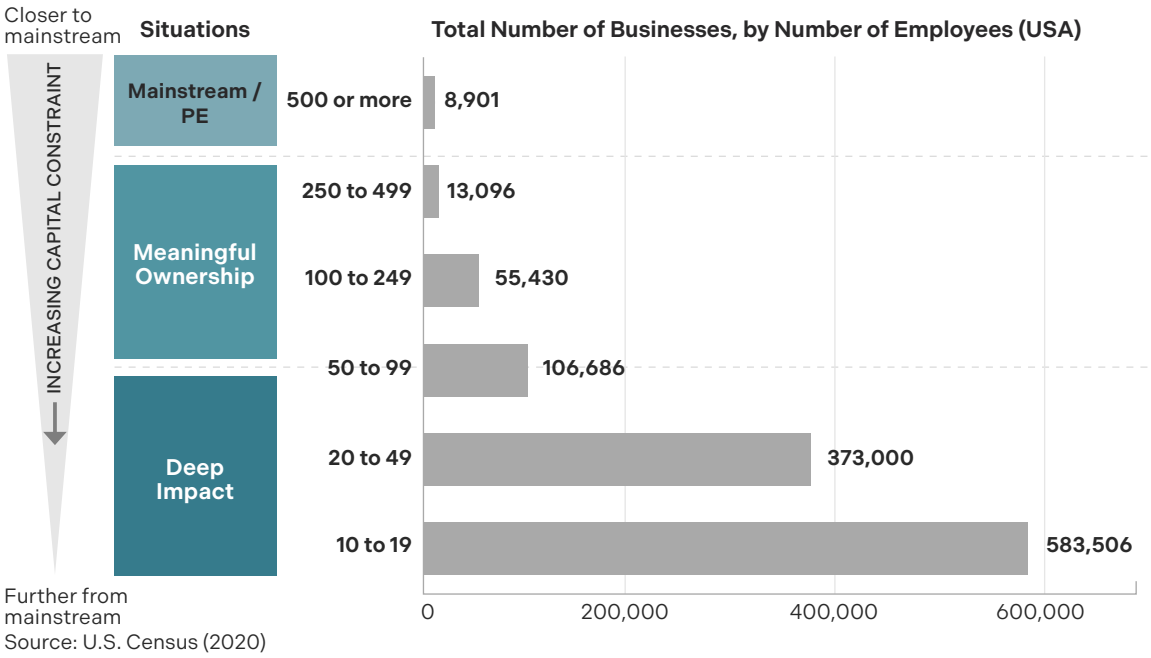
1. **"Mainstream/PE"**: Private Equity model that approximates EO by providing phantom stock to employees, leading to a potential one-time payout to workers when the PE investor exits, but does not fundamentally shift ownership of the business into the future (unlike 2 and 3 below)—this is typically to medium-to-large-sized firms with thousands of employees
2. **"Meaningful Ownership"**: At least 30% sale to employees of a medium-sized, growing business, typically using the ESOP model, and targeting companies that are 50-100 employees or above.
3. **"Deep Impact"**: 100% sale to employees of a smaller (10-50 employees), prioritizing employee governance, typically using a cooperative (coop) model.

These situations vary along multiple dimensions. As we go down the list above, we see

- Increasing degree of meaningful ownership, and economic and governance rights for workers, with 2 and 3 also meeting the Certified EO standard's requirement of at least 30% company being owned by employees (excluding founders);
- Decreasing typical business size as measured by the number of employees;
- Increasing addressable market size as defined by the number of businesses in each size bracket (see **Figure 9** below); and
- Increasing degree of capital constraint, as will be discussed further below in our barriers analysis.

Figure 09

EO CONVERSIONS U.S. – INDICATIVE ADDRESSABLE MARKET BY SITUATION



Source: U.S. Census (2020)

Figure 10 below describes the key investee characteristics and financing channels for all three situations, as well as their specific impact profile in terms of the degree of employee empowerment (i.e., economic and governance rights in the business) and the potential scale of addressable market. It should be noted in this example that, since the typical EO structure varies between the situations, the characteristics described are not only those inherent to the businesses but also to the EO structures (which also includes differences in tax treatment both of the transaction and of the ongoing business under new ownership).

As might be expected, financing channels vary considerably between the situations described, with Mainstream/PE using a conventional combination of private equity investment leveraged with senior debt.

The other two situations (Meaningful Ownership and Deep Impact) need to be understood against historical context. Traditionally, Meaningful Ownership conversions would be reliant on the seller to finance most of the transaction value, which would be repaid over time out of the forward operating cashflows of the business, with senior debt from mainstream lenders making up any remainder. This creates a severe bottleneck in the number of deals, as it means sellers receive only a small fraction of the business's value in cash at the time of sale.

In the Deep Impact situation, financing would be mostly through community development finance institutions (CDFIs) and non-CDFI nonprofit lenders, which typically lend up to 70% of the transaction value, leaving the seller to finance at least 30%.

Across both situations, sellers would typically need to put in the time and effort to understand, negotiate and structure deals, and the business would have to bear the up-front cost of specialist advisors.

In recent years, innovative financing channels have emerged to address this issue, in the form of dedicated EO/ESOP conversion funds deploying mezzanine debt into the Meaningful Ownership situation, and new CDFI or nonprofit EO conversion funds that deploy non-voting preferred equity into the Deep Impact situation. This allows the level of seller financing to be reduced substantially or perhaps even eliminated altogether. In addition, these specialist EO conversion finance providers will typically take the lead in assembling the transaction and engaging specialist advisors as needed.

All of this helps to make an exit to employees a much more attractive option for business owners, and therefore increases the potential for these models to have large-scale, transformative impact across the economy.

Figure 10

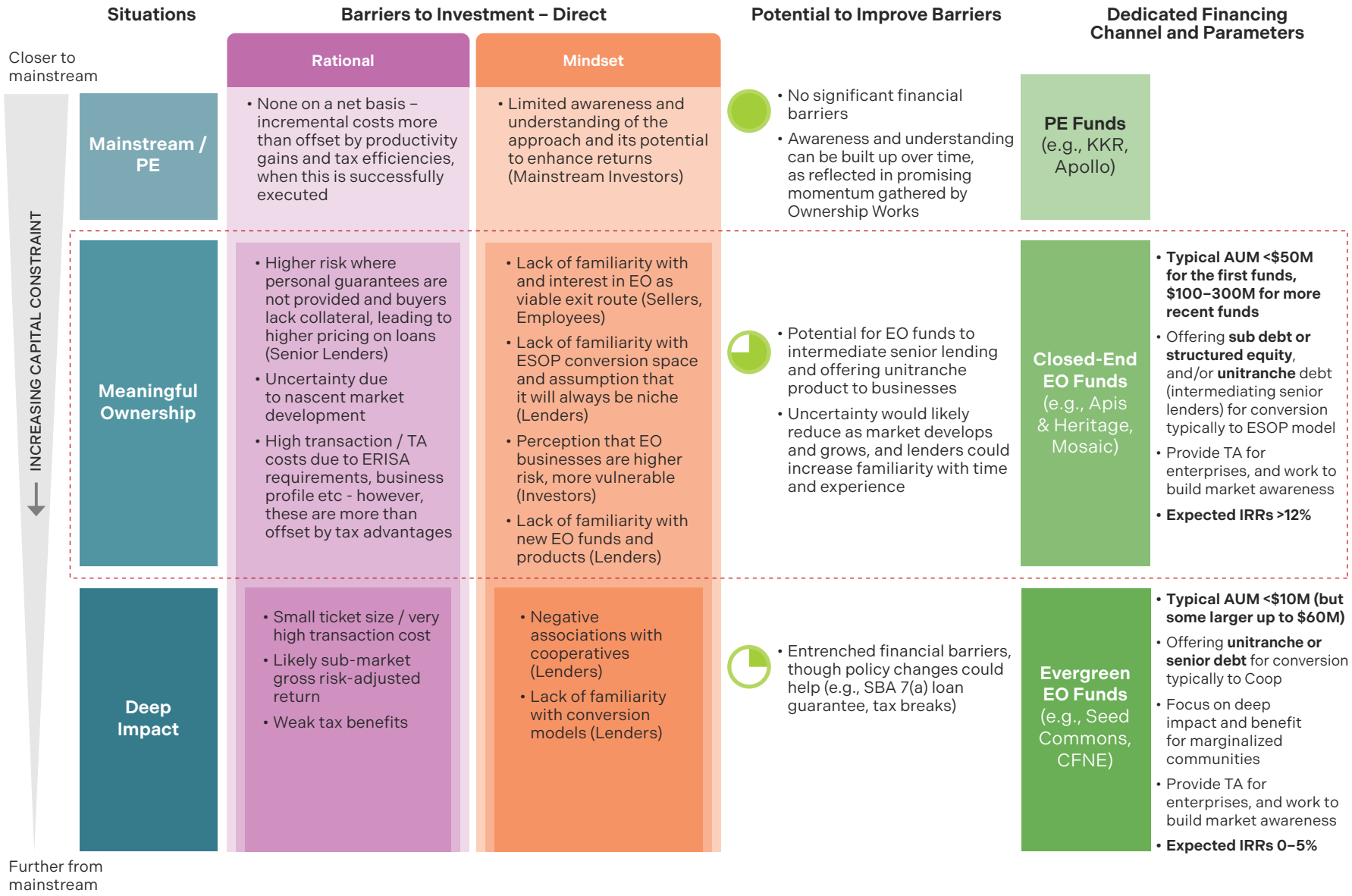
EO CONVERSIONS U.S. – SITUATION CHARACTERISTICS, FINANCING CHANNELS AND IMPACT PROFILE

Situations	Typical Investee Characteristics	Financing Channels	Impact Profile Degree of empowerment	Potenial scale*
Mainstream / PE	• **Medium-to-large companies** (thousands of employees) with significant growth potential • Mature, cash-flow positive business • Sale to private equity with a small % of ownership allocated to employee rewards (i.e., phantom stock) and complementary productivity-enhancing initiatives	• **Mainstream PE players** (e.g., KKR, Blackstone, Apollo): thesis is that employee rewards more than outweighed by business financial outperformance • **Mainstream senior lenders, private credit** (commercial)	**Economic rights** • Potential one-time payout for employees when PE investor exits	Low
Meaningful Ownership	• **Medium-sized companies** (hundreds of employees, $5–50M EBITDA) with significant growth potential • Mature, cash-flow positive business with no succession issues • At least 30% sale to employees, most commonly thru ESOP model • Significant tax benefits for sellers, and for on-going ESOP business if S Corp • Most sellers are unable to finance, structure and execute the deal without support from EO fund	• **Seller** typically ~20% of deal • **EO conversion fund:** structured equity or sub debt • **Mainstream senior lenders** (e.g., JP Morgan, Wells Fargo)	**Economic rights (ESOP)** • Stock ownership through ESOP retirement account • Potential to cash out on departure	Med
Deep Impact	• **Smaller companies** (<50 employees) with modest growth potential (e.g., neighborhood businesses) • Cash-flow positive; no succession issues • 100% sale to employees thru Coop model • Weaker tax benefits • Most sellers are unable to finance, structure and execute the deal without support from EO fund	• **Seller** typically ~30% of deal • **CDFI or nonprofit EO conversion fund:** unitranche or sub debt	**Economic rights (Coop)** • Profit distribution to worker-owners **Governance rights (Coop)** • Democratic governance **Protection of company/ mission (Coop))** • Employee approval of sale	High

Note: * In terms of number of enterprises in relevant size bracket

Figure 11

EO CONVERSIONS U.S. – SITUATION BARRIERS ANALYSIS AND FINANCING CHANNEL PARAMETERS



Barriers Analysis

The overall analysis of key barriers for each situation is presented in **Figure 11**.

What we see is a gradation of rational barriers as we move down through these situations, ranging from none on a net basis for Mainstream/PE (incremental costs being more than offset by productivity gains and tax efficiencies), to a formidable array of risk-return and cost barriers for Deep Impact. In the middle of this spectrum is the Meaningful Ownership situation, where it is notable that the ESOP model offers tax advantages for sellers and potentially the on-going business (if structured as an S-Corp) that, if fully leveraged, more than offset the transaction cost burden of these types of conversions—this underscores the point that market rules can bring benefits that reduce barriers as well as challenges that increase barriers.

Mindset barriers have also been identified for each situation. Indeed, the one key barrier that applies to Mainstream/PE is the lack of awareness and understanding among investors of this relatively new approach, which is being actively addressed by vocal PE champions and the nonprofit Ownership Works. As such, the assessment is that Mainstream/PE is already close to broad market acceptance, as evidenced by the number of conventional PE firms now implementing this strategy.

While many of the mindset barriers are on the supply side (i.e., investors and lenders), as expected, we also see them on the demand side. In this case, it is the barrier around lack of awareness of EO as a viable route for sellers and employees in Meaningful Ownership—this has parallels with the MSME rooftop solar case in the previous chapter, another nascent market around an innovative product. The specialist funds serving this situation are already working to mitigate these barriers, by showing up alongside mainstream PE acquirers and offering similar deal terms but with employee ownership as the "cherry on top."

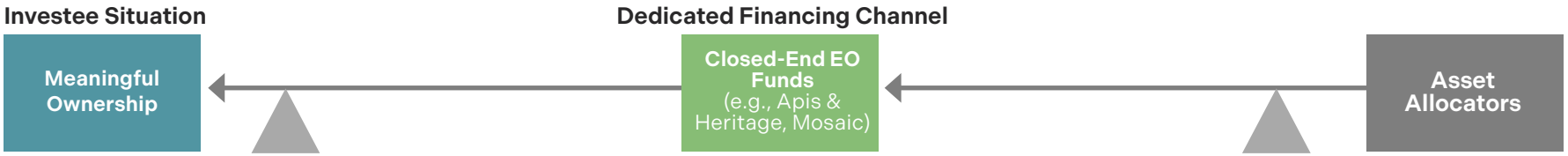
Given our assumption that we seek a clear graduation path to conventional capital, we would likely prioritize our examination of the Meaningful Ownership situation. Mainstream/PE has minimal barriers and is arguably already graduating, so we would de-prioritize that. Deep Impact has entrenched barriers that would be difficult to remove.

Meanwhile, Meaningful Ownership is served by closed-end EO funds with expected IRRs in the mid-teens in line with the broader class of mezzanine debt funds, and there could be some amelioration of barriers: some of this could flow naturally from continued market development and track record, while others might require specific changes in financing approach or the wider environment. While not a sure bet, there is arguably sufficient potential here for a reasonable graduation thesis.

Note that this is not a suggestion that all catalytic capital investors should be seeking graduation (i.e., the Seeding and Scaling roles) or that the other situations in this example should not be supported. Rather, these are choices that each investor should make. For instance, the Deep Impact situation could be perfectly appropriate for an investor in the Sustaining role, and it would offer an impact profile—in terms of depth of economic and governance rights, and breadth of reach across smaller enterprises—that could not be achieved in the other situations.

Figure 12

EO CONVERSIONS U.S. – BARRIERS TO INVESTMENT FOR "MEANINGFUL OWNERSHIP" SITUATION (DIRECT & INDIRECT)



Barriers to Investment – Direct

Rational	Mindset
• Higher risk where personal guarantees are not provided and buyers lack collateral, leading to higher pricing on loans (Senior Lenders) • Uncertainty due to nascent market development • High transaction / TA costs due to ERISA requirements, business profile etc - however, these are more than offset by tax advantages	• Limited awareness and understanding of the approach and its potential to enhance returns (Mainstream investors) • Lack of familiarity with and interest in EO as viable exit route (Sellers, Employees) • Lack of familiarity with ESOP conversion space and assumption that it will always be niche (Lenders) • Perception that EO businesses are higher risk, more vulnerable (Investors) • Lack of familiarity with new EO funds and products (Lenders)

Profile & Characteristics

- New managers raising 1st or 2nd funds: examples include Mosaic Capital Partners, Apis & Heritage
- Typical AUM <$50M for the first funds, and $100-300M for more recent funds
- Offering sub debt or structured equity, and/or unitranche debt (intermediating senior lenders) for conversion typically to ESOP
- Expected IRRs in mid-teens IRR in line with mezz debt funds
- Need to bear cost of market cultivation (e.g., educating potential sellers) as well as technical assistance (TA)and employee education

Barriers to Investment – Indirect

Rational	Mindset
• Early-stage uncertainty due to emerging managers without proof of concept • Lack of clarity on appropriate return benchmarks • Expected risk-adjusted return seen as sub-market due to the above • Novelty of strategies and lack of standardization of fund structures driving transaction time and cost • Ticket size too small for institutional investors • Additional cost of TA and market cultivation	• Lack of familiarity leading to exaggerated perception of risk; perception that this will always be a small market • Discomfort with 'wealth' and 'wealth building' narrative (some Left-leaning Investors) • Discomfort with 'socialist' associations (some Right-leaning Investors) • Lack of clarity on alignment with established allocation categories and asset classes • Lack of clarity on connection to existing impact focus areas and concerns about 'impact washing' (Mission-oriented Investors)

Responding to Barriers

With our focus on the Meaningful Ownership situation served by closed-end EO conversion funds, we can extend the barriers analysis to encompass the indirect investment level between asset allocators and funds. This is important because the funds themselves face barriers to receiving investment, as well as barriers in deploying investment into businesses. **Figure 12** shows the key investment barriers at both the direct and indirect levels, along with the key characteristics of these funds.

At the indirect level, we observe both rational and mindset barriers. While the former are largely self-explanatory, the latter warrant some discussion. For instance, there could be mindset barriers of discomfort with some aspects of the narrative around EO conversions and these might vary among investors: some politically right-leaning investors feel that worker ownership is too "socialist" for their tastes, while some politically left-leaning investors might not initially take to a pitch centered on wealth and wealth building.

Meanwhile, because these funds are built around novel strategies and investment instruments, lack of familiarity with this among investors could also mean a lack of clarity on which asset class and allocation category these investments would go into, and therefore what appropriate market-rate returns are. For impact-oriented investors, there may be a further issue of not understanding which of their defined impact themes, if any, EO conversion funds neatly fit into, since employee ownership per se is not yet a commonly adopted theme or priority.

Laying out both direct and indirect barriers underscores the reality that both sets need to be resolved in order to close the capital gap, for the identified situation and financing channel. This naturally leads us to the task of formulating potential responses to the full range of identified barriers, and a high-level overview of this is presented in **Figure 13**, with further details provided in **Table 2**.

The responses described here are grouped into the four categories introduced in the previous chapter—investment, grant funding, influencing market actors, and advocacy for rules change—in line with the assumption made at the outset of this case study that we are a philanthropy with the capability and willingness to pursue responses in any of these categories.

In the **investment** category, this identifies the need to deploy catalytic capital in underwriting new funds, with specific parameters indicating the flexibility required, such as acceptance of early-stage uncertainty and smaller ticket sizes (typically <$10 million for the first funds). Guarantees could be a potential mechanism to mobilize more conventional capital into funds, as early-stage uncertainty would likely deter such investors.

Laying out both direct and indirect barriers underscores the reality that both sets need to be resolved in order to close capital gaps.

As many of these managers will only be on their first or second fund, track record will be limited, so there would need to be an adapted approach to due diligence, such as evaluating synthetic track record such as relevant team member experience in lower middle market (LMM) private equity, private credit, or small business debt, as well as experience with EO specifically, and assessing the team's strategies and networks for originating deals. Another potential response would be to explore solutions to the problem of ticket-size mismatch for institutional investors (e.g., fund of funds vehicles).

As shown in Figure 13 below, all these potential responses relate directly to the barriers identified in the analysis.

Grant funding could help unlock some barriers, such as defraying the costs of stimulating demand-side awareness and interest (given the nascent stage of overall market development), and of technical assistance including employee education for investee businesses, especially for smaller or more complicated conversions. Such funding could also help to develop the pipeline of new funds by supporting emerging managers, perhaps targeting those reaching new market segments in terms of geography, sector or business profile—this could be provided directly to new managers, or into incubator, accelerator, or community of practice platforms.

There is also potential for responses around **influencing other market actors**, such as working to engage and help other asset allocators address their mindset barriers so that they can appropriately consider opportunities in this situation, the premise being that while we may already have adjusted our own mindsets as a catalytic capital investor, other investors would need to do the same for these barriers to be removed at a market level. This work should be viewed as distinct from, but complementary to, the work on addressing rational barriers. As previously discussed, mindset barriers can and do exist independently of rational barriers, and it is not safe to assume that market mindsets "will naturally change" once funds have demonstrated a track record.

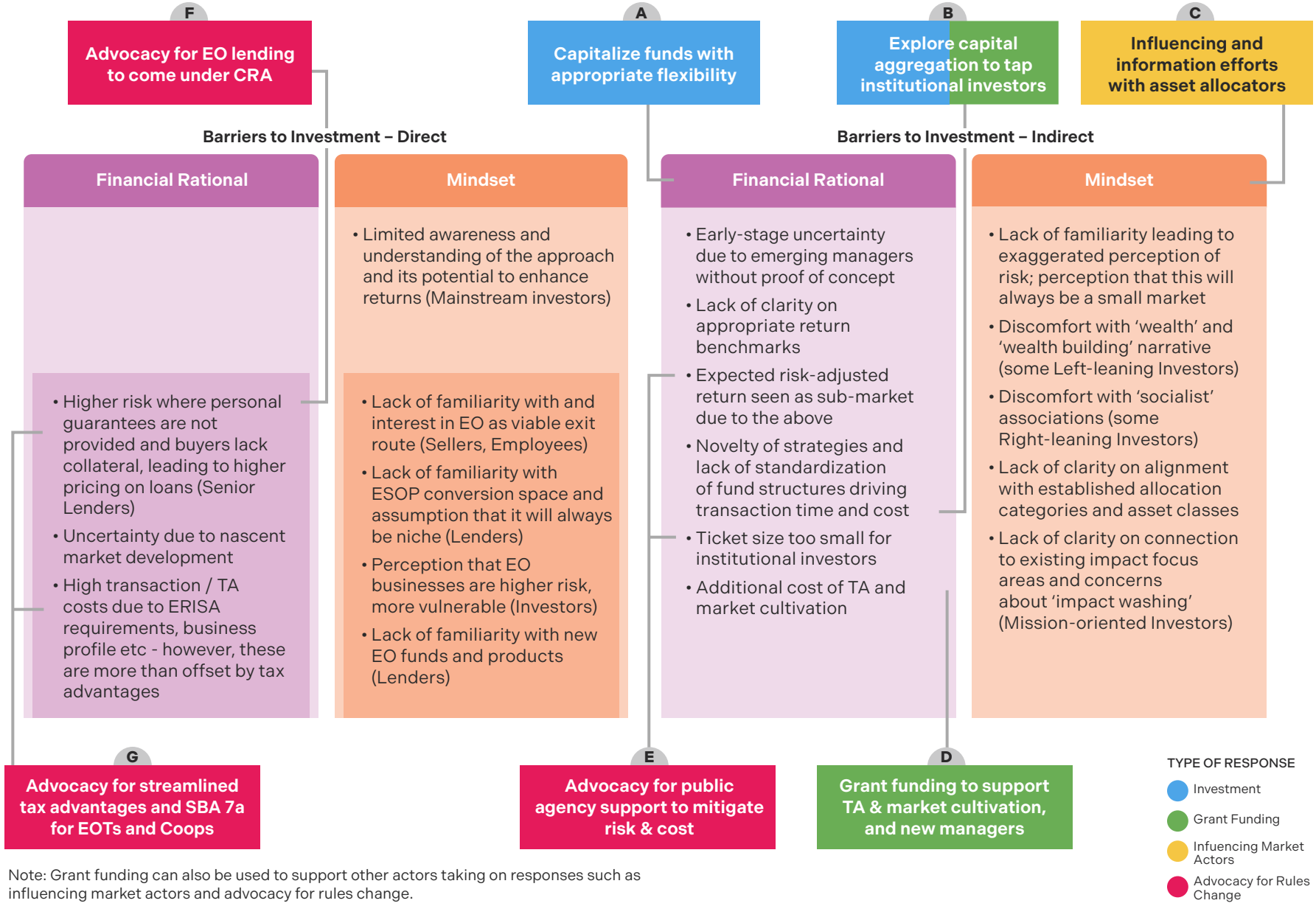
Finally, we describe a range of responses on **advocacy for rules change**. These could be at the direct investment level, such as advocating for simplification of ESOP tax advantages and/or streamlined tax advantages for EOT/Coop models, to reduce the complexity and cost of conversions. They could also be at the indirect level, such as advocating for provision of at-scale concessional capital and/or de-risking to funds, as reflected in the proposed American Ownership and Resilience Act (AORA) sponsored by Sen. Chris Van-Hollen, based on work by the ESOP Association in collaboration with Lafayette Square Institute.

Because these rules changes apply across the entire market, they can have profound, far-reaching and potentially transformative impacts on the flow of capital, and consequently for EO conversions and benefits for workers. Indeed, the preponderance of ESOPs in EO conversions in the United States, and of EOTs in the conversions in the United Kingdom, has likely been shaped by the distinctly tax-advantaged status of each model in the respective jurisdiction.

We should note that grant funding could also be used to support other actors in influencing market actors and advocating for rules change, if it is not feasible or desirable for us to act directly in those ways.

Figure 13

EO CONVERSIONS U.S. – RESPONSES TO BARRIERS (DIRECT & INDIRECT)



Note: Grant funding can also be used to support other actors taking on responses such as influencing market actors and advocacy for rules change.

Table 2

EO CONVERSIONS U.S. – DETAIL OF RESPONSES TO BARRIERS

Response	Detail	Time-Limited?
A Capitalize funds with appropriate flexibility	• **Deploy capital with willingness to accept perceived disproportionate risk** due to early-stage market uncertainty • **Accept smaller ticket sizes** (<$10 million) to match typical size of first funds • **Consider providing guarantee to mobilize** more conventional capital into funds • **Establish appropriate assessment of first-time managers** based on, e.g., synthetic track record, LMM experience, deal sourcing model, EO experience • **Support warehousing facilities** to help first-time managers demonstrate pipeline • **Put in time and effort** to understand market landscape, dynamics, etc	Yes, medium term
B Explore capital aggregation to tap institutional investors	• **Explore new vehicles to aggregate capital** from institutional investors into funds (e.g., fund of funds)—**capitalize promising new vehicles** as well as **support development with grant funding** where needed	Yes, medium term
C Influencing and information efforts with asset allocators	• **Engage with asset allocators** (e.g., through peers, networks) to reframe sense of scale, dispel misconceptions, understand how EO connects to priorities • **Tailor framing** according to political leanings and prevailing climate as needed	Yes, medium term
D Grant funding to support TA & market cultivation, and new managers	• **Provide grant funding to EO conversion funds** to support TA and market cultivation (e.g., awareness building and employee education activities) • **Provide grant funding to emerging managers** for fund planning, pre-development, proof of concept phases, and/or support incubator / accelerator / community of practice	Uncertain / Mixed – some market segments may graduate while others may not
E Advocacy for public agency support to mitigate risk & cost	• **Advocate for EO funds to have greater access to concessional capital and/or de-risking at scale**, such as through the SBIC program of the SBA (Small Business Administration) and/or through the Commerce Department, as reflected in proposed American Ownership and Resilience Act sponsored by Sen. Chris Van-Hollen	Yes, but time frame uncertain
F Advocacy for EO lending to come under CRA	• **Develop a case for EO to be encompassed within Community Reinvestment Act (CRA) rules**, to mobilize more senior debt from mainstream banks • **Advocate for changes** to relevant legislation / regulation	Yes, but time frame uncertain
G Advocacy for streamlined tax advantages and SBA 7a for EOTs and Coops	• **Develop a case for simplification of ESOP tax advantages and/or streamlined tax advantage for EOT/Coop models** to reduce the complexity and cost of conversions • **Develop a case for Small Business Administration (SBA) 7(a) loan guarantee applicability to EOT and Coops** as models that work well for conversions of smaller businesses (<50 employees) • **Advocate for changes** to relevant legislation and/or regulation	Yes, but time frame uncertain

Time-Limited Response

The responses in this case study are expected to be time-limited, as indicated in Table 2. This fits with a thesis for eventual graduation to conventional capital for the Meaningful Ownership situation. However, a few things should be noted.

First, the time scales being discussed are not short, with most responses likely to extend into at least the medium-term horizon, reflecting the reality that Seeding and Scaling journeys may take years if not decades to complete (as noted elsewhere, including in C3 Advancing Practice Guidance Note #2).

Second, barriers may be resolved for some market segments but not others, which may mean that only some segments (such as the larger or more profitable businesses within a situation) graduate, while others do not and continue to require catalytic capital in a Sustaining role.

Third, there is a high degree of uncertainty associated with efforts to change wider market conditions—by influencing market actors and advocating for rules change—so the desired change may or may not be achieved within a particular time frame.

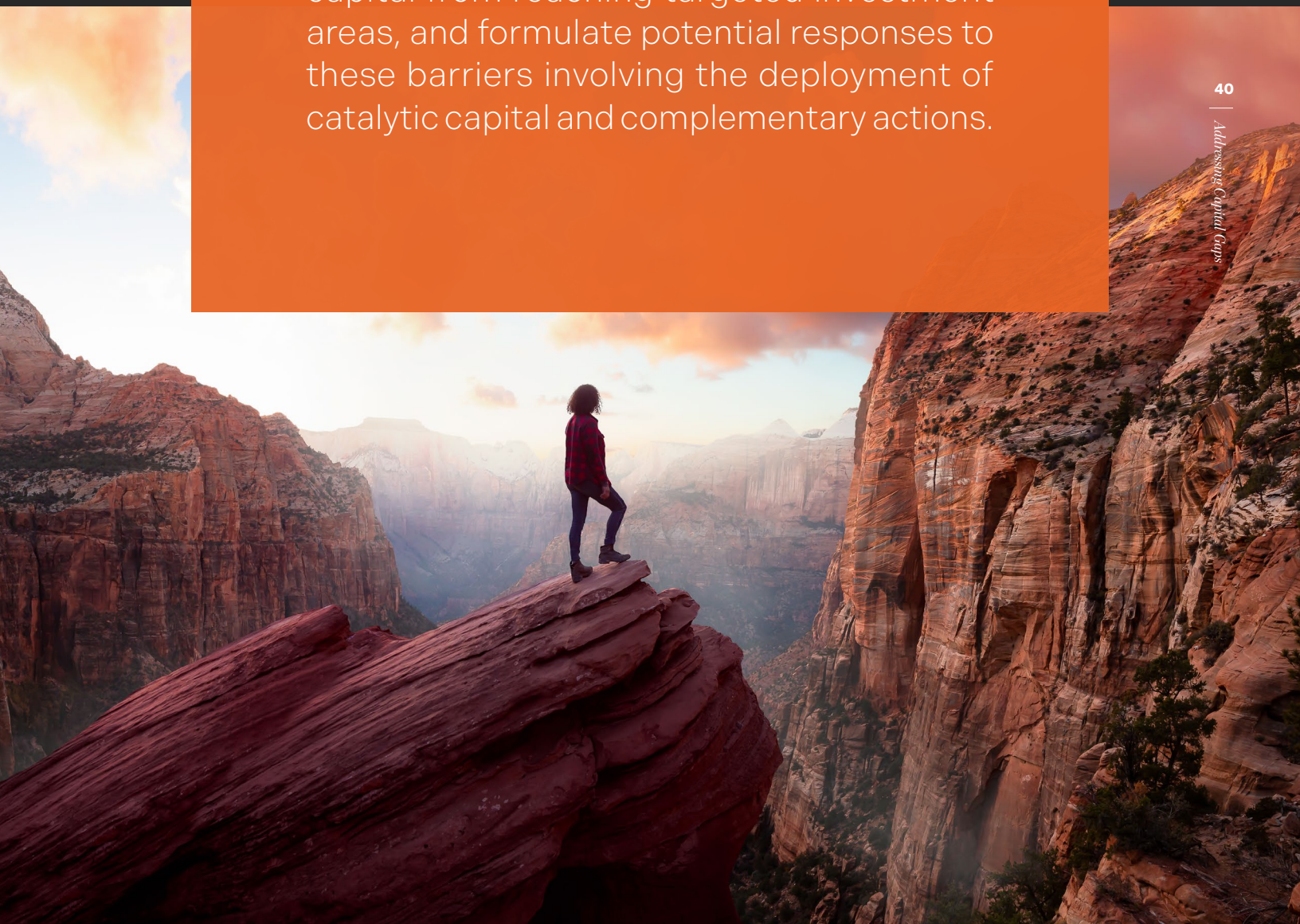
We have now arrived at the end point of the capital gaps analysis but are only beginning to get into the strategy process, not to mention the work of executing and adapting the strategy in the real world. Crucially, strategy requires choices to be made, which means that the menu of options served up by the analysis must now be carefully considered, including the actions that go beyond investment alone.

These should take into account our positioning, team, assets, capabilities, preferences and constraints, as well as the dynamic realities of the external environment—this includes considering who else is already doing or could be doing the work that is needed, and what other headwinds or tailwinds might affect achievement of our desired goals. We will provide some guidance on this in the next chapter.

4.

IMPLEMENTING THE APPROACH

This chapter provides practical guidance for applying this framework to your own areas of interest. This systematic approach helps identify and address barriers preventing capital from reaching targeted investment areas, and formulate potential responses to these barriers involving the deployment of catalytic capital and complementary actions.



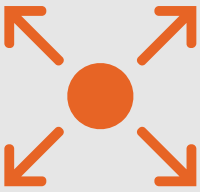
Applying the Framework

STEP 1: Describe

Describe demand-side situations, channels and financing capital constraint

STEP 2: Analyze

Analyze direct investment barriers, and consider potential to structurally remove barriers



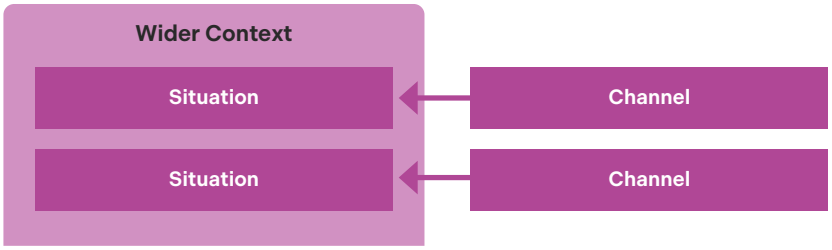
STEP 3: Extend

Extend analysis to cover indirect investment barriers

STEP 4: Respond

Formulate potential responses to address identified barriers

Step 1: DESCRIBE



Defining Investee Situations and Financing Channels

The foundation of capital gap analysis begins with clearly identifying the specific investee situations you are seeking to reach and serve. Rather than working with broad generalizations, this requires a focus on particular situations with clear descriptions of the "where" and "who" (and sometimes also the "when" and "how") aspects of the demand side. Start with end-investee situations (e.g., enterprises, projects) that receive direct investment since this is where "the rubber hits the road" in impact terms, and proceed to look at the indirect investment level later (in Step 3). Separating the contextual factors that are shared across multiple situations from the unique characteristics that make each situation distinct can help you avoid repetition while maintaining specificity.

EXAMPLE CHARACTERISTICS OF INVESTEE SITUATIONS

Where	Who	When (if relevant)	How (if relevant)
Population segment Place (e.g., country, region, location) Business sector	Size and maturity Financial performance & outlook Business model & technology profile Team profile Mission / impact intention and values Specific investment or other support needs	Stage of development (e.g., early stage, Valley of Death) Crisis period	Transaction type/model (e.g., chosen employee ownership approach and structure)

- **The effectiveness of this methodology hinges fundamentally on selecting the right focal investee situations for analysis.** Poor situation selection can lead to sophisticated analysis of the wrong problems, or at least of problems that do not align optimally with the impact you intend to enable through your strategies. You may already have a clear view of the landscape and where you would like to focus but, if not, then the selection process itself deserves careful attention and systematic approaches.

Several analytical approaches could inform this critical selection decision, with impact considerations serving as a central filter throughout the process.

- **Problem root cause analysis** helps identify whether apparent capital constraints represent fundamental barriers or symptoms of deeper systemic issues but should always include explicit assessment of who currently suffers from these constraints and how their lives or outcomes would improve with better access to capital (or indeed whether access to capital is truly a key factor in influencing those outcomes).

- **System dynamics and related approaches** can help with understanding the key relationships across systems, which could include important feedback loops, and this can help to identify points of greatest leverage for intervention. While this is a well-established field, there has been a recent uptick in efforts and resources targeted at those seeking to apply this in the impact investing field (see "Relevant Resources" at the end of this guide).

- **Market gap heatmaps** can also help with systematic situation selection but should prominently feature impact dimensions alongside market considerations. Variables could include severity of capital constraint, size of affected population, degree of current under-service, potential for impact additionality, existing market actor interest, regulatory environment favorability, and likelihood of barrier reduction. Bear in mind that the weight of these dimensions will influence the prioritization of gaps, so be sure to align these with your priorities.

An example of how some of the above approaches can be used to surface hotspots across an expansive landscape can be seen in this analysis from Prime that is intended to inform priority-setting in its programming that seeks to mobilize investment capital flows to key climate action needs.

- **Consider your own organizational capabilities, relationships, and strategic positioning appropriately in this process.** Even objectively important situations may not be appropriate focal points if you lack the credibility, relationships, or resources needed to analyze and address them effectively. Conversely, situations where you have unique advantages or strategic partnerships may offer disproportionate opportunities for impact even if they appear less critical on purely objective measures.

- **Remember that situation selection could be an iterative process**—it could evolve as your understanding of both market dynamics and impact opportunities deepens. It is likely that you will begin with preliminary situation selection based on available information and judgment about impact potential but remain open to refining your focus as you learn more. This may also mean having a larger set of situations for initial consideration while maintaining an intention to narrow down focus as you learn more, both through up-front analysis and then through market discovery and experience.

- **Assess the impact additionality that would be achieved by serving each situation effectively.** This means understanding what additional positive outcomes would likely result from improving appropriate capital deployment to this opportunity, compared to the broader context and/or less-constrained situations. If helpful, use the Impact Management Project (IMP) framework's five dimensions of impact as a guide, such as by asking what outcomes would be achieved, who would benefit and how underserved they currently are, and how much the scale and depth of that impact would likely be. This helps clarify the impact rationale for potentially targeting this situation despite the increased level of challenge involved.

- **Focus your attention on the financing channels that currently serve these situations, or that could potentially serve them if facilitated by our support and/or other adjustments**. These channels might include traditional established players like large commercial banks, or more innovative ones such as specialized fund managers or fintech platforms. These might be local market actors or international ones. There could be varying levels of adaptation to and comfort with the targeted situation. There could be multiple channels for each situation to include or exclude, depending on whether you wish to consider them in the analysis and potential responses. Again, this process could be iterative as you consider the landscape of possibilities and your own priorities, capabilities, and appetite for challenge and risk.

- **For each selected channel, describe the key relevant characteristics:** typical fund size, team profile, business model and strategy, key products & services provided, and particular areas where they need support (if any are known).

Describe Capital Constraints

The next step involves documenting the observable indicators of capital constraint.

- **The overall shortfall between financing volume supplied and potential demand can help set the scene.** However, as discussed previously, while these can help underscore the scale of need, they typically do not achieve the required granularity to inform an effective response to specific situations due to limitations in data availability. As such, these calculations need only be approximate, as the shortfalls are typically much larger than the investment volumes you might conceivably mobilize.

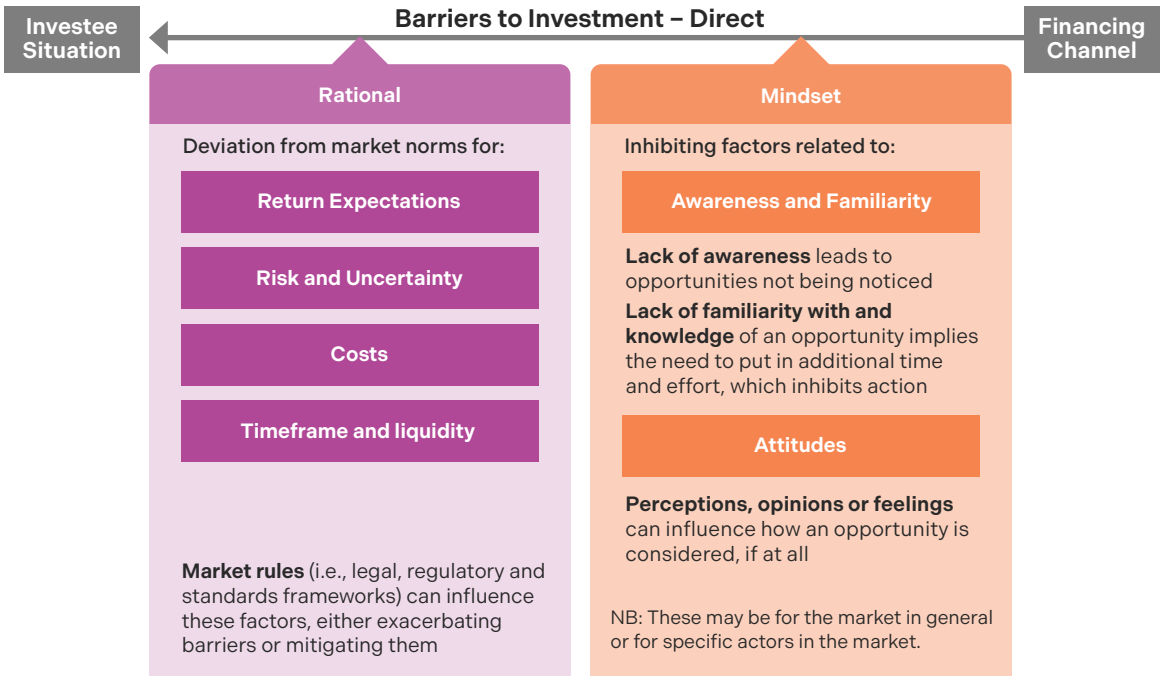
- **The more important aspect of this step is to describe the capital constraints specific to the identified situations and channels.** At this level, it is not usually feasible to produce a shortfall

analysis due to data availability issues, nor is it particularly useful. Instead, focus on describing financing parameters that indicate capital constraint, which might include the following:

- **Observing pricing structures**, including interest rates and fees compared to relevant benchmarks
- **Analyzing terms and conditions,** particularly collateral requirements and covenant structures that may be unusually restrictive
- **Looking at expected returns** compared to risk-adjusted benchmarks
- **Examining risk metrics** such as non-performing loan rates or default statistics
- **In blended finance contexts, assessing the degree of senior protection required** and observing the ratios showing how much conventional capital is mobilized

Developing this view of key financing parameters, compared to appropriate benchmarks where possible, establishes a crucial reference point for understanding the severity and nature of capital constraints affecting your target situations. It may also inform the responses we undertake later, such as calibrating the level of senior protection that may realistically be required in underwriting new blended finance vehicles.

Step 2: ANALYZE



Identifying Direct Investment Barriers

The analysis phase begins with systematically identifying the barriers that prevent capital from flowing to your target situations. As explained earlier in Chapter 1, these barriers fall into two broad categories: rational barriers relating to risk, return, cost and timeframe/liquidity, and mindset barriers that relate to awareness, familiarity and attitudes.

- **Rational barriers typically involve a misalignment between what investees need and what the market can provide.** This might include return expectations that do not match the risk-return profile of the opportunities, concerns about risk, uncertainty and volatility that may be either well-founded or overstated, transaction and setup costs that make smaller deals uneconomical, or timeframe and liquidity mismatches between investor requirements and business needs. In addition to identifying barriers, document any market rules (primarily the relevant legal, regulatory and standards frameworks) that either exacerbate barriers or mitigate them (e.g., tax breaks that offset increased costs).

- **Mindset barriers often prove more challenging to identify and address because they may be unexpressed or disguised as rational financial arguments.** These include attitudes and biases, such as gender or racial prejudices, or preconceived notions about specific geographies, that influence how opportunities are perceived. Meanwhile, awareness barriers occur when promising

opportunities are simply not noticed by potential investors, while familiarity barriers arise when investors lack a sufficient understanding of opportunities to be comfortable investing, and putting in the effort to learn more may be a low priority when other, more familiar investable opportunities are available.

- **Conduct stakeholder interviews along the relevant parts of the investment value chain to identify and understand key barriers.** This could include investors, fund managers, entrepreneurs and business owners, and knowledgeable sector observers and advisors. It could be particularly helpful to gather data from the demand side (e.g., enterprises, fund managers) on the actual reactions, comments and behaviors they have observed from supply-side actors (e.g., fund managers, asset allocators). Take care to interrogate seemingly financial arguments that lack supporting data or analysis, as these can often mask underlying mindset barriers. Consider the aspects of "System 1" thinking and related psychological phenomena (discussed in Chapter 1) that could be producing specific attitudinal barriers.

- **Bring together these inputs to create a matrix**, mapping each identified key investment barrier to specific situation-channel combinations.

Assessing Potential to Remove Barriers

- **Seek to formulate a realistic assessment of the potential for structural removal of barriers over time, for each identified situation-channel combination.** This assessment requires both a feasibility rating and a detailed hypothesis about how barrier reduction might be achieved. Consider whether barriers naturally reduce as markets mature, actors gain experience, and track records develop, or whether specific interventions, innovations, or other changes, such as the application of new technologies or improved business models, may be necessary. Think about what specific interventions could credibly reduce barriers, and look for successful examples from other contexts that could provide guidance.

- **Try to avoid wishful thinking.** Just because barrier reduction would be desirable does not mean it is likely to occur. To the extent possible, ground your assessments in a realistic analysis of market dynamics, stakeholder incentives, and precedents from this and other contexts. Share your analysis with others, especially those who might have a different perspective from yours, to minimize the effect of your own biases. These assessments may be necessarily speculative but making these judgments explicit and discussable with a diverse range of colleagues can help with facilitating refinement of your analysis.

Prioritize Situation-Channel Combinations

- **Prioritize one or more situation-channel combinations to take into the next step, based on the analysis so far.** For instance, you may decide that one of the situation-channel combinations displays the level of capital constraint that you are willing to take on, or has a level of potential to remove barriers that is aligned with your mandate and the role of catalytic capital you seek to provide, or has particular barriers that your organization is distinctively capable of working to resolve. Of course, you may also decide to take all of the situation-channel combinations to the next step.

Step 3: EXTEND

Analyze Indirect Barriers

The third step extends your analysis beyond direct investment barriers to examine the full investment chain. Many financing channels, particularly innovative or emerging ones, depend on asset allocators such as private investors, institutional investors or development finance institutions for their own funding. Barriers in these relationships therefore create indirect constraints on capital flow to your target investee situations.

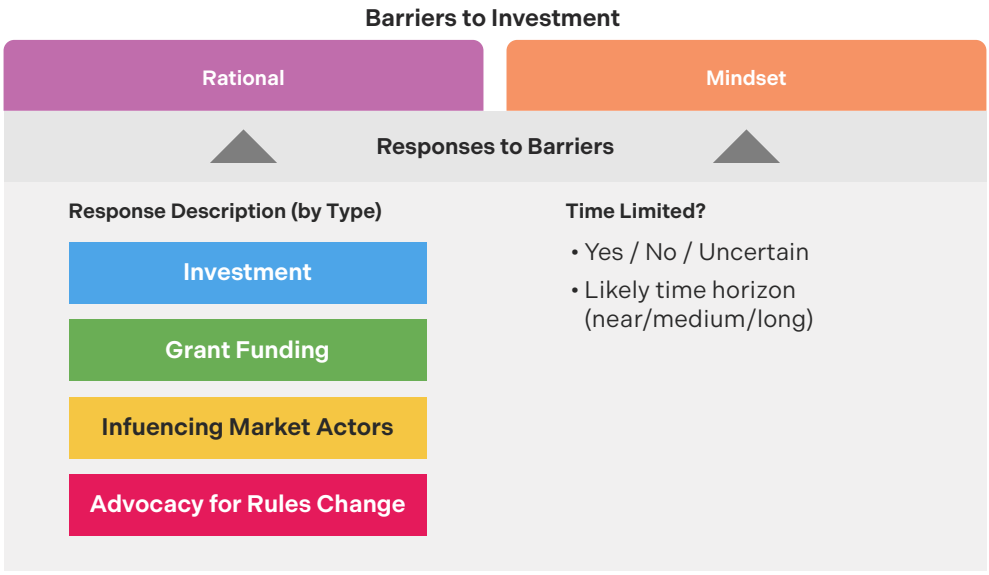
- **Identify which asset allocators fund your identified financing channels.** Understand their overall business model and operating context, as well as any salient preferences and constraints related to the range of situations we are examining.

- **Apply the barrier analysis framework to the relationships between asset allocators and financing channels.** Common indirect barriers often include asset allocators' unfamiliarity with innovative fund managers, risk perception misalignments between limited and general partners, minimum investment thresholds that are too high for emerging managers, due diligence requirements that systematically favor established channels, and reporting and transparency expectations that create disproportionate burden for smaller channels.

- **Research asset allocators to understand their investment criteria, concerns, and decision-making processes.** You could interview asset allocators directly, as well as survey financing channels about their fundraising challenges and the barriers they encounter when seeking capital. Map indirect barriers that may not be present at the direct investment level but nonetheless constrain capital flow. Assess how the direct barriers you identified earlier influence indirect investment decisions, creating compound effects that magnify capital constraints.

- **Seek to assess the potential for structural removal of barriers over time, as you did in Step 2.** Indicate a feasibility rating and provide a hypothesis about how barrier reduction might be achieved.

Step 4: RESPOND



Formulating a Response Portfolio

The final step involves formulating a portfolio of responses designed to address the specific barriers you have identified.

- **Responses span four categories, each representing a different kind of lever in addressing barriers:**

  - **Investment strategies form the core of a catalytic capital response.** This involves deployment with investment parameters that are responsive to the capital constraint indicators observed and key barriers identified. This might include guidance around ticket sizes, risk appetite and returns expectations, provision of specific products such as guarantees, first-loss capital or warehousing facilities, and suggested terms and pricing that are appropriate to the need. You could also formulate guidance on an appropriate investment process and due diligence approach, as well as approaches to engaging and working with other investors on the same deal.
  - **Grant funding can address barriers that pure investment cannot.** This includes capacity building for financing channels, market development activities that create enabling infrastructure, research and knowledge products that address information gaps, and system infrastructure development such as data platforms or credit bureaus.

- **Influencing market actors involves changing perceptions, awareness, and behaviors of other market actors**, such as peer investors or senior lenders financing leveraged transactions. Actions here could include investor education and awareness campaigns, peer learning networks and convenings that facilitate knowledge sharing, amplification of demonstration effects based on successful investments, and thought leadership that shapes market narratives.
- **Advocacy for rules change targets structural and regulatory barriers.** This could be done through reform initiatives, industry standard development, policy dialogue and engagement with government and regulatory bodies, as well as legal framework improvements that create more enabling environments.

- **Keep in mind that not all of these categories will be suitable for every type of organization.** As mentioned previously, our intention in laying out the full range of responses is not to suggest that all investors must do all of these things, but rather to suggest they be considered where appropriate for a given investor's capabilities, resources, position and role, and, where they are not, signal possibilities for collaboration with other kinds of actors (e.g., advocacy nonprofits, industry associations, market facilitators) that are better-placed to take action. If you are not well-versed in using specific response types, consider undertaking this step together with other colleagues or organizations such that all of you collectively bring the appropriate breadth of knowledge, experience and capability to formulate—and potentially follow through on—these responses.

- **Consider what is already being done by others in the market to respond to any of the identified barriers.** Bear in mind that this is not always immediately obvious as others may define their scope differently from yours: for instance, if you are focused on Agri-SMEs, you may find a significant intersection with other efforts addressing barriers for SMEs overall, or for specific agricultural value chains. Doing this helps you avoid unnecessary duplication of effort and point you towards additional and complementary responses.

- **In deciding which responses to adopt, consider the likely time frame (see below), as well as the accountability and measurement implications.** Some responses offer clearer pathways for tracking and attributing impact, while others may involve more complex impact chains that are harder to measure but might lead to fundamental and lasting benefits. Different organizations (and individuals) have varying levels of appetite and tolerance for these trade-offs, so you should be clear-eyed in deciding which responses to adopt into your strategies.

Assessing Time-Limited Nature

- **Carefully assess whether each response should be time-limited and, if so, what time horizon applies realistically.** This assessment serves as a crucial sense-check on your earlier evaluation of the potential for improving barriers. Where responses are wholly or mostly time-limited, which is consistent with catalytic capital in the Seeding and Scaling roles, it should be possible to interpret from the responses a clear exit thesis that explains how progress would be sustained without continued external intervention. However, you will almost certainly need to revisit and adapt this thesis once your plan is in motion.

Refining into Effective Strategy

The approach laid out in this guide focuses on the analysis of capital gaps and initial formulation of potential responses, which is the starting point for effective catalytic capital strategy. Strategy development is a topic already well covered elsewhere so it is not the primary focus of this guide, but we can rehearse a few key principles here:

1. **Make choices—you cannot do everything.**
2. **Choices should be externally consistent in that they respond to real-world conditions, as well as internally consistent** (e.g., organizational structure, resources and capabilities need to be aligned with where we play, how we invest, our Theory of Change, etc.).
3. **Consider the wider landscape of other actors, dynamics and trends.** Ask: How should you play alongside the rest of the field? How will you interact and work with others? Where appropriate and desirable, consider collaborations.
4. **Take uncertainty and risk into account.** Where there are "known unknowns," use scenario planning, risk mitigation or related approaches, but also acknowledge that there are "unknown unknowns."

The markets we are discussing here, and economic and human systems more broadly, operate as complex systems characterized by uncertainty, non-linear relationships, and emergent properties that cannot be fully predicted at the outset. Effective strategy and implementation in this field therefore requires adaptive management approaches that combine clear strategic direction with flexibility to adjust tactics based on emerging evidence and changing market conditions.

Essentially, no plan survives contact with the enemy.

Effective adaptive strategy relies on learning mechanisms that continually seek to understand how change is happening, or not happening, across the market. It also allows appropriate room to revisit and refine strategies and plans in light of those learnings. Establish robust monitoring systems that track not only the direct outputs of your interventions but also the broader systemic changes they generate.

Pay particular attention to changes in market actor behavior, relationships between different actors, and the underlying incentive structures that drive decision-making. Monitor both intended and unintended consequences, as complex systems often produce unexpected results that can be either opportunities to amplify positive change or warnings about problematic dynamics.

Build regular reflection and adaptation cycles into your implementation approach. These should involve not only your own team but also key market actors who can provide insights into how the system is responding to your interventions. Use these cycles to refine your response portfolio, adjusting the balance between investment strategies, grant funding, influencing market actors, and advocacy for rules change based on emerging evidence of what's working and which barriers are proving most persistent.

This approach to learning should start early. One of the common traps is to "assume that day 1 of our intervention is the first day of change for everyone else in the market system." Instead, ask: what is already changing that we can build on? Where are the potentialities that we can amplify? Are there headwinds or tailwinds that could determine how we tack in response?

If you are working across a portfolio that combines multiple response categories, you will also likely need to contend with different time horizons, risk profiles, and mechanisms of change.

Investment strategies may focus on demonstrating commercial viability in the near term while building evidence for longer-term market development. Grant funding might address immediate capacity constraints while building institutional infrastructure for sustained market development. Influencing market actors could generate quick wins through awareness raising, while working on more profound behavioral changes that take years to manifest. Advocacy for rules change typically operates on longer (and uncertain) time horizons but could hold the potential for unlocking widespread transformation across a market.

Conclusion

Catalytic capital holds tremendous potential to advance the frontiers of impact and foster more transformative change. This guide, developed in collaboration with experienced catalytic capital investors, seeks to enhance that power and effectiveness at a time of great need and urgency in the world. We invite all interested investors, advisors and ecosystem actors to use, adapt and build on the framework and approaches laid out in this guide, recognizing that this work is necessarily a Version 1.0 that will evolve in practice. Practitioner feedback on these approaches as well as opportunities to collaborate are very welcome, and can be sent to c3grantmaking@newventurefund.org.

Relevant Resources

A diverse range of resources exists in relation to the four categories of response described in this guide, and they can help you refine actions and investments as you develop, execute against, and adapt your strategy.

In the investment category, this includes the C3 Advancing Practice Guidance Notes and other resources available on the C3 website, as well as resources on blended finance available on the Convergence website and a recent BII/BCG publication on blended finance fund archetypes. Grant funding and technical assistance is a broad area, where support can range from assistance to build the investment readiness and capacities of smaller businesses (reflected in this report and toolkit from Argidius), to funding for market-building institutions (described in this Shell Foundation report).

Work to influence other market actors should carefully consider market structure and dynamics, as well as the incentives and constraints faced by those actors—here, the Market Systems Development (MSD) approach has much to offer as a field with decades of experience, evidence and good practice literature, albeit focused on emerging markets. This guide draws significantly on insights and lessons from the MSD field, as well as related work on addressing ecosystem barriers to scaling that the author has led.

Meanwhile, efforts to advocate for rules change could benefit from political economy analysis and taking steps to develop the right advocacy strategy for prevailing conditions. There are also new networks emerging such as the Policy-Enhanced Impact Investing group.

Finally, we should note that the work of fostering a more equitable and sustainable world does not begin and end with mobilizing financial flows, even in the markets that are the focus of our efforts. Complementary change may be needed to ensure responsible behaviors and protect vulnerable groups in the markets we are seeking to scale. This is highlighted in recent work by the Center for Financial Inclusion showing how booming markets, such as the digital credit market in Kenya, can be breeding grounds for predatory practices if adequate safeguards are not in place.

More generally, this work also intersects with an emerging area of practice around integrating systems-oriented thinking and practices with impact investing. Introductory resources here include the following:

- A new primer and playbook from the Shifting Systems Initiative (helpful for overall orientation and integration across the investment process)
- Work by Agora Global on investing for systemic impact
- A guide to systemic investing from the University of Zurich
- A white paper with case studies from TWIST (Together We Invest for Systems Transformation)
- The concept of financial backbones for capital orchestration proposed by the TransCap Initiative
- TIIP's resources on system-level investing including this collection of case studies

Photo on page 16 courtesy of Encourage Capital.

Cover photo courtesy of Harvey Koh, showing tea smallholdings that supply the Kenya Tea Development Agency (KTDA), the world's second-largest tea exporter and one of Kenya's top foreign exchange earners, owned by over 600,000 smallholders. Enabled by catalytic capital and related market-building interventions, the successful growth of KTDA over the decades has provided a strong boost to inclusive economic and social development across rural Kenya. Find out more here.