CATALYTIC CAPITAL

2025

FUNDING THE MISSING MIDDLE IN THE EDUCATION-TO-WORKFORCE ECOSYSTEM

Tyton PARTNERS

OUR PARTNERS

ABOUT WORLD EDUCATION SERVICES

Founded in 1974, World Education Services Inc. (“WES”) is a nonprofit social enterprise that supports the educational, economic, and social inclusion of immigrants, refugees, and international students. Over 50 years, WES has developed a wide range of tools to pursue social impact at scale. From evaluating academic credentials to shaping policy, designing programs, and providing investments and philanthropic funding, we partner with a diverse set of organizations, leaders, and networks to uplift individuals and drive systems change. For more details about WES and our work, please visit our ***website.***

ABOUT STRADA EDUCATION FOUNDATION

Strada supports programs, policies, and organizations that strengthen connections between postsecondary education and opportunity in the US, with a focus on helping people who face the greatest challenges. We advance this mission through research, grantmaking, social-impact investments, public policy solutions, and Strada-supported nonprofit organizations, including CAEL, CredLens, Education at Work, InsideTrack, and Roadtrip Nation. We collaborate with students, educators, employers, policymakers, and other partners to help create more equitable pathways to opportunity. Learn more at ***stradaeducation.org***.

STATEMENT OF INDEPENDENCE

This report and its findings were made possible with the support of our partners. The findings and conclusions contained within are those of Tyton Partners and do not necessarily reflect the positions or policies of our partners. The intellectual property contained within this report belongs to Tyton Partners.

TABLE OF CONTENTS

EXECUTIVE SUMMARY

The education-to-workforce pipeline in the US is broken, depriving millions of the opportunity to earn a sustainable living wage and experience career advancement. While the problems have been well diagnosed, and some organizations have achieved success on a small scale, large-scale solutions have been hard to come by.

To break this impasse, the ecosystem requires more funding and new approaches that are tailor-made to address the broken pipeline by spurring the creation of new markets, mobilizing capital to historically overlooked solutions, and enabling organizations to thrive at scale.

Catalytic capital holds the potential to address these problems. While it has gained significant momentum among funders in other sectors like climate and microfinance, it remains underutilized within the education-to-workforce ecosystem. Forward-thinking funders and impact investors can seize the moment by expanding their impact investment strategies to incorporate the use of catalytic capital and, in doing so, take a large step forward toward improving the education-to-workforce pipeline.

This report builds on the field's knowledge and articulates why catalytic capital is needed, when it should be used, and how to deploy it effectively in the education-to-workforce ecosystem. Key findings from this report include the following:

- **Catalytic capital has a long history of successful deployment to address intractable social problems.**
  - →It has been used for 80+ years by development finance institutions and foundations to drive systems change and solve large social problems with massive capital needs.
  - →Funders have recognized the need to prioritize impact over risk-adjusted returns to solve these problems and fill funding gaps ignored by traditional capital.
  - →In the past decade, housing, financial services (including microfinance), and climate have all benefited from increasing use of catalytic capital. Great potential exists for it to be used more often in the education-to-workforce ecosystem as well, where large funding gaps also exist.

- **There sits an enormous white space of unfunded impact opportunities—a "missing middle"—which catalytic capital can fill.**
  - →Philanthropic grant capital does not provide a sufficient nor sustainable pool of capital to address these unfunded opportunities.
  - →Market-rate capital excludes these opportunities from consideration due to their inability to meet risk-adjusted return thresholds.
  - →Catalytic capital can fund this "missing middle" as its focus on patience, flexibility, and risk tolerance creates space to accept a below-market-risk return profile in certain instances to achieve deep impact.
- **While all capital approaches have the potential to drive meaningful impact as part of a holistic portfolio approach, catalytic capital is most appropriate for addressing instances of "market failure."**
  - →Market-rate capital is the most appropriate tool in well-functioning markets.
  - →Grants may be suitable to fill funding gaps in instances of market failure but are not sufficient alone and are often a mismatch for the capital need.
- **Three types of market failure can be found in the education-to-workforce ecosystem:**
  - →No or nascent market, where a market does not yet exist or is very limited, and traditional capital has been historically unwilling or unable to fill the gap (e.g., student-friendly loans to finance workforce training)
  - →A subsidized market, where a market is heavily reliant on subsidized capital, such as nonprofit or public funding (e.g., skills training for underrepresented groups facing unique barriers to entering certain careers)
  - →A broken market, where the financial incentives within a market are misaligned with collective social interests, creating inefficient outcomes (e.g., mentoring and support for first-generation college graduates)
- **A holistic impact investment strategy should utilize philanthropic grant capital, catalytic capital, and market-rate capital to achieve its impact goals.**
  - →Funders with flexible mandates are well positioned to deepen their impact and galvanize change with catalytic capital.
  - →The funder ecosystem has an enormous opportunity to build use cases, roadmaps, and capacity to drive change.

To generate these findings, Tyton Partners completed primary and secondary research (undertaken in partnership with a cohort of leading impact investors) and engaged in a literature review of 30+ reports, papers, and articles about catalytic capital and blended finance. Over 15+ interviews were conducted with impact investment professionals, including experts in catalytic capital, investors expanding their use of catalytic capital, and entrepreneurs who have been recipients of this kind of investment.[1]

1. See the full reference list at the end of the report

I. WHY CATALYTIC CAPITAL: ITS EVOLUTION AND IMPACT

A bold opportunity exists for those funders committed to solving the most pressing workforce problems of our day. Catalytic capital can be a transformative force to unlock and scale workforce solutions that drive real, measurable impact for the highest-need populations.

At present, the education-to-workforce sector is a highly fragmented, opaque system funded by public and private sources. We know that the journey from education to employment—via a two-year or four-year degree or short-form credential—is full of barriers and inequities, such as lack of funding for education, lack of transparency of career and job options, and lack of social capital and know-how to navigate the path to well-paying jobs.

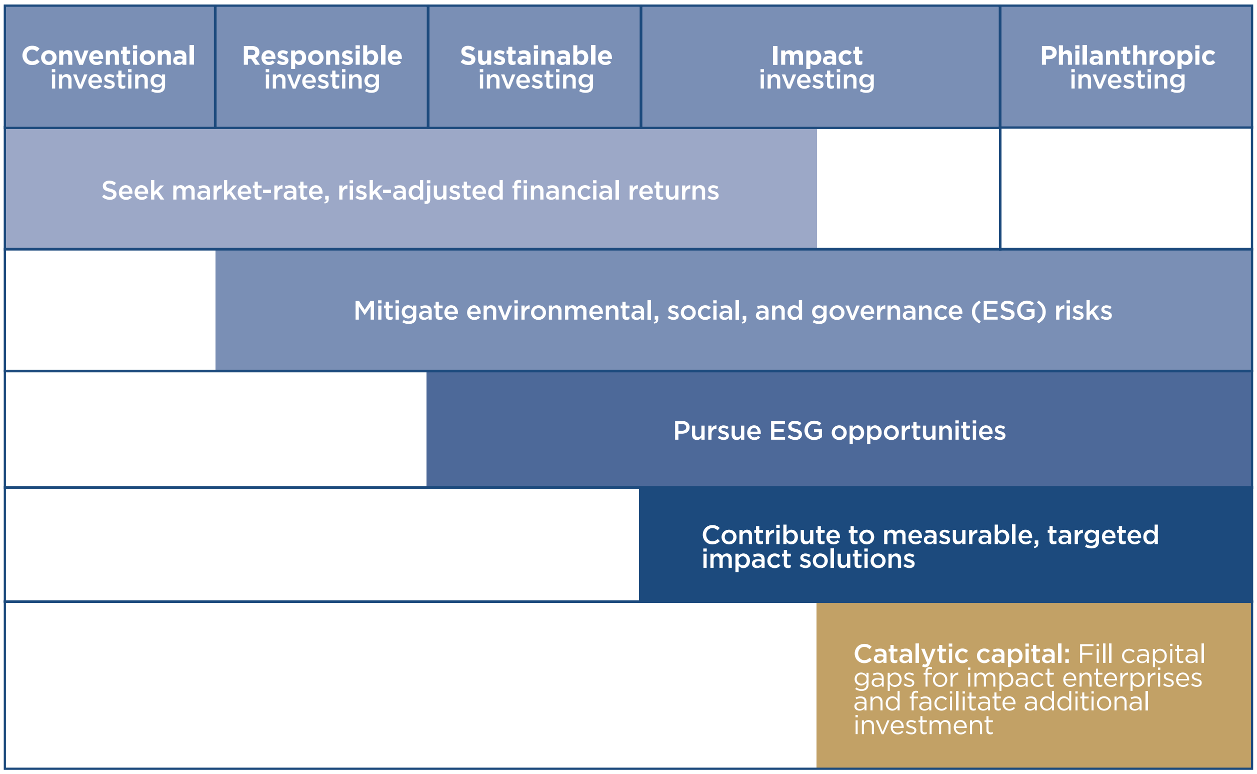
In the past decade, philanthropy has increasingly stepped in to solve these problems and break down barriers by providing grants to nonprofits that provide guidance and navigation or by investing in targeted startups with grants or PRI capital. Private funders, deploying market-rate capital, have also been attracted to the sector, funding apprenticeship programs, staffing platforms, and companies that try to facilitate the journey.

However, in many cases, grantmaking is not appropriate because it does not always encourage organizations to develop sustainable revenue streams or focus on the capability required to scale, and it cannot fund indefinitely. Market-rate capital often demands too high a financial return in too short a time to fully develop solutions that serve high-need, under-resourced audiences.

By deploying flexible, risk-tolerant investments—i.e., catalytic capital—funders have the chance to fill critical gaps, scale innovation, and accelerate change by funding solutions that are often overlooked by market-rate capital or not funded sufficiently by grants.

WHAT IS CATALYTIC CAPITAL?

As articulated by the MacArthur Foundation and the Catalytic Capital Consortium (C3) and widely accepted by the field, catalytic capital is “a subset of the full continuum of capital – investments that are more patient, flexible, and risk-tolerant than conventional capital.” The graphic below illustrates where catalytic capital sits relative to other capital approaches.



From Tideline’s Catalytic Capital: Unlocking More Investment and Impact. Adapted from Barby, C.; Pederson, M. (2014). Allocating for Impact: Subject Paper of the Asset Allocation Working Group. Bridges IMPACT+ and UBS for the Social Impact Investment Taskforce established under the UK’s Presidency of the G8

Semantic confusion exists around this category of investing, with many commonly used terms that imply subtle distinctions. However, all of these terms—catalytic capital, flexible capital, impact-first capital, sub-commercial capital, concessionary capital, and patient capital—share a common, defining characteristic: They are all forms of investment capital that place social impact first, prioritizing it over optimization of risk-adjusted returns.

Catalytic capital is not new. As the chart below depicts, it has been used for decades to promote economic development and poverty reduction as multilateral institutions responded to gaps in the capital markets for effective financing of intractable social problems.

HOW CATALYTIC CAPITAL HAS BRIDGED MARKET GAPS FOR SOCIAL PROGRESS

1940S–1960S: THE CREATION OF DEVELOPMENT FINANCE AND PRIS

- Global and regional development finance institutions are created.
- **Accept concessionary returns to support:**
  - Economic growth
  - Poverty reduction
  - Sustainable development
- Ford Foundation creates **program-related investments (PRIs).**

1970S–1980S: THE EMERGENCE OF MFIS AND CDFI PRECURSORS

- Microfinance institutions (MFIs) and community development corporations (CDCs) occur.
- **Demonstrate the potential of catalytic capital investments** to promote economic empowerment in underserved communities.

1990S–2000S: FIRST CDFIS AND GROWTH OF IMPACT INVESTING

- US Treasury establishes the National CDFI Fund, accelerating community development finance.
- Impact investing officially coined in 2007 by the Rockefeller Foundation.
- GIIN founded in 2009; the field advances.
- **Growth in the number of funders leveraging patient, flexible capital:** Omidyar Network, Acumen Fund, Blue Orchard, Elevar Equity, and MicroVest.

2010–2024: BLENDED FINANCE AND PROLIFERATION OF IMPACT INVESTING

- From 2010 to 2022, impact assets grow from ~$50 billion to ~$1.2 trillion (GIIN).
- In 2015, blended finance proposed to help fill funding gaps for meeting the UN SDGs.
- **Multiple initiatives arise dedicated to catalytic capital,** including the Global Investment Fund, Candide Group, a carve-out within WES, and the Catalytic Capital Consortium (C3).

"There is a lot of risk aversion around impact investing. If you are only doing the safe and obvious, how will the next generation find new solutions and models? This work requires courage."

—Aner Ben-Ami, Candide Group

Two important principles have held true over the decades and are relevant now:

- Intractable societal problems that were ignored by traditional capital investors due to the risk involved created huge funding gaps, opening the door for catalytic capital.
- Capital allocators recognized that to achieve the desired deep impact and corresponding societal change, it was necessary and worth it to prioritize impact over risk-adjusted returns.

Today, many are still hesitant to pursue these "new" approaches and divert funds from more traditional approaches where there is no middle ground between philanthropic grant capital and market-rate capital. But a deeper look at the theory behind catalytic capital investing can uncover this middle ground and begin to reconcile the search for impact with a traditional view of risk versus return.

II. THE MISSING MIDDLE: USING CATALYTIC CAPITAL ALONGSIDE MARKET-RATE AND PHILANTHROPIC GRANT CAPITAL

A RISK-RETURN LENS

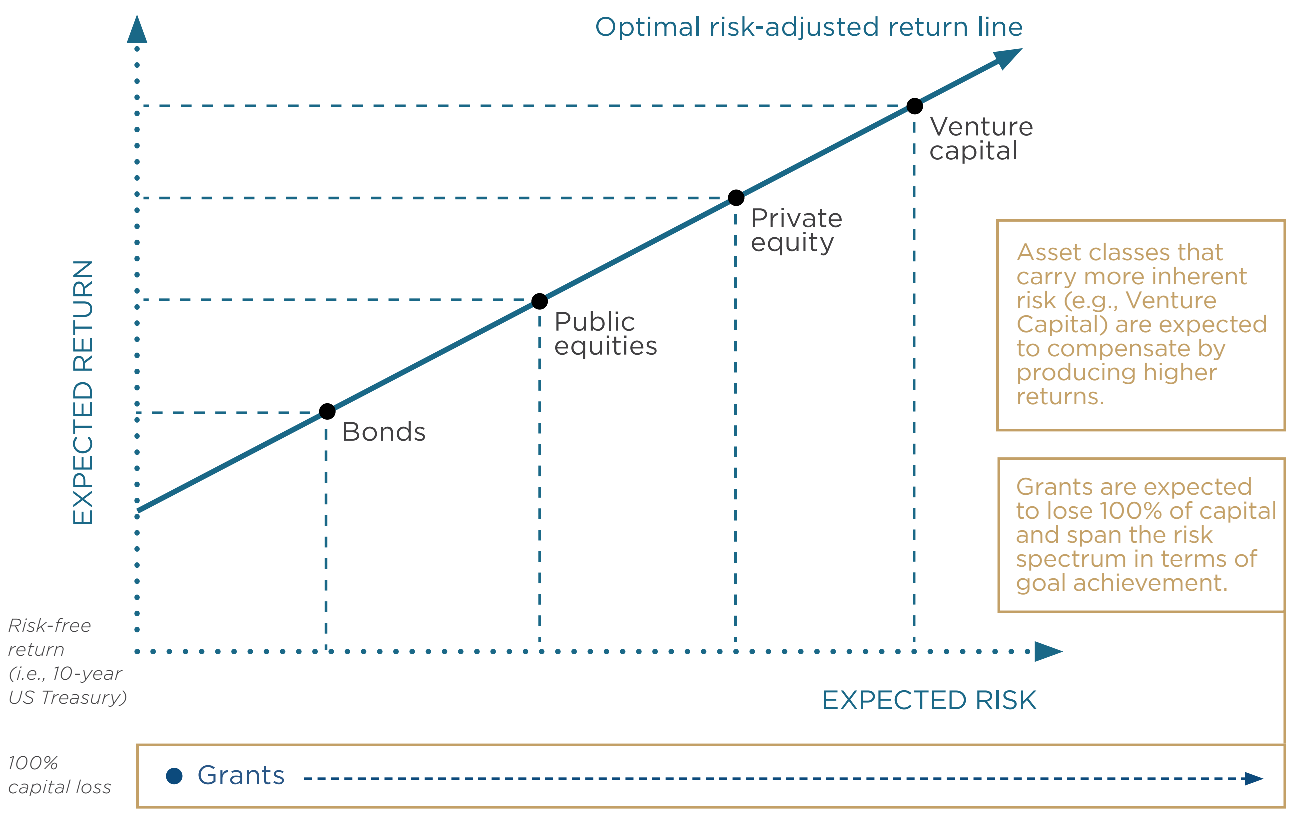
The traditional view of investing looks at the available opportunity set of potential investments across two dimensions: risk and return.[2] Investments across different asset classes have different expected risk-return profiles:

- Riskier classes, such as venture capital, are expected to produce higher returns.
- Lower-risk classes, such as bonds, are expected to produce lower returns.

"The optimal risk-adjusted return line" is created by the intersection where the expected return matches the expected risk across different asset classes. The traditional market-rate view on investing is as follows:

- "Good" investments fall at or above the line.
- "Bad" investments fall below the line.

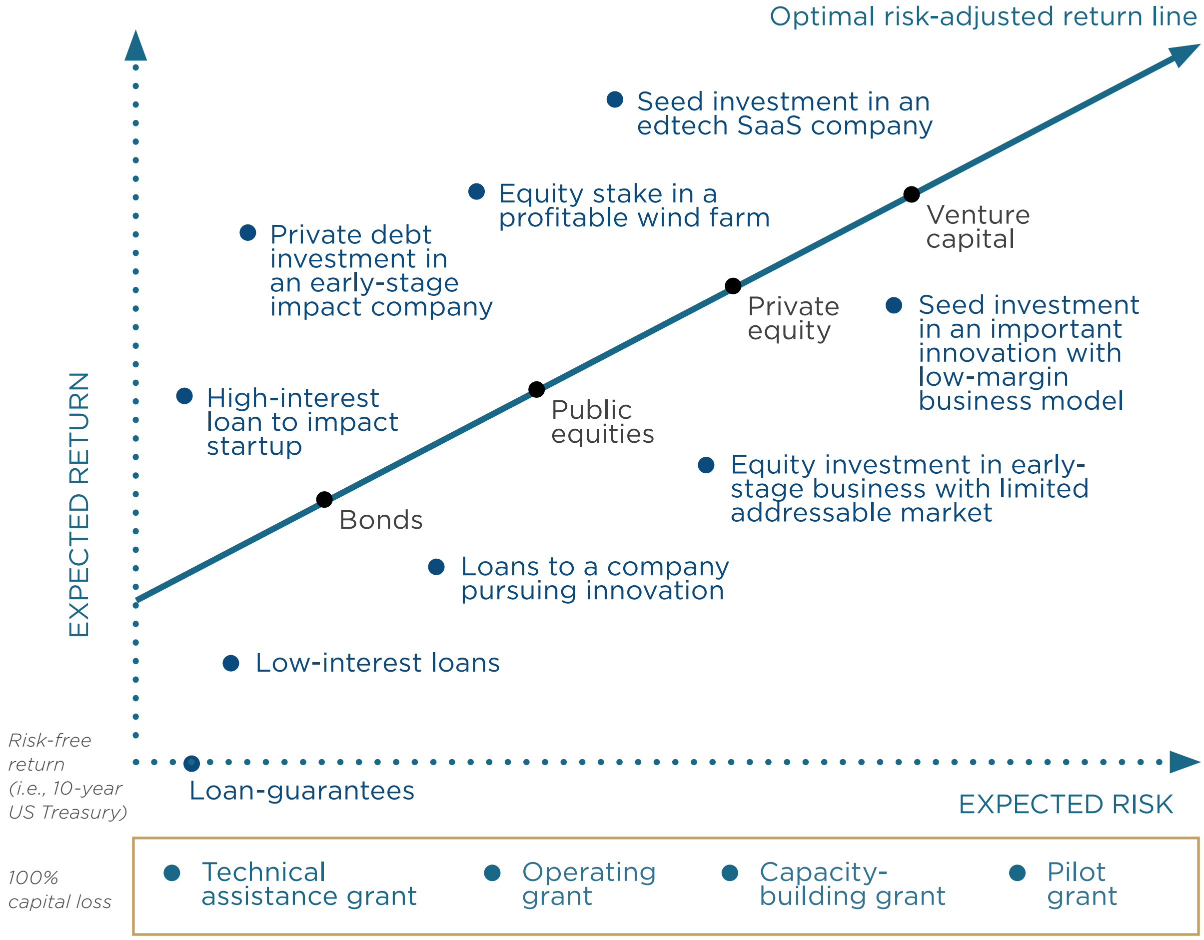
ILLUSTRATIVE RISK VS. RETURN CHART



2. Capital-weighted return is evaluated compared to a specified measurement of risk, typically based on a historical standard deviation of a portfolio or basket of similar investments, beta relative to the broad market, or an aggregation of factors across multiple dimensions

When only focused on risk versus return, it is straightforward to plot investments and decide whether investment is warranted. However, social impact complicates the equation because there are abundant investment opportunities likely to drive impact both above and below the optimal risk-adjusted return line.

ILLUSTRATIVE RISK VS. RETURN CHART



A TALE OF TWO INVESTMENTS

The following two examples demonstrate how investors may evaluate investment opportunities through a risk-return lens:

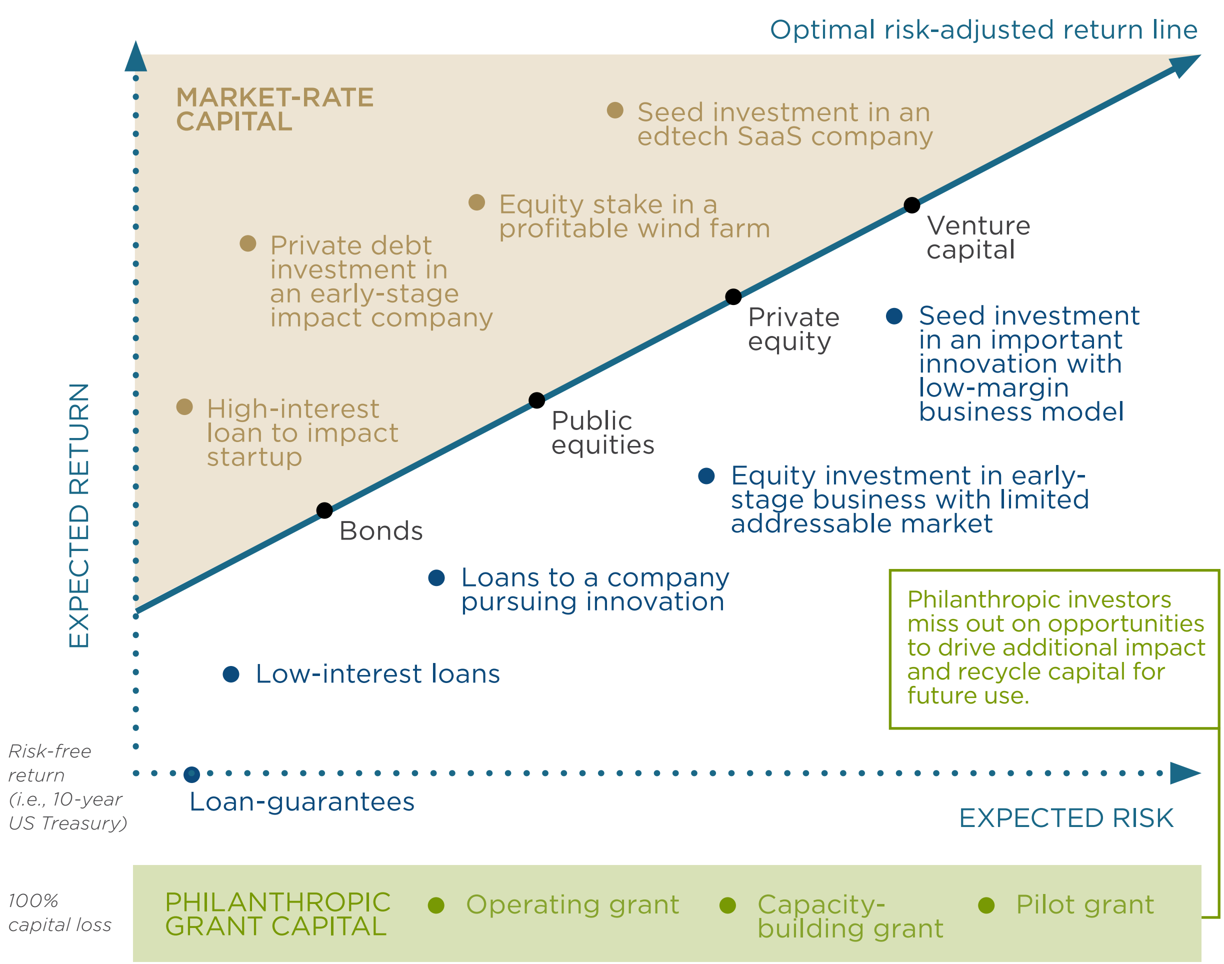
1. **A seed investment in an edtech artificial intelligence (AI) company that is improving teacher efficiency and has a proven SaaS business model.**
    - Characteristics: Large addressable market, high profit margins, and positive impact associated with improvements to teacher efficiency.
    - Underwriting: Investor underwrites a typical venture capital return (e.g., 3x return on invested capital) because of the SaaS nature of a company and comparable deals.
    - Result: Investment sits **above the optimal line**—it is an easy investment for a market-oriented investor who wants to drive impact.

2. **A seed investment in a company focused on innovative credit solutions for students from low-income backgrounds.**
    - Characteristics: Modest addressable market, low profit margins, and high impact based on its potential to improve postsecondary access and catalyze the market for innovative credit solutions.
    - Underwriting: Investor underwrites to a lower expected return target (e.g., 1.5x return on invested capital) but with the same risk as a typical venture deal because it is an untested business model and there are few comparable successful deals.
    - Result: Investment sits **below the optimal line**—a market-oriented investor, even if interested in driving impact, would not be able to justify it on a risk-return basis.

Both investment examples represent seed investments in innovative companies that are driving impact in the education space and have a positive expected ROI. The second example has a higher impact potential due to its potential to catalyze an entirely new market. However, an impact-oriented market-rate investor could not justify investing in it due to the risk-return dynamics.

This two-dimensional view of investing leaves a substantial number of similarly high-impact investment opportunities unfunded.

ILLUSTRATIVE RISK VS. RETURN CHART

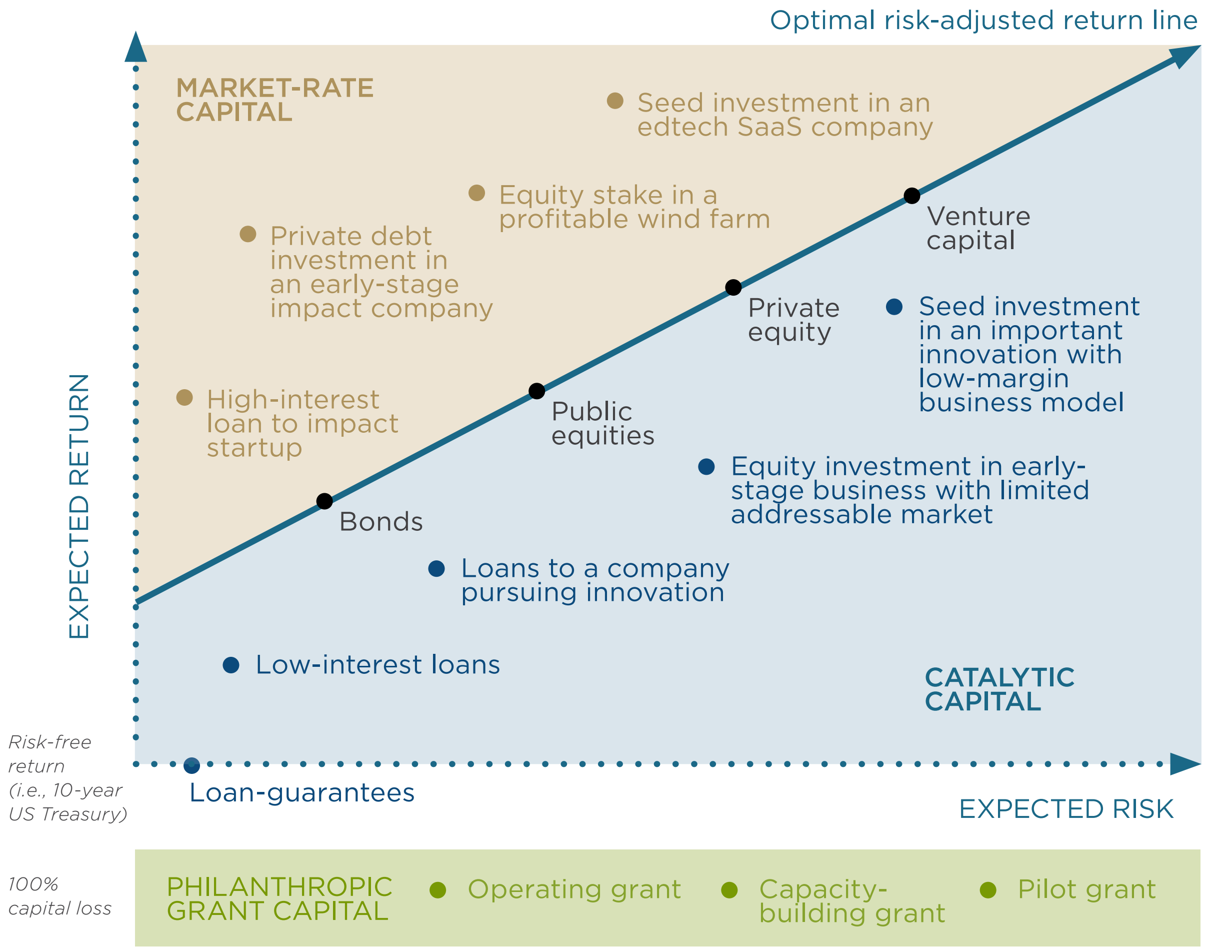


THE MISSING MIDDLE

Typically, one of two things happens to these investments overlooked by market-rate capital:

1. Some opportunities receive capital in the form of grants, which makes sense in certain cases. Many times, catalytic capital would better serve both parties, particularly for the following reasons:
   - Catalytic capital allows philanthropic funders the opportunity to preserve, recycle, and/or grow capital while still achieving impact goals.
   - It allows recipients to leverage investment to "crowd in" private investors.
   - It has repayment terms, which encourage the development of sustainable business models.
2. Many high-impact opportunities simply do not receive the needed funding at all, overlooked by both market-rate investors and grantmakers. This **"missing middle"** consists of impact-oriented organizations that need and are deserving of funding to help unlock their impact potential.

ILLUSTRATIVE RISK VS. RETURN CHART



Sources: *Corporate Finance Institute, Harvard Business Review,Tideline Report on Catalytic Capital: Unlocking more investment and impact; Bridges Fund Management: The Bridges Spectrum of Capital; Omidyar Network: Across the Returns Continuum Tyton Partners interviews and analysis*

Catalytic capital investors recognize the importance of funding high-impact opportunities below the optimal risk-adjusted return line by prioritizing a third dimension: impact. These investments have a different risk-return profile for a wide variety of reasons, including the following:

- Higher inherent risk
- Lower inherent return expectations
- Underwriting investments to a longer time horizon
- Offering debt during tight credit markets
- Providing first-loss capital to derisk and attract market-rate investors
- Taking founder-friendly terms

Catalytic capital provides much-needed investment capital to a wide variety of high-impact organizations that would otherwise not receive it, like the credit solution in the second example above. Similarly, for the right organization, it can enable a scale of impact not otherwise possible through commercial capital or grants alone. In this way, it serves as a crucial tool to fill the "missing middle" funding gap for impact-oriented organizations.

Notably, there is no linear trade-off between risk-return and impact. A lower risk-return neither guarantees nor should necessarily require a "higher" level of impact. Rather, an investor who is truly prioritizing impact must do the following:

- First, decide what kind of impact they want to achieve and what risk-return dynamics they would have to accept to achieve it.
- Then, decide on a case-by-case basis if forgoing that level of return or accepting that level of risk is worth the anticipated impact.

III. ADDRESSING MARKET FAILURE: USE CASES FOR CATALYTIC CAPITAL IN THE EDUCATION-TO-WORKFORCE ECOSYSTEM

FREE MARKETS AND FAILED MARKETS: WHEN TO DEPLOY CATALYTIC CAPITAL

In the "free market" of economics textbooks, where financial and social incentives are completely aligned, companies can realize the value of the social good they produce. Traditional capital investment drives market movements toward what economists refer to as Pareto efficiency, with optimal allocation of resources for society's well-being. In these **"well-functioning markets,"** impact-oriented companies will attract investment from traditional market-rate investors because their social impact is correlated with the financial return these investors seek.

But in the messiness of the real world, the market does not always allocate resources efficiently, and there are contrasting views about what social good means. It is often difficult for organizations to realize the value of the social good they produce, and so traditional market-rate capital rarely flows to them. These occurrences, where the market fails to bring about results that are in the best interest of society, represent **"market failures."**

Many funders agree in principle that capital should be leveraged both to drive impact in well-functioning markets and to address market failures. But too often, the capital deployment discourse is dominated by binary thinking, dictating the following:

- In well-functioning markets → use market-rate capital
- To address market failures → use philanthropic grant capital

This approach leads to the precise funding gap previously identified because market-rate capital cannot be used to address market failures without compromising risk-return parameters. And philanthropic grant capital is insufficient, both in terms of quantity (i.e., there is not enough capital to fund all the opportunities) and structure (i.e., often grants are not as helpful a tool to drive behavior as debt or equity). The result is that many market failures are left unaddressed due to inadequate funding, i.e., **"the missing middle."**

Catalytic capital can serve to fund "the missing middle," offering funders another capital approach that can be used to correct market failures.

USE CASES FOR CATALYTIC CAPITAL

A more comprehensive theory of capital deployment includes catalytic capital:

DEFINING A CLEAR THEORY OF CHANGE AND TARGET IMPACT OUTCOMES CAN HELP YOU UNDERSTAND WHICH TYPES OF MARKETS YOU EXPECT TO INVEST IN:

WELL-FUNCTIONING MARKETS

Free markets where financial and social incentives are aligned, companies are able to realize the value of the social good they produce, and traditional capital investment drives movement toward Pareto efficiency (i.e., optimal allocation of resources for society's well-being).

Traditional market-rate capital is typically most useful in well-functioning markets.

MARKET FAILURES

Situations where the free market results in inefficient resource allocation, failing to bring about results that are in the best interest of society as a whole.

Can be categorized into three main market structures:

- No or nascent market (i.e., a market does not yet exist, and traditional capital is unwilling to fund/create it)
- Subsidized market (i.e., a market heavily reliant on grant or public capital)
- Broken market (i.e., an existing market with inefficient outcomes)

Catalytic capital and/or grants are typically most useful to address market failures.

Sources: *Alain Marciano and Steven G. Medema, "Market Failure in Context," History of Political Economy; Stantcheva, Stefanie. Fall 2017 Economics Lecture 7 on Externalities. Harvard University; Tyton Partners analysis and interviews*

To better understand the vast array of situations where catalytic capital may be helpful to address market failures, market structure can be used as a guiding principle. In general, market failures tend to occur across three types of market structures. Each represents a discrete use case for catalytic capital, as articulated below:

MARKET STRUCTURES IN WHICH CATALYTIC CAPITAL IS MOST USEFUL

	NO OR NASCENT MARKET	SUBSIDIZED MARKET	BROKEN MARKET
Definition	When a market (or sector/ segment/niche) does not yet exist or is very limited and traditional capital is unwilling to fund a certain product, service, demographic, region, etc.	When a market (or sector/ segment/niche) is heavily reliant on subsidized capital, such as nonprofit or public funding	When a market (or sector/segment/niche) exists where individual financial incentives are misaligned with collective social interests
Types of companies	None (in limited markets, may be very early-stage startups, projects within think tanks, or research universities)	Nonprofits, B-corps, mission-oriented for-profits	For-profits
Primary funding sources	None (in limited markets may be funded by grantmaking organizations or impact investors)	Grantmaking organizations (e.g., foundations, nonprofits)	Traditional market-rate investors
Illustrative examples	Microfinance in India, energy in Africa, employment solutions for incarcerated workers	Social emotional learning, Workforce intermediaries	Linear consumption (vs. circular economy), credit markets for low-income communities or refugees, for-profit higher education

Sources: *Tideline Report on Catalytic Capital: Unlocking more investment and impact; Bridges Fund Management: The Bridges Spectrum of Capital; Omidyar Network: Across the Returns Continuum; Catalytic Capital in Impact Investing: Forms, Features, and Functions; Koh, Harvey. (2024). Smarter targeting of capital gaps can make catalytic capital more effective; Tyton Partners interviews and analysis*

NO MARKET, NO PROBLEM

In **"no or nascent market,"** the market does not exist (or is limited) for a product or service that solves a critical societal need—in part due to a lack of funding from traditional capital. The product/solution may be considered too risky and/or currently lack sufficient return potential for a traditional venture capital or seed fund.

Catalytic capital can stimulate these new or nascent markets when investors are willing to accept excess risk, underwrite to a longer timeline, and/or include founder-friendly terms, allowing them to invest where traditional capital is unwilling or unable to.[3] Here, catalytic capital serves to do the following:

- Drive social innovation that otherwise would not happen
- Prove the viability of new/risky ideas
- Derisk new markets to mobilize the entry of private capital

In the US education-to-workforce ecosystem, there have been efforts to support the creation of new markets focused on correcting or filling missing gaps in the system—including providing training, funding, and jobs to upskill/reskill minority or disadvantaged populations experiencing barriers to accessing work. Funds such as JFF Ventures, the Google Career Certificates Fund, and Social Finance's Up Fund all support companies with this ambition.

These efforts, however, are still a small part of the overall funding profile of the workforce sector, and there is significant potential to catalyze new/nascent markets and segments in other specific problem areas, such as those for alternative credit solutions, income-share agreements, and youth apprenticeships.

clasp

Year founded: 2018

Audience(s) served: Aspiring postsecondary students (degree and non-degree)

Type: For-profit

Description: Clasp, formerly Stride, is a mission-driven organization developing student-friendly loan products that enable students to finance training into in-demand occupations without assuming all the repayment risk irrespective of their earnings (as they would in traditional student or consumer loans).

Business Model: Previously offered income share loans; now focused on developing customized employer sponsored loans to find and retain talent for corporate partners

Investment hypothesis: Developing the market for innovative credit solutions, as Clasp is seeking to do, is a crucial part of supporting upward mobility for young people. Clasp's success will have high impact in and of itself and prove the viability of the market segment, but it is difficult to do, as displayed by Clasp recently ending its income share loan program. Flexible capital could help Clasp develop solutions with staying power.

3. Note that this is distinct from scenarios where there is not yet a market, but traditional capital is willing to fund it, as occurs often with traditional Venture Capital. In those cases, the free market readily creates/funds new markets. However, when VC and other traditional funders are unwilling to facilitate new market creation due to risk/return dynamics, that is when catalytic capital has an opportunity to step in and help jump-start new markets that address societal problems

WHEN NONPROFITS NEED MORE TO SCALE

In the second market structure—**"subsidized market"**—the market is heavily reliant on subsidized capital from philanthropic or public funding. Nonprofits are the most common type of organization found here, as are B-corps and mission-oriented for-profits. There are natural limits to grant and public funding, and a lack of access to credit limits the ability of these organizations to scale and/or develop sustainable business models.[4]

Catalytic capital—in the form of recoverable grants, low-interest loans, or deployed in a blended finance.[5] structure—can do the following:

- Incentivize the development of strong business models
- Provide ready access to credit to drive scaling beyond what is capable with grant capital or public funding

Within the education-to-workforce ecosystem, catalytic capital can be leveraged to provide debt to nonprofits or social enterprises at key inflection points in their growth. Potential uses include the following:

- Lending to workforce intermediaries or technical assistance organizations that help build and maintain the infrastructure for the ecosystem (e.g., Opportunity at Work, National Skills Coalition, Business-Higher Education Forum)
- Funding organizations focused on specific topics that nonprofits are better suited to deliver, such as developing quality assurance standards for certification and upskilling courses (e.g., CredLens, ASA Center for Career Navigation)

PER SCHOLAS

Year founded: 1995

Audience(s) served: 85% people of color, 1/3 young adults, 1/3 women

Size/scale: 20 locations in the US

Type: Nonprofit

Description: Per Scholas is focused on advancing economic equity by providing skills training and access to employer networks for individuals often excluded from tech careers.

Business model: ~25% of revenue comes from developing custom training programs for corporations; the rest is primarily comprised of philanthropic contributions/ grants.

Investment hypothesis: Per Scholas has strong impact outcomes and has grown to 20 locations but is still most prevalent on the East Coast. Providing it access to catalytic debt could help accelerate the path to scaling nationally and developing a more sustainable business model.

4. Note that this market structure category focuses on organizations where government and/or philanthropic intervention are actively working to address "market failure" through the provision of additional funding. Here, catalytic capital can serve as an additional tool by providing more and different forms of capital, with additional benefits for the recipients
5. As defined by the GIIN, "Blended finance is a strategy that combines capital with different levels of risk in order to catalyze risk-adjusted market-rate-seeking financing into impact investments. The providers of the risk-tolerant, "catalytic" capital in blended finance structures aim to increase their social and/or environmental impact by accessing larger, more diverse pools of capital from commercial investors."

WHEN THE MARKET BREAKS

In a **"broken market,"** there is an existing market, typically comprised of for-profit companies and producing suboptimal societal outcomes. In these cases, individual financial incentives are misaligned with collective social interests in part or whole. Traditional market-rate investors fund those companies in the market with attractive risk-return profiles, but funding gaps and inefficiencies persist, causing many companies effective at delivering social good to remain subscale or fail.[6]

In these scenarios, catalytic capital has the power to support solutions that mend broken markets by doing the following:

- Filling capital funding gaps for viable and effective companies
- Correcting market inefficiencies where firms struggle to internalize the value creation of public benefits
- Protecting mission drift of companies seeking to solve these problems
- Mobilizing private capital toward the mission-oriented companies within these markets

Within the education-to-workforce ecosystem, there are many examples of broken market structures:

- Barriers to education because of discrimination or lack of access
- Affordability and lack of available credit to finance an education or short-form credential
- Social and informational barriers to quality jobs for minorities
- Lack of navigation tools and assistance for learners, which can lead to poor choices and/or susceptibility to aggressive marketing by for-profit training companies and higher-ed institutions

backrs

Year founded: 2021

Audience(s) served: 85% people of color, 1/3 young adults, 1/3 women

Size/scale: 132 users ("protégés") during 2022

Type: For-profit

Description: Mobile app connecting youth aged 15-24 with mentors to provide advice, connections, and financial support through postsecondary pathways/careers.

Business model: Supported by individual funders and donations.

Investment hypothesis: While there are a number of solutions delivering mentorship to aspiring college students, most are incentivized to target higher-income students. Those exclusively targeting underserved students have historically struggled to become sustainable and develop scale (due to market inefficiencies). Access to patient, catalytic capital could help Backrs succeed where others have failed.

6. This category aligns with the most traditional definition of "market failure," and therefore covers the broadest set of cases. It is distinguished from the prior two categories due to a. the existence of a market and b. the fact that the market is not heavily subsidized via government and/or philanthropic funding.

DEPLOYING CATALYTIC CAPITAL

Catalytic capital can be effectively used across all the use cases. A comprehensive investment strategy—for those with the flexibility to deploy multiple investment tools—should articulate the use cases for philanthropic grant capital, catalytic capital, and market-rate capital, stating how each works in service of the overall goal. Below is an illustrative investment strategy for a funder investing in the education-to-workforce sector:

Goal: Support development of sustainable models that enable young people to pursue the career path of their choosing

ILLUSTRATIVE IMPACT STRATEGY

PHILANTHROPIC GRANT CAPITAL

Fund nonprofits (and for-profit social enterprises) that do the following:

- Develop/test new models of student support
- Influence K-12 and postsecondary institutions
- Serve as intermediaries between education and employers

Opportunity@Work

NATIONAL SKILLS COALITION
Every worker. Every industry. A strong economy.

CATALYTIC CAPITAL

Fund market development and scaling where grants are insufficient and fill capital gaps in key submarkets by doing the following:

- Funding new or nascent solutions focused on upward mobility for young people
- Providing flexible debt to support relevant nonprofits at key inflection points
- Using patient capital to fill funding gaps and support continued development of solutions promoting upward mobility for young people

merit AMERICA

backrs

MARKET-RATE CAPITAL

Fund companies in well-functioning market segments surrounding career navigation that hold the potential for market-rate returns. May include the following:

- Career discovery platforms
- Student success solutions
- Mission-oriented job boards

CAREER KARMA.

Handshake

Sources: Tyton Partners analysis and interviews

In this example, the hypothetical investor is extremely focused on career pathways and navigation and plans to leverage catalytic capital for multiple use cases, which span all three market structures. For many organizations seeking to drive impact in the education-to-workforce ecosystem, catalytic capital has the potential to play a key role alongside philanthropic grant capital and market-rate capital as part of a thoughtful, holistic impact investment strategy.

IV. A CALL TO ACTION: FUNDING THE MISSING MIDDLE

THINK DIFFERENTLY

Impact investors—whether using philanthropic grant capital or forward-thinking market-rate capital—must examine their investing strategies and determine if catalytic capital has a role to play in their portfolios to address instances of market failure and to extend the life of their impact dollars. Thinking differently means the following:

- Dispensing with the "binary mindset" dictating that grants or market-rate risk-adjusted return investing is the only way
- Examining their sources of capital to create carve-outs for catalytic investing
- Being extremely specific about the impact they are seeking and how each capital approach fits their goals

THINK BIGGER

Investors must identify the solutions that are working and pool their knowledge and capital to fill the "missing middle" and scale what works. While some funders are committing small amounts to catalytic investing, there remains a large gap between what is needed and what is being funded. Thinking bigger means the following:

- Identifying the big problems, the effective solutions, and the size of investment needed to scale and move the needle
- Allocating the appropriate amount of catalytic dollars if appropriate to solve the problem
- Extending the life of catalytic dollars by reinvesting in sustainable ways

THINK COLLECTIVELY

Diverse funders bring a variety of impact goals, funding approaches, and impact measurement methodologies. While there is strength in this diversity, there is also an opportunity to create greater impact with increased alignment. Thinking collectively means the following:

- Reaching common understanding around the "problems to be solved," the funding gaps, and the use cases for catalytic capital and methods of deployment
- Building the expertise and capacity to deploy catalytic capital
- Creating vehicles to facilitate collective action around the biggest problems

THE WORK TO BE DONE

Further research will help illuminate how to drive the field forward and unlock catalytic capital. Important questions to be explored include the following:

- Where are the market failures and largest funding gaps not addressed by traditional or grant capital?
- Which solutions are highly effective at solving market failure and deserving of capital to scale?
- What blended finance structures would increase the willingness of private capital to be deployed?
- How and where is capacity-building needed to educate the field on how to deploy and measure the impact of catalytic capital?

The future holds great promise for those funders and philanthropists willing to take on this challenge and work to fill the missing middle in the education-to-workforce ecosystem.

REFERENCE LIST

- *Stanford Social Innovation Review. (2013). Unpacking the Impact in Impact Investment*
- *Omidyar Network. (2014). Omidyar Network's First 10 Years: An Impact Analysis*
- *Bridges Fund Management. (2015). The Bridges Spectrum of Capital: How We Define the Sustainable and Impact Investment Market*
- *Omidyar Network. (2015). Frontier Capital: Early Stage Investing for Financial Returns and Social Impact in Emerging Markets*
- *Alain Marciano and Steven G. Medema. (2015). Market Failure in Context, History of Political Economy. Duke University Press*
- *Novogratz, J. (2016). Making the Case for Patient Capital. Acumen*
- *Trelstad, Brian. (2016). Impact Investing: A Brief History. Bridges Ventures*
- *Deloitte. (2017). Reaching deep in low-income markets*
- *Bridgespan. (2017). 15 Success Stories of Audacious Philanthropy for Large-Scale Social Impact*
- *Stantcheva, Stefanie. Fall 2017 Economics Lecture 7 on Externalities. Harvard University*
- *Wall Street Journal. (2018). Tracking VC Investment by Sector*
- *Brown, Maoz; Kadam, Ria; Klein, Katherine. (2018). Catalytic Capital in Impact Investing: Forms, Features, and Functions. Impact Finance Research Consortium (a collaboration of Wharton School, Harvard Business School, and the University of Chicago Booth School of Business)*
- *Tideline. (2019) Catalytic Capital: Unlocking more investment and impact*
- *International Development Finance Club. (2019). Blended Finance: A Brief Primer*
- *Pugrant, J. (2020). Maximizing the Impact of Impact-Focused Private Investment. Dartmouth Tuck School of Business*
- *Bridgespan. (2020). Beyond the Grant: Foundations as Impact Investors*
- *Power, Aunnie Patton. (2021). Adventure Finance: How to Create a Funding Journey that Blends Profit and Purpose*
- *International Finance Corporation. (2021). Using Blended Concessional Finance to Invest in Challenging Markets*
- *World Bank (2021). What You Need to Know About Concessional Finance For Climate Action*
- *Petiole Asset Management. (2022). Risk Management in Public and Private Markets*

REFERENCE LIST CONTINUED

- *Roots of Impact. (2022). Impact-Linked Finance*
- *Sorenson Impact Institute. (2023) The Role Of Catalytic Capital In Filling The Gaps To Unlock Deep Impact (Panel Transcript Adaptation)*
- *GIIN. (2023) GIINSight: Impact Investing Allocation, Activity, and Performance*
- *See, Gabrielle. (2023). Explainer: Why has blended finance not lived up to its promise?*
- *Jones, Laurie Felker. (2023). Founder's Choice Early-Stage funding: Convertible and Recoverable Grant Capital as Force Multipliers*
- *R3i Capital. (2023). Concessional Capital: The Catalyst for Impactful Change, Higher Returns, and Sustainable Development*
- *Cole, Shawn, Leslie Jeng, Josh Lerner, Natalia Rigol, and Benjamin N. Roth. What Do Impact Investors Do Differently? Harvard Business School*
- *Koh, Harvey. (2024). Smarter targeting of capital gaps can make catalytic capital more effective. Impact Alpha*
- *Convergence. (2024). Blended Finance Primer*
- *Hornberger, Kusi and Paya, Macros. (2024). Blending Billions: Lessons from more than three dozen big blended finance transactions. Impact Alpha*
- *Lohr, Steve. (2024). A Jobs Program Broke the Rules to Succeed: Now the Rules May Change. New York Times*

ABOUT TYTON PARTNERS

Tyton Partners is the leading provider of strategy consulting and investment banking services to the global knowledge and information services sector. With offices in Boston and New York City, the firm has an experienced team of bankers and consultants who deliver a unique spectrum of services—from mergers and acquisitions and capital markets access to strategy development—that helps companies, organizations, and investors navigate the complexities of the education, media, and information markets. Tyton Partners leverages a deep foundation of transactional and advisory experience and an unparalleled level of global relationships to make its clients' aspirations a reality and to catalyze innovation in the sector. Learn more at ***tytonpartners.com***.

AUTHORS

ANDREA MAINELLI, SENIOR ADVISOR, TYTON PARTNERS

Andrea Mainelli serves as a senior advisor at Tyton Partners, where she coleads the firm's work with impact investors and philanthropies. With deep expertise in validating theories of change, crafting investment strategies across the capital spectrum, and designing frameworks to operationalize and measure impact, Andrea is a trusted advisor to organizations driving meaningful transformation in education and workforce development.

A seasoned executive with more than 20 years of experience, Andrea has held leadership roles across strategy, finance, and operations, including serving as CEO, COO, and CFO. Before joining Tyton Partners, she was a senior executive at the College Board and CEO at Kaplan Financial and Real Estate, where she spearheaded product strategy, market expansion, and acquisition integration efforts. She also brings extensive governance experience, serving on the boards of SmartLab Learning, 7 Mindsets, and the Employment Technology Fund, as well as the advisory board of JFF Ventures.

Andrea holds an AB in social studies from Harvard-Radcliffe Colleges and an MBA from Harvard Business School. Passionate about expanding educational access and driving equitable outcomes, she blends strategic vision with hands-on leadership to help clients achieve lasting impact.

SEAN CROWLEY, SENIOR MANAGER OF INVESTMENTS, WORLD EDUCATION SERVICES

Sean Crowley serves as Senior Manager of Investments at World Education Services (WES), where he leads the work on WES' thematic impact investing portfolio, focused on a broad set of impact sectors across the globe that are aligned with WES' mission.

Passionate about leveraging capital to drive meaningful change, Sean has over 12 years of experience as an investor and advisor to mission-driven organizations, with a particular focus on education and healthcare. Before joining WES, Sean held roles within Tyton Partners' strategy consulting group, the Boston Children's Hospital Investment Office, and Cambridge Associates.

A first-generation college graduate, Sean holds an MBA from Northwestern University's Kellogg School of Management and a BA in economics and government from Cornell University.