COMMUNITY DEVELOPMENT

Making Missing Markets

Strategic Direction

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FEDERAL RESERVE BANK *of* NEW YORK

THE MAKING MISSING MARKETS INITIATIVE

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Executive Summary

Many communities across America experience overlapping vulnerabilities—including climate, health, and economic disinvestment. There is a silver lining in this experience: these communities also have access to overlapping resources dedicated to tackling these problems. Despite the availability of these resources, we have not been able to create effective cross-sector/place-based interventions. For too long, problem solvers and innovators in one or another of these silos have tried one-off interventions that lacked the dose, duration, and/or intensity to improve community conditions significantly.

Better coordinated interventions would be game-changing, and the economic value created because of these successful interventions would be enormous. So, we ask this simple question: Can we develop coordinated upstream interventions that promote the kind of health equity, climate adaptation and resilience, and economic growth that will lead to opportunity-rich communities?

The New York Fed's Community Development Team introduced the Making Missing Markets Initiative with the belief that we have enough research, enough money, and enough knowledge to create much better outcomes if we more effectively align incentives and develop new business models that target the upstream determinants of health equity, climate adaptation and resilience, and economic growth — together. To that end, the Federal Reserve Bank of New York is taking an active role in helping to create missing markets by the following:

- Heightening awareness of the issue
- Mobilizing working groups called "Design Teams" to develop ways to better coordinate public and private investment across issue areas
- Facilitating opportunities for additional private investment by both banks and other investors
- Monitoring and reporting on the results of these efforts over a sustained period.

Making a missing market involves working within existing ecosystems and/or creating new ones to accomplish the following: 1) connect new sources of capital to community needs; 2) scale existing sources of capital to meet a community need; and/or 3) connect previously unlinked buyers and sellers so that they can work together to finance solutions that create value and wealth, all in the service of creating an economy that works for all.

The next steps in this effort include creating more clusters of interventions (e.g., health/climate, culture/economic development, workforce/clean technology), innovating new business models, and braiding different cash flows from multiple sectors to improve the financial plumbing of this marketplace so that resources can flow to where they are needed and reward innovators to make their work sustainable.

THE MAKING MISSING MARKETS INITIATIVE

The Problem: How to Create Thriving Communities

We have seen many instances where communities experience some sort of economic blow—a factory closes, demand for agricultural goods declines, a changing job market leaves workers without the skills to take advantage of new jobs—that subsequently causes enduring challenges. When the factory closes, unemployment rises, the local real estate market suffers and homeowners lose wealth, small businesses wither, more jobs are lost; and the spiral continues. This phenomenon is what economists refer to as a "vicious cycle." One bad outcome begins to spur more bad outcomes.

A "virtuous cycle," in contrast, is when one good outcome spurs on better outcomes in other sectors. The migration of middle- and upper-income residents back into cities, for example, that started in the 1990s has transformed struggling neighborhoods into thriving places. Too often, however, that change came from outside—wealthy new residents moved in and displaced the existing communities. How can our society foster virtuous cycles that create more opportunity in such communities, especially for the residents who call those places home?

The New York Fed's Community Development Team believes that the resources needed to spark virtuous cycles—if we are smart in how we organize and tap into them—are abundant and readily available across the country. We believe that the decades of community-building since the War on Poverty have taught us many valuable lessons on how to do this work effectively and responsibly. We believe that we have capable institutions, as well as policies and tools, fit for the job. We have enough money, too. What we lack is imagination and infrastructure. Our Making Missing Markets Initiative aims to bolster both of those keys to community flourishing.

Using Making Missing Markets to Create Virtuous Cycle Communities

Connecting $2.4 trillion in resources to $2.4 trillion in need

The New York Fed's Community Development Team seeks opportunities to create markets that do not currently exist but that have the potential to fund solutions and address opportunities and problems in historically under resourced communities. Making a missing market involves working within existing ecosystems and/or creating new ones to accomplish the following: 1) connect new sources of capital to community needs; 2) scale existing sources of capital to meet a community need; and/or 3) connect previously unlinked buyers and sellers so that they work together to finance solutions that create value and wealth—all in service of creating an economy that works for all.

Substantial resources—measured in trillions of dollars—are spent every year to improve health, social welfare, and climate resilience, but we do not get the best results from those investments. Americans spend more on medical care than any other country and still have worse health outcomes than most of our peers.[1] Many readers will be surprised to learn that the United States spends more money on social welfare (total net spending as a percentage of GDP) than every other country in the world except France, and yet its economic mobility scores are in the middle of the pack for peer wealthy nations.[2]

This spending on improving the health, local economies, and climate preparation for communities comes from many sources. It includes community development lending from banks motivated by the Community Reinvestment Act, as well as state and local governments, and Community Development Financial Institutions (CDFIs), and it amounts to almost $462 billion each year.[3] Federal antipoverty spending totals $393 billion per year.[4] Annual giving to nonprofits (excluding giving to international and environmental and animal welfare nonprofits), which often directly or indirectly serve low- and moderate-income (LMI) households, totals another $547 billion annually.[5] Although it is difficult to quantify the healthcare spending that addresses the downstream consequences of poverty and lack of opportunity, we know that Medicaid spent over $830 billion serving the health needs of LMI households in 2022.[6] Climate spending that impacts LMI households is also difficult to quantify precisely, but between the Inflation Reduction Act, Green Banks, and climate-focused nonprofits (not included in above total nonprofit giving calculation), as much as $141 billion may be spent each year for the next decade.[7] In addition are the billions of federal, state, and local dollars that will be spent on disaster mitigation and recovery for LMI communities in the coming years, as well as private spending on retrofits

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[1] Commonwealth Fund, "U.S. Health Care from a Global Perspective, 2022: Accelerating Spending, Worsening Outcomes," available at: https://www.commonwealthfund.org/publications/issue-briefs/2023/jan/us-health-care-global-perspective-2022.

[2] OECD, "Social Spending Dashboard." Available at: https://www.oecd.org/en/data/dashboards/social-expenditure-dashboard.html.

[3] The Community Reinvestment Act: What Do We Know, and What Do We Need to Know? The Urban Institute. https://www.urban.org/sites/default/files/publication/100952/the_community_reinvestment_act_1.pdf. Examining the Origination and Sale of Loans by Community Development Financial Institutions. Federal Reserve Bank of New York. https://www.newyorkfed.org/outreach-and-education/household-financial-stability/examining-the-origination-and-sale-of-loans-by-community-development-financial-institutions. Housing and Community Development Expenditures. The Urban Institute. https://www.urban.org/policy-centers/cross-center-initiatives/state-and-local-finance-initiative/state-and-local-backgrounders/housing-and-community-development-expenditures.

[4] Spending on Government Anti-Poverty Efforts. Poverty Solutions at University of Michigan. https://poverty.umich.edu/files/2019/10/PovertySolutions-AntiPovertySpending-PolicyBrief-r6-1.pdf

[5] Indiana University Lilly Family School of Philanthropy. https://philanthropy.indianapolis.iu.edu/news-events/news/_news/2024/giving-usa-us-charitable-giving-totaled-557.16-billion-in-2023.html

[6] Medicaid and CHIP Data Book 2023. MACStats. https://www.macpac.gov/wp-content/uploads/2023/12/MACSTATS_Dec2023_WEB-508.pdf

[7] Update: Budgetary Cost of Climate and energy provisions in the Inflation Reduction Act. Penn Wharton Budget Model https://budgetmodel.wharton.upenn.edu/estimates/2023/4/27/update-cost-climate-and-energy-inflation-reduction-act. Our Impact. Coalition for Green Capital. https://coalitionforgreencapital.com/our-impact//. Indiana University Lilly Family School of Philanthropy https://philanthropy.indianapolis.iu.edu/news-events/news/_news/2023/us-based-nonprofits-spend-an-estimated-78-to-92-billion-annually-addressing-climate-change-new-research-finds.html. Environmental Protection Agency. https://www.epa.gov/newsreleases/biden-harris-administration-announces-20-billion-grants-mobilize-private-capital-and

and other mitigation efforts. Taken together, these sources alone represent almost $2.4 trillion in spending per year going primarily to LMI communities.[8]

Substantial impact may be achieved if these sources can be better optimized and braided, as well as combined with the hundreds of billions of dollars in impact-investing assets that have already been deployed,[9] as well as the potential billions or even trillions in funds that could be unlocked by redirecting downstream spending on health outcomes to upstream spending on the vital conditions for health.[10]

What Is Different About the Making Missing Markets Initiative?

The New York Fed's Community Development Team introduced its Making Missing Markets Initiative with the belief that we can leverage the considerable resources described by building better markets to drive more economic equality, better health, and more climate-resilient communities. It is our hope that these improvements will help restore some of the confidence that markets can effectively make a fairer society and a more prosperous economy.

To that end, the Federal Reserve Bank of New York is taking an active role in helping to create missing markets by the following:

1) Heightening awareness of the issue

2) Mobilizing working groups (Design Teams) that are proposing ways to better coordinate public and private investment across issue areas

3) Facilitating opportunities for additional private investment by both banks and civic-minded investors

4) Monitoring and reporting on the results of these efforts over a sustained period.

In many ways, making missing markets is not a new idea. It is the stated goal of impact investing, which is a sector that "challenges the long-held views that social and/or environmental issues should be addressed only by philanthropic donations, and that market investments should focus exclusively on achieving financial returns," according to the Global Impact Investing Network. Impact investing tries to create new markets that do both.[11] Similarly, the field of community development was founded on the idea that mandating banks to engage in, rather than shun, investments in low-income communities—sometimes referred to as *redlining*—would unlock new markets in these places that were underinvested because of discriminatory policies and prejudices. For years, some leaders in the health sector have attempted to partner with community development practitioners to create new markets to invest

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[8] For detailed calculations, see Appendix A. https://www.macpac.gov/wp-content/uploads/2023/12/MACSTATS_Dec2023_WEB-508.pdf.
[9] Global Impact Investing Network. https://thegiin.org/publication/research/sizing-the-impact-investing-market-2024/.
[10] Some estimates suggest that 47% of composite health outcomes are related to socioeconomic factors. Given healthcare spending is around $4.5 trillion a year in the United States, this suggests that the amount spent treating the downstream consequences of poverty and lack of opportunity could total in the trillions.
[11] Global Impact Investing Network, "What Are Impact Investments," available at: https://thegiin.org/publication/post/about-impact-investing/.

upstream in the vital conditions for health (such as affordable housing, jobs, and grocery stores) as a strategy to improve the nation's health.[12]

All of these efforts were attempts to make missing markets by bridging gaps in market knowledge and overcoming mindsets that sent investors looking for financial returns in more traditional markets. There also were efforts to internalize externalities, such as carbon offsets, and to solve the "wrong pocket problem." In these instances, one entity making an investment—in affordable housing, for example—does not reap the benefits of improved health and well-being of the residents resulting from that investment; the benefits instead accrue to other systems, such as medical, educational, and public safety. Some of these efforts were successful in steering investment into low-income communities, but few of them managed to really move the needle on overall well-being.

The Making Missing Markets Initiative builds on these many earlier efforts by trying to make the problem bigger. "Zooming out" allows us to make more connections between people and ideas. In addition, focusing on the overlapping vulnerabilities and the overlapping resources is a call to action for new multi- and cross-sector/place-based interventions to work across disciplines at the neighborhood or community level. The "clusters" of vulnerabilities invite "clusters" of interventions that try to "grab the web whole," as Robert F. Kennedy often counseled.[13] We think that by layering sectors and creating more complex solutions to complex problems, we can create many new markets for community improvement.

Overlapping Vulnerabilities

Today, under resourced communities endure overlapping vulnerabilities connected to climate, health, and financial well-being, reinforcing intergenerational poverty. However, there is a silver lining—each of these sectors has programs and funds that can be brought to bear to tackle these thorny issues (the nearly $2.4 trillion dollars annually mentioned).[14] The problem is that we do not yet have the business models and well-functioning markets to combine these different interventions and sectors to, say, link climate adaptation interventions with job training programs that put underemployed people on a path to take newly created middle-class green jobs; link efforts to improve the health of children, including reducing asthma, to efforts to improve local air quality; and so on. The New York Fed's Community Development team is focused on activating these connections to create missing markets with the capacity to integrate interventions in the most effective way.

Figure 1 shows three heat maps of Manhattan and the Bronx. The first one focuses on health, specifically, life expectancy (the best summary statistic for health) by neighborhood. As we move north up the island of Manhattan, health gets worse, with life expectancy substantially lower in the Bronx than

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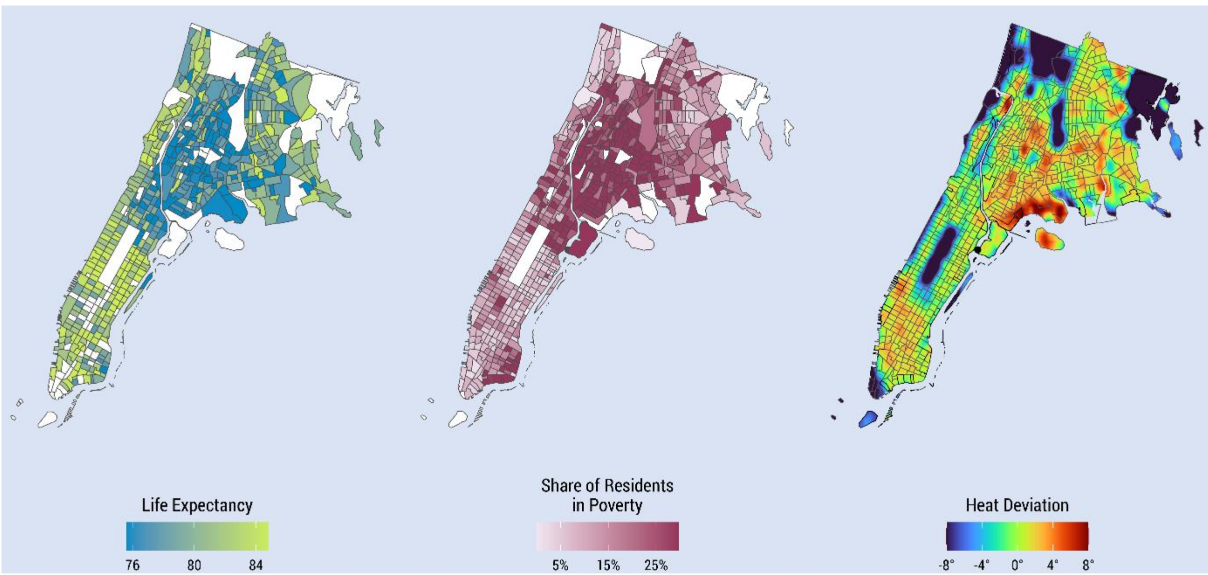
[12] For a more detailed discussion of how the health sector is looking to invest in the social determinants of health, please see The Healthcare Anchor Network website: https://healthcareanchor.network/. The Healthcare Anchor Network (HAN) catalyzes health systems to leverage their hiring, purchasing, investing, and other key assets to build inclusive local economies to address economic and racial inequities in community conditions that create poor health.

[13] *Inventing Community Renewal: The Trials and Errors That Shaped the Modern Community Development Corporation*, Edited by Mitchell Sviridoff, The New School Community Development Research Center, 2004, p. 4.

[14] For a more detailed breakdown on this estimate, see Appendix A.

in Manhattan. The second heat map looks through an economic lens and focuses on the share of residents in poverty by neighborhood. We could have picked other economic variables: wealth, income, overcrowded housing, or access to credit. In all these instances, we see the same pattern of concern as with health. The third map assesses climate vulnerability through the lens of heat islands, areas of the city that are hotter during hot days. The same pattern repeats. The same places—and same people—are battling vulnerability and insecurity on many fronts. It is time to work on these issues simultaneously and in the most coordinated way possible.

Figure 1 The Geography of Climate, Health, and Economic Vulnerability

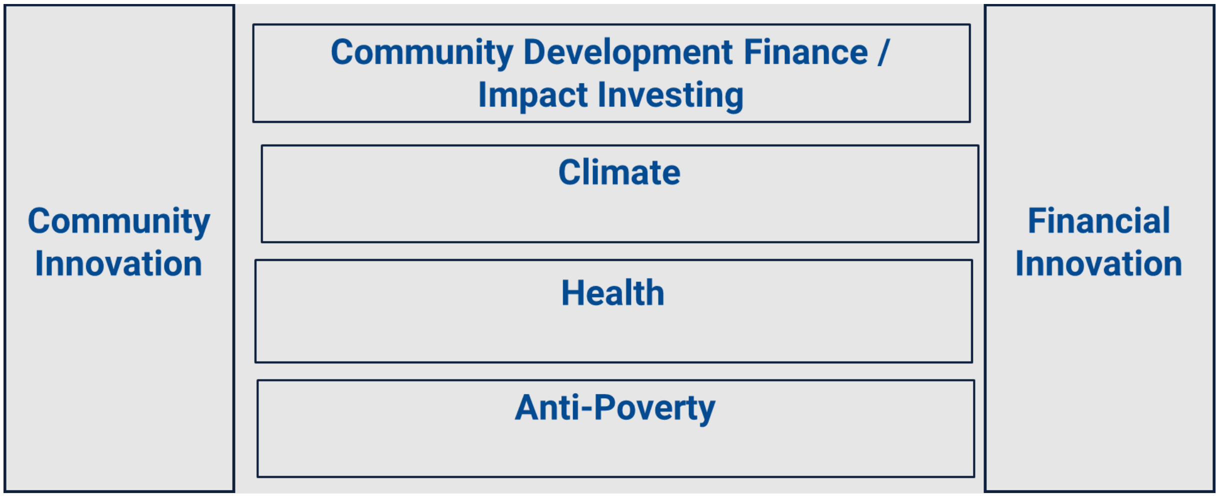


Source: City Health Dashboard, 2021 5-year American Community Survey, New York City. Analysis by Jacob Scott.

Overlapping Resources

Figure 2 captures the overlapping resources that are available to meet the needs created by the overlapping vulnerabilities highlighted in the heat maps. The four rows represent sectors of policy and potential investors: Community Development Finance and Impact Investing, Climate and Green Investing, Healthcare and Population Health Business Models, and Anti-Poverty and Household Financial Well-being.

Figure 2



If the cash flows from these sectors were combined, the scale of the investments would put pressure on the existing funding and financial practices (government, nonprofit, and for-profit) in a way that would force innovation to meet the greater demand from more bundled investing from these different sectors, which is represented by the Financial Innovation box on the right of the figure. This result might, for example, spur financial innovations such as a more robust secondary market for these new investments that would bring more efficiency and liquidity to these new markets.

All these new markets and new approaches must be created in partnership with the communities they are meant to serve, which is represented by the Community Innovation box on the left of the figure. The history of community development is littered with examples of outside experts who delivered solutions that failed because the community to be served was not engaged in the design and implementation of those interventions. To avoid this outcome, we must engage local leaders who can help "see the whole problem" and design a "whole solution" that meets local needs and desires. Doing this might entail new partnerships at the local level, like the ones that Purpose Built Communities have been pioneering for the past decade with Community Quarterbacks who help organize place-based/cross-sector interventions.[15]

Design Teams

To explore how pieces of the making missing markets puzzle might fit together, the New York Fed is convening 19 working groups, or Design Teams, to explore different ways to create and finance interventions in low-income communities that produce more economic opportunity, improved health and well-being, and greater climate resilience (see Table 1 and a more detailed description in Appendix B). All the Design Teams are composed of New York Fed staff, concerned citizens, and experts who are collaborating to make missing markets that will create more opportunity-rich neighborhoods (e.g.,

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[15] "A Neighborhood Model for People and Place," Purpose Built Communities. Available at: https://purposebuiltcommunities.org/what-we-do/our-model/.

children arriving at kindergarten ready to learn, children reading at grade level, better health outcomes and less chronic disease, and more productive workers).

These Design Teams see their work as contributing in some way to making missing markets. Their scope is not comprehensive, and ideally, there would be thousands more, all chipping away at this massive and complex project. However, we are grateful to this small and committed group of people who are co-experimenting with us and their fellow Design Teams to see how we can find new approaches and new breakthroughs.

The Community Broadband as an Emerging Asset Class Design Team ("Community Broadband"), for example, wants to connect every American to high-speed internet. This connectivity is no longer considered a luxury; it is now viewed as a necessary utility that has the potential to give individuals and families, regardless of economic status, improved access to healthcare, employment opportunities, social connections, educational opportunities, and more. To date, incumbent internet service providers (ISPs) have been slow to provide broadband service to many communities, especially historically marginalized communities, despite the many benefits. We believe that all the stakeholders and funders who are interested in health equity, workforce development, and education should be talking with each other and the Community Broadband Design Team to develop collective strategies for bringing affordable broadband to their communities.

Funding community broadband remains a challenge, despite the billions of dollars made available under the Bipartisan Infrastructure Law. Many capital providers—including foundations, impact investors, private equity, local anchor institutions—have yet to see the opportunities in investing in community broadband. As a strategy to make this missing market, the Community Broadband Design Team, led by Connect Humanity, is seeking to create a new asset class focused on investment in community broadband. This Design Team is making the case to the spectrum of capital providers that each has a role to play in the capital stack that will fund community broadband.

An important additional part of this process is the blurring of the lines between Design Teams—something we call "clustering." For example, one climate Design Team is looking at ways in which climate adaptation strategies might also be ways to improve household financial well-being/anti-poverty work by creating higher-paying green jobs and building more efficient homes that help families save money and build wealth. Health-focused teams are pairing with climate-focused teams to explore how improving the environment (e.g., air quality) can improve health outcomes; the art and artists team is teaming up with the rural development team, and so forth.

Table 1: Design Teams

Artificial Intelligence
Arts and Community Development
Building a Market for Scalable Climate Resilience and Green Affordable Housing Solutions
Community Broadband as an Emerging Asset Class
Community Ownership
Eastside Investing Thesis
Enterprise Capital for Nonprofits
Equity Capital for Community Development Financial Institutions (CDFIs)
Flourishing Neighborhoods
From Communities at Risk to Communities at the Vanguard
How Communities Absorb Investment Effectively
Intermediating Impact: Impact Investing and Community Development Finance
Investing in Youth Well-Being
Rural Innovation Done Right
Scaling Effective Community Health Worker Programs
Secondary Markets in Community Development Finance
Social Prescribing
Systems Level Investing
What's Possible Climate Resilience

These collaborations are looking to intervene upstream to create value (revenue or savings) downstream. The savings and other benefits produced by successful investment in vulnerable populations will appear in multiple sectors over time. Today, little to none of that return on investment (ROI) has been captured. Comprehensive, multisector pay-for-success agreements can create a vehicle for paying back the upstream investors.[16]

This community of innovators might also develop new paradigms, and potential breakthroughs that unlock massive amounts of resources in targeted and coordinated ways—perhaps enough so that we finally have the resources that are commensurate with the challenges we seek to overcome. In most cases, cross-sectoral governance, programming, and supportive financial infrastructure are required to implement the collaborations. We call that "plumbing."

Plumbing Strategies

Markets do not work without the proper "plumbing" to make sure the governance, money, policies, enabling regulations, and other infrastructure (e.g., programmatic integration, data collection and measurement, evaluation, and continuous learning) work in concert to support those interventions and keep information and resources flowing to where they need to be. We are using "plumbing" in the broadest possible sense of policies and practices that help support connecting the buyers of health and well-being with those who can produce it.

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[16] *What Matters: Investing in Results to Build Strong, Vibrant Communities.* Edited by FRBSF Community Development & Nonprofit Finance Fund, Federal Reserve Bank of San Francisco, 2017.

Several Design Teams are focused on plumbing, including: 1) the Investing in Youth Well-Being Design Team is using insights from municipal finance to help youth flourish; 2) the Enterprise Capital for Nonprofits Design Team is working on how to invest equity capital into nonprofits (a major obstacle to growth and innovation); and 3) the Secondary Markets in Community Development Finance Design Team ("Secondary Markets") is working on how we can create a more robust secondary market to expand liquidity and foster the more efficient flow of capital to those innovative community solutions.

The creation of more robust secondary markets is a particularly promising plumbing strategy. It allows the pooling and securitization of financing from multiple markets. That "off-the-shelf" investment tool is the focus of research and outreach to create a more robust secondary market for loans originated by CDFIs. This effort involves a collaboration among CDFIs, investment banks, asset managers, government sponsored enterprises (GSEs), and other entities. This effort is aimed at improving the data available at the loan-level (both at origination and throughout the life of a loan) for collateral types, including multifamily affordable housing loans, small business loans, and consumer loans extended to low- and moderate-income individuals and communities.

CDFIs (including credit unions, banks, and loan funds) can originate loans and access capital markets in the residential mortgage space. Yet the volume of loans originated by CDFIs for other collateral types is underdeveloped. The Secondary Markets Design Team is focused on the standardization of underwriting terms and loan documentation and learning best practices from the agency and non-agency commercial mortgage-backed securities sectors. Success on this front would increase the liquidity and efficiency of all efforts to make missing markets.

The Enterprise Capital for Nonprofits Design Team is trying to solve a century-old problem—how can we provide the equity capital necessary for growth and innovation for for-profit corporations to nonprofit entities. This team, led by Andrea Levere, CEO of Capitalize Good, argues that "long-term, flexible funding builds sustainability while enhancing social impact."[17] The strategy to unlock this missing market is to establish "enterprise capital" as an asset class. This team has assembled experts in finance from across the capital spectrum (including philanthropic, CDFI, CRA-motivated banks, and impact investors) to workshop this concept and educate a wider audience on the value of this type of funding. This change in thinking is not only aimed at investors—the nonprofit sector must also evolve in terms of how it raises and deploys capital.

This Design Team is piloting its concept in demonstrations with funders and nonprofits. The team is working with a consortium of funders and practitioners led by the Winthrop Rockefeller Foundation to create a $50 million Enterprise Capital Fund to serve the state of Arkansas. In addition, it is working with the Citi Foundation, which has provided enterprise capital through a program called the Community Progress Makers, to support grantees in creating sustainable investment strategies while enhancing their impact. This cluster of partners is also exploring the creation of a plumbing finance tool, known as the Enterprise Capital Anchor Fund, to provide the initial funding necessary to catalyze the delivery of enterprise capital at scale.

[17] Author interview with Andrea Levere, October 29, 2024.

Important Plumbing Challenges, Tools, and Practices

Many other financial tools and practices must be built if we are truly going to have the plumbing needed to match the large and growing amount of dollars to make social and environmental improvements. For example, the finance industry favors investments that are liquid, scalable, replicable, and reasonably homogeneous. The community development/impact investing world often involves opportunities that are idiosyncratic, customized, and smaller scale. Appendix C includes a selection of additional plumbing items that can be considered in the short- and medium-term, depending on the underlying activity and maturity of the market. Those listed in Appendix C are only some of the market mechanisms, or plumbing, that must innovate and evolve if we hope to bring more investors into the underdeveloped and missing markets of community improvement.

Clusters

In its simplest form, a cluster is one sector teaming up with another to tackle more than one challenge in a community. These efforts also are referred to as "multi-solvers."

One cross-sectoral strategy by the Investing in Youth Well-Being Design Team is seeking to create profitable investment opportunities to finance the flourishing of youth and their families from preconception to adulthood. "A substantial proportion of our youth is being left behind," according to their Investment Thesis. "They are living shorter lives of less or limited opportunity." However, there is an opportunity to achieve better outcomes and a financial return by "increasing investment 'upstream' to address community vital conditions, health-related social needs, primary care/behavioral health, and prevention so that youth, their families, and their neighborhoods flourish." This is a better business model than the status quo, where we spend significant resources on "illness and social failure," according to the Design Team.[18]

To create this missing market, this Design Team asks the following:

> Where is the impact pool, mutual fund, or exchange traded fund (ETF) that successfully invests in lifting up America's youth—to drive opportunity and thriving? Our purpose is to address this missing market, to create value from flourishing, and thus flip America's youth health and human services funding paradigm to investing in thriving. This should improve lives and create significant public and private ROI.

Effective investing in this market will require closely connecting clusters (including school systems, local hospitals, early childhood enrichment centers and preschools, and recreation centers); plumbing (e.g., cross-sectoral information systems, new collaborative governance structures); skilled financial structuring partners; and diverse capital stacks to take advantage of the full range of investors, including market-rate, impact, philanthropic, and community development finance. To that end, this Design Team is working with other Design Teams that are focused on financial innovation, community health workers, social prescribing, and flourishing neighborhoods. We refer to this team-to-team cooperation as "shuttle diplomacy."

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[18] Investment Thesis of the Investing in Youth Well-Being Design Team. Discussion draft August 2024.

Cluster of Clusters

Our single-program interventions of the past have not worked. Neighborhoods are complex adaptive systems. They require hundreds of coordinated interventions across sectors—not just single solutions—to turn them back into places that generate opportunities for residents.

Disadvantaged neighborhoods share a similar root cause for poor outcomes across multiple sectors—underinvestment. To create virtuous cycles, the solutions need to come from multiple sectors and be overlapping. When climate interventions are coordinated alongside health and economic interventions, we will finally have the new business models and resources to make significant investments in those places with greater chances for success.

To achieve this goal, we envision a strategy that involves a "cluster of clusters." The basic idea is that many improvements can benefit the communities that experience overlapping vulnerabilities. Let us concentrate our attention on multisector interventions where each investment contributes to the effectiveness and derisking of the others. Let us do so in places where state and local leadership is providing conducive conditions. As we begin to achieve a critical mass of clusters in these places, we will begin to see virtuous cycles where progress with one cluster will spur progress in another. Because each cluster is creating economic value, these interventions can tap into reliable and recurring cash flows. In other words, the clusters in concert will have created sustainable, mutually supportive missing markets.

Routinizing the Extraordinary

When the New York Fed's Community Development team started the Making Missing Market Initiative in 2023, we asked different Design Teams to organize and tackle some aspect of making a missing market. That was Phase One. Phase Two over the past year has also involved different Design Teams partnering during a period we called "shuttle diplomacy." This period was an effort to form clusters of market makers to find ways to potentially develop virtuous cycle interventions. Phase Three of this effort is trying to pilot these new approaches in places around the country. Ideally, the clusters will overlap—creating a cluster of clusters. We need to find ways to pay for those interventions and build out the plumbing required to deliver the resources they need.

In the end, we are trying to create more clusters of interventions (e.g., health/climate, culture/economic development, and workforce/clean technology), innovate new business models, and braid different cash flows from multiple sectors to improve the financial plumbing of this marketplace so that resources can flow to where they need to and reward innovators to make their work sustainable. When we have better business models, more effective spending of the annual $2.4 trillion into low-income communities, we will create virtuous cycles across the country. We will make it possible for hard-working people to achieve amazing results. We will, through these new markets, routinize the extraordinary.

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Appendix A: Calculating Annual Spending

The Urban Institute estimated that Community Reinvestment Act (CRA)-motivated lending totaled $337 billion in 2016, a number that may have grown in the years since.[19] Some of this lending may have been by CDFI banks and thus counted in our CDFI origination calculation. To avoid the possibility of double counting, we subtract $8 billion from the $337 billion total (see footnote below for a more detailed explanation).[20] The Federal Reserve Bank of New York estimates that CDFIs originate at least $67 billion in volume a year.[21] The Urban Institute estimates that state and local governments spent $65 billion on community development and housing programs in 2021.[22] Taken together, these total almost $462 billion.

A 2019 report by Poverty Solutions at the University of Michigan found that the federal government spent $393 billion on antipoverty programs in 2018.[23]

Excluding giving to international and environmental and animal welfare nonprofits, the Lilly Family School of Philanthropy at Indiana University Indianapolis estimates that total annual nonprofit giving was $547 billion in 2023.[24]

In its Medicaid and CHIP Data Book 2023, MACStats estimates Medicaid spending was $830.6 billion in 2022.[25]

Penn Wharton estimates that the Inflation Reduction Act will cost $104.5 billion per year.[26] The Coalition for Green Capital estimates there was $10.6 billion in cumulative spending by green banks in 2023.[27] The Lilly Family School of Philanthropy at Indiana University Indianapolis estimates that nonprofits spend up to $9.2 billion on climate annually (this value is not included in the nonprofit giving estimate above to avoid double counting).[28] The Greenhouse Gas Reduction Fund consists of $20 billion from the National Clean Investment Fund (NCIF), $6 billion from the Clean Communities Investment Accelerator (CCIA), and

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[19] https://www.urban.org/sites/default/files/publication/100952/the_community_reinvestment_act_1.pdf

[20] Ideally, we would know the exact volume of CRA-eligible lending by CDFI banks that are large enough to be included in the Urban data in 2016 and subtract that value from $337 billion to avoid double counting. We do not have that value. To best approximate it, we simply subtract $8 billion which is the *total* lending by CDFI banks in 2018, the closest period to 2016 for which the Federal Reserve Bank of New York reports data. This is an overestimate compared to the estimate we could make in an ideal world as described above. It is from 2018 rather than 2016, it is *all* lending by CDFI banks and not just CRA-eligible lending, and it is the volume from all CDFI banks rather than only the ones that the Urban Institute includes in its data.

[21] https://www.newyorkfed.org/outreach-and-education/household-financial-stability/examining-the-origination-and-sale-of-loans-by-community-development-financial-institutions.

[22] https://www.urban.org/policy-centers/cross-center-initiatives/state-and-local-finance-initiative/state-and-local-backgrounders/housing-and-community-development-expenditures.

[23] https://poverty.umich.edu/files/2019/10/PovertySolutions-AntiPovertySpending-PolicyBrief-r6-1.pdf

[24] https://philanthropy.indianapolis.iu.edu/news-events/news/_news/2024/giving-usa-us-charitable-giving-totaled-557.16-billion-in-2023.html.

[25] https://www.macpac.gov/wp-content/uploads/2023/12/MACSTATS_Dec2023_WEB-508.pdf

[26] https://budgetmodel.wharton.upenn.edu/estimates/2023/4/27/update-cost-climate-and-energy-inflation-reduction-act.

[27] https://coalitionforgreencapital.com/our-impact/.

[28] https://philanthropy.indianapolis.iu.edu/news-events/news/_news/2023/us-based-nonprofits-spend-an-estimated-78-to-92-billion-annually-addressing-climate-change-new-research-finds.html.

$7 billion from Solar for All. The federal government estimates that the NCIF and CCIA will leverage $7 in private capital for each federal dollar. Between those two programs, that would mean $20 billion in federal spending leveraging $140 billion in private spending for $160 billion total. The $7 billion from Solar for All brings the total to $167 billion. $16.7 billion per year assumes that these dollars will be spent in 10 years.[29] All of these values sum to $141 billion annually.

These expenditures on areas like community development, health, and climate amount to nearly $2.4 trillion in total.

[29] https://www.epa.gov/newsreleases/biden-harris-administration-announces-20-billion-grants-mobilize-private-capital-and

Appendix B: Making Missing Markets Initiative – Design Teams Summary

Design Team Name	Design Team Lead(s)	Objective
Artificial Intelligence (AI)	Andrew Trabulsi and Nathan Gold	This Design Team focuses on exploring the potential applications of Large Language Models (LLMs) and generative AI within the community development finance landscape. Our objective is to understand how these advanced technologies could be utilized by the industry; potential applications include assessing impact metrics for more predictive modeling, streamlining the identification of community development investment opportunities, and analyzing the potential outcomes of projects or companies.
Arts and Community Development	Penelope Douglas	This Design Team will demonstrate the use of specific, innovative investment tools and structures to bridge the gaps among (1) the opportunities that arts and culture offer to sustainable positive equitable health outcomes, (2) the billions of dollars flowing to mitigate climate and health risks, and (3) the trillions in health care expenditures. The objective is for investors to establish a higher value for artists in every existing market and missing market innovation tied to community health and wellbeing.
Building a Marketplace for Scalable Climate Resilience and Green Affordable Housing Solutions	Lisa Richter	This Design Team will develop needed innovations in capital deployment vehicles and outreach strategies to ensure that a marketplace for climate justice investing develops and investment capital flow—as well as income and wealth-generating opportunities—to address the range of community-based climate justice needs, including green affordable housing solutions.
Community Broadband as an Emerging Asset Class	Brian Vo and Otho Kerr	This Design Team will create a missing capital market to sustainably finance broadband in low-income areas by catalyzing impact capital and community finance to participate and ultimately create a new asset class that prioritizes the digital infrastructure needs of historically marginalized communities.
Community Ownership	Aisha Benson	This Design Team will support the intersection of community ownership and community resiliency, where community-led vision, racial equity, and climate justice are prioritized.
Eastside Investing Thesis	Stephen DeBerry	This Design Team will focus on identifying opportunities to invest in communities that have been historically marginalized because of geographic locations per the Eastside Investment Thesis.

Enterprise Capital for Nonprofits	Andrea Levere	This Design Team will work to advance enterprise capital as a philanthropic asset class by expanding access to “Enterprise Capital,” also known as *philanthropic equity*, for nonprofit entities. This long-term, flexible funding builds sustainability while enhancing social impact. The Design Team will engage in advocacy and thought leadership to elevate the understanding of nonprofit funding dynamics and reimagine the relationship between funders and grantees as one of partnership, trust, and mutual accountability.
Equity for CDFIs	Michael Swack	This Design Team will develop an implementation plan for a CDFI Equity product to be utilized initially by the Housing Partnership Network (HPN) CDFI and subsequently by HPN’s members.
Flourishing Neighborhoods	Seth Kaplan	This Design Team will strengthen, support, and sustain neighborhoods, with a particular focus on those that are struggling due to long-standing and systemic inequities.
From Communities at Risk to Communities At the Vanguard	Audrey Choi	This Design Team will seek to harness the power of leading-edge innovation and exceptional leadership to transform low-income communities. Drawing on the insights gleaned from the most innovative, fast-growing, and transformative companies and leading institutions in the world, this Design Team seeks to provoke answers to the questions: How do we unleash the creativity and genius that already exist within communities at risk to transform them into communities at-the-vanguard? How can we change the focus from wages to wealth creation; from entry-level jobs to entrepreneurship; from displaced workers to disruptive innovators; from incremental improvements to breakthrough innovation? How do we do all this with speed and at scale?
How Communities Absorb Investment Effectively	Melissa Devereaux and Kevin Rafter	This Design Team will support the intersection of community ownership and community resiliency, where community-led vision, racial equity, and climate justice are prioritized. The objectives of this Design Team are as follows: • Examine and support the importance of community governance and long-term community benefits within the spectrum of community-owned projects • Capture the scope of community ownership structures • Identify capital gaps for diverse types of community-owned assets • Demonstrate the necessity of an integrated capital framework and approach for investments in community-owned assets, meeting the unique opportunities of the moment • Expand the number of interested and informed investors supporting community ownership models.

Intermediating Impact	Otho Kerr	This Design Team will generate collaborations and shared understandings between traditional community capital development providers (CCDPs), including CDFIs, Community Banks, and Minority Depository Institutions (MDIs), and the new wave of impact investors, including family offices, high net worth families, private equity firms and other capital providers who are not CCDPs, to accelerate the deployment/co-deployment and investment/co-investment of their collective capital into creating opportunity-rich neighborhoods.
Investing in Youth Well-Being	Tyler Norris	This Design Team will develop and deploy a new integrated best practices approach to enhance flourishing outcomes for vulnerable youth and their families. It will catalyze and increase investment by overcoming current service, opportunity, and financial fragmentation. It will further bring community and financial leaders together to create a “market in the middle” that financially values and rewards the flourishing of youth, their families, and their neighborhoods.
Rural Innovation Done Right	Sarah Olsen and Vichi Jagannathan	This Design Team will aim to shift the system so that it reduces rural child poverty by 50 percent every 20 years.
Scaling Effective Community Health Worker Programs	Dawn Alley and Otho Kerr	This Design Team will explore how private capital investors, such as hospitals, insurance companies, employers, and other anchor institutions can play a role in funding and scaling effective community health worker programs to increase the number of community health workers in the United States from 60,000 to 1 million.
Secondary Markets in Community Development Finance	Jonathan Kivell	This Design Team will explore the importance of a robust secondary market on various aspects of the community development finance ecosystem. Given the recent Greenhouse Gas Reduction Fund awards and other momentum around loans originated by CDFIs, this Design Team will explore the mechanism required to reach scale in the origination and sale of loans and investments.
Social Prescribing	Jill Sonke and Tony Davis	This Design Team’s objective is to identify investable opportunities, such as leveraging funding for the New York State 1115 Medicaid Waiver, to make the practice of social prescribing widespread.
Systems Level Investing	Bill Burkhart	This Design Team will explore what it means to manage system-level risks and rewards, why it is imperative to do so now, and how to extend their current investing practice to the system level. This will all be accomplished with an emphasis on income inequality, racial inequity, and LGBTQIA+ inequity, and how investors can help manage these risks and invest to solve them.

What's Possible Climate Resilience	David Erickson and Claire Kramer Mills	This Design Team will elucidate the understanding of how to incorporate the key findings from the *What's Possible* publication. *What's Possible* offers practical solutions for clean energy, resilience, and equity. It is intended as a playbook for taking collective action to build a stronger, more inclusive future across various disciplines.

Appendix C: Illustrative Market Plumbing and Mechanisms for Capital Flow

- **Registration.** Investable opportunities are often registered with securities regulatory agencies so that they may be presented to a broad audience of potential investors. This process facilitates the flow of information on the issuers, offered securities, and broker-dealers involved in a transaction based on federal and state securities laws.

- **CUSIPs**. Along with registration, investment instruments generally have a unique nine-digit number assigned by the Committee on Uniform Securities Identification Procedures (CUSIP). These identifiers facilitate trading and record-keeping. Recently, some CDFI-issued investor notes programs have obtained CUSIPs for their offerings and were able to tap a wider investor pool.

- **Illiquidity premium.** Investors are usually expected to maintain high degrees of liquidity for large portions of their portfolios. Investors looking to make a market-rate community investment must look for a rate of return that approximates what is available on generic instruments with similar risk, *and* they are expected to ask for a return premium that includes additional compensation for lack of liquidity. This is an impediment for many investors.

- **Broker-dealers and other intermediaries.** Investors who are open to extending credit or making equity investments in impact or community development efforts need channels for accessing those opportunities. The role of broker-dealers and other intermediaries is critical for assisting potential issuers with raising capital and identifying investors. Also, as investors evaluate their portfolios and seek liquidity, broker-dealers and other entities may be helpful in identifying and executing secondary sales of those assets at an acceptable price and terms and in completing the transfer and delivery of any documents.

- **Servicing.** Institutional investors generally rely on third parties to collect monies owed on investments—e.g., dividends and interest payments—and remit those funds to the appropriate custodian or owner's representative. Understandably, the servicing business relies on scale and homogeneity to be profitable. The lack of servicing agents for the impact industry is an impediment to making community impact investments more user-friendly for institutional portfolios. A few impact investors and family offices have set up the staffing and mechanisms to collect payments directly from their impact counterparties, but most are dependent on servicers.

- **Better data on pricing and cash flow.** Periodic portfolio valuations are a requirement for essentially all institutional investors. Conventional issues will routinely provide and update cash flow information that investors can use for valuation and portfolio information. Investors purchasing impact transactions need to be confident that the issuer will provide cash flow and other information to investors and/or investor services. One may argue that assets owned by long-term, self-styled "patient capital" entities do not really need to be valued daily; however, at least for the time being, the requirement that portfolio positions be marked-to-market is here to stay.

- **Ratings.** The rating agencies that determine the letter ratings for many bond deals do so for a fee that is often prohibitively expensive for smaller transactions. These NSROs (Nationally Recognized Statistical Rating Organizations) are regulated by the US Securities and Exchange Commission. Fitch, Moody's, and Standard & Poor's are the most well-known, but actually a dozen or so ratings services are in operation. An investor allowed to own non-rated investments must usually go through the labor-intensive, somewhat arbitrary, and time-consuming process of assigning a "shadow" rating to non-rated holdings. Impact motivated investors are forced to determine if their organizational documents permit ownership of non-rated securities.

- **Analytical standards.** Analysis of potentially investable transactions involves known metrics that are based on available data on underlying investments. For impact and community development investments to reach a broader audience of investors, there is a need for relatively universal adoption of evaluation methodologies and analytical standards that can be compared across geographies and issuers.