

TransCap Initiative
Systemic Investing for Sustainability

Definition and Hallmarks of Systemic Investing

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August 2024

About us

The TransCap Initiative (TCI) is a think-and-do tank at the nexus of real-economy systems change, sustainability, and finance. Our vision is to improve the way sustainable finance is purposed, designed and managed so that money can become a transformative force in building a low-carbon, climate-resilient, just, and inclusive society. Our mission is to develop, test and scale systemic investing, a new investment logic for funding systems transformation. We do this through research and conceptual development, prototyping and field building.

Foreword

What is systemic investing, and how is it different from other forms of purpose-driven finance?

This is the question we get asked the most at the TransCap Initiative (TCI). That’s not a surprise—systemic investing is a new investment logic, and whenever something new emerges, people are looking for ways to make sense of it. This, then, is the main purpose of this document: helping those interested in systemic investing understand what we mean by it.

By defining and describing systemic investing, some of the differences to more established forms of purpose-driven finance—including impact investing and ESG investing—will become apparent. However, this document doesn’t compare and contrast systemic investing to those other approaches in a systematic way. While developing such a taxonomy is part of our research agenda, we must first establish what systemic investing is, which is what this document does.

In our attempt to do so, we face two challenges. The first is that the field of systemic investing—as both a logic and practice—is so nascent that our notions of definitions and hallmarks are still emerging. So what’s presented herein is a snapshot of our current thinking, and that thinking is set to evolve over time.

The second challenge stems from a polarity. On the one hand, developing definitions and identifying hallmarks would ideally involve scores of practitioners, academics, and other doers and thinkers in the field. That’s because definitions and hallmarks set boundaries around a field and endow it with identity, so if these field-shaping concepts are to find broad-based acceptance and be recognized as legitimate, they must be developed collaboratively.

On the other hand, it’s difficult to identify the key stakeholders of a field that is still in formation, and even more difficult to bridge the different viewpoints people are holding when those viewpoints are still crystallizing. So, how do we balance the imperative for collaboration with the need to have a starting point for the discussion?

We are addressing these challenges by developing this publication in versions, updating it as our thinking on definitions and hallmarks evolves. We also invite others to critique our views, starting by subjecting the first version of this publication to an open consultation process and by inviting other leaders in the field to engage in a conversation with us about how to define and characterize systemic investing.

Dominic Hofstetter and Dr. Jess Dagers,
Lead Authors

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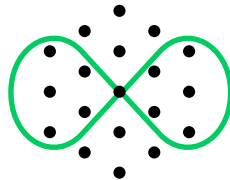
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Hallmarks at a glance

1 CONCEPT

Systems Mindset

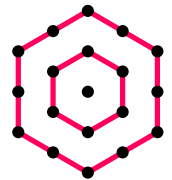
The fundamental attitudes, beliefs, and dispositions—anchored in systems thinking and complex systems science—directing the way systemic investors think about societal issues and how to address them



2 CONCEPT

Transformational Intent

The high-level change vision for a particular system



3 PROCESS

Systems Analysis

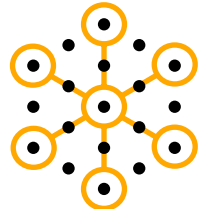
The generation of strategic intelligence informing capital deployment decisions in systemic investment programs



4 PROCESS

Systems Mapping

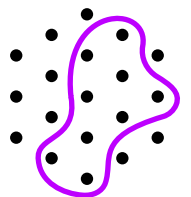
Identifying and visualizing nodes, relationships, and dynamics within a system



5 CONCEPT

System Boundary

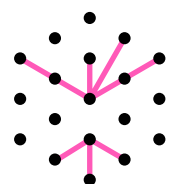
A conceptual demarcation that defines the scope and limits of a system



6 CONCEPT

Leverage Points

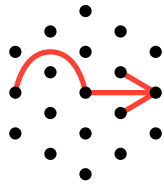
Places within a complex system where a (relatively) small shift can produce outsized effects in other places of the system



7 CONCEPT

Theory of Transformation

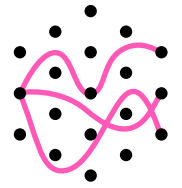
The overarching hypothesis of how a transformational intent could be realized



8 CONCEPT

Transition Pathways

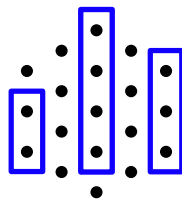
An evolutionary trajectory—understood as a series of stepping stones of “adjacent possibles”—that a system might follow given its path-dependency and current directionality



9 CONCEPT

System Financing Needs

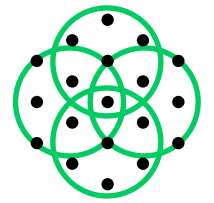
A hypothesis of the capital requirements for achieving a particular transformational intent



10 PROCESS

Coalition Building and Orchestration

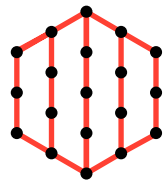
Developing and nurturing a group of investors and funders committed to a shared transformational intent and theory of transformation



11 CONCEPT

Investment Architecture

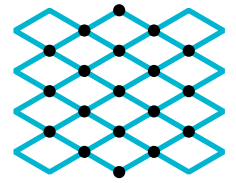
The design of the overall capital structure of a systemic investment program



12 CONCEPT

Strategic Investment Portfolio

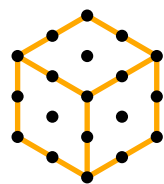
A collection of assets funded with return-seeking capital sitting within the overall investment architecture



13 CONCEPT

Investment Vehicle Design

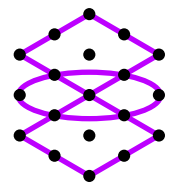
The form, configuration, and legal structure of the containers in which assets and unallocated capital sit



14 CONCEPT

Nesting

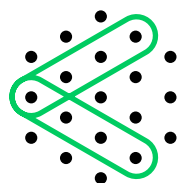
The deliberate synergistic alignment of an investment portfolio with a broader system intervention approach



15 CONCEPT

Combinatorial Effects

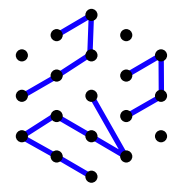
The synergies that arise when multiple interventions stand in a strategic relationship with one another



16 PROCESS

Measurement, Learning and Sensemaking

A systematic approach to generating insights and a basis for accountability in systemic investment programs



On the nature and name of systemic investing

The TCI’s mission is to develop, test, and scale an investment logic for addressing the most pressing societal challenges of the 21st century. We use the word “logic” primarily because the paradigms and practices that underpin systemic investing logically derive from a set of fundamental assumptions about how financial capital might catalyze transformative change in the world.¹

As the TransCap [white paper](#) explains in detail, these fundamental assumptions concern the basic problem/solution relationship of societal impact work; that today’s most pressing and tangible societal issues are complex and systemic in nature, thus calling for systemic resolution strategies, including for the way we deploy finance.

We are not alone in recognizing the need for capital deployers to shift perspective to a systems-grounded view of the world. Neighboring initiatives are working on their own ways of rethinking investment practice through a systems lens, using monikers such as “systems-change investing”, “systems-level investing”, “systems capital”, or “transformative finance”. Systemic investing makes a distinctive contribution to this field in the way it prioritizes the needs of a human or natural system and proposes the redesign of capital deployment around those needs.

Centering the practice

In “systemic investing”, systemic is the adverb that modifies the verb investing, i.e. that describes how investing is done. We believe the change needed goes beyond investors stating the intention to create “impact” or “system change” while leaving the practice of investing largely unchanged; it requires a more fundamental re-assessment of how investing works as a practice of capital deployment. So it’s in the doing that the difference between systemic investing and mainstream approaches to purpose-driven finance are both most pronounced and most discernible.²

Defining the principal audience

The word “investing” anchors our work in a particular corner of the world of money. Investopedia defines investing as “putting money to work for a period of time in some sort of project or undertaking to generate positive returns (i.e., profits that exceed the amount of the initial investment)”. While this definition is broad, it’s also specific enough to differentiate investing from other forms of capital deployment, such as philanthropy and public-sector spending.

That said, in using “investing” in the name of the field, we accept a degree of incoherence between what systemic investing is called and how it’s meant to be operationalized. That’s because, as we will argue below, the goal of transforming human and natural systems requires that we use all the tools in the financial toolbox, not just what is conventionally considered “investment capital”. However, we have learned that the nature of field-building requires establishing a home base, anchoring the work in one particular capital type (and the ecosystem around that), and then working outward

¹ A secondary benefit of the word “logic” is to signal that systemic investing isn’t just an incremental improvement of current approaches to purpose-driven finance but a more fundamental reconceptualization of the field.

² The implication of this is that, in our opinion, goal-based definitions are at greater risk of being indistinguishable from mainstream finance practice and of being subject to co-optation. For instance, it’s easy for run-of-the-mill ESG investors to claim that their goal is “system change” (because whose isn’t?) and that, by extension, they are also systemic investors. Refuting such a claim would come down to arguing with them over their motivation, which will pit one person’s opinion against someone else’s. In contrast, it’s much harder for such investors to make the same claim based on how they go about investing (the practice), because practices can be assessed more easily than motivations.

³ “Systemic financing” and “systemic funding” would be alternative monikers that might even better capture the essence of what systemic investing is about, but they come with their own potential for confusion. “Financing” is a term often used in connection with debt capital or with the use of public-sector resources, and “funding” is often used in connection with philanthropy. And whilst all forms of financial capital are part of the systemic investing toolbox, it would be impossible to frame the work from all the vantage points that would need to be considered. So our decision to frame it from a particular angle—that of the “investment world”—is partially a pragmatic one. It gives us a defined perspective from which to talk about the work in a way that resonates with at least one of the key target audiences.

from there. We have chosen the world of investment capital as such a home base for our work.³

Finally, we recognize that the field we are in—in its broadest definition—is still on a collective hunt for appropriate nomenclature. We believe “systemic investing” is a useful moniker for the TCI’s work for the time being, and we will remain open to changing it if a better term emerges.

Recognizing privilege, and the power of defining terminology

We recognize the many forms of privilege enjoyed by the team and stakeholders behind the TCI and by the majority of the people in our target audience, particularly wealth holders and asset managers. Such privilege manifests in many ways relevant to our work on systemic investing, including being relatively isolated from the effects of climate change and other crises, being in a position to advance opinions about how investment should change, and being able to influence capital allocation decisions that affect other people’s lives.⁴

The issues that stem from such privilege extend to the power to name. In this document, we introduce new terminology—or suggest particular ways of using existing terminology—to capture new ideas. This is a form of privilege, to be able to choose words that we hope will be picked up by others. We justify taking this position through our belief in the importance of the work and our commitment to considering other people’s suggestions, and we hope that we can arrive at a version of this terminology—one that has been tested, scrutinized, refined, and updated by people bringing many perspectives—that proves to be useful in changing the way investment is done.

⁴ At the TCI, we are taking steps to address biases that might emerge from such privilege. Further, and as will hopefully become clear in other publications and through our actions, we view systemic investing as having the potential to help address power imbalances and change the way capital allocation decisions are being made.

Definition of systemic investing

Introduction

A definitional statement should be descriptive and succinct. But systemic investing is a big idea with many facets and components, and while packing all this complexity into the definitional statement would improve its explanatory power, doing so would also make it unwieldy. So in providing a definition, there's a polarity between descriptiveness and succinctness.

What's more, systemic investing is meant to be relevant in many different contexts, and yet our work at the TCI happens in only a subset of those. For instance, most of our projects are situated within the thematic context of environmental sustainability, focused on places in Europe, North America, and Australia, and characterized predominantly through the problem and solution framings of the Global North.⁵ Yet we aspire to create something that is applicable to a wide range of thematic, geographic, and socio-economic contexts. So there is a tension between our specific experiences and biases and the ambition to define something generic in service of broader applicability.

What both of these things mean is that no definitional statement will feel completely satisfactory. Nor should we assume that the definition we lay out herein will endure. In fact, we should assume that, as the field of systemic investing evolves, so will our thoughts on how we define it.

Working definition

It's with the above caveats that we share what is currently the TCI's definition of systemic investing:

“Systemic investing is the deployment of financial capital to transform human and natural systems with the intention of advancing environmental sustainability and social justice.”

This definitional statement is comprised of three main elements:

- **Practice (doing something)**
Systemic investing is about the activity of capital deployment.
- **Goal (to achieve a particular outcome)**
Systemic investing strives to affect a particular quality of change, one that is deep, structural, and irreversible, or what some call “systems transformation”.⁶
- **Motivation (in pursuit of an overarching vision)**
Systems transformation can be pursued for a range of reasons, not all of which are virtuous. Our definition thus includes a statement on the motivation of investors, one steeped in aspirations for both nature and human society.

Two substantial questions are left open by this definition that we feel compelled to address upfront.

Does systemic investing take a stance on the kind of change that is needed?

While the motivational element of “environmental sustainability and social justice” suggests an orientation for the work, these terms are broad and open to interpretation. This is a deliberate choice, creating room for systemic investing to be put to use in a wide range of settings and by a diverse set of actors.

There are two caveats to this statement. First, some readers may find in the hallmarks an orientation towards particular practices (e.g., collaboration and

⁵ This also means that our definition of systemic investing is inevitably colored by the worldviews, intellectual traditions, preferences, and biases of the West.

⁶ This quality of change stands in contrast to more incremental forms of impact, such as adjustments to the status quo, or what some call “systems optimization.” This is an important distinction because practices of purpose-driven finance are in large part derived from the field's fundamental assumptions about the type of change needed.

decentralizing decision-making) that they associate with certain political values, such as progressive attitudes towards rebalancing power relations. The degree to which our definition embodies aspects of politics and ideology—as well as the implications of this—is open for debate as we share these materials for consultation.

Second, it's useful to recall that our work on systemic investing is taking place in the context of a substantial overshoot of planetary boundaries.⁷ In addition to the consequences of climate change and other forms of environmental breakdown that have already become unavoidable, the global economy is approaching a number of biophysical limits to energy and materials usage⁸, and exceeding those limits will have dire effects on human and natural systems.

The existential threat this poses to all living species on Earth creates the science-based imperative that humanity must move towards a future where these limits are observed. Within the perimeter set by this imperative, investors (and other societal actors) will have many different perspectives on what such a future should look like, perspectives that are grounded in their personal beliefs and preferences. Systemic investing is designed to engage with this plurality of worldviews and allow for many different versions of the future to emerge.

Does the definition make any assumptions about the returns possible through systemic investing?

The short answer is: no, it doesn't. Nothing in the definition of systemic investing prescribes return expectations, neither in absolute terms nor in terms of deviations from "market expectations." Specifically, systemic investing does not, definitionally, imply that there are no "market-rate" returns to be achieved within the risk bracket of a given asset class.

The longer answer involves two points. One concerns the definition of "market-rate" and the question of whether it's realistic and sensible to benchmark future investment activity against the historical risk-adjusted performance of different asset classes, which is an unsettled debate in sustainable finance and politics more broadly. We will have more to say on this in the future, but a detailed discussion of this issue is beyond the scope of this document.

The other is about the notion that systemic investing is a new investment logic that advocates for designing capital deployment around the achievement of systems transformation. While achieving the full range of market-rate returns is theoretically possible, an investor who brings fixed return expectations to a systemic investing scenario will be introducing a competing logic. Achieving transformation will become more likely if investors design capital deployment around the needs of the system rather than their pre-conceived notions of expected returns.

Using the definition

The definition above sketches a boundary around the field of systemic investing in terms of objects (financial capital), goals (transformation), and investor motivation (sustainability and justice). It doesn't provide answers to how, exactly, systemic investing can or should manifest in practice, or a clear answer on what is "in or out." We encourage readers to use the definitional statement as a rough guide for orientation, one that enables an exploration of what might be in or out. To support that exploration, we need to "double-click" on the individual elements of the definition, adding detail and nuance. And that's exactly what the "hallmarks" will help us do.

⁷ Rockström et al, *A safe operating space for humanity* (2009), available [here](#).

⁸ Hagens, *Economics for the Future – Beyond the Superorganism* (2020), available [here](#).

Hallmarks of systemic investing

Introduction

What are the hallmarks for?

The hallmarks add structure and detail to the definition of systemic investing and what it means to do it in practice. They break down a very big idea into more manageable pieces—not so they can be separated out and treated in isolation, but as a way of exploring the detail and nuance that sit within this big idea and seeing how individual components relate to one another. The hallmarks also give us language for talking about the work, enabling a nuanced conversation about how existing areas of practice do or don't exhibit key features of this new way of capital deployment, and letting us explore what more can and should change.⁹

The list of ideas we present as hallmarks is long. We are aware that putting all of these ideas into practice is a heavy lift, requiring extensive rewriting of traditional (purpose-driven) investment practice. On the one hand, we think this is necessary and fully justified—in an era of polycrisis, with the worst yet to come, the times demand it of us to radically rethink conventional wisdom. On the other hand, investors are operating within the current reality, and a degree of pragmatism is imperative for putting these ideas into practice at a pace that matters.

In this light, we offer the hallmarks as a way of painting the full picture of what systemic investing could mean in totality. This means that an investment activity need not necessarily exhibit all of these features to be systemically effective—it depends on context. It also means that investors can think about the adoption of these hallmarks as a journey, starting where they can operate and generate value today and adding more dimensions over time.

However, what this doesn't mean is that investors are free to pick and choose, adopting only those hallmarks that resonate with them or that they find easy to implement. It's the collectivity of the hallmarks that make systemic investing internally coherent as an investment logic. This coherence is diminished as fewer hallmarks are put "in play."

Respecting the collectivity of the hallmarks is also about safeguarding systemic investing from co-optation and the field's equivalent of greenwashing (dubbed by some as "systems washing"). It's easy for anyone to create some causal loop diagrams to signal a systemic approach to capital deployment while otherwise adhering to financial orthodoxy. Such superficial adoption of the core ideas of systemic investing is unlikely to lead to transformative outcomes and could undermine the effort of building the field of systemic investing at large.

Where have the hallmarks come from?

The hallmarks are the result of extensive conceptual work—the thinking through by the TCI team of what it would look like for investment activity to be thoroughly grounded in systems thinking. This conceptual work draws on our own experience in [systemic investing prototyping](#) and from the insights we gleaned from others through case study research. It also draws on the extensive experience of TCI team members in the areas of sustainable finance, impact investing, systems innovation, and strategic foresight, as well as on countless conversations and interactions with pioneers in the "systems + investing" ecosystem, whose inspiring work helps us to refine our own thinking.

What's not in scope?

In creating this document, we had to choose which ideas to elevate to the level of a hallmark and which not. One such category of excluded ideas covers those essential to systems change work more generally, such as prioritizing collaboration over competition, using visuals and stories in communications, building on the work of others rather than reinventing the wheel, and working on one's inner values and biases. All of these

⁹ That said, the hallmarks are not intended to provide enough detail and actionable advice to serve as a guide for implementation. At the TCI, we are currently working on a design guide to systemic investing, which will serve this purpose.

fundamental principles remain in play. In some sense, then, the hallmarks are a selection of ideas idiosyncratic to systemic investing—the markers that make systemic investing stand out in the general context of purpose-driven finance.

Hallmarks

The hallmarks of systemic investing as we currently see them are detailed in the section below. Following this is a diagram that visualizes the relationships between some of the hallmarks.

There are **two types** of hallmarks:

CONCEPT

Concepts are ideas that are relevant throughout the work and may or may not be attached to a particular process. As we articulate a vision of how investing could work differently, a set of basic concepts—often of a fundamental nature derived from systems thinking and complex systems science—are needed to ground and elucidate the work.¹⁰ These concepts are touchstones in doing the work of systemic investing—they come up repeatedly, it's difficult to describe the work without them, and they help explain why a process is important. While many will be new to some investors, most will be familiar to those working in systems change contexts.

PROCESS

Processes describe part of the “doing” of systemic investing. We name and describe several processes that are often part of systemic investment programs in a particular context. Our aim is not to be prescriptive; as so much of systemic investing is context-dependent, it will be down to the people doing the work in their own setting to determine whether and how these procedural elements can be implemented. We describe these processes as a way of giving shape to the work and giving a sense of what it looks like in practice.¹¹

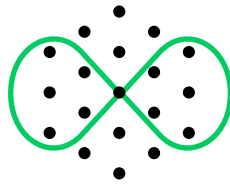
¹⁰ The “Concept” category has two sub-categories worth pointing out: (1) insights and (2) effects. First, systemic investing is insight-driven investing, and the purpose of many of the hallmarks described herein is to generate the strategic intelligence needed to allocate capital effectively with respect to a transformative intent. An example is the concept of leverage points, which are places within a system where a small shift in one thing can produce big changes in everything else. Knowing where these leverage points are—to the degree that this is possible ex ante—is therefore an insight from systems analysis that contributes to effective capital allocation. Second, some concepts point to the need of creating certain effects. One can think of such effects as properties or traits that a systemic investment program ought to have, or also as interim results on the way to a accomplishing a bigger vision. An example is nestedness, the idea that investment portfolios should be embedded within a broader systems intervention approach. Nestedness is an aggregate effect created when such portfolios are in strategic relationship with other kinds of interventions (pursued by other societal actors) to the point that they create synergies.

¹¹ These categories are not mutually exclusive. “System analysis”, for example, can be understood as both a concept and a process. Nonetheless, we think it helpful to place each hallmark in one or the other category in order to better communicate the primary way in which we think and talk about them.

1 CONCEPT

Systems Mindset

The fundamental attitudes, beliefs, and dispositions—anchored in systems thinking and complex systems science—directing the way systemic investors think about societal issues and how to address them



A systems mindset recognizes the complex systemic nature of societal problems and conceives of the role of capital as one of several levers of change for addressing them, often in reconsideration of prevailing financial best practices.

Thinking in terms of systems entails bringing a different orientation to the work and seeing the role of the investor as part of an ensemble of societal actors working toward a shared transformative vision. It also directs the investor’s gaze toward the tools and methods of systems thinking and complex systems science as aids in decision-making. This is particularly the case in those contexts where traditional finance has little to offer, such as sensemaking protocols that help us deal with the fundamental uncertainty inherent in all complex adaptive systems.

2 CONCEPT

Transformational Intent

The high-level change vision for a particular system



This hallmark consists of two elements. The first is intent, which is about a systemic investor’s aspiration for long-term change. While “intent” is conceptually related to the idea of “objectives,” there are important differences related to the spirit and operationalization of both concepts. Given the complex adaptive nature of systems and the long-term nature of systemic investing, “intent”—which is more spacious, flexible, and enduring—is a better mental model for framing a change vision than “objectives”.¹²

The second element is transformation, which is a particular quality of change: not of the incremental kind, aiming to optimize how a system operates

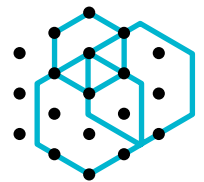
without touching its fundamental properties—but deep, structural, and irreversible change. But what exactly this means is highly dependent on context. What ultimately matters is not transformation for transformation’s sake but making sure the systems on which the prosperity of humans and nature depends are sustainable and just.

The process of defining transformational intent is a collaborative exercise that should involve a wide range of stakeholders and pay particular attention to power dynamics and legitimacy. These aspects matter because investors often operate from a basis of their own convictions and aspirations but without legitimacy, which is problematic given that investors are disproportionately powerful people in society.¹³

3 PROCESS

Systems Analysis

The generation of strategic intelligence informing capital deployment decisions in systemic investment programs



Adopting a systems mindset leads investors to use tools and methods from systems thinking, complex systems science, and related disciplines (such as futuring and strategic foresight) to generate insights for guiding investment decisions. What are a system’s structures, dynamics, and financial stocks and flows today? What might they be in a desired future state? What are possible transition pathways? How could a system be progressed along these pathways? Where are particularly potent places for intervention? And what kind of unintended consequences¹⁴ would have to be anticipated, monitored, and mitigated as part of a systemic risk management framework?

¹² A more detailed treatise on the differences between intent and objectives and the relevance of “landing zones” is provided in the TransCap white paper.

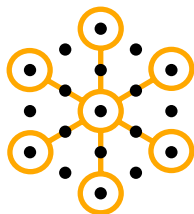
¹³ We have reflected upon many of the nuances and considerations of transformational intent setting in the article series “The Choice-of-Future Problem” (see here for Part 1).

¹⁴ Such unintended consequences could come in different shapes and forms. For instance, the successful scale-up of a particular technology (e.g., electric vehicles) could create new, or exacerbate existing, problems elsewhere in the system (e.g., in the raw materials supply chain, such as in copper mining). It is thus critical that systemic investors monitor and mitigate systemic risks created by their capital deployment decisions.

Systems analysis is a foundational practice of systemic investing, as it provides the grounding for understanding a system and devising intervention strategies. Systems analysis has many forms and introduces a number of specialized concepts (e.g., system boundaries, leverage points) and processes (e.g., systems mapping). It can be done for descriptive purposes (about aspects of a system that can be known) and speculative ones (where predictions are involved) and will typically produce results that are simplifications of reality and valid for only a limited time.¹⁵

The next four hallmarks are components of systems analysis.

4 PROCESS



Systems Mapping

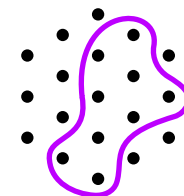
Identifying and visualizing nodes, relationships, and dynamics within a system

The purpose of systems mapping is to generate insights into what a system is and how it behaves. There are many types of systems maps, each serving a particular purpose, e.g., understanding a system's structure or its causal relationships.¹⁶ Such maps are usually created as the synthesis of a wealth of information generated through research.

Maps of a system can be useful for generating additional, meta-level knowledge, such as when a causal-loop diagram helps identify leverage points. They can also serve as artifacts for facilitating dialogues with different stakeholder groups.¹⁷ In addition, there is significant value inherent in the process of developing systems maps in the first place, particularly if such processes are collaborative and inclusive and help build trust and relationships among different stakeholders.

Systems maps are models and thereby subject to the adage “all models are wrong, but some are useful.” So the value of systems mapping lies in the possibility of interrogating what might be true from many different angles.¹⁸

5 CONCEPT



System Boundary

A conceptual demarcation that defines the scope and limits of a system

The world is a collection of intertwined and interdependent systems. The complexity that arises from this can easily become unmanageable. For instance, a country's transportation system is composed of parts of its energy and materials systems and its built environment, and the externalities of transportation also impact human health and biodiversity. So where would systemic investors interested in catalyzing the electrification of transportation draw the boundary of their work?

To manage this complexity, some degree of system boundary setting is indispensable to define what is within scope and what is not. This will often feel arbitrary but is nevertheless an essential activity for providing focus and keeping any analytical, strategic, and practical work manageable. In practice, system boundaries will often be fluid, and systemic investors might find themselves compelled to redraw boundaries over time as they learn more about their system of interest and observe them evolving.¹⁹

¹⁵ Systems analysis is a well-established knowledge generation process in the study and practice of systems work. What's novel in our work is the adaptation of existing tools and methods to the specific context of investment. The guiding question at the heart of our conceptual work is How, exactly, does one have to analyze a system if the results of such analysis are meant to inform capital allocation decisions?

¹⁶ There are many excellent resources on systems mapping available on the Internet. A good open-access overview of different approaches is provided by Barbrook-Johnson & Penn (2022), *Systems Mapping: How to build and use causal models of systems*, Springer, available [here](#).

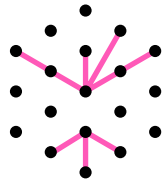
¹⁷ In our practical work, we have found that a system map can serve the role of a boundary object. This is an “object that is part of multiple social worlds and facilitates communication between them; it has a different identity in each social world that it inhabits” (Star and Griesemer, 1989; from: Stoytcheva (undated), *Boundary Objects: A Field Guide*, accessible [here](#)).

¹⁸ System mapping is a tried and tested analytical practice. What's novel about system mapping in the context of systemic investing is not the use of this analytical practice per se, but of doing so in an investment context. How, exactly, one should go about systems mapping depends in large part on what the map is supposed to inform. To the extent that systems mapping is not a standard analytical practice in (traditional) purpose-driven finance, there is a need for original innovation work to understand how systems mapping needs to be done in order to be useful for informing capital deployment decisions.

6 CONCEPT

Leverage Points

Places within a complex system where a (relatively) small shift can produce outsized effects in other places of the system



Certain interventions in a system have greater potential than others to cause it to change. In systems thinking, places of high potency are called leverage points.

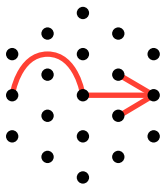
Different schools of thought have different conceptions of leverage points. System dynamics emphasizes feedback loops and stocks and flows. Complexity theory focuses on aspects such as self-organization and emergent behavior. Sustainability transition studies are interested in cultural shifts, technology adoption, and organizational change. What all of these conceptions have in common is the idea of efficiency (maximizing output per unit of input), and which conception is most useful in systemic investing depends on the context.²⁰

From the investor’s perspective, identifying and engaging leverage points is ultimately about the efficiency of capital allocation, i.e., getting the most (impact) bang for one’s buck. From the system’s perspective, it is typically about instigating or catalyzing change by removing bottlenecks, crossing tipping points, or creating/amplifying feedback loops.

7 CONCEPT

Theory of Transformation

The overarching hypothesis of how a transformational intent could be realized



A theory of transformation is a logic model providing a sense of the causal relationship between the actions of investors and the change they aspire to catalyze. Its nature is that of a hypothesis, as the fundamental uncertainty inherent in all complex adaptive systems means that no one can predict how a system will change.

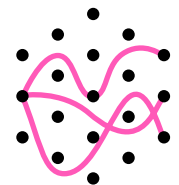
In social impact circles, a more commonly known

concept is theory of change. Yet theories of change are often anchored in a linear, reductionist view of reality that assumes that outcome pathways are determinable and outcomes directly measurable and attributable. In contrast, theories of transformation acknowledge the fundamental uncertainty inherent in all complex adaptive systems, and they do not act as measurement frameworks.²¹

8 CONCEPT

Transition Pathways

An evolutionary trajectory—understood as a series of stepping stones of “adjacent possibles”—that a system might follow given its path-dependency and current directionality



Whereas transformational intent captures a general vision of the desired future, transition pathways describe how this future might be reached from current reality. Such pathways can be conceived as possible routes between the present and the future. Where there are multiple such routes, systemic investors may be forced to choose which route(s) to support.²²

¹⁹ In the TCI’s systemic investing prototype on net-zero mobility in Switzerland, we initially drew our system boundaries relatively narrowly around the core components of electric vehicle infrastructure (think: cars and charging stations). Our systems analysis work then led us to understand that a major inhibitor of electric vehicle adoption is the fear that there is not going to be enough electricity in the country to power the EV fleet. This suggested that a leverage point for electrification is in the build-out of renewable electricity generation, which prompted us to expand the boundary of our system to include parts of Switzerland’s energy system. *Systems Mapping; How to build and use causal models of systems*, Springer, available [here](#).

²⁰ Often when people draw on Donella Meadows’s work on leverage points, they refer to her list of “Places to Intervene in a System” (available [here](#)). The conceptualization of leverage points as indicated by that list is more abstract than what we at the TCI use in our practical work. For instance, in our work on net-zero mobility in Switzerland, we have identified the lack of technicians trained in installing charging infrastructure as a critical bottleneck to the electrification of the Swiss mobility system. It would not be trivial to locate this particular point in Meadows’s list. In addition, the “Places to Intervene” list offers a ranking of potency, which might lead one to conclude that investors should focus on the “places” highest up in that list. But following that logic to the extreme would mean concentrating all effort on everything with the potential to affect mindsets and paradigms in a system, at the expense of other places in the system which must shift as well.

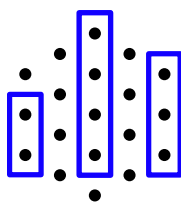
²¹ Our definition and use of “Theory of Transformation” is informed by the premises and implications of Blue Marble Evaluation (see [here](#) for a more detailed treatise of the topic).

Understanding transition pathways is important for developing theories of transformation and intervention strategies. However, because of the fundamental uncertainty inherent in all complex adaptive systems, it cannot be known with certainty what the causal chains within a system look like or how much agency an investor has to effect change. So transition pathways are a speculative concept, meaning that any theory or strategy derived from them cannot be more than a hypothesis.

9 CONCEPT

Systems Financing Needs

A hypothesis of the capital requirements for achieving a particular transformational intent



How much capital of what kind is likely needed to change a system? This is the question at the heart of understanding a system’s financing needs. Given the uncertainty of complex adaptive systems and our practical inability to quantify financing needs with a high degree of accuracy, whatever answer emerges is going to be speculative. However, even understanding the rough anatomy of the financing challenge—for instance, in terms of the relative size and importance of different asset classes or financial instruments—will be useful in informing the design of a systemic investment program.

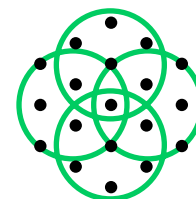
Understanding system financing needs will help mitigate two issues often observable in purpose-driven finance. One is the misallocation of capital—that capital allocators often invest the kind of capital they are most familiar with or have agency over rather than what a Transformational Intent actually calls for.²³ The other is volumetric incoherence—that investors work with funds that are sized based on what the market is willing to give them (often as a function of an investor’s personal experience and track record, of the general macroeconomic environment, and of available deal-flow) rather than what is required. If the transformation of a food system requires billions of dollars of a particular kind of capital, a \$50 million venture capital fund is not going to make a dent in the universe. Understanding system financing improves the coherence between the impact goal of investors and their approach to capital deployment.

A secondary benefit of analyzing financing needs is that, often, investors will also learn about who is already actively deploying capital into their system of interest. These insights will serve as a basis for building investor coalitions and developing strategies for nesting.

10 PROCESS

Coalition Building and Orchestration

Developing and nurturing a group of investors and funders committed to a shared transformational intent and theory of transformation



Systemic investing is collaborative, multi-asset investing. This is because no single organization is usually able to provide all the kinds of capital needed to transform a system, let alone at the scale required. This is why it is essential to build coalitions of investors and funders—from the private, public, and philanthropic domains—that can work with each other repeatedly and over the long run.

Moreover, achieving system transformation requires the cooperation and involvement of a wide range of system actors beyond capital holders. Coalition building therefore also extends to other stakeholders in the system, such as NGOs, community leaders, researchers, and special interest groups.

Coalitions are not uncommon in traditional (purpose-driven) finance. But they tend to be designed as co-investment partnerships on single deals and with a limited set of asset classes involved (e.g., two VC funds sharing a Series A of a start-up, or a multilateral development bank providing a concessional capital

²² Systemic investing requires investors to take a stance about the future direction of a system’s evolution in a way other forms of purpose-driven finance do not. We delve deeper on the question of transition pathway selection in the “Choice-of-Future Problem” article series (see [here](#) for Part 1).

²³ For instance, there is a lot of venture capital pouring into food systems innovation (typically new technologies or products). However, in our [practical work](#) on food systems transformation, we have come to understand that risk transfer mechanisms (e.g., insurance products, advanced market commitments from buyers of agricultural product) are a more potent lever for change, as they are critical in enabling farm-level transitions away to more sustainable practices.

tranche in a blended finance facility for a new wind farm). In systemic investing, investment coalitions must exist for many years and deals, encompass the entire capital spectrum—including public-sector finance, philanthropy, and corporate capital—and look beyond capital holders to other stakeholders in the system.

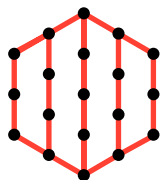
Coalition building is an art, and investors may not have the skills or organizational set-up to perform this role. So it may be that coalition-building activities are primarily undertaken by others, for instance by a backbone organization already active or a new entity established for this exact purpose. But even where this is the case, investors must be open to supporting and advancing the work of the coalition.²⁴

11

CONCEPT

Investment Architecture

The design of the overall capital structure of a systemic investment program



A strategic imperative of systemic investing is deploying multiple types of capital into the same system. This raises the question of how much capital, of which kind, and programmed and structured in which way? Investment architecture answers these questions. It builds on the analysis of system financing needs and ensures that capital flows are logically related to the theory of transformation.

Due consideration of investment architecture entails defining the types of investment/funding vehicles needed, the legal forms best suited for these vehicles, and the size of each vehicle in terms of investment/funding volumes. It also entails designing how the different vehicles are strategically related to each other and how to decide which vehicle to tap for a specific transaction so that the right kind of capital can be allocated to the right type of intervention at the right moment in time.

A systemic investment program's investment architecture should not just span the vehicles that a particular investor controls directly. It should also bring into view other sources of capital so that it becomes

clearer how an investor's own capital can complement what already exists while enabling greater coordination with other capital allocators in the system.

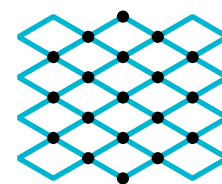
Finally, investment architecture is not a static construct. As a system evolves, so do its investment and funding needs. By extension, funding architectures should evolve as well: through the adjustment of the sizes of different vehicles, the addition of new ones, and the retirement of those that no longer serve a purpose.

12

CONCEPT

Strategic Investment Portfolio

A collection of assets funded with return-seeking capital sitting within the overall investment architecture



Systemic investing requires a refreshed understanding of the investment portfolio. In traditional finance—whether conventional or purpose-driven—the dominant portfolio composition paradigm is risk reduction through diversification. In systemic investing, the paradigm shifts to value maximization through synergy.

What makes such portfolios “strategic” is that their assets are logically related to a theory of transformation and the analysis of system financing needs, which are the same strategic considerations that shape investment architecture. So for each asset, there is a narrative about how that asset is expected to contribute to change effects in line with the investor's hypothesis of how systems change might happen, both on its own and through combinatorial effects generated with other assets.

Strategic investment portfolios can comprise one multi-asset-class vehicle, span multiple single-asset-class vehicles controlled by the same investor, or even span multiple vehicles controlled by different investors as long as a strategic coordination mechanism exists.

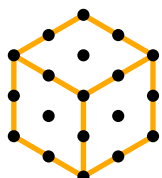
²⁴ The question of the infrastructure required to operationalize systemic investing is a frontier of the TCI's conceptual innovation work. We have started to explore the idea of a finance-focused systems orchestrator in the article series on “Strategic Capital Facilitation” (see [here](#)).

They can also include different kinds of repayable capital tranches, such as market-rate and concessional tranches, across all asset classes (equity, debt, infrastructure finance, etc).

13 CONCEPT

Investment Vehicle Design

The form, configuration, and legal structure of the containers in which assets and unallocated capital sit



Investment activity usually happens between legal entities, with investees on the receiving end and investment vehicles on the giving end of a monetary transaction. So the design of these vehicles matters for how money can be invested.

There are a great many design choices made around such vehicles, including legal form, ownership, investment strategy, term, fee structure, target size, investment process, governance, and reporting. Existing templates have been optimized to support the goals of traditional (purpose-driven) capital deployment, such as the classic GP/LP model with a 2/20 fee structure common in private equity. Systemic investing operates with a different set of objectives and thus calls for its own vehicle blueprints.

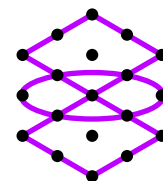
Being deliberate about the form, configuration, and structure of investment vehicles is about ensuring coherence between intention and implementation. What is written into the vehicle’s legal documents will determine how investments will be made, as the binding nature of these documents guarantees that their provisions will supersede any intention or commitment not encoded in contracts.

So vehicle design is about creating the conditions for success in systemic investing, ensuring that systemic investors are legally empowered to deploy capital in a way that is most conducive to reaching their visions. In a sense, then, this is where the “rubber meets the road” in terms of fully operationalizing the vision of capital deployment set out in the funding architecture and strategic investment portfolio.

14 CONCEPT

Nesting

The deliberate synergistic alignment of an investment portfolio with a broader system intervention approach



A system’s transformation becomes possible if many different kinds of change effects happen concurrently and with a degree of shared directionality. Some of these effects can be triggered or amplified by allocating investment capital, such as building a new piece of physical infrastructure or launching new business models. But other change effects are “non-investable”, for instance, community centers and educational programs running on grants from foundations or governments. In addition, there are effects that happen irrespective of capital flows, such as when social norms change as a result of a shift in zeitgeist.

A strategic investment portfolio’s impact potential thus increases as a function of the degree with which it is synergistically aligned with (“nested within”) actions that sit outside the portfolio itself, particularly with non-investable interventions pursued by other stakeholders such as NGOs and public-sector bodies.

In practice, working to ensure investment activity is “nested” will often mean being aware of others working in the same system and pro-actively engaging and coordinating with them, either directly or through an organization playing a facilitator role.²⁵ This kind of coordination requires investors to adopt a collaborative attitude and make time for conversations with a wide range of stakeholders.

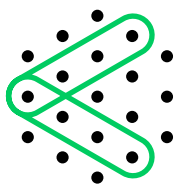
That said, the quality of “nestedness” is not something that can be straightforwardly identified as present or absent, let alone measured to any degree of accuracy. Nesting is therefore in large part about the investor’s orientation and attitude, underlining the importance of efforts to become aware of—and aligned with—activity beyond deploying return-seeking capital.

15

CONCEPT

Combinatorial Effects

The synergies that arise when multiple interventions stand in a strategic relationship with one another



Combinatorial effects embody the idea that one plus one sometimes equals three—that the impact of individual interventions can potentially be amplified by aligning them strategically with one another.²⁶ We can observe such effects in everyday life, e.g., when reading in the news about “how multiple factors combined” to produce a particular event such as an instance of extreme weather or a surprising election outcome.

In theory, it does not matter for the emergence of combinatorial effects in systemic investing whether the strategic alignment of assets happens by coincidence or as the result of a deliberate act. Nor does it matter whether the effect is created among assets in the same portfolio (“intra-portfolio”; e.g., between two of the investor’s investee companies) or among assets/interventions that sit in different portfolios over which the investor has agency (“trans-portfolio”; e.g., between an investee company and an organization that received a grant from the investor’s foundation). And in the logic of nesting described above, combinatorial effects can even be created between an investor’s assets and the assets/non-investable interventions of third parties (“extra-portfolio”).

There are different ways to target the generation of combinatorial effects, such as baking into the covenants of an investment agreement the requirement for the investee to collaborate with another organization in the portfolio.²⁷ That said, due to the complex adaptive nature of systems, where there is always significant uncertainty regarding the consequences of interventions, the generation of combinatorial effects cannot be precisely controlled.

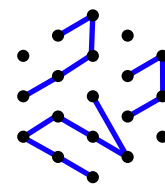
Combinatorial effects is the hallmark that most saliently delineates systemic investing from thematic investing. Thematic investment portfolios typically contain assets that belong to the same thematic context but stand in isolation from each other. Systemic investment portfolios also contain assets that belong to the same thematic context (whereby the “theme” is a particular system), but there is a strategic relationship among them—making the creation of combinatorial effects more likely.

16

PROCESS

Measurement, Learning and Sensemaking

A systematic approach to generating insights and a basis for accountability in systemic investment programs



Systemic investors need ways of gathering information and generating knowledge about what is happening in a system of interest in order to inform follow-on actions. This is true at the outset of the work, where systems analysis comes into play. It is also true once the work is underway and capital is being deployed into the system. Investors need feedback from the system to answer a range of crucial questions: Is the system moving towards the transformational intent? What is changing? What further interventions are needed? What alterations are needed to the assumptions made in the theory of transformation? Are there any changes taking place that are undesirable and need to be addressed?

These are, broadly speaking, questions about impact. In traditional impact investing, the practice of impact measurement and management (IMM) has evolved to answer a similar set of questions about the effects—both positive and negative—of an investment.²⁸ However, there are some important differences in the way measurement, learning, and sensemaking are understood in the context of systemic investing.

Crucially, in systemic investing, the focus moves away from attempting to connect outcomes or impact to

²⁵ We are investigating the role of “Strategic Capital Facilitation” in this series of articles (see [here](#) for Part 1).

²⁶ In this context, “interventions” is a catch-all phrase to denote any action deliberately pursued to impact a system of interest. From the standpoint of investors, such interventions are usually the projects of companies they invest in.

²⁷ A theoretical example of this would be an investment into a company focused on developing electric vehicle charging infrastructure, which is mandated—as part of the investment terms—to procure charging infrastructure technology from another company in the investor’s portfolio.

²⁸ Impact Frontiers defines impact as “a change in an outcome caused by an organization” (whether positive or negative, intended or unintended), whereby outcome means “the level of well-being experienced by a group of people, or the condition of the natural environment, as a result of an event or action”.

specific investments.²⁹ There are several reasons for this. Firstly, systemic investing emphasizes the importance of multiple interventions in the same system. This means that any observed changes are likely to be the result of multiple interventions interacting with each other. As a result, there is little value in attempting to separate out the effects of one investment in isolation.

Secondly, systemic investing emphasizes the importance of nesting—acting in strategic alignment with the work of others in the system. The range of potential influences on a system is therefore even broader.³⁰

Thirdly, and most fundamentally, systems and complexity bring new perspectives on how change happens and on what can be measured, necessitating fresh thinking on the best way to generate meaningful insight that is compatible with systemic investing as a new investment logic.

Naturally, investors still need a way of answering the crucial questions set out above, which they can achieve by employing a broad set of methodological tools. There will be a role for more formalized (quantitative) measurement approaches, for example through collecting indicators of system health. There will also be a role for less formal—but nevertheless systematic—gathering of insight via the learning and sensemaking practices that have been developed in systems change work. These practices are usually designed as collective processes that involve multiple stakeholders and use a range of frameworks to capture experiences, structure information, and interpret them together in a way that leads to actionable insights. An important role of sensemaking is in the (partial) resolution of the uncertainty inherent in all complex adaptive systems—giving investors a way to think about the “known unknowns” and “unknown unknowns” and come to grips with the implications of uncertainty.

By reducing the focus on metrics and “results,” systemic investing entails a shift away from the metrics-based accountability that characterizes much of sustainable finance. Instead, accountability is reconceptualized in relation to shared new configurations of actors and relationships, new governance arrangements, and potentially shared decision-making processes. This also has implications for how investors report to those stakeholders to whom they are accountable.

²⁹ This is the case in terms of both the formal attribution of outcomes to interventions and the consideration of contribution.

³⁰ It may be tempting to think that, given systemic investors are making multiple interventions, impact measurement should simply move up a level in focus, looking at the impact of the group of interventions. The concept of nesting helps to illustrate that this approach, too, has limits, because changes in the system will be the result of factors outside the investor’s control or involvement.

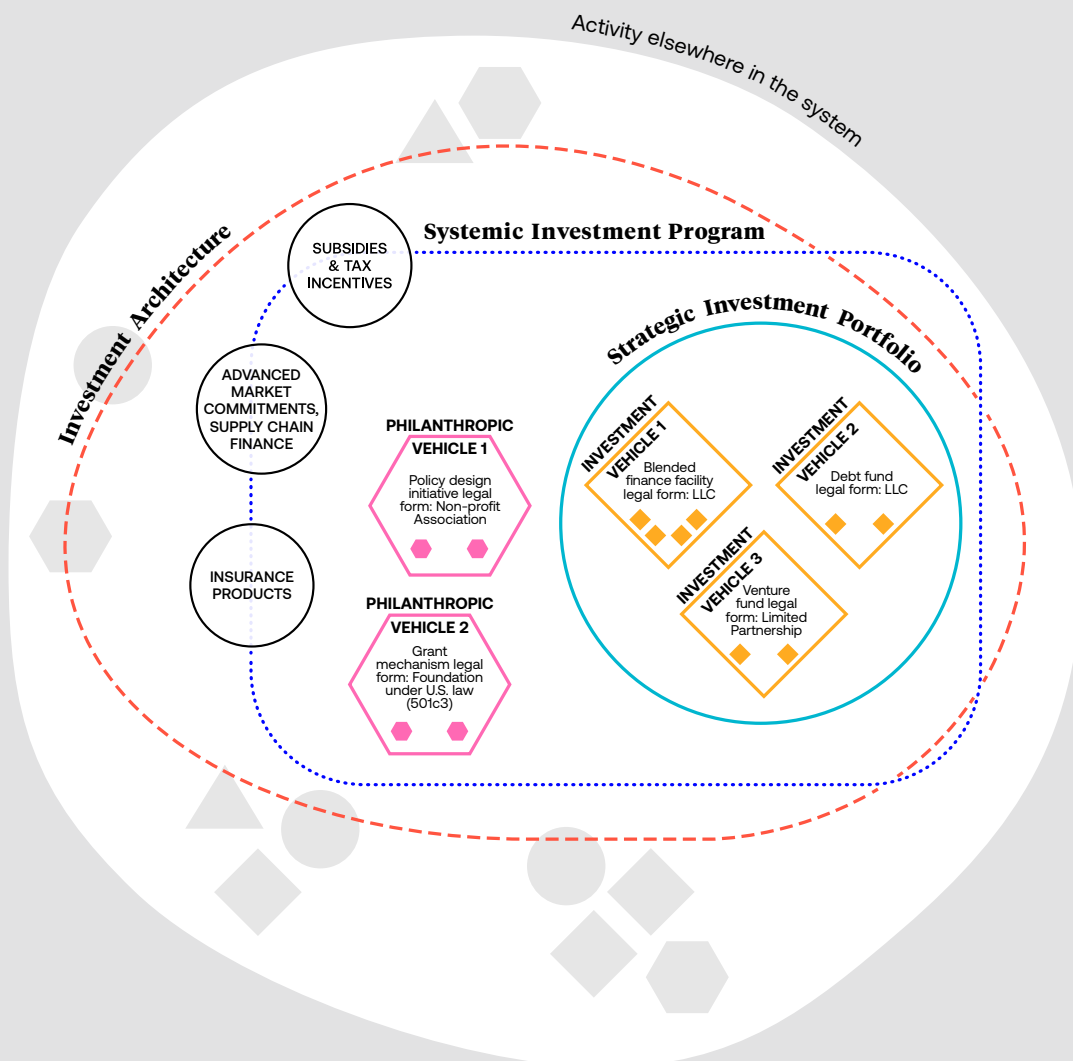
Structure diagram

Some of the hallmarks of systemic investing as described above stand in a structural relationship with one another. What follows is a diagram that depicts that relationship visually, in an attempt to help readers understand how everything hangs together.

The diagram centers around a systemic investment program. We use the word “program” because systemic investing will typically be operationalized as

a sustained effort involving multiple vehicles, capital types, and investors, and because the term is spacious enough to accommodate many different shapes and forms of such efforts.

The diagram will first be shown with all components in view before being deconstructed and rebuilt frame by frame with explanations and references to the hallmarks.



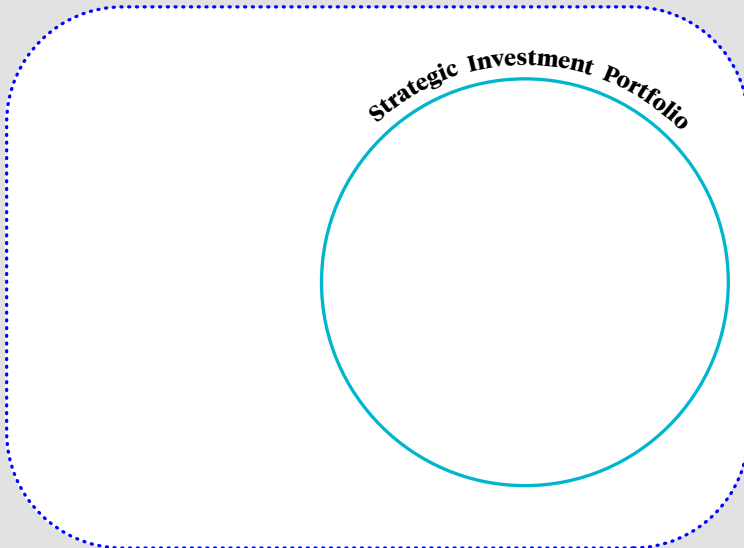
Systemic Investment Program



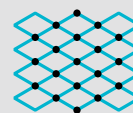
- A. A **systemic investment program** is a sustained effort of deploying financial capital along the definition and hallmarks of systemic investing.

The program’s boundary is determined primarily by the concept of agency, which for this purpose we define as the ability to have control over a program’s activities. As a consequence, a program’s boundary can be fuzzy, and is subject to change over time as a program evolves. Such agency can be vested in a single individual/organization or in a coalition of actors (e.g., as coordinated by a strategic capital facilitator).

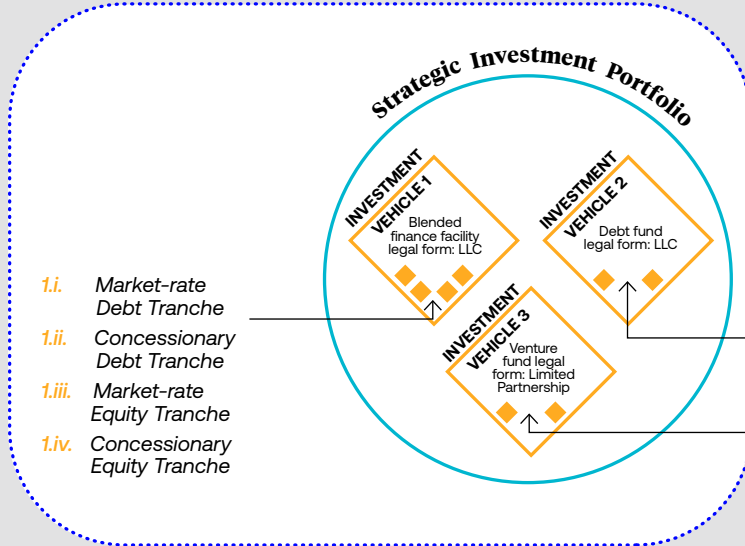
Systemic Investment Program



- B. Within this program sits a **strategic investment portfolio** containing all the return-seeking assets (both market-rate and concessional).



Systemic Investment Program

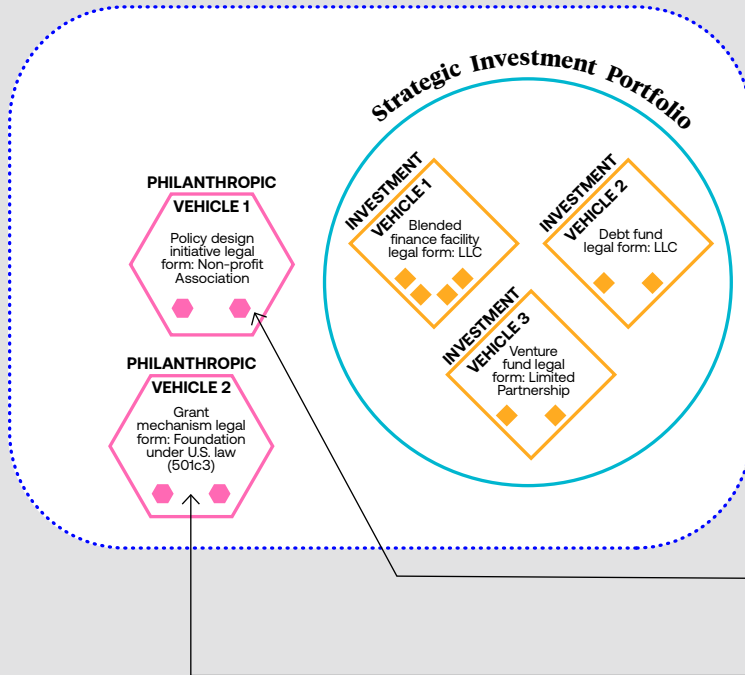


C. The strategic investment portfolio holds one or more **investment vehicles**, which can be of any design and legal form.



- 2.i. Loan 1
- 2.ii. Loan 2
- 3.i. Equity Investment 1
- 3.ii. Equity Investment 2

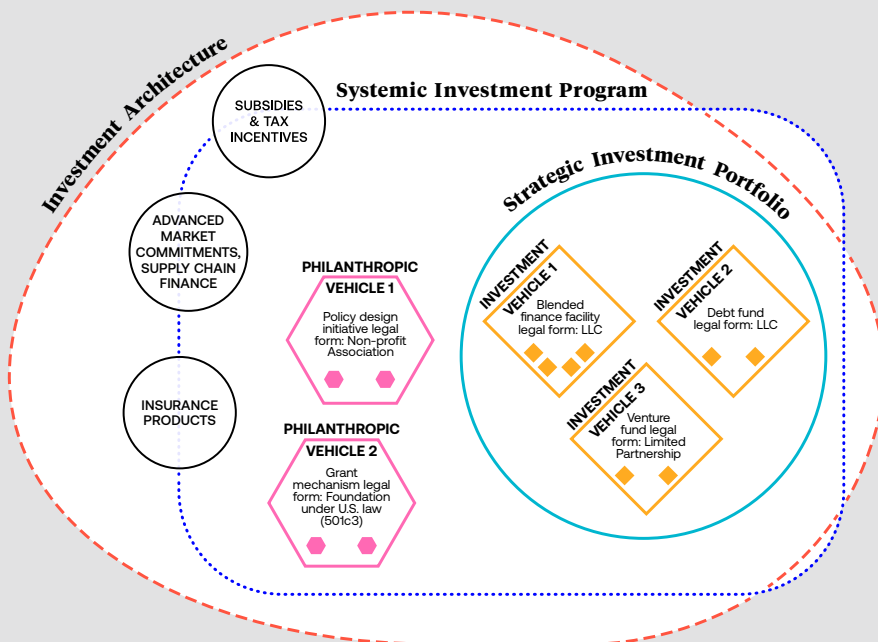
Systemic Investment Program



D. The program also contains **philanthropic vehicles**, entities deploying capital that is not return-seeking.

Note that on the spectrum of return expectations, there are intermediate points between pure philanthropy (IRR = -100%) and concessional investments (IRR = market rate -X%, but with IRR > 0%). For instance, there are also repayable grants, or conditionally repayable grants, etc. For our purposes, these are included under “philanthropic vehicles”.

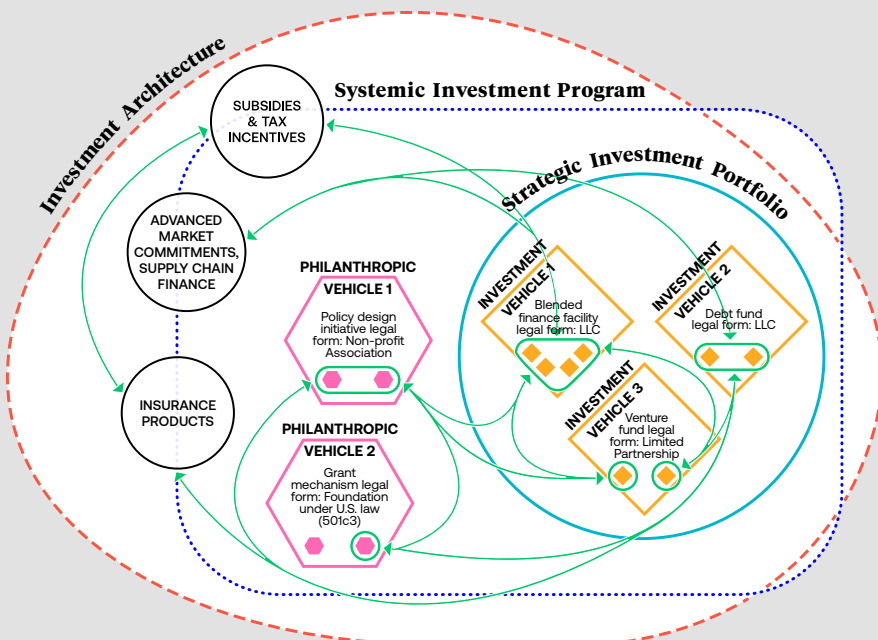
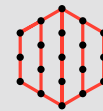
- 1.i. Advocacy Project 1
- 1.ii. Advocacy Project 2
- 2.i. Grant 1
- 2.ii. Grant 2



E. The **investment architecture** is the design of the overall capital structure of a systemic investing program. It brings into view sources of capital over which a particular investor or coalition has little to no control.

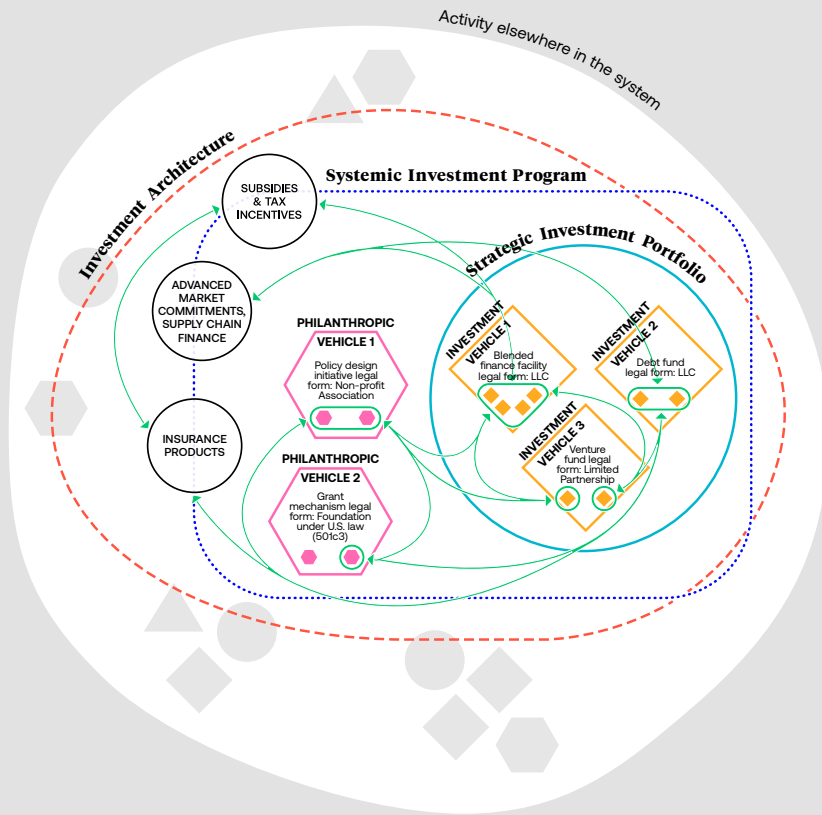
These can include things like public-sector spend and investment (e.g., subsidies, tax incentives, public procurement, etc.), supply-chain finance and advanced market commitments from corporations, insurance products, cash flows from environmental markets, and the like.

Whether these sit within program or outside depends on the vantage point from which the schematic is drawn.

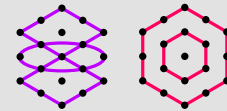


F. All forms of capital are deployed in pursuit of **combinatorial effects**, i.e., synergies that arise when multiple interventions stand in a strategic relationship with one another.





G. Investment activity is intentionally **nested** within a broader system intervention approach, meaning there is active coordination with and reference to other actors and initiatives working towards the same broad **transformational intent**.



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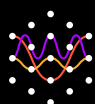
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