

# Measuring Small Business Financial Health with Cash Flow Data

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*Market Context Report*

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## About FinRegLab

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FinRegLab is a nonprofit, nonpartisan innovation center that tests new technologies and data to increase access to responsible financial services that help drive long-term economic security for people and small businesses. With our research insights, we facilitate discourse across the financial ecosystem to inform market practices and policy solutions.

## Acknowledgments

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This report is part of a broader research project evaluating ways to improve small business financial health measurement through the use of digital banking data. Subsequent research will analyze cash flow metrics from CDFI small business borrowers to develop a framework and measurement approach for small business financial health. Other reports in this series are available [here](#).

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# 1. EXECUTIVE SUMMARY

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Small businesses play a critical role in driving community and national economic growth. They have long served as engines of job creation, employing nearly half of all American workers. Since 2020, new business formation has reached record levels as more Americans are looking to entrepreneurship as a strategy to boost household income in the face of affordability challenges, shifts in the traditional labor market, and new technological and economic opportunities. Yet entrepreneurs often struggle to manage liquidity, especially in early years when they frequently face fluctuating revenues, thin margins, and unpredictable expenses. As they seek to stabilize their businesses and achieve financial security, they need appropriate financial services to help them withstand cash flow volatility and capitalize on opportunities to grow.

Real-time, longitudinal measures of small businesses' financial standings could help financial institutions and small business support organizations better bolster their resilience, particularly through liquidity and capital. Financial health frameworks—which are designed to provide a structured assessment of finances across dimensions such as stability, resilience, and growth—offer a promising approach, particularly when combined with metrics derived from bank account data. Leveraging ongoing, real-time data organized around small business financial health concepts would help financial providers develop a more comprehensive understanding of small businesses' evolving financial positions than one-time underwriting assessments. This would enable them to deepen relationships with small business customers and tailor products to support both immediate liquidity and long-term growth.

This approach is especially relevant for community development financial institutions (CDFIs) as they seek to deepen outcomes for small businesses and communities while also documenting their impact. Although CDFIs make up a limited share of the overall small business financing market, they play a disproportionately large role in underserved segments. As of 2023, CDFIs held more than \$30 billion in small business and micro loans on their portfolios, with small-dollar loans accounting for a significant share of loan volume.<sup>1</sup> Given their focus on serving smaller and younger businesses that often face the greatest financing challenges, CDFIs may be able to generate insights about this segment that other financial institutions can learn from.

To inform and accelerate progress on these issues, FinRegLab is launching a new initiative analyzing bank transaction data from CDFI small business borrowers. The research will assess the potential of longitudinal transaction data to measure small business financial health, evaluate the effects of loan capital on business outcomes, and more broadly examine the contribution of entrepreneurship to wealth building in underserved communities. The initiative builds on FinRegLab's past research on the value of cash flow data and lending technology innovations in expanding credit access for entrepreneurs.

This report lays the project's foundation by surveying the current state of the financial health measurement landscape and exploring the potential for bank transaction data to provide insights

into small business performance. It starts by summarizing historical challenges with data analysis for small businesses that have left critical gaps in how stakeholders understand and serve this sector. It then proposes a working definition for small business financial health and introduces a set of metrics for testing. [Section 4](#), [Section 5](#) and [Section 6](#) provide more detailed explanations of how the proposed approach could help deepen the sector's understanding of small businesses and facilitate various changes in current practices, by:

- » **Building out a small business financial health framework.** Conceptual and measurement frameworks for financial health are more developed and widely deployed in the consumer context. Many basic concepts can be universally applied, such as balancing inflows and expenses, having the capacity to withstand shocks, and using financial products. But accounting for business-specific factors could make small business financial health frameworks more effective, including the stage of the business, its industry, the role of credit, and the entrepreneur's goals.
- » **Incorporating real-time, digital data sources and related analytics to facilitate broader, more regular assessments.** Most financial health measurement activities in both consumer and small business contexts currently rely on surveys and other self-reported data collection methods. These commonly used approaches have significant limitations with regard to data representativeness and comprehensiveness, administration costs, and longitudinal analyses. Technology developments have expanded the ability for financial institutions to access and analyze financial data that can provide longitudinal insights for much larger populations of small business customers.
- » **Leveraging CDFIs for early research and testing, given their substantial focus on serving younger, smaller businesses and on outcome measurement.** CDFIs' mission to provide capital to underserved market segments and their use of global cash flow underwriting that considers both entrepreneurs' personal finances and business finances could reveal insights that benefit the broader financial industry looking to support emerging small businesses. Additionally, CDFIs already prioritize efforts to assess and document the impact of their small business programs for internal planning, funding, and certification purposes, but often face constraints in deepening and standardizing these efforts.

[Section 7](#) summarizes considerations for financial institutions beyond CDFIs adopting small business financial health measurement, which FinRegLab will explore during the project. Many banks and fintechs are already working towards supporting their customers' financial health by providing financial education programs and offering products that are more accessible to low- and moderate-income (LMI) consumers. But broader adoption of financial health measurement initiatives may be more challenging due in part to organizational, strategic, and resource constraints. Nevertheless, early research and interviews suggest that deeper financial health insights could create significant business value, enabling financial institutions to acquire new customers, sustain and deepen existing relationships across the business lifecycle, innovate and identify new product and business opportunities, and reduce long-term risks and costs. This could be particularly important in an increasingly modular and fluid financial landscape with degrading stickiness among depository customers.

FinRegLab anticipates that this project may lead to additional workstreams, such as further testing of financial health metrics with larger financial institutions to study patterns among different small business segments, and exploration of how small business financial health insights may inform the design of specific financial products and services. At a time when small business formation is rising as economic and financial stressors intensify, financial health measurement offers a powerful way to better meet small businesses' financial needs and support their growth.

## 2. SMALL BUSINESSES AND FINANCIAL HEALTH

Small businesses play a vital role in driving economic activity in the United States. They employ nearly half of all American workers, generate the vast majority of the nation's new jobs and 44 percent of its gross domestic product, and provide a valuable source of income for business owners.<sup>2</sup> Moreover, the last six years have seen an unprecedented surge in entrepreneurship. This has been driven by a confluence of factors including post-pandemic market shifts, affordability pressures, and emerging technologies lowering the barrier to entry for starting a business while also reshaping traditional employment. Yet small businesses often face substantial challenges after formation—one in five new businesses closes within the first year, and half close within five years.<sup>3</sup>

When small businesses survive and grow, they drive long-term gains in wealth and financial well-being for entrepreneurs, their households, and their broader communities. Yet when businesses fail to stabilize or survive, their owners' financial security can suffer and broader community benefits disappear (see [Box 1](#) for more on how business failures impact entrepreneurs). This is particularly relevant for entrepreneurs from LMI communities, who often face additional challenges to starting businesses and surviving the early years when volatility is highest, but also have the most to gain from succeeding. These dynamics make it especially important for stakeholders supporting entrepreneurship as a pathway for economic security to understand the financial state of small businesses and to be able to identify the factors that influence their resilience and survival.

One key element in small business viability is access to appropriate, timely, and affordable financing, both to smooth short-term cash flows and to make investments in growth. However, lending to small businesses is particularly challenging due to their higher risk profiles and long-standing data gaps that make it difficult to understand their financing needs and accurately assess and price risk. The following section summarizes the importance of small businesses to economic growth and individual wealth building, and explains the factors that have historically constrained small business credit.

### 2.1 Small businesses and economic opportunity

Starting a small business has long been recognized as a powerful vehicle for generating income, building wealth, and creating jobs—driving both community and national economic growth. As of 2025, more than 36 million firms in the US meet the Small Business Administration's (SBA) definition for a small business, with fewer than 500 employees. The vast majority of these are sole proprietors with no paid employees. Yet small businesses collectively employ over 62 million Americans

and, in recent years, have contributed approximately 80 to 90 percent of all new jobs created.<sup>4</sup> Their impacts also extend beyond employment. Small businesses contribute a disproportionate share of patents and technology innovations compared to large firms, producing breakthroughs that have driven major advancements across industries.<sup>5</sup> They play a critical role in strengthening local economies by sourcing goods and services from nearby providers, bolstering local tax bases, and engaging in philanthropy and community service.<sup>6</sup> Their presence also ensures that essential goods and services are available in communities that are often underserved by large firms, such as healthcare facilities in rural areas and small grocery stores in urban food deserts.

Alongside broader economic contributions, business ownership can have meaningful financial benefits for entrepreneurs. Households with self-employed individuals tend to be better off financially on average. Although it can be difficult to sort out selection and correlation effects, longitudinal research has found that individuals who are self-employed tend to earn more on average and experience faster, longer-lasting income growth than workers in wage employment.<sup>7</sup> The Small Business Administration reports that the median net worth of self-employed families in 2019 was over four times that of families of workers.<sup>8</sup> Entrepreneurs also appear to experience greater personal financial health across dimensions beyond income. Financial Health Network (FHN) surveys have shown that, as compared to non-entrepreneur households, entrepreneur households are more likely to have savings to cover three months of expenses, have manageable debt, and plan ahead financially.<sup>9</sup>

These findings hold true for entrepreneurs from LMI and underserved communities. Research has found that they experience greater upward mobility and have a net worth that is up to ten times that of non-entrepreneurs from their communities.<sup>10</sup> One study examined income data for individuals in the US over a period of twenty years and found that low-income individuals who started businesses had greater growth in earnings than those who remained wage earners.<sup>11</sup> A similar finding resulted from a study comparing the income trajectories of young, less-educated business owners to young, less-educated wage and salary workers, showing that the business owners experienced faster earnings growth.<sup>12</sup> A Brookings analysis of the Survey of Consumer Finances also found that Black families saw substantial gains in wealth between 2019 and 2022, driven in large part by new business ownership.<sup>13</sup> This translates into financial health as well. FHN surveys found that LMI households with entrepreneurs are only about half as likely to be classified as “financially vulnerable” as LMI non-entrepreneur households.<sup>14</sup> These studies show that small business ownership is associated with greater economic opportunity and may present a pathway for LMI communities to increase their resilience, although research on whether entrepreneurship can close underlying wealth gaps is more complicated.<sup>15</sup>

Entrepreneurship also appears to be playing an increasingly important role in supporting household and consumer resilience since the Covid-19 pandemic. Research indicates that many new business owners have turned to entrepreneurship and freelancing work to cope with high costs of living in the last five years (see [Box 2](#)).<sup>16</sup> According to surveys administered between 2023 and 2025, around half of entrepreneurs report that they were motivated to start their business by a desire to supplement household income and keep up with rising costs.<sup>17</sup> The Federal Reserve’s latest Survey of Consumer Finances found that business ownership increased substantially between 2013 and 2022 among households in the bottom half of the income distribution, which may reflect a turn to business ownership as a strategy to mitigate sustained affordability concerns or gaps in employment opportunities.<sup>18</sup> This is commonly referred to as “necessity” entrepreneurship—when an individual starts a business due to a lack of other options in the labor market, in contrast to “opportunity” entrepreneurship, when an entrepreneur creates a business in response to a market opportunity, often leaving a job or enrollment in school or college to do so.<sup>19</sup>

Businesses formed out of necessity entrepreneurship are often less growth oriented and less likely to hire employees, yet they still play an important role in the economy. When quality wage

jobs are difficult to obtain, starting a small business has the potential to provide owners greater control over their income and opportunities for economic mobility. Their ability to produce a source of personal income or supplement low wage jobs can shape consumer spending patterns and influence household resilience, particularly during periods of broader economic volatility. The recent rise in gig work and microbusinesses has created new opportunities for Americans to generate income through flexible jobs with lower risks and barriers to entry than full-time startups (see [Box 2](#) for more on gig workers).<sup>20</sup> This potential decoupling of incomes from traditional wage work may have broader implications for understanding consumer financial health and US economic patterns going forward, an issue that FinRegLab plans to explore in future work.

### BOX 1 SERIAL ENTREPRENEURSHIP AND FINANCIAL OUTCOMES AFTER BUSINESS FAILURE

Although small business closures are common, especially within the first few years after starting, they do not always mark the end of entrepreneurial activity. Research suggests that many entrepreneurs whose businesses close go on to start new ones—often referred to as serial entrepreneurship. But these entrepreneurs can also face setbacks in their personal financial health due to losses incurred when a business closes. This may be particularly relevant in evaluating the role of entrepreneurship in creating economic opportunity for LMI communities.

Much of the research on serial entrepreneurship has taken place in relation to international development and subsistence or micro entrepreneurs. One World Bank study tracking over 14,000 small firms across 12 developing countries found that nearly half of owners whose firms closed opened a new firm within three years, with 20 percent already operating a new business within the same year of closure.<sup>21</sup> However, the financial outcomes of those subsequent ventures are less understood.<sup>22</sup> Business failure can carry significant financial consequences. The same World Bank study estimated an average 84 percent reduction in total labor income when a firm closes, but with significant variation depending on the reason for closure.<sup>23</sup> Owners who shut down due to business losses experience the steepest declines,<sup>24</sup> and greater losses slow the pace at which former owners reenter self-employment.<sup>25</sup> This suggests that reentry may not offer a straightforward pathway to financial recovery, particularly when the resources available to restart have already been diminished by prior losses.

There is much less research on serial entrepreneurship in the US, especially with a focus on new business formation after business closures (as opposed to business acquisitions or mergers). But where researchers have examined repeated entrepreneurship alongside business duration data, the evidence suggests that prior experience with starting a business helps increase the longevity of later enterprises.<sup>26</sup> This suggests that previous experience starting and running a business provides general skills that can be applied to subsequent entrepreneurial activity.

In the US context, the financial consequences of closure may be more acute for LMI and minority entrepreneurs. Literature on microentrepreneurs internationally provides a relevant analogue: research in those settings focuses on entrepreneurs who are necessity-driven, informally operated, and have limited access to capital, circumstances that mirror those of many LMI entrepreneurs in the US. For LMI and minority entrepreneurs, self-employment is often prompted by scarcity of stable wage employment, which can also limit options when a business fails.<sup>27</sup> These entrepreneurs also often have higher business failure rates, in part due to lack of access to credit during early stages, which leads them to be concentrated in industries with minimal start-up costs that have low profit margins and higher volatility.<sup>28</sup> Studies on the aftermath of business closures have found downward wealth mobility<sup>29</sup> and in some cases an earnings penalty relative to peers who remained in wage employment throughout.<sup>30</sup> Taken together, these conditions suggest that serial entrepreneurship among LMI entrepreneurs can have serious financial consequences, underscoring the importance of helping them build stability and resilience, and to provide support when closures and transitions do occur.

## BOX 2 ENTREPRENEURSHIP THROUGH GIG WORK

Over the last decade, freelance or gig work has increased significantly in the US. This concept is broadly defined as income-generating activity outside of traditional employment that is mostly part-time or supplemental,<sup>31</sup> and encompasses a wide range of activities, including app-based driving and delivery (e.g., Uber, DoorDash), freelance and contract work (e.g., writing, design, consulting), and independent services (e.g., home repair, childcare, or personal care). While statistics vary, nationally representative surveys suggest that between 15 and 38 percent of Americans engage in freelance or gig work every year, contributing \$1.27 trillion in earnings to households and the broader economy.<sup>32</sup> Projections indicate that the number of freelance workers could reach 86.5 million by 2027, representing about half of the current US workforce.<sup>33</sup>

Gig work has especially grown in recent years compared to pre-pandemic periods. One study found that between 2019 and 2023 alone, the number of gig workers using online platforms such as rideshare or food delivery apps tripled, increasing by more than 3 million individuals.<sup>34</sup> Beyond employment disruptions during the initial lockdown, later growth in gig work appears to be associated with stagnating wages and increasing costs. The 2025 Federal Reserve's Survey of Household Economics and Decisionmaking makes an explicit connection between gig work and financial coping, with 31 percent of gig workers reporting that without gig work they would have trouble making ends meet.<sup>35</sup> In the current economic environment, turning to part-time work to supplement income and keep up with rising costs of living and housing has become an important strategy for many Americans.

The shift to gig work has important implications for entrepreneurship. A growing body of research finds that gig work can serve as a "stepping stone" into business formation by lowering barriers to entry and reducing the risks associated with starting a new venture.<sup>36</sup> Because gig work allows individuals to earn income while experimenting with ideas, it can encourage entrepreneurial entry, particularly among younger and lower-income workers who may lack access to traditional capital or stable employment. As financial institutions and policymakers look to support small business growth as a pathway to economic opportunity, they face a more heterogeneous group of entrepreneurs that blur the line between employment and business ownership, creating more fluid pathways into self-employment while also introducing new forms of income volatility and limited access to benefits.

## 2.2 Financing gaps for small business owners

The individual and community benefits of entrepreneurship are promising but not guaranteed—they depend on small businesses being able to stabilize cash flows and in many cases expand over time. This dependence underscores the importance of appropriate, timely, and affordable financing, which can be particularly difficult to obtain during the early years after business formation when the risk of failure is highest. Young businesses typically have volatile cash flows, increasing the importance of debt capital to balance revenue and expenses, overcome unexpected costs, and maintain operations until profit margins stabilize.<sup>37</sup> While established businesses have historically looked to debt capital primarily to pursue expansion or other growth opportunities, economic pressures over the past six years have shifted this dynamic. The share of employer businesses reporting that they sought out financing to meet operating expenses grew from 44 percent in 2019 to 56 percent in 2026.<sup>38</sup> Without adequate working capital, cash flow management challenges can become a significant driver of business closures for both new and established firms.<sup>39</sup>

Yet there is a persistent gap in the small business financing ecosystem, fueled by factors that have historically made small business lending challenging relative to other segments. Higher failure rates mean that lending to small businesses is inherently more risky and expensive than lending to larger firms.<sup>40</sup> The small business segment is also "informationally opaque" due to the lack of reliable and publicly available information about small businesses and their performance, as well as heterogeneity among firms across dimensions such as industry, location, business model, and size.<sup>41</sup> Small business finances are often spread out across multiple platforms, such as bank accounts, lending and financing tools, accounting tools, and payment processing and sales systems,

making it challenging for lenders to get a comprehensive view of a loan applicant. Additionally, many entrepreneurs commingle personal and business finances, creating further complexity in establishing an accurate view of business cash flows. To overcome these challenges, lenders have traditionally relied on manual underwriting in small business lending, with loan officers spending substantial time collecting and reviewing documents such as tax returns, cash flow statements, balance sheets, profit and loss statements, and sales data to assess small business finances. This further drives down the unit economics of small business lending, making it less attractive for lenders than large commercial or real estate loans involving larger balances and companies with more formal accounting systems.

In light of these factors, traditional financial institutions have substantially retrenched from small business lending over the last few decades. Many banks have imposed minimum loan size, annual revenue, and time in business thresholds on remaining business lending programs and shifted strategies to focus on collateralized products or credit cards that improve lending economics.<sup>42</sup> Even when banks offer small business credit cards—products designed to help bridge short-term liquidity needs that are common among younger and smaller businesses—their credit policies are often still restrictive for less established businesses, those in high-risk industries, and entrepreneurs with fair personal credit scores. Yet the need for small business financing has not disappeared. As traditional lenders have pulled back, alternative, non-bank lenders have emerged, often leveraging new technology and data innovations to streamline application processes and offer a variety of financing products.<sup>43</sup>

According to the Federal Reserve's latest Small Business Credit Survey, the share of small businesses turning to online lenders has increased significantly in the past five years—from 17 percent in 2020 to 29 percent in 2025.<sup>44</sup> Online and non-bank lenders have designed new products to provide fast access to liquidity and help small businesses manage short-term cash flow gaps. Product offerings such as merchant cash advances, revenue-based financing, and embedded lending have made capital more accessible, especially for younger and smaller businesses whose needs often do not align with large, long-term loans offered by traditional lenders. Online lenders are also more likely to approve small businesses with medium or high credit risk, providing financing for entrepreneurs who face challenges in using personal credit to qualify for business loans.<sup>45</sup> But these products often carry significantly higher interest rates, reflecting the default risk of the customers they serve, their higher cost of funding, and return expectations from venture capital and other funders. Some have also been criticized for opaque fees, pricing, and repayment terms, which can end up constraining profitability and putting additional pressures on small businesses.

Outside of online lenders, CDFIs have taken on a growing role in meeting the financing needs of small businesses, including by experimenting with credit building products, microloans, and lines of credit for entrepreneurs. According to the Federal Reserve's Small Business Credit Survey, the share of small businesses that have applied for financing from CDFIs has grown from 3 percent in 2020 to 7 percent in 2025, reaching the same level as credit unions.<sup>46</sup> Yet they still represent a very small segment of the total small business lending market compared to other financial institutions. According to the Small Business Credit Survey, CDFIs were also the least likely to approve small businesses for funding compared to all other lender types, indicating that even they struggle to strike the balance between providing accessible capital and managing risk, especially because they focus on particularly underserved small business segments.

Considering affordability, speed of financing, and product structures, a significant mismatch remains between the supply of relevant capital products and small business demand for liquidity solutions that help them stabilize and grow. Banks and CDFIs are increasingly following the lead of fintechs and other online lenders in turning to open banking infrastructure to access real-time transaction data and enhancing internal analytical capabilities, but the focus to date has primarily been on

one-time underwriting assessments during loan origination. This same infrastructure could be used to better support small businesses across their lifecycle, including by further diversifying product structures to meet evolving needs.

Developing a financial health measurement framework for small businesses would help facilitate this shift to real-time, longitudinal assessments of small business finances. It would give financial institutions, policymakers, advocates, and other organizations better tools for understanding the financial state of small businesses and identify factors that contribute to their resilience. Yet this transition requires additional work to build out conceptual and analytical frameworks, further expand data and technology infrastructures, and evaluate the potential benefits of these investments for fostering product innovation and deeper customer relationships, which we explore in the following sections.

### 3. PROPOSED FINANCIAL HEALTH MEASUREMENT FRAMEWORK USING TRANSACTION DATA

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As new data sources and analytical tools expand access to small business financial information, an organizing framework is needed to translate this data into meaningful measures for analysis. FinRegLab’s research initiative builds on the concept of financial health—assessing finances across dimensions such as stability, resilience, and security—as a promising approach for capturing the financial conditions of small businesses and informing the design of products, services, and policies that better meet their needs. In this research initiative, FinRegLab will assess the potential of bank transaction data to provide ongoing insights into small business finances by organizing candidate metrics within a new small business financial health framework. The following conceptual framework will guide the systematic testing of these metrics using banking data from recipients of CDFI small business loans, with the goal of evaluating the metrics’ utility for measuring financial health, understanding loan outcomes, and assessing wealth-building among entrepreneurs. This section provides an overview of the research initiative, including a proposed working definition and organizing framework for small business financial health, building on prior initiatives as discussed in greater detail in [Section 4](#), [Section 5](#) and [Section 6](#).

To consider small business financial health, we first have to define the population of interest. Commonly used definitions of small businesses, including the SBA’s standards, can refer to a wide range of entrepreneurs, from gig workers, freelancers, and solo-entrepreneurs to well-established businesses with hundreds of employees and millions in annual revenue. We focus our analysis on small businesses where the business acts as a primary source of income for the business owner (greater than 50 percent of their personal income comes from the business), in order to limit avocational activity that is not likely to become a full-time work opportunity. We exclude entrepreneurs that engage in contract work for apps as gig workers, such as Uber drivers or DoorDash drivers, unless they grow this into an independent enterprise.<sup>47</sup> We consider both employer and non-employer businesses, as around 25 to 33 percent of nonemployers eventually hire, and small start-ups make up one-third of total new job growth in the US.<sup>48</sup> We also cap annual revenues at \$1 million per year, given that less than 10 percent of small businesses reach this size within their first five years, and this segment of entrepreneurs seem to have the greatest needs in accessing financing and other support.<sup>49</sup>

Next, we articulate an initial working definition of small business financial health for purposes of this research study. Building on existing research, we define small business financial health as:

**The extent to which small businesses can sustainably manage day-to-day expenses, pursue long-term growth opportunities, and generate reliable income for entrepreneurs to meet their personal financial responsibilities.**

In this project, we operationalize these dimensions using observable financial measures including revenue and profitability, savings accumulation, debt access and management, financial planning, and use of financial services.

This working definition and conceptual framework cover key dimensions of financial health that can be measured using metrics derived from transaction data, such as those outlined in [Table 1](#). This approach emphasizes some elements of small business financial health that differ from consumer financial health frameworks, as discussed further in [Section 4](#). This includes heightened attention to the use of debt, the opportunity to grow the business, the degree of separation of business and personal finances, and whether the business is consistently generating income for the owner. Because debt capital is so important to small businesses, using affordable debt sources, making regular debt payments, having an appropriate debt to revenue ratio, and accessing both working capital and growth capital can signal business resilience. While consumer frameworks may consider an individual's ability to pursue long-term goals, they typically do not consider their source of income or income growth as part of assessments. By contrast, for entrepreneurs, the pursuit of stability and growth for the business has direct impacts on their ability to manage their business and depend on it as a source of personal income, and thus reflect critical measures of financial health. The extent to which small businesses use small business versus personal credit products and separate their personal and business accounts may also be positive financial health indicators.

The proposed framework is designed to prioritize actionability for financial services practitioners, with the goal of informing decisions at the level of individual businesses and enabling the development of segment-specific strategies. Many prevailing financial health frameworks are designed for population-level assessments or benchmarking, and therefore emphasize measures that are broadly applicable across entire consumer groups. By focusing this framework on the specific small business segment described above, we can center dimensions of financial health and corresponding metrics that are most relevant to their financial conditions.

Mapping the working definition to banking data, we identify potential metrics that could be used to capture core dimensions of small business financial health. Small businesses with stable or growing revenue and the ability to generate profits are more likely to be able to consistently manage cash flows and handle expenses. This could be measured using metrics that capture the robustness of revenue sources, such as the temporal patterns of deposits, total number of deposits, or average size of inflows. Additionally, it could include behaviors that reflect regular invoicing and payments by customers or vendors, which can help contribute to stable revenue inflows. Small businesses' ability to manage day-to-day expenses without needing to draw from debt or savings can potentially be measured by the overall balance between inflows and outflows in accounts and evidence of negative or low balance days, late fees, or autopay features that can indicate the owner's proficiency in cash flow management. Calculations such as the standard deviation of monthly net flows could help identify patterns and trends over time. Regular state and local tax payments, which are commonly made monthly based on recent sales and business activity, may also reflect ability to manage expenses. Savings activities to help cover shocks and support expansion can potentially be measured through metrics such as balance growth in primary checking accounts over time and outgoing transfers to savings or investment accounts. Taken together, these metrics also help to capture whether the business owner is able to plan ahead financially and foresee revenue and expense fluctuations.

Small businesses that are growing or expanding may see higher numbers of employees, larger purchases for equipment or inventory, investments in real estate or vehicles, and potentially use services such as marketing, consulting, and website development. Lastly, to be a financially stable business means that the owner can reliably take an income, something that many young businesses skip in the first few years. Instead, they may even put personal funds into the business as a source of capital. This concept can be evaluated by assessing flows of income between business and personal accounts. Our research will consider directional trends with regard to these metrics as well as define clear milestones when possible. We may also identify clusters of small businesses that have similar trajectories in order to help financial institutions better identify segments that may warrant tailored engagement.

Beyond the business itself, it may also be valuable to consider the personal financial health of the business owner as part of assessing the viability of a business to act as a meaningful source of income or wealth for an individual. The amount of data available about a business owner's personal finances is highly dependent on whether financial institutions conduct global cash flow analysis or require customers to permission access to personal accounts. Yet where possible, a similar set of metrics could be used to assess the owner's personal finances across income and expenses, use of debt, savings, and long-term investments. FinRegLab expects to explore this issue to the extent that the data allow.

**TABLE 1 FINANCIAL HEALTH COMPONENTS AND SAMPLE CASH FLOW METRICS**

| DIMENSION                        | INDICATOR  | SAMPLE CASH FLOW METRICS FOR ANALYSIS   |
|----------------------------------|--|---|
| <b>REVENUE AND PROFITABILITY</b> | <ul style="list-style-type: none"> <li>» Gross revenue</li> <li>» Net profit margin</li> <li>» Revenue management</li> </ul> | <ul style="list-style-type: none"> <li>» \$ total monthly inflows (excluding non-sales income)</li> <li>» \$ total monthly outflows (categorized by expenses such as payroll, inventory, inputs)</li> <li>» \$ net profit = revenue – expenses</li> <li>» Net profit margin = net profit / total inflows</li> <li>» Incidence of positive cash flow in account over time (daily, weekly, monthly)</li> <li>» Count of number of monthly inflows (excluding non-sales income)</li> <li>» Average size of monthly inflows (excluding non-sales income)</li> <li>» Count of number of monthly outflows</li> <li>» Average size of monthly outflows</li> <li>» Standard deviation of monthly net inflows and outflows</li> <li>» Frequency of payments from vendors (evidence of net 30, 60, 90 payment terms): average or median time in between two consecutive inflows from the same source</li> </ul> |
| <b>EXPENSE MANAGEMENT</b>        | <ul style="list-style-type: none"> <li>» Revenue – expenses</li> <li>» Balances and volatility</li> </ul>                    | <ul style="list-style-type: none"> <li>» \$ total monthly inflows minus \$ total of monthly outflows</li> <li>» Incidence of negative or low balance days per week or month</li> <li>» Liquidity management: timing of peak inflows versus peak outflows</li> <li>» \$ total of recurring outflows</li> <li>» Evidence of late fees charged to accounts</li> <li>» Autopay active</li> <li>» \$ tax payments made monthly</li> </ul>  |

## Section 3: Proposed Financial Health Measurement Framework Using Transaction Data

| <b>DIMENSION</b>                          | <b>INDICATOR</b>   | <b>SAMPLE CASH FLOW METRICS FOR ANALYSIS</b>  |
|---|--|---|
| <b>SAVINGS</b>                            | <ul style="list-style-type: none"> <li>» Cash reserves</li> <li>» Savings rates</li> <li>» Investments</li> </ul>  | <ul style="list-style-type: none"> <li>» \$ total cash balance, median monthly outflows to savings account</li> <li>» \$ total monthly savings inflows minus \$ total monthly savings outflows</li> <li>» \$ amount in savings account as percentage of revenue and expenses</li> <li>» \$ total of transfers to savings accounts</li> <li>» Count of number of transfers to savings accounts</li> <li>» \$ total interest earned through savings</li> <li>» Count of withdrawals from savings accounts</li> </ul>  |
| <b>DEBT ACCESS AND MANAGEMENT</b>         | <ul style="list-style-type: none"> <li>» Debt to revenue ratio</li> <li>» Debt sources and costs</li> <li>» New debt</li> </ul>  | <ul style="list-style-type: none"> <li>» \$ total in recurring debt payments</li> <li>» Debt to revenue = \$ monthly debt payments / \$ total cash inflows</li> <li>» Presence of extra payments towards debt sources (outside recurring monthly payments)</li> <li>» Evidence of daily pay loans or MCAs</li> <li>» Monthly credit card payments as percentage of total expenses</li> <li>» Evidence of making minimum payments on credit cards</li> <li>» Presence of new debt sources, esp. with large banks</li> </ul>  |
| <b>USE OF FINANCIAL SERVICES PRODUCTS</b> | <ul style="list-style-type: none"> <li>» Use of business accounts</li> <li>» Use of business payment tools</li> </ul>  | <ul style="list-style-type: none"> <li>» Primary cash flows are captured in business checking accounts</li> <li>» Separation of business and personal expenses</li> <li>» Presence of payment processor or invoice management tools</li> </ul>  |
| <b>PURSUE GROWTH</b>                      | <ul style="list-style-type: none"> <li>» Employment</li> <li>» Investments and large purchases</li> <li>» Financing investments</li> <li>» Geographic expansion</li> <li>» Business growth and support services</li> </ul> | <ul style="list-style-type: none"> <li>» Total \$ payroll expenses per month</li> <li>» \$ total transfers to investment accounts</li> <li>» Count of number of large expense transactions (over \$ threshold relative to median monthly outflow)</li> <li>» Presence of real estate, vehicle, or other large investments</li> <li>» Transfers of earnings from investment accounts to checking accounts</li> <li>» Geography of merchants in transactions (across inflows and expenses)</li> <li>» Evidence of franchising</li> <li>» Recurring payments per month for business support services (vendors such as website, marketing, payroll, legal)</li> </ul> |
| <b>INCOME GENERATION FOR OWNER</b>        | <ul style="list-style-type: none"> <li>» Income</li> </ul>   | <ul style="list-style-type: none"> <li>» Total \$ paid from the business to owner as income per month</li> <li>» Count of number of payments made to owner per month</li> <li>» Average size of payments made to owner per month</li> </ul>   |

FinRegLab will test these and other metrics calculated based on transaction account data as discussed further in [Section 5](#) to better understand which are most helpful to assess small business financial health over time. We will consider the benefits and limitations of the metrics across several dimensions, such as their ease of access and calculation, consistency, variation across businesses, and their discrete value add in understanding small business financial health. We do not expect this analysis to produce absolute benchmarks (such as fixed savings targets or ratios) that are applicable across all small business populations. Instead, where possible, we may identify thresholds that indicate a business has achieved a milestone in financial stability or growth, or develop population segmentations and map relevant financial metrics to their circumstances.

To the extent the data permit, we will also analyze the relationship of digital banking data to other information that is already collected by lenders in order to understand where it can fill gaps and add unique value. Transaction data will not provide direct insights on subjective elements

such as entrepreneurs' personal goals, perceptions, considerations, or feelings of anxiety or financial stress. Nor does it provide a complete picture regarding use of certain financial services, such as the amount and terms of loan or insurance products, or accounts for which data are not pulled. Our analysis will therefore compare insights from banking data to surveys, tax returns, credit reports, and other information sources where possible, in order to probe the extent to which the cash flow metrics are consistent with and complementary to other sources. This information is potentially helpful to financial institutions in deciding where and how they want to substitute one type of information for another. The analysis will build on several financial health assessments in the consumer context that have compared subjective financial health information from surveys to objective data from bank accounts.<sup>50</sup>

The project will also explore technical, business, and other obstacles to wider implementation of small business financial health measurement across different stakeholders that support entrepreneurs. The goal of testing this framework is to provide a straightforward and replicable set of metrics that can be used across a wide variety of financial institutions, facilitating easier adoption and industry discussions about effective ways to drive small business financial health improvements. While bank account data has become substantially easier to access in recent years and is increasingly used by a wide variety of small business lenders, smaller organizations may have a difficult time ingesting and analyzing raw data to derive meaningful metrics.

In the initial phase of this project, FinRegLab will test the framework using banking data from small businesses that have received loans from CDFIs. Starting with CDFIs is beneficial as many loan funds have begun to use electronic cash flow data integrated via data aggregators in underwriting, including for revolving products such as lines of credit. This gives them access to ongoing banking data from small business customers. CDFIs also place emphasis on measuring the impact of their products and services on customer and community outcomes. Applying financial health as a framework could help to capture many of the outcome measures they already prioritize, as discussed further in [Section 6](#). Additionally, it is common for CDFIs to use global cash flow underwriting for small business lending, considering personal finances of an entrepreneur alongside business information, particularly for younger or smaller businesses. This positions them well to collect data that could help assess the relationship between entrepreneurship and personal financial health.

Given the complexity of small business finances throughout their life cycles, we do not assume that financial health is an absolute or binary state that a business achieves or arrives at once and maintains consistently thereafter. Our goal is to identify distinct, interacting, and individually meaningful financial dimensions that represent key aspects of a business's finances as they evolve dynamically over time. However, given the high degree of heterogeneity across industries, business models, and other small business characteristics, the data analysis may show that different dimensions are more or less important to particular categories of businesses. Thus, it may not be practicable to produce a single score or index that can place all businesses along the same continuum, particularly in this initial round of research.

[Section 4](#), [Section 5](#), and [Section 6](#) provide greater context for the proposed approach to the quantitative analysis, explaining the state of current practices with regard to small business financial health frameworks and reliance on surveys for measurement. The following sections also articulate in more detail why CDFI lenders have much to gain and much to contribute to the effort to develop meaningful metrics from transaction account data. [Section 7](#) explores further considerations for the broader adoption of a financial health measurement framework across a range of financial institutions, including internal organizational and data infrastructure, attribution analysis, and the business case for making financial health investments.

## 4. FINANCIAL HEALTH CONCEPTS FOR SMALL BUSINESSES

This project's development of a small business financial health measurement framework builds on previous efforts that have largely centered around consumers. In the following section, we summarize existing consumer financial health frameworks and the limited small business frameworks that have emerged to illustrate how we drew out concepts relevant for understanding the financial health of small businesses. Given the segment of small businesses we are focused on, as described in [Section 3](#), we emphasize elements that are most pertinent to financial health assessments for smaller, younger businesses and entrepreneurs from LMI communities.

### 4.1 Drawing from consumer financial health frameworks

Financial health frameworks for consumers emerged from earlier financial literacy and financial inclusion initiatives and gained momentum after the 2008 financial crisis, as policymakers and researchers recognized that access to financial services and financial education alone were insufficient to improve financial stability and economic well-being (see [Box 3](#) for an overview of key terms related to financial health, and [Appendix A](#) for a history of financial health initiatives). Consumer frameworks share core themes that can be transferred to small businesses, including assessing the balance between income and expenses, resilience against shocks, pursuit of long-term goals, and use of financial services.

The two most prominent consumer financial health measurement frameworks in the US include the Consumer Financial Protection Bureau's (CFPB) financial well-being scale and FHN's FinHealth score. Both were established in a series of reports between 2015 and 2018 and are widely cited as leading examples of consumer financial health measurement approaches. The CFPB's framework defines financial well-being as "a state of being wherein a person can fully meet current and ongoing financial obligations, can feel secure in their financial future, and is able to make choices that allow enjoyment of life."<sup>51</sup> It uses a set of survey questions along with a scoring framework to quantify individual financial well-being on a scale of 0 to 100.<sup>52</sup> FHN's framework disaggregates financial health into the four categories of spend, save, borrow, and plan and protect. The FinHealth score uses a survey methodology to capture consumers' financial behaviors and assess their resilience.<sup>53</sup> Based on the total score, consumers are grouped into the categories of: financially vulnerable, financially coping, and financially healthy.<sup>54</sup> While these two US frameworks are the most widely known examples, many academic studies and international bodies have contributed to the field (see [Table 2](#) for a summary of commonly cited frameworks).

**BOX 3 DIFFERENTIATING BETWEEN KEY CONCEPTS RELATED TO FINANCIAL HEALTH**

**Financial literacy or financial capability:** Knowledge of core financial concepts and common financial products and services, and the ability to effectively apply financial skills such as budgeting, investing, managing debt, and saving. Financial literacy helps to support individuals in making informed and responsible financial decisions, navigating their personal finances, and building wealth. Financial education programs are generally designed to help improve people's financial literacy or capabilities. Over time, the language around this concept has shifted away from financial literacy and towards financial capability, recognizing that effective financial education needs to consider financial confidence, habits, access to products, and social influences alongside knowledge and skills.<sup>55</sup>

**Financial education:** Programs that help people improve their financial literacy and gain information and skills to improve their financial decisions through interventions such as classroom education, one-on-one coaching, and online courses. Financial education programs typically cover topics such as budgeting and cash flow management, savings and emergency funds, checking and savings accounts, fees and interest, credit and borrowing, debt management, savings and long-term planning, insurance, and taxes.

**Financial inclusion:** Initiatives designed to increase the number of people that have access to mainstream financial products and services, often by encouraging bank account opening, use of formal credit systems, and insurance products. Often intended to reduce costs of using informal or alternative financial products such as payday loans.

**Financial health or financial well-being** (terms used interchangeably): State of a consumer or small businesses' finances, both in the day-to-day and long-term, capturing their ability to manage expenses, save for investments, manage shocks and build resilience, and live without financial stress or worry. Some academic studies have historically differentiated financial well-being as a more comprehensive measure that encompasses individual attitudes and perceptions about the state of finances (such as associated happiness or lack of stress), while defining financial health as focusing only on objective measures. But many financial health concepts also consider financial health to have both subjective and objective components, recognizing the important links between financial conditions and mental health.<sup>56</sup>

**Financial resilience:** The ability to cope with financial shocks such as income reductions or unexpected expenditures and recover quickly from financial difficulties, hardships, stress, or periods of financial adversity.<sup>57</sup> Financial shocks can result from employment loss, personal or family illness or death, relationship changes, disasters, and unexpected or uninsured large expenses such as medical care, repairs, or replacement of vehicles, appliances, or homes.<sup>58</sup> Strong financial health or well-being typically improves an individual's financial resilience and foster greater long-term economic security.

As referenced in the proposed working definition and framework in [Section 3](#), one core set of concepts in consumer financial health frameworks that can easily translate to small businesses focuses on direct financial flows. This often begins by assessing the overall balance between expenses and income as a reflection of an individual's overall financial stability. It is typically described as "meeting obligations or commitments," "managing day to day expenses," or "meeting needs." This can be measured using metrics such as whether the individual spends less than they earn and pays their bills on time. Beyond managing everyday expenses, another dimension of financial health is resilience, or the capacity to meet unexpected changes in income or expenses, which is often described as the ability to "absorb financial shocks," "handle adverse circumstances," or "cope with negative shocks." Resilience is typically measured through the ability to tap into savings or access credit to pay for unexpected expenses.

Consumer financial health frameworks also often include a temporal consideration—a distinction between current and future financial health—emphasizing an individual's ability to make decisions that support long-term well-being. This includes "feeling secure in their financial future," "making progress towards long-term goals," "pursuing aspirations, goals and capturing opportunities," and "maintaining financial resilience in the future." Considering long-term finances is essential because it captures whether individuals can maintain a level of day-to-day financial management that allows them to accumulate savings and invest in opportunities such as education and asset-building. We extended this concept to small businesses by reframing it around business cash flow management, operational resilience, and the capacity to invest in future growth.

**TABLE 2 CONSUMER FINANCIAL HEALTH DEFINITIONS**

| <b>INSTITUTION AND PUBLICATION DATE</b>                                   | <b>DEFINITION</b>   |
|---|---|
| <b>CONSUMER FINANCIAL PROTECTION BUREAU (CFPB)</b> 2015                   | Financial well-being is a state of being wherein a person can fully meet current and ongoing financial obligations, can feel secure in their financial future, and is able to make choices that allow enjoyment of life. <sup>59</sup>  |
| <b>FINANCIAL HEALTH NETWORK (FHN)</b> 2015<br>(UPDATED IN 2026)           | Financial health is the state of a household's finances. A Financially Healthy household is able to meet current financial needs and obligations, on track to meet future financial needs and obligations, and able to absorb and recover from unexpected expenses or drops in income. <sup>60</sup> Financial health assesses whether people are spending, saving, borrowing, and planning in ways that will enable them to be resilient and pursue opportunities. <sup>61</sup> |
| <b>CONSUMPTION RESEARCH NORWAY (SIFO)</b> 2017                            | Financial well-being is the extent to which someone is able to meet all their current commitments and needs comfortably, and has the financial resilience to maintain this in the future. <sup>62</sup>   |
| <b>COMMONWEALTH BANK OF AUSTRALIA AND MELBOURNE INSTITUTE</b> 2018        | Financial well-being is the extent to which people both perceive and have financial outcomes in which they meet their financial obligations, financial freedom to make choices that allow them to enjoy life, control of their finances, and financial security—now, in the future, and under possible adverse circumstances. <sup>63</sup>   |
| <b>UNITED NATIONS SECRETARY GENERAL'S SPECIAL ADVOCATE (UNSGSA)</b> 2021  | Financial health or well-being refers to the extent to which a person or family can smoothly manage their current financial obligations and have confidence in their financial future. <sup>64</sup>  |
| <b>UNITED NATIONS ENVIRONMENTAL PROGRAM (UNEP)</b> 2021                   | Financial health is a state in which an individual, household, micro, small or medium-sized enterprise can smoothly manage their current financial obligations and have confidence in their financial future. <sup>65</sup>   |
| <b>UNITED NATIONS CAPITAL DEVELOPMENT FUND (UNCDF)</b> 2022               | Financial health encompasses financial security, financial resilience, financial control and financial freedom. It is a state in which an individual can meet current needs, absorb financial shocks, and pursue financial goals. Financially healthy individuals feel secure about their finances. <sup>66</sup>   |
| <b>OFFICE OF THE COMPTROLLER OF THE CURRENCY (OCC)</b> 2024               | Financial health for an individual or household is a state which enables stability in day-to-day finances, resilience to handle adverse circumstances, and security for the future. <sup>67</sup>   |
| <b>ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT (OECD)</b> 2024 | Financial well-being is a state in which individuals are able to smoothly manage their financial needs and obligations, can cope with negative shocks, can pursue aspirations, goals and capture opportunities, and feel satisfied and confident about their financial lives, keeping in mind country specific circumstances. <sup>68</sup>   |
| <b>BANK OF INTERNATIONAL SETTLEMENTS (BIS)</b> 2024                       | Financial health can be defined as the extent to which a person or family can successfully manage their financial obligations and have confidence in their financial future. Financial health has at least four elements, namely that individuals can: manage day-to-day expenses; absorb and recover from financial shocks; progress towards their financial goals; and control and feel secure about their finances. <sup>69</sup>  |

In addition to direct financial flows, consumer financial health frameworks often examine financial engagement and the use of financial services and tools. This includes individual behaviors such as planning ahead and actively managing personal finances, which can signal stronger financial health. It also captures access to and use of basic financial products, including bank accounts, savings accounts, and insurance. It further considers how individuals build credit histories and use debt for both day-to-day financial management and longer-term investments such as higher education and homeownership. These indicators are particularly important to understand whether consumers are able to access mainstream financial products, which often have lower costs than those offered by

non-traditional lenders, such as payday loans or salary advances. We translate this to the small business context by considering how firms engage in financial management practices and whether they can access appropriate financial products to support operational costs and manage financial needs.

Beyond objective measures, many financial health definitions include a psychological dimension. This includes assessing subjective conditions that can vary from person to person, such as “feeling secure,” “making choices that allow enjoyment of life,” “having confidence in their financial future,” “feeling satisfied and confident about their financial lives,” and “having financial freedom to make choices that allow them to enjoy life.” Although these perceptions can differ significantly even among individuals with similar incomes, they highlight the important relationship between mental health and psychological safety—and even physical health<sup>70</sup>—with the management of finances.<sup>71</sup> An individual’s personal experience and goals can significantly impact their perception of their financial state, which in turn affects their financial decision-making and ability to build long-term resilience. For small businesses, such information may provide contextual information about differences in owners’ goals and expectations for their businesses, which may cause them to view similar financial conditions differently. As described in the previous section, due to our focus on banking data, we exclude these psychological dimensions from our proposed measurement framework and plan to explore where qualitative research methods can fill gaps in understanding small business financial health.

## 4.2 Expanding on small business financial health frameworks

Only a handful of small business financial health frameworks have emerged in recent years and even these remain relatively limited. Few frameworks have attempted to tailor concepts or metrics to the unique financial structures and considerations of small business segments, such as differentiating between financial measures that are more relevant for younger or smaller businesses versus more established ones. The most robust frameworks have been developed in international development contexts, leaving limited guidance tailored to the realities of US small businesses.

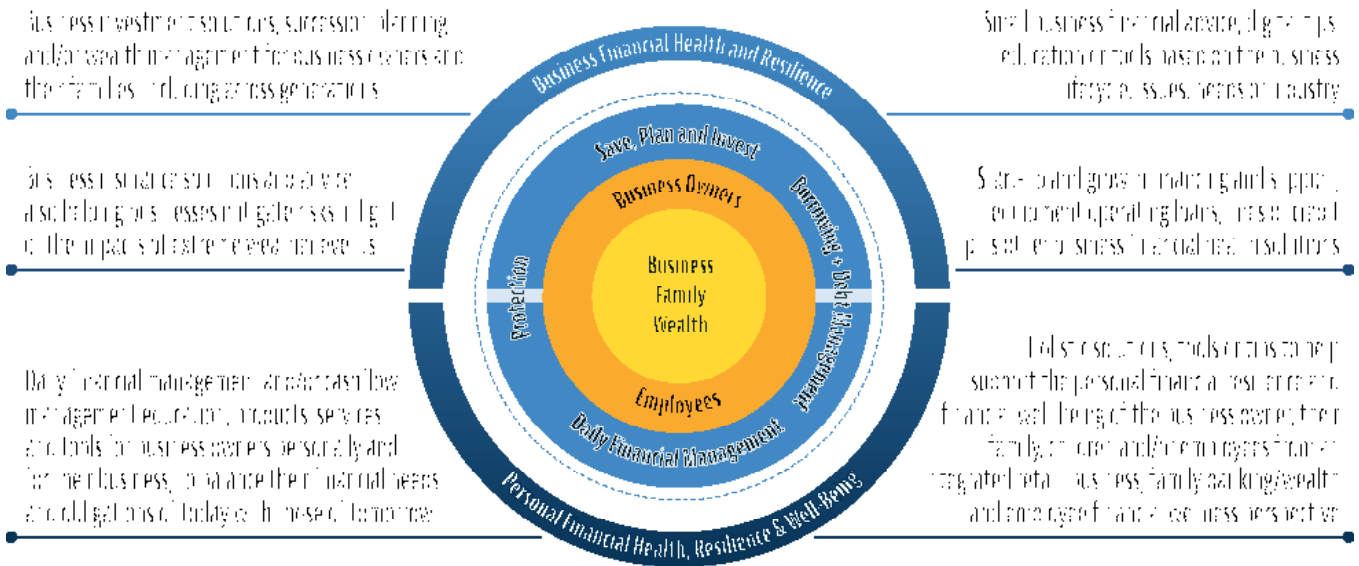
Much of the work in supporting small businesses has occurred outside the concept of financial health, centering on access to capital. This has meant that academic and industry research has largely focused on measuring the state of small businesses as part of underwriting processes, typically through traditional, point-in-time measures of a firm’s financial activity.<sup>72</sup> For example, there are many well-established accounting and financial measures of small business performance across dimensions such as liquidity, solvency, debt to income ratios, and profitability, which share the goal of understanding business revenue and stability, loan affordability, and propensity to repay. These concepts have been widely adopted throughout the financial services industry and are often measured using data sources such as credit reports and tax returns. However, they are typically used for a narrower purpose—predicting the likelihood of repayment if the small business takes out a new loan—rather than capturing a holistic picture of financial health across multiple dimensions. They have also emphasized single point in time measurements, which miss more complex dynamics that emerge within small business finances over longer periods. Only in the last decade has the focus started to shift to composite or longitudinal views of business financial health.

In 2019, FHN issued a guide on measuring the financial health of small businesses, expanding its “Spend, Plan, Save, Borrow” consumer framework to entrepreneurs. The guide includes a survey as well as recommendations for basic indicators that can be taken from transaction account data, personal or business credit reports, or other financial systems. It defines thresholds to categorize small business practices across indicators as either “good,” “caution,” or “at risk.”<sup>73</sup> The updated framework considers a business financially healthy when it is able to effectively manage finances, plan for risks, and access capital and balance debt. The Microfinance Centre later built on FHN’s framework to

publish a scorecard, adding metrics related to access to finance, financial management capabilities, business stability, and revenue potential.<sup>74</sup>

Although not all financial health frameworks from the international development context are relevant to the US, their common focus on smaller microenterprises and subsistence (or necessity) businesses may be helpful for measuring the finances of entrepreneurs from LMI communities. For example, in 2020, the Center for Financial Inclusion, part of Accion, published a conceptual framework and survey instrument to define, organize, and measure financial health for micro, small, and medium enterprises (MSMEs) and their owners.<sup>75</sup> It was intended to fill a gap in existing research on small business finances, as there was previously no framework focused on the interaction between small business financial health and the business owner’s personal financial health. The framework uses profit, or the balance between revenue and expenses, as “the ultimate indicator of MSME financial health,” and introduces an extensive survey for entrepreneurs that can be used to assess financial health.<sup>76</sup> More recently, the Financial Resilience Institute published research exploring the financial health of small businesses, introducing a proprietary Small Business Financial Health and Resilience Framework that uses a holistic approach to capture the relationship between the small businesses’ financial health, the long-term financial resilience of the business, and the business owner’s personal financial health, resilience and wellness.<sup>77</sup> These two bodies of work are significant because they are inclusive of microbusinesses, making them more transferable to US entrepreneurs from LMI communities.

**GRAPHIC 1 FINANCIAL RESILIENCE INSTITUTE’S HOLISTIC BUSINESS FINANCIAL HEALTH FRAMEWORK**



**Note:** The Financial Resilience Institute’s Small Business Financial Health and Resilience Framework<sup>78</sup> captures how the financial health of small businesses intersects with the personal financial well-being of business owners. Common elements that impact both business financial health and personal financial health include daily financial management, saving, planning and investing, borrowing and managing debt, and protection against adverse events. The framework also illustrates how a variety of interventions, products, and services can help business owners, their families, and their employees build stronger financial resilience.

**TABLE 3 SMALL BUSINESS FINANCIAL HEALTH DEFINITIONS**

| INSTITUTION AND PUBLICATION DATE                        | DEFINITION   |
|---|--|
| <b>FEDERAL RESERVE BANK</b> 2014                        | Small business financial health is the degree to which a small business consistently generates positive net profits, has the means to meet short and long-term obligations and to sustain through unexpected downturns/shocks as well as the capacity to fund growth, using debt financing and cash from earnings. <sup>79</sup> |
| <b>FINANCIAL HEALTH NETWORK</b> 2019                    | For a small business, financial health comes about when its daily systems help it build resilience and pursue opportunities. This includes effectively managing finances, planning for risks, and accessing capital and balancing debt. <sup>80</sup>  |
| <b>ACCION CENTER FOR FINANCIAL INCLUSION</b> 2020       | A micro, small, or medium enterprise is financially healthy if it breaks even or earns a profit over time. Financially healthy businesses have the practices and/or resources to manage economic shocks and return to at least a break-even point. <sup>81</sup>   |
| <b>UNITED NATIONS ENVIRONMENTAL PROGRAM (UNEP)</b> 2021 | Financial health is a state in which an individual, household, micro, small or medium-sized enterprise can smoothly manage their current financial obligations and have confidence in their financial future. <sup>82</sup>  |
| <b>FINANCIAL RESILIENCE INSTITUTE</b> 2025              | Business financial health encompasses financial management practices, decisions and behaviours that help the business balance its financial needs and obligations of today with those of tomorrow, while consistently generating net profits. <sup>83</sup>  |

In developing our working definition and measurement framework, we considered how these existing small business frameworks build on concepts used in consumer financial health measurement. Virtually all small business financial health frameworks include a core consideration of direct financial inflows and outflows, often framed around the ability to generate a profit or break even, as a measure of general financial stability. This is commonly measured through business revenue and expenses and paying bills on time. Another important component is the ability to navigate unexpected shocks or risks, indicating that the business has saved cash reserves or can access emergency debt capital, which helps build resilience over time. Small business financial health frameworks also consider whether the business is able to take advantage of opportunities to grow, similar to consumer frameworks that capture whether individuals are able to pursue long-term goals and aspirations. This can be measured with metrics about resources that can potentially be deployed or leveraged to expand operations, such as the number of employees, locations, inventory, equipment or machinery, and real estate or other investments. While small business frameworks are less likely to include subjective elements that measure the business owner's perceptions, some do include aspects related to the entrepreneur's psychology and how this impacts their management of finances. These frameworks recognize that financial stress adversely affects the overall well-being of business owners as well as their ability to make financial decisions and plans.<sup>84</sup>

Small business financial health frameworks do vary from consumer analogues in several aspects. For example, they are often more specific in focusing on access to debt and equity financing to take advantage of long-term opportunities, as businesses are likely to need large injections of capital at specific points in their lifecycle, such as startup or expansion, that are difficult to generate through saved earnings. This may be measured through the amount of available credit or the use of business financial products such as loans, credit cards, or auto or equipment financing. Small business frameworks also tend to focus more attention on whether small businesses use operational and financial systems that enable sound financial management. Several of the small business financial health frameworks summarized in [Table 3](#) include this as a key dimension. For example, given the scale and complexity of their transactions, small business financial health surveys are more likely to ask about use of accounting and payment processing platforms that allow them to formally track expenses and income, or their ability to manage invoices and payments from customers and

to suppliers. Lastly, many small business financial health frameworks assess whether personal and business finances are separated into different bank accounts, and the extent to which personal funding flows in and out of the business. This often reflects the maturity and sophistication of business financial management practices.

### 4.3 Opportunities to build on concepts in small business financial health frameworks

As FinRegLab elaborates on existing approaches to small business financial health measurement for this project, a central consideration is how to manage for the diversity of businesses in terms of their developmental stage, entrepreneurs' goals, and industry. For example, as several financial health frameworks in the international development context have emphasized, business age and size determine the relevance of personal and business finances to the overall financial health of the business. New or micro businesses often commingle finances, with personal funds flowing in and out of the business to make purchases and manage cash flows. Early entrepreneurs also often do not pay themselves consistently, so it can be difficult to understand how much income the business is generating for the owner, and whether funds sitting in business bank accounts are actually earmarked for the owner's personal use. New entrepreneurs also tend to rely more on their personal credit scores to access capital because they lack business credit history. As the business grows, business finances are formalized and separated, so personal accounts become less important to understanding the business. It is critical to recognize where a small business is in this journey and to capture relevant financial information accordingly to fully understand the financial health of a business and its owner.

Small businesses are also extremely heterogeneous across factors such as industry and geography, which can have impacts on their financing needs and structures. For example, construction companies frequently do not get paid up front for their work, even on large multi-year contracts, which creates cash flow problems and requires them to use financing to cover pre-development costs for an extended period. Restaurants or retail businesses often experience large seasonal fluctuations, with peak periods making up for little to no revenue during slow periods. This kind of volatility can impact the evaluation of a firm's financial health, making it important to differentiate between industry-specific business models and financial flows.

Another factor that impacts financial health considerations for small businesses is the owner's personal goals and motivations for the business. As mentioned earlier, there can be significant differences between necessity and opportunity entrepreneurs.<sup>85</sup> This can influence expectations for how a business evolves, changes, and grows when evaluating its financial health over long periods. For necessity entrepreneurs, it is also especially important to consider the ability to assess the relationship between business and personal finances, as the business can be a critical source of income for the entrepreneur.

While it would be prohibitive to develop a financial health framework tailored to each distinct business type across stage, industry, business model, and goals, it may be possible to identify small business archetypes or typologies to help distinguish between significant differences in financial patterns that are meaningful to financial health assessments. This research initiative will explore areas of significant divergence among distinct groups of small businesses where data and sample size allow. We also plan to engage in qualitative research alongside the empirical analysis to better understand how these dynamics may materialize in banking data. Future rounds of research that test financial health metrics with small business customer samples from larger financial institutions may better allow for the development of small business typologies.

## 5. FINANCIAL HEALTH MEASUREMENT METHODOLOGIES

In addition to expanding on existing small business financial health frameworks conceptually, FinRegLab's project explores approaches to improve financial health measurement. This presents several methodological challenges, as measurement efforts must balance factors such as portability and ease of administration, quality and depth of data collected, repeatability, and relevance across populations. Historically the most common approach has been to develop survey-based instruments due to their relative ease of use and transferability, along with their ability to capture subjective information. However, surveys have several practical constraints due to their reliance on self-reported data.

Recently, a few studies have started to test the use of administrative data or "supply side" information from banks and other financial institutions for financial health measurement. However, these evaluations are still largely exploratory. Even in the consumer space, only a few sources identify a standard set of metrics based on administrative data or provide guidance on using cash flow data to assess financial health. In the small business context there are no financial health frameworks grounded in transaction data. Building on these nascent efforts helps to address the limitations of self-reported data and enables financial institutions to better understand small business financial health in real-time.

### 5.1 Considerations for surveys as financial health measurement tools

Surveys offer a relatively easy method to capture subjective and psychological dimensions that impact people's financial well-being. They can assess respondents' perceptions around financial security, goals, stressors, and tradeoffs or considerations, as well as capture feelings such as confidence, anxiety, and a sense of control, freedom, or constraint. Some financial health frameworks consider the psychology of financial health to be as important if not more important than objective financial conditions, as they impact how people experience their financial lives and realities. Factors such as financial volatility and precarity, cognitive burden, confidence in handling shocks, and perceived agency and control strongly influence people's financial decision making and selection of financial products. They can impact the persistence of financial hardships and mental and physical health outcomes, which can also impact financial health.<sup>86</sup> The CFPB's Financial Well-Being Scale is particularly focused on how people experience their financial lives, asking respondents whether they agree with statements such as, "My finances control my life," and "I am concerned that the money I have or will save won't last."<sup>87</sup> These sentiments provide insights beyond the objective financial condition of respondents and measure how well their finances allow them to live their lives.

However, because surveys rely on affirmative participation by respondents, researchers have to make tradeoffs between the depth of information they can collect and expected response rates. Some survey instruments are simplified to just five to ten questions to make them easy to administer and complete, which improves response rates but limits the amount of information that can be collected. Longer, bespoke surveys can capture more in-depth dimensions across financial behaviors, circumstances, and perceptions, but are more time-intensive and often require several weeks or even months to field in order to gather sufficient responses. Low response and completion rates can impact the quality of survey data by potentially skewing the pool of respondents with selection or sampling bias. Longer surveys are also difficult to repeat given that they are more time-intensive and costly, impeding the ability to collect longitudinal data.

Another consideration for survey design is the approach for capturing precise, objective information about respondents' finances and financial behaviors. Surveys use a range of question formats to gather this information, often prioritizing simplicity to improve ease of understanding and completion. Some feature five- to seven-option scales, asking people to rate their level of agreement with statements such as "My household plans ahead financially." Others utilize simple binary "Yes" or "No" options to gather feedback on statements such as "Have you tried to save money in the past, but have not been able to?" Surveys may also ask respondents to recall situations they have faced in a recent time period. For example, one survey asked participants to respond to statements such as: "In the last 12 months, how difficult was it for you to meet your necessary cost of living expenses like housing, electricity, water, health care, food, clothing, or transport?"<sup>88</sup> Another survey assesses savings practices by asking participants how many months they could cover expenses if they lost their income.

Yet asking people to remember past practices, respond to hypothetical situations, or reflect on or judge their own skills has inherent limitations.<sup>89</sup> In particular, respondents are prone to recall and social desirability biases.<sup>90</sup> Surveys are more likely to produce inaccurate results when they request precise information about account balances or spending and savings patterns, which respondents may not know without referencing bank data. Studies comparing objective data to survey responses suggest varying degrees of discrepancy, with one finding that respondents are likely to underreport how much they owe on account balances.<sup>91</sup> Several studies have also found that individuals generally tend to overestimate their financial capabilities.<sup>92</sup> Research suggests these dynamics make it particularly challenging to gather data about low-income populations and other historically underserved groups. Lower-income individuals and those with complex financial situations tend to have lower accuracy in reporting their income and other dimensions of financial well-being in surveys.<sup>93</sup> Individuals facing financial hardships may also be hesitant to share honest information about their financial situation, leading to positively skewed survey results.<sup>94</sup>

Existing survey designs also vary in how results are aggregated and whether they are designed to share information back with survey participants. In order to allow for comparisons between groups and across time, many survey structures are designed to aggregate results into a composite index, score, or set of sub-scores that position individuals or firms along a standardized scale, or to place them into categorical tiers. For example, FHN's consumer FinHealth Score produces a top level score as well as one sub-score for each of the spend, save, borrow, plan categories.<sup>95</sup> The CFPB's Financial Well-Being Scale is made up of a single standardized score based on a five or ten question survey.<sup>96</sup> These approaches allow them to be used by a variety of stakeholders with varying levels of analytical expertise, yet they risk masking or oversimplifying more nuanced and complex aspects of an individual's financial situation. Indexes or scores are also typically designed to be used in aggregate, and not to share actionable information back with participants. Only a handful of financial health surveys have been designed as self-assessments to help consumers and small businesses

understand their own financial situation and connect them to resources such as education programs and tools that can close gaps identified by the score.<sup>97</sup>

## 5.2 Existing efforts to use supply side data for financial health measurement

Interest in the use of “supply side” or administrative data—information from financial providers—to provide objective measures of financial health has been growing in recent years but has not yet been subject to extensive research and testing in the US. Efforts to date have primarily focused on transaction data, which captures the inflows and outflows of depository bank accounts. As discussed in previous sections, transaction data has become more easily accessible via a group of intermediaries known as “data aggregators” that are increasingly helping share banking information between financial institutions to facilitate credit underwriting and the provision of other financial products and services. This data is potentially appealing for financial health measurement because bank account flows provide visibility into core dimensions such as the overall balance between expenses, income, and savings, as well as a variety of more detailed financial behaviors, including the presence of debt payments or overdraft fees.

However, because transaction data is quite detailed, developing metrics can be challenging, particularly for smaller institutions with limited analytical resources. Only a handful of financial health frameworks in the US have begun to explore this. FHN considers administrative data to be complementary to survey data and has encouraged financial service providers to use transactional data to assess metrics such as liquid savings balances, income-to-expense ratios, and transfers to retirement accounts.<sup>98</sup> For its annual Financial Health Pulse report, FHN also tested out transaction account connections alongside survey data to evaluate comparability between the two.<sup>99</sup> Yet, most of FHN’s materials to date related to supply side data have been conceptual, sharing case studies and suggesting high-level metrics. FHN plans to explore a more in-depth hybrid model for financial health in the future that would combine survey and transactional data.<sup>100</sup> The Office of the Comptroller of the Currency (OCC) also released research with guidance on financial health measurement for banks that encourages the consideration of metrics based on bank transaction and administrative data, including positive cash flows across checking and savings accounts, liquidity buffers and credit availability, and on-time payments and credit scores.<sup>101</sup> Yet the OCC guidance did not provide practical guidance or definitions for using or calculating these metrics.

Researchers outside the US have made more progress in exploring transaction data for financial health measurement. In 2018, a partnership between the Commonwealth Bank of Australia and the Melbourne Institute of Applied Economic and Social Research in Australia produced the first financial well-being scale based on transaction data. The research incorporated both self-reported and observed financial data for consumers by combining survey responses with bank transaction data.<sup>102</sup> After considering eighteen different transaction data measures and later refining the analysis, researchers limited the scale to five metrics that performed best in adding discrete value:

- » Months per year with payment problems;
- » Days per year with low liquid balances;
- » Months per year when spending exceeded 80% of inflows;
- » Days per year where customers could raise one or three month’s expenses from savings or credit; and
- » Age-normalized median savings balance.<sup>103</sup>

The researchers used inputs from both reported and observed metrics to place respondents into one of four categories, ranging from “Having trouble” to “Doing great” to reflect the state of their financial well-being. This research represents the first rigorously tested approach to determine which transaction account metrics are most useful for measuring financial health for consumers, and how observed data compares to self-reported data.

The UN Environment Programme’s Finance Initiative (UNEP-FI) has also encouraged banks to use transaction data as part of its Principles for Responsible Banking initiative. In 2022, UNEP-FI published guidance for banks that are committed to financial inclusion and financial health, developing a set of indicators to measure progress against goals.<sup>104</sup> This included outcomes such as customers increasing savings balances and reducing frequency of delinquent loans and overdraft usage. The guidance provides a long index of financial health and financial inclusion indicators with definitions, and specifies whether survey data, transaction data, or both are best suited for measurement. Several banks that participate in the initiative have piloted these indicators, using a combination of surveys and transaction data analysis to make their assessments. However, with only one major US bank having signed on to the Principles for Responsible Banking initiative, progress in applying this guidance to measure and advance financial health has largely occurred outside the US banking sector.<sup>105</sup>

### 5.3 Further adoption of supply side data for financial health measurement

FinRegLab’s research project is designed to leverage acceleration in the development and adoption of digital banking technology and open banking infrastructure since the Covid-19 pandemic (see [Box 4](#) for an overview of open banking). This trend has significantly expanded access to financial information, although to date most applications have been focused on underwriting. Lenders have primarily focused on lending use cases because of their ability to gain efficiencies and deeper insights from collecting cash flow information in digital formats over paper or downloaded bank statements, tax returns, or prepared accounting records. Yet, particularly for financial institutions that have their own transaction account data or are implementing open banking integrations for use in specific business lines, there are opportunities to leverage this data source more broadly to assess small business financial health and track customer outcomes on an ongoing basis. This is especially relevant for open-end credit products such as lines of credit that need to be re-underwritten periodically, where lenders are already building permissions and processes to allow for periodic pulls for existing customers.

Using such data to evaluate financial health more broadly could also create opportunities to deepen customer relationships and support the development and delivery of tailored financial services, such as data-driven business financial management tools and faster and more personalized interventions or technical assistance. CDFIs engaged in small business microlending could also potentially benefit from the use of open banking data to better understand the impact of their products and services on small business outcomes. [Section 6](#) discusses the potential advantages for and contributions of CDFIs in more detail, while [Section 7](#) focuses on factors that could shape adoption for other financial institutions.

Transaction data offers several advantages relative to subjective data collection methods such as surveys and consumer interviews. First, the level of detail in transaction data makes it easy to calculate a broad range of objective metrics and obtain insights into complex financial behaviors. This may include the ratio of monthly inflows to outflows, the number of days in a given time period when liquid balances fall short of or exceed expenses, or payroll and expenses related to employee benefits to assess employment and job quality. Where data connections are established and maintained over time, transaction data is also appealing because it can provide an ongoing longitudinal picture of a broad swath of small business customers without imposing additional data collection

burdens on them. Even if there are some gaps in coverage—for instance, where individual customers opt out, account linkages break over time, or certain accounts are not included—switching the default so that customers do not have to actively participate in each assessment can substantially increase the representativeness of the data and the ability to disaggregate findings by groups of interest. Additionally, data collection is close to real time, and data cleaning and analyses processes can be automated to allow for more timely longitudinal snapshots. This is particularly valuable for assessing long-term financial outcomes and the impacts of specific interventions, which are difficult to do with survey-based approaches. While transaction data does not provide a full view of certain aspects of financial health, tapping this resource could represent a substantial step toward better measurement practices and a critical complement to survey approaches.

At the same time, receiving, processing, and analyzing transaction data requires a baseline level of internal technology capacity or partnerships with technical vendors. Organizations that want to measure financial health using transaction data must have the capability to ingest the data from open banking aggregators, capture and store it on secure internal systems, and make it easily accessible to queries in order to calculate metrics, which often requires linking data across multiple systems. This may be a challenge particularly for smaller financial institutions such as CDFIs and community banks, and entrepreneur support organizations that do not provide their own capital and thus lack lending data systems. The level of detail contained in banking data can also present analytical challenges. Raw transaction data often contains ambiguous and inconsistent descriptions that use shorthand or abbreviated text, and can vary significantly across financial institutions and payment processors. Correctly interpreting and categorizing small business expenses can be challenging without additional context. FinRegLab's research will explore considerations around the practical implementation of digital cash flow data for financial health measurement throughout the quantitative analysis and engagement with key stakeholders.

#### BOX 4 TRANSACTION DATA AND OPEN BANKING

Over the past two decades, bank transaction data has become an increasingly important source of information on consumer and small business finances for a range of financial products and services, including personal financial management tools, payment apps, and loan underwriting. This data—drawn from checking and savings accounts, credit cards, and other financial accounts—captures detailed information on transaction timing, type, merchant, amount, and its impact on account balances. Its granularity allows for analysis of spending patterns, cash flow, and financial behaviors, as well as the effects of financial products, policy changes, or broader economic conditions across large populations.<sup>106</sup>

Historically, this information was largely confined within banks' internal systems. Today, open banking has expanded access by enabling consumers to securely share their financial data with authorized third parties through standardized digital connections (typically application programming interfaces, or APIs).<sup>107</sup> In the United States, this data sharing is often facilitated by intermediaries known as data aggregators, such as Plaid, Fincity, and Yodlee, which can connect to thousands of financial institutions, manage consumer permissions, and standardize raw data into usable formats. Rather than integrating separately with each bank, third parties can access consented data through a single connection to an aggregator, though they need capacity to securely ingest and store the data either internally or through a vendor.<sup>108</sup>

For lenders, access to transaction data provides a more timely and detailed view of a borrower's financial activity. It can be used to verify income, analyze cash flow, and assess repayment capacity in ways that complement or extend beyond traditional credit bureau data, tax returns, and financial statements. This is particularly valuable for consumers and small businesses with limited or nontraditional credit histories, where electronic cash flow data can offer a clearer picture of ongoing financial health.<sup>109</sup> As a result, open banking infrastructure has become an increasingly important tool in underwriting.<sup>110</sup>

## 6. POTENTIAL FOR SMALL BUSINESS FINANCIAL HEALTH MEASUREMENT AMONG CDFIs

In the first phase of this research, FinRegLab will test small business financial health measurement using banking data from CDFI customers. CDFI loan funds focused exclusively on small business lending are an especially valuable segment to pilot this approach as they have already begun integrating and interpreting open banking data as part of their underwriting strategies. They are also helpful in understanding the financial health of smaller and younger businesses that we have prioritized for this research, as they often focus on serving this segment specifically. Additionally, CDFIs already invest substantial effort into measuring and reporting the impact of their programs, but face challenges with practical and operational constraints in doing so. Thus a significant focus of this project includes exploring ways that digital banking data can be leveraged to facilitate CDFI outcome measurement in addition to financial health more generally.

Since their emergence in the 1970s and later codification through the Riegle Community Development Regulatory Improvement Act of 1994, CDFIs have been working to promote economic development by providing affordable financial services and products to underserved urban and rural communities that traditional financial institutions often do not reach. Their small business lending programs have grown significantly over the past ten years, providing valuable capital and wraparound services to entrepreneurs that struggle to access capital from mainstream financial institutions. According to the latest data published by the US Treasury Department on CDFI certification, approximately half of CDFIs engage in small business lending either as a primary or secondary line of business.<sup>111</sup> CDFIs annually provide over \$1.3 billion in microloans, or loans less than \$50,000 to small businesses.<sup>112</sup> For comparison, the SBA's microloan program made a total of \$86.4 million in loans in FY2023 (CDFIs make up about 73 percent of the SBA microloan program, indicating that they engage in substantial additional lending).<sup>113</sup> The majority of CDFI small business loans go to startups or entrepreneurs that would otherwise not qualify for financing from traditional lenders because of factors such as revenue volatility, low credit scores, lack of credit history, and insufficient collateral to secure loans.<sup>114</sup> Although CDFIs have not historically used financial health terminology and frameworks, their core objectives of improving clients' economic mobility and well-being through affordable capital and wraparound services naturally align with the goals of financial health initiatives.

As CDFIs have looked to scale their small business lending programs over the past few years, some have begun implementing open banking aggregators such as Plaid and Fincity in underwriting. This has allowed them to gather digital cash flow data, rather than requiring applicants to submit printed bank statements, accounting documents, or tax returns, to facilitate faster and more efficient lending (as previously studied by FinRegLab).<sup>115</sup> For these CDFIs, some adjustments in customer

permissioning and data storage could facilitate ongoing collection and analysis of cash flow metrics to provide robust insights into small business borrower financial health as well.

For a number of reasons, CDFIs have also long prioritized measuring the effects of their products and services on clients, a practice commonly referred to as impact measurement or program evaluation. Many of the metrics that CDFIs track as part of these efforts—such as how their lending and wraparound services affect the financial growth, resilience, and long-term stability of customers—fit naturally within existing financial health frameworks. CDFIs' focus on customer impact positions them well to test and evaluate financial health data, especially with regards to better understanding the relationship between entrepreneurship and personal financial security (see [Box 5](#) for an example of a CDFI piloting financial health measurement).

### BOX 5 ASCENDUS PILOTS FINANCIAL HEALTH MEASUREMENT

Although CDFIs have not historically tended to use financial health terminology and frameworks, a few institutions have started to adopt these concepts as part of deepening their impact. One is Ascendus, a New York-based CDFI lender serving micro-businesses, which is piloting a focus on financial health measurement as part of a strategic shift from providing financial access to supporting clients' long-term financial mobility.<sup>116</sup>

As part of the initiative, Ascendus is administering FHN's financial health survey with clients at loan closing and calculating a FinHealth Score for customers to establish a baseline. After closing, Ascendus plans to implement annual follow-ups to track changes in clients' financial health over time. Ascendus intends to use this data alongside traditional business metrics (such as business survival rates and annual revenues) and personal financial metrics (such as household income and personal credit scores) to holistically understand client progress. This measurement approach will allow Ascendus to deepen its understanding of clients' baseline financial health, track the impact of products, services, and interventions over time, tailor proactive offers to individual client needs, and identify gaps in product offerings. As part of this initiative, Ascendus is also piloting offering no-cost term life and accidental death and dismemberment insurance products to its customers to help them better manage for unplanned financial challenges.<sup>117</sup>

However, CDFIs have faced challenges in measuring outcomes comprehensively, as practical and operational constraints make resource-intensive, longitudinal assessments difficult to conduct. FinRegLab will assess the potential for digital banking metrics to provide an easier way for CDFIs to measure customer outcomes across larger numbers of small businesses. Exploring this approach in the context of CDFIs is particularly valuable as they may offer a model for operationalizing small business financial health measurement for the broader financial services sector. The following section documents existing outcomes practices by CDFIs to lay a foundation for exploring how digital transaction data could help them better track outcomes through a financial health lens.

## 6.1 CDFI impact measurement practices

As mission-oriented financial services providers, CDFIs dedicate considerable effort to capturing their impact on customers, both to meet funder and certification requirements and to assess how they can deepen their community impact over time. CDFIs employ a variety of practices and metrics to do this (as summarized in [Table 4](#)). Practically all CDFIs track and report program outputs annually by quantifying the number of clients served, loans deployed, or hours of technical assistance provided.<sup>118</sup> Most CDFIs supplement output data with client demographics, including income and geography, as well as the characteristics of the businesses they lend to, such as industry, age, size, and number of employees, to ensure that they are reaching their target markets and intended clients.<sup>119</sup>

CDFIs also try to understand what happens to clients after they receive support. At a minimum, this includes capturing projected metrics such as jobs created and anticipated revenue growth—data points that are collected from small businesses during the application process.<sup>120</sup> For many CDFIs, this also means following up with clients during loan servicing and sometimes after loans are paid off in order to track real outcomes. It involves administering annual surveys, conducting interviews, and sometimes collecting supplementary documentation from clients such as tax returns, profit and loss statements, or other financial records, in order to assess job creation, business survival, and revenue growth. For example, CDFIs typically conduct follow up interviews with clients to gather stories about how their businesses are doing, which are often featured on websites and in annual impact reports and other materials.<sup>121</sup> In some cases, CDFIs have conducted rigorous, in-depth studies to measure their impact. In 2024, five CDFIs partnered with the Urban Institute to conduct a longitudinal impact study on changes in business and personal credit outcomes for small business and microloan borrowers before and after receiving CDFI loans.<sup>122</sup> Similarly, Accion Opportunity Fund has conducted various program evaluations, including an annual analysis of the macroeconomic impacts of its small business lending programs.<sup>123</sup>

Broader efforts have also attempted to capture CDFIs' systemic impacts on communities, including neighborhood jobs, economic growth, and wealth building in areas served by CDFI-supported businesses. For example, there is a growing movement among CDFIs to track job quality indicators—such as employee wages, benefits, and workplace conditions—in order to understand whether the jobs created by small business loan recipients drive deeper, positive community impacts.<sup>124</sup> The Local Initiatives Support Corp (LISC), a national CDFI, conducted an in depth study to identify correlations between its investments and growth in borrower wealth and assets.<sup>125</sup> Several studies by the Urban Institute have also shown how CDFIs contribute to local economies by providing catalytic investments and reviving cities.<sup>126</sup> Additionally, some intermediary organizations, such as Opportunity Finance Network, collect data from their members to aggregate learnings and understand industry-wide trends.<sup>127</sup> See [Appendix B](#) for an in-depth discussion of outcome measurement practices across the CDFI industry.

While these practices collectively represent the significant effort CDFIs make to measure and capture their impact, they also reflect the practical and structural challenges that shape their current programs. Collecting downstream data from small business borrowers via surveys and interviews requires time and effort from both the borrowers and the lenders. Compared to other financial institutions, CDFIs often face substantial resource constraints in funding and staffing,<sup>128</sup> and many operate with lean teams where evaluation is typically just one of many responsibilities. This limits CDFIs' ability to invest in meaningful outcomes measurement,<sup>129</sup> including hiring impact measurement experts, designing effective surveys, analyzing data, and following up with clients consistently. CDFIs also face challenges in managing fragmented data that lives across multiple systems, from loan management platforms to CRMs, which require technical infrastructure and analytical expertise to connect.<sup>130</sup> This has resulted in only about half of CDFIs collecting outcomes data, often with varying levels of depth and rigor.<sup>131</sup>

These dynamics point to the value of approaches that can build on CDFIs' existing infrastructure and minimize the challenges of direct data collection from clients. One promising path forward is leveraging data that clients already share with CDFIs to gain insights into client financial health and business performance, including cash flow information collected from customer bank accounts.

**TABLE 4 CDFI SMALL BUSINESS IMPACT MEASUREMENT: WHAT CDFIS TRACK AND HOW**

This table reflects some of the most common impact metrics tracked by CDFI small business lenders and is not intended to be comprehensive. It draws on insights from a number of sources, including the Federal Reserve's CDFI Survey, prior literature on CDFI impact measurement, stakeholder interviews, and a sample of recent CDFI annual reports. The findings reflect measurement practices across a range of CDFI types including loan funds, banks, credit unions, and venture funds. Other CDFI sectors (such as affordable housing and non-profit lenders) may track some of these same metrics but also measure additional impacts relevant to their mission and services.

## OUTPUTS

### DEFINITION

Summary metrics of program delivery

### KEY METRICS

#### COUNTS OF CDFI ACTIVITIES

- » Number of small businesses served
- » Number of loans originated
- » Total dollar amount lent
- » Number of technical assistance sessions or hours of coaching completed

#### CLIENT AND PORTFOLIO CHARACTERISTICS

- » Average loan size
- » Loan purpose
- » Makeup of business clients (such as minority-owned, low- or moderate-income, women-owned, business industry, geography, age, and revenue)

### COLLECTION METHOD

#### AT LOAN ORIGATION / CLIENT INTAKE

- » Face-to-face client interactions with loan officers
- » Loan applications
- » Loan Origination Systems

#### DURING TA PROGRAMS

- » Attendance and participant tracking
- » Excel spreadsheets
- » CRM systems (e.g., Salesforce)
- » Specialized platforms (e.g., Initiate)

### NOTES

Direct counts of program activities are widely collected and reported, while use of client demographics and portfolio indicators varies across institutions.<sup>132</sup> These metrics are typically required for certification or funder reports and captured annually. Systems for collecting and managing output data vary by CDFI capacity.

## OUTCOMES: PROJECTED AND ESTIMATED

### DEFINITION

Easier-to-measure or early indicators that stand in for longer-term outcome metrics

### KEY METRICS

- » Projected jobs created or retained
- » Client demographics and share of capital deployed to target populations such as percentage of loans and dollars deployed to low- and moderate-income borrowers
- » Portfolio performance indicators (delinquency rates, repayment rates, charge-offs)

### COLLECTION METHOD

- » Similar to outputs, these are often collected at loan origination or program intake
- » Lending performance data is typically tracked through internal portfolio management systems

### NOTES

Projected and estimated outcomes are used by some CDFIs where client follow-up may not be feasible.<sup>133</sup> Demographic data helps CDFIs assess whether they are reaching target populations. Portfolio data provides insights on how clients are managing debt and maintaining financial stability. Projected metrics can capture intentions but do not represent realized outcomes, and often vary in how they are defined or calculated, making them difficult to compare across institutions.

**OUTCOMES: INTERMEDIATE****DEFINITION**

Impact measured over shorter timelines<sup>134</sup>

**KEY METRICS****EMPLOYMENT IMPACTS**

- » Actual jobs created and retained
- » Changes in quality of jobs created by the businesses supported (across dimensions such as wages, benefits, workplace conditions, scheduling flexibility, and ownership structure)

**BUSINESS OUTCOMES**

- » Business performance (annual revenue, profitability)
- » Asset acquisition (square footage of business property)
- » Business survival rates

**CLIENT OUTCOMES**

- » Client and household income growth
- » Asset growth
- » Changes in business owner credit scores
- » The extent to which business owners' stated goals and motivations translate into measurable business performance

- » Core business skills acquired, such as perceived growth in business acumen, growth in business owner confidence, formalization of business functions such as HR and accounting
- » Changes in access to capital, such as graduating to larger CDFI loans or traditional lenders, and avoiding or refinancing high-cost debt

**COLLECTION METHOD****POST-LOAN / PROGRAM**

- » Client surveys
- » Annual document requests (such as tax returns or profit and loss statements)
- » Credit monitoring

**NOTES**

Intermediate outcomes are tracked by CDFIs that have capacity for client follow up over several years. They offer more insights into client progress than outputs or outcome projections. They are often captured through surveys administered by CDFIs and depend on continued client engagement. They may not capture underlying factors that influence business outcomes and can have limitations in data objectivity and representativeness.

**OUTCOMES: LONG-TERM****DEFINITION**

Deeper societal outcomes CDFIs seek in long-term<sup>135</sup>

**KEY METRICS****BUSINESS, EMPLOYMENT, AND CLIENT OUTCOMES**

- » Similar employment, business, and client outcomes as intermediate outcomes, but tracked over longer timelines and often drawing on a broader range of data sources and methods
- » Repeat borrowers

**BROADER ECONOMIC IMPACTS**

- » Neighborhood economic ripple effects (such as local employment, increased economic activity, community wealth-building)

**BROADER SOCIAL IMPACTS**

- » Social capital and network building
- » Increased trust
- » Neighborhood safety improvements
- » Community revitalization through thriving businesses

**COLLECTION METHOD****POST-LOAN / PROGRAM**

- » Client surveys
- » Annual document requests (such as tax returns or profit and loss statements)
- » Credit monitoring
- » Interviews and other individual client follow up (such as case studies, client and community stories)
- » Discrete, one-off impact measurement studies with third-party consultants or research partners

**NOTES**

Very few CDFIs systematically track long-term outcomes, though capturing client and community stories for impact reporting is common. Larger CDFIs are more likely to track long-term outcomes, which often requires external research partnerships and a broader range of data sources, including macroeconomic and third-party data, but typically not randomized controlled trials.

## 6.2 Use of cash flow data for CDFI outcome measurement

Using electronic cash flow data for outcome measurement offers CDFIs a way to gather objective, representative insights into changes in clients' financial status over time. This approach could enable data collection across large numbers of borrowers while reducing the burden associated with traditional methods, which often rely on multi-year follow-up and extensive document collection. Once connections to customers' financial accounts are established, maintaining these data flows requires relatively little ongoing effort, aside from occasional follow-up when connections are disrupted. This could give CDFIs substantially more optionality about how they allocate their resources for outcomes measurement, give them powerful new sources of data about a broader range of their customers, and free up capacity for other priorities.

Cash flow data may also produce more accurate and complete information than self-reported data from surveys, and enable longitudinal tracking. It could help to address the issues of low survey response rates and potential bias in respondent data by providing objective, continuous information from all clients from the point of underwriting, allowing CDFIs to observe trends over extended periods without repeated outreach. It may also enable analysis of specific client segments, making it easier to understand the impact of particular interventions.

Beyond improving how CDFIs measure outcomes, cash flow data can help CDFIs expand what they measure, as it is well suited to capturing many of the metrics they are most interested in. Ongoing visibility into business transaction accounts can allow CDFIs to track changes in revenue and profitability after clients receive capital or technical assistance. The depth and longitudinal nature of the data allows for more nuanced analysis across financial inflows and outflows. Transaction data can also reveal how small businesses are using and managing debt, allowing CDFIs to track potential risks and warning signs such as reliance on merchant cash advances with high interest payments or fees, as well as positive signals such as graduation to more traditional financial products. In cases where CDFIs capture personal as well as business accounts, the data can provide insights on how business ownership impacts personal income, which is particularly relevant for CDFIs focused on the role of entrepreneurship on economic mobility.

Cash flow data could also potentially capture business impacts on the broader community. For example, employee paycheck debits may offer some visibility into the total number of employees, reflecting job creation and retention. Evidence of a payroll vendor for wages may reveal less information about individual salaries, but can signal formalization of employee management. These metrics could offer a complement or replacement for the estimated metrics many CDFIs currently rely on. It may also be possible to track some dimensions of job quality within transaction data by identifying small business payments towards employee benefits providers such as healthcare, retirement, or life insurance. Additionally, information about vendor locations could be used to provide directional information about whether small businesses are sourcing locally and generating multiplier effects in the local economy.

Adoption of cash flow data for outcome measurement could also create an opportunity to encourage more standardized metrics across the sector. Currently, even commonly reported metrics lack consistent definitions, posing a challenge for funders, certification bodies, and impact investors seeking to understand outcomes in the sector.<sup>136</sup> Standardized metrics from cash flow data could allow for some level of cross-sector comparison. FinRegLab's research will test the usability and value of a variety of metrics derived from bank account data, mapping them to existing dimensions of outcome measurement, with the goal of proposing a common set of core metrics for CDFIs. We will explore these broader considerations for CDFIs both through the quantitative analysis and testing of cash flow metrics as well as qualitative interviews with industry stakeholders.

## 7. BROADER IMPLEMENTATION OF FINANCIAL HEALTH MEASUREMENT

To complement the project's quantitative analysis of financial health metrics derived from digital banking data, FinRegLab will also conduct qualitative research to examine the challenges and opportunities shaping broader adoption of small business financial health measurement across the full spectrum of financial institutions. While momentum around improving consumer financial health has grown substantially over the past decade—and interviews with both major US banks and smaller lenders indicate increasing interest in developing small business financial health strategies—financial institutions continue to face uncertainty about how to prioritize investments in more robust measurement approaches. They may also encounter a range of obstacles including organizational and data infrastructure and resource constraints. The extent to which financial health measurement is adopted more broadly will depend in part on whether institutions see sufficient strategic and business value in the resulting data to justify the investments required to overcome these challenges.

This section provides a preliminary discussion of some of the factors likely to influence uptake of financial health measurement across the financial services industry, including organizational structures, questions around causation and accountability, and establishing a business case for developing robust, longitudinal measures of customer financial health. The findings are based on interviews with financial services practitioners as well as a review of existing academic and industry literature. We expect to conduct further interviews with practitioners and organize convenings with financial institutions interested in pursuing small business financial health measurement to engage in dialogue and explore collaborative approaches to help move this work forward.

### 7.1 Institutional factors shaping adoption of financial health measurement

Over the past decade, a wide range of financial institutions including mainstream banks, fintechs, and community lenders have shown growing interest in consumer financial health initiatives. At a foundational level, many financial institutions have started offering financial education resources: almost all of the top ten banks in the US have a landing page dedicated to consumer financial health, featuring resources about foundational aspects of financial management such as credit, home-buying, auto leases, and budgeting. Some institutions have invested more extensively in developing interactive online knowledge hubs, offering digital platforms with guides, videos, or customer-facing self-assessments that offer more tailored information to help customers manage their finances.

Beyond education, many banks—in part as a response to policy and regulatory initiatives—have made an effort to expand access to basic products for LMI consumers, for example by offering low-fee and no-overdraft checking accounts, no-minimum savings accounts, and credit-building tools

such as secured credit cards and micro-loans to help customers establish or repair credit. Some financial institutions, led by fintechs and online banks, have gone further than this by offering more innovative tools, features, and products to actively help LMI consumers manage short-term liquidity, develop healthy financial habits, and build towards long-term resilience. This includes real-time budgeting tools and recommendations, automated savings features, and credit products such as small-dollar loans and interest-free cash advances.

However, financial health measurement programs focused on assessing the impact of these specific initiatives or on informing financial institutions' broader ongoing customer strategies are more rare. While some financial institutions conduct periodic surveys of a sample of their customers to track overall financial health trends at the population level, these efforts are typically descriptive and not tied to specific products or interventions. Measurement approaches designed to assess the impacts of particular financial health initiatives on customer outcomes are far less common. Interviews and past surveys with financial services executives suggest that few institutions systematically measure customer financial health in ways that enable them to evaluate the effectiveness of their offerings or to inform product and strategy decisions based on observed customer outcomes.<sup>137</sup>

One of the factors that can complicate the process of implementing deeper, longitudinal financial health measurement programs is the need for coordinated, enterprise-wide changes to obtain a holistic view of customers' finances, not just data on their usage of particular materials, products, or tools. Particularly within larger institutions, this may involve navigating divisions across business lines, clarifying ownership of financial health initiatives, and investing in the data infrastructure needed to enable effective data access and sharing. These challenges are often compounded by resource constraints and entrenched organizational structures, though the nature and intensity of these barriers may vary across different segments of the financial services industry.

Large and mid-sized banks, for example, often organize products into separate business lines with distinct operating structures and supporting technology platforms, particularly where they have grown through mergers and acquisitions. Particularly where different business lines are located in separate legal entities, there can be significant fragmentation in how customer data is stored and managed. In these cases, privacy and data governance rules (including the Fair Credit Reporting Act (FCRA) for credit data) may constrain the sharing of customer information across affiliated entities and business lines, contributing to siloed data environments. This structural and regulatory fragmentation can hinder their capacity to extract data and perform analyses that provide a holistic view of customer financial health across multiple products.

Beyond data silos, the organizational positioning of financial health initiatives within banks can also limit their integration into core business strategies. Financial health initiatives are often housed within philanthropic, community affairs, or Community Reinvestment Act (CRA) teams rather than in business lines. While this placement aligns with bank efforts around community investment and corporate social responsibility, it can also affect the scale and adoption of financial health initiatives. In particular, lack of experience or ownership across products, risk, credit, or other core bank functions can constrain the ability of financial health teams to design, test, and iterate on offerings tailored to low- and moderate-income consumers and influence broader business strategies. In many cases, financial health teams also lack access to the same level of data and analytics resources that support mainstream business lines. Interviews with teams focused on financial health suggest that they often end up playing the role of internal consultants trying to generate buy-in from business teams to pursue financial health strategies, while struggling to use the same data and internal language to make meaningful business cases for these investments. This organizational separation has reinforced a perception of financial health as a compliance or reputational priority rather than a driver of long-term customer value and growth.

Smaller banks, credit unions, and community lenders tend to face fewer challenges with organizational structure, but can still encounter data constraints in implementing financial health measurement. Compared to large institutions, they often operate with more limited analytical infrastructure, including smaller data science teams, less advanced tools for aggregating and analyzing customer data, tighter budgets, and fewer resources for anything that falls outside of regulatory or business requirements. Lower customer volumes can also make it difficult to generate statistically meaningful insights or build robust measurement models. These factors also have tended to encourage community lenders to lean more on surveys and other qualitative methods to assess their customers' financial health.

Fintech organizations and neobanks may face fewer infrastructure challenges because they are often built on unified technology stacks and offer a narrower range of products, allowing them to more easily aggregate and analyze customer data across accounts and services. They are also more likely to integrate alternative data sources and open banking infrastructure as part of lending, such as banking data from outside institutions or sales data from payment processing platforms.<sup>138</sup> Although these data sources can potentially also be used to support more robust financial health measurement, there are relatively few public examples of fintechs using internal data to monitor or track customer financial health for evaluating specific products or ongoing outcomes assessment. For example, Lending Club has previously assessed changes in individual customers' financial health in order to evaluate the impact of its products on debt and credit scores.<sup>139</sup> Similarly, credit building platform Credit Karma developed a financial health scoring model that uses administrative data from its members, allowing it to assess financial health over time and create customer segmentations.<sup>140</sup> The lack of widespread and repeated initiatives to measure longitudinal financial health outcomes or assess the impacts of specific products or tools may indicate broader challenges related to establishing causation or making a clear business case for additional investments.

## 7.2 Questions around attribution and accountability

A second factor that can shape how financial institutions think about potential investments in financial health measurement concerns causation and accountability, or determining the role and responsibility of financial institutions in driving financial health outcomes. These considerations are not unique to any one data source used in measurement, but warrant additional thought as longitudinal assessments of broader populations become more technically feasible with digital banking data. Specifically, they can inform when and how financial health measurement data can be used to assess the impact of specific products and programs, or instead serve as a more generalized population-level diagnostic tool.

At the core of this issue is a technical challenge: it is difficult to isolate the role of a given financial product, service, or policy in driving observed changes in customer financial health. Financial health outcomes are shaped by a wide range of external factors beyond any institution's control. For example, broader economic conditions, supply chain disruptions, or shifts in customer demand may significantly affect small businesses' financial health regardless of the financial products and services they use. These dynamics make it even more important to establish appropriate comparison groups and baseline measures, which can be challenging for financial institutions as they face limitations with population selection particularly for rejected applicants and non-customers. Additionally, the criteria used to approve loan applicants or offer specific product terms may themselves influence how those customers operate their businesses and manage repayment over time.

Academics have developed a range of techniques used in social science and economic research to address this issue and better establish causality, some of which FinRegLab may explore in this initial

research (see [Box 6](#) for a description of attribution analysis methods). Many large financial institutions already conduct robust A/B testing to evaluate customer engagement with specific products or features, and may be able to extend these approaches to measure the impact of financial health tools or products. But some academic techniques—such as randomized control trials—may not be as practicable in a business context, and may raise discomfort around denying qualified customers access to particular products or services for the purposes of establishing a control population.

## BOX 6 ATTRIBUTION ANALYSIS APPROACHES

In academia, efforts to attribute particular outcomes to a specific intervention are referred to as causal attribution, causal inference, causality assessment, or attribution analysis. Researchers use a variety of approaches to try to determine whether observed changes or outcomes would have occurred in the absence of an intervention.<sup>141</sup> A detailed survey and discussion of these methods is beyond the scope of this paper, but common approaches include:

- » Randomized control trials, where study participants are randomly assigned to either receive an intervention or to serve in a control group to minimize selection bias and isolate the intervention's effect from other factors.
- » Difference-in-differences analyses, which compare changes in outcomes over time between a treatment population and a comparison group, helping establish causal inference when randomization is not possible.
- » Propensity score matching, which calculates the likelihood that members of a study sample will receive a treatment, pairs members with similar propensity scores that did or did not actually receive the treatment, and analyzes differences between them after the treatment period. While receipt of the treatment is not random, this process helps to identify a generally similar control group for comparison.
- » Regression discontinuity design, which takes advantage of program cutoffs or thresholds by comparing those just above and below that cutoff (who are generally similar to each other) to estimate the treatment's effect.<sup>142</sup>

These methods attempt to construct comparison groups and control for confounding variables that might otherwise explain observed outcomes, but generally require substantial data collection, technical expertise, and careful study design to produce credible estimates of causal impact.

These dynamics can also have implications for policymakers' efforts to encourage financial health measurement in the industry. For instance, in 2024 the OCC became the first federal prudential regulator to strongly encourage financial institutions to make an effort to measure their customers' financial health. The OCC released a report defining a set of "vital signs," or indicators that banks can use to measure financial health, along with recommended actions they can take for customers facing financial challenges.<sup>143</sup> At least one bank has directly cited the OCC's report in their CRA strategy focused on better serving low-income consumers and supporting their financial health<sup>144</sup> (see [Box 7](#) for more about CRA's influence on financial health practices). However, some observers have expressed concern that holding financial institutions accountable for changes in financial health metrics could unintentionally disincentivize them from serving LMI or financially vulnerable populations, as these customers may face greater obstacles to improving their financial health. Although the OCC removed the report from its website in 2025, questions about how financial health data gets deployed and shared externally will continue to be important considerations.

## BOX 7 THE COMMUNITY REINVESTMENT ACT AND BANK FINANCIAL HEALTH FOCUS

The Community Reinvestment Act (CRA) plays a central role in motivating banks to support the financial well-being of LMI communities. The law requires federally insured banks to help meet the credit needs of the communities in which they operate, and regulators evaluate performance across lending, investment, and service activities. These evaluations influence supervisory decisions, including approvals for mergers and expansions, effectively linking banks' regulatory standing to their ability to demonstrate community impact. In practice, CRA has long functioned as a statutory incentive mechanism for encouraging banks to expand access to affordable credit and financial services in underserved markets, an important foundation for improving household and small business financial health.<sup>145</sup>

Banks often meet CRA obligations through partnerships with CDFIs, which play a critical role in delivering capital and services to underserved communities. These partnerships include loans and equity investments in CDFIs, as well as support for activities such as financial counseling, small business technical assistance, and affordable housing development.<sup>146</sup> By leveraging CDFIs' community expertise and flexible underwriting approaches, banks can extend their reach into markets that are difficult to serve through conventional models while advancing CRA-related goals tied to financial stability and resilience.

As the field increasingly shifts from a focus on access to a focus on financial health outcomes, some institutions are beginning to more explicitly connect CRA activities with financial health objectives. In these cases, many banks are incorporating products and services such as low-fee transaction accounts, credit-building tools, and financial capability programs into their broader community reinvestment strategies. While this alignment remains uneven across the industry, CRA provides a potential framework through which banks can both support and demonstrate progress toward improving financial health outcomes for LMI customers.

At the same time, CRA sits within a changing regulatory landscape. The 2023 interagency CRA modernization rule sought to update assessment area definitions, clarify eligible activities, and improve consistency in evaluation standards particularly as banking models become more digital and less branch based.<sup>147</sup> But under the current administration, the three regulatory agencies involved in modernization efforts rescinded the 2023 rule and replaced it with prior CRA regulations, in light of ongoing legal challenges.<sup>148</sup> Interviews with CDFI stakeholders indicate concern that CRA may be substantially weakened or even entirely eliminated by Congress, which would fundamentally change the role of financial institutions in community investment going forward. As these changes unfold, the extent to which CRA continues to encourage or incentivize a stronger focus on measurable financial health outcomes will depend on how regulators interpret and apply its core mandate.

## 7.3 The affirmative business case for financial health measurement

A third major factor that is likely to shape financial health measurement programs going forward is whether and how financial institutions view financial health as a business investment and the extent to which the resulting data can be used to strengthen customer relationships, product offerings, and improve performance. The answers to these questions may differ from institution to institution depending on a range of factors, making it difficult to address them through quantitative research. However, interviews with stakeholders and a growing body of public literature suggest that financial health strategies can pay substantial dividends to institutions and customers alike.

Sentiment studies suggest that focusing on financial health as a business strategy may support customer acquisition and engagement, enabling growth and retention and reducing the costs of churn. Research and industry analysis suggest that consumers increasingly consider whether financial services providers can help them understand their financial position and make better decisions over time. Survey data from FHN found that 80 percent of consumers want their financial institution to help them improve their financial health, but only 14 percent feel their bank or credit union is actually helping, suggesting an unmet need that institutions could position themselves to fill.<sup>149</sup> FHN research has also found that customers who think that their financial institution supports their financial health are three times more likely to recommend it, two times more likely to continue their relationship over

five years, and five times more likely to report interest in additional products and services.<sup>150</sup> Similarly, Plaid has reported that customers who feel their primary institution helps them improve their financial health are more likely to be satisfied with their provider and purchase additional products.<sup>151</sup> This is echoed by a Gallup study linking perceived institutional support to higher product usage and a greater likelihood that customers view their bank as their primary financial institution.<sup>152</sup> Other industry research has found that institutions that invest in supporting customer financial health tend to rank higher on customer satisfaction and loyalty measures.<sup>153</sup>

Case studies indicate that these customer sentiment findings can translate into real results in increased customer acquisition, engagement, and retention. As described in [Section 7.1](#), online banks and fintechs such as Chime, Ally, Varo, and SoFi have made financial health central to their business strategies. Their positioning has likely helped their rapid growth,<sup>154</sup> as underserved and LMI communities are more likely to cite caring about customer financial well-being as a top reason for doing business with a financial institution.<sup>155</sup> More broadly, a 2021 Harris Poll survey of consumers found that most fintech users believe that fintechs help improve their financial well-being by reducing stress and increasing confidence, increasing their financial control and understanding, and saving time and money, and view this as a key benefit of using them as a financial provider.<sup>156</sup> These findings suggest that financial health is becoming an increasingly important part of how customers evaluate and engage with financial institutions, and a potentially important lever for acquisition and retention at a time when customer relationships are becoming more central to institutional performance.

Stakeholder interviews and case studies also suggest that financial health investments can enable financial institutions to deepen customer relationships by offering more relevant, responsive, and timely products. While most case studies so far focus on consumers, this benefit may be even more compelling for small businesses, given the challenges that many entrepreneurs face in managing their business finances. Financial institutions have an opportunity to help small businesses understand their cash flows and navigate financial decisions more effectively by providing timely tools for financial management, including credit products and cash flow management advice. Real-time visibility into small businesses' cash flow patterns, risks, and capital constraints could inform more dynamic lending products tailored to in-the-moment needs and strengthen how institutions design, test, and refine products by creating feedback loops that capture the impact of those products on customer financial health. In particular, timely visibility into financial health can enable more responsive credit design, embedded liquidity and cash flow management tools, and solutions that are integrated across small business and consumer finances. By pairing financial health insights with tools, guidance, and coaching, financial institutions can also empower small business owners to better manage cash flow, plan for volatility, and make informed decisions about borrowing and growth.

Case studies suggest that this approach can be effective for growing deposits among consumers. For example, in 2020 Bank of America launched Life Plan, a digital tool that allows customers to set financial goals based on their priorities and then track progress against them using both personal input and transaction data from their bank accounts.<sup>157</sup> Over just two years, Bank of America reported that over 15 million customers used the product, and that it brought in more than \$55 billion in client assets through new deposits, savings, and investments.<sup>158</sup> Internal bank analyses showed that Life Plan users had an 11 percent increase in deposit account ownership and a 5 percent increase in credit card ownership compared to non-Life Plan users, generating significant value for the bank.<sup>159</sup>

More timely and granular insight into how businesses are performing may also allow financial institutions to move beyond backward-looking risk indicators and identify financial stress earlier. Rather than responding only after missed payments or charge-offs occur, institutions can monitor cash flow patterns and flag emerging signals of vulnerability, such as rising debt burdens, declining cash buffers, or increasing revenue volatility, and intervene before problems escalate. This kind of

early warning system can enable lenders to offer timely support such as payment, product, or terms adjustments, or targeted outreach and engagement that can help stabilize businesses and reduce both credit losses and account closures. CGAP has piloted research internationally with consumers suggesting that changes in borrower behavior can serve as early warning signals of risk for lenders and inform interventions before loans go to collections.<sup>160</sup> For CDFIs in particular, this kind of early visibility is especially promising, given their emphasis on flexible repayment, hardship assistance, and the ability to restructure financing terms as tools for helping borrowers manage debt and avoid adverse outcomes. Responsive and tailored customer management strategies can also reduce risk by creating better pathways for engagement. One of the largest banks in Australia piloted a financial hardship-oriented strategy for its collections program that led to 40 percent of customers proactively seeking advice before a collections event, significantly reducing costs for the bank.<sup>161</sup>

Cash flow data can also help financial institutions move from a standard set of self-service learning topics offered to everyone or reactive engagement when a customer requests help, toward proactive coaching tailored to the challenges most relevant to the individual business at that moment. Research in the United Kingdom found that more actively engaging with bank-provided support and building sustained, primary relationships with financial institutions helped small businesses reduce the intensity of financial challenges.<sup>162</sup> This is particularly important for small business owners without access to formal training or professional networks to strengthen their professional knowledge. Over time, this approach can strengthen customer relationships and shift the role of institutions from one of a transactional nature toward one of longer-term partnership.

Collectively, this research suggests that financial health initiatives and measurement may have greater strategic value to financial institutions for their own business purposes than many stakeholders realize. In an environment where financial institutions are already expanding their use of open banking data and improving their abilities to analyze customer data, there is a clear opportunity to consider how incorporating financial health frameworks and measurements could drive customer acquisition, deepen existing relationships, support products and services, and improve outcomes for both financial institutions and their customers. It may be beneficial to position financial health initiatives alongside other strategic initiatives that reflect an institutional willingness to prioritize long-term value creation alongside near-term performance pressures, such as multi-year technology upgrades.

## 8. CONCLUSION

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As described in this report, developing a comprehensive framework for measuring small business financial health using new forms of digital banking data could be a significant step toward helping more small businesses survive and grow. More robust, detailed, and longitudinal assessments could provide deeper insights into the state of individual small business finances' and the impacts of financial products and services. Detailed, actionable insights could allow financial institutions and others to calibrate the support they provide to small businesses to help improve their resilience and growth. Yet to date, transaction data remains untested in applications for small business financial health measurement.

The forthcoming empirical research project by FinRegLab will evaluate the potential for bank transaction data to be used to measure small business financial health, assess the outcomes of financial products, services, and interventions, and explore the relationship between entrepreneurship and personal financial health. The analysis is based on data from a set of CDFI pilots that collect electronic cash flow data from open banking aggregators either directly or through lending platforms. This project will specifically focus on:

- » **The utility, performance, and value of financial measures derived from small business transaction accounts (checking and savings) in understanding key dimensions of small business financial health.** This includes assessing where transaction data improves measurement efficiency and representativeness relative to other methods such as borrower surveys, credit reporting, and traditional loan performance metrics.
- » **The near- and longer-term impact of CDFI loan capital (and technical assistance where possible) on the financial health outcomes of small business borrowers.** The empirical analysis will track changes in financial health metrics as well as broader community impacts where possible to understand how small businesses use loan capital and how it impacts their resilience and growth. It will also compare insights from transaction data to those obtained from conventional impact-evaluation tools used by CDFIs to assess lending outcomes.
- » **The relationship and dynamics between small business financial health and the owner's personal and household finances (where possible given available data).** This includes evaluating income payments from the business to the owner, movement of personal capital into the business, as well as the owner's ability to manage expenses, responsibly use debt, and make investments to support long-term resilience.

- » **Potential applications of cash flow insights to support targeted interventions for distressed borrowers, inform product design, and facilitate the development of technology-enabled financial management tools.** As we gain evidence around key metrics of small business financial health, we plan to explore potential use of the metrics and the data they generate in additional contexts and small business support activities.

Empirical data collection will begin in 2026 and analysis will continue through 2027. FinRegLab will also engage stakeholders active in the financial health and small business space, including financial institutions interested in incorporating insights to their financial health measurement strategies. We welcome engagement from stakeholders interested in this work and encourage them to reach out to explore opportunities for collaboration.

# APPENDIX A

## *History of Consumer Financial Health Initiatives*

Financial health has gained increasing global attention in recent years as a guiding framework for improving financial security. Earlier efforts to strengthen individuals' financial well-being focused primarily on expanding financial education and access to basic financial services. Over time, these initiatives evolved to emphasize how consumers—and, to a lesser extent, small businesses—are actually faring financially, leading to the development of the modern financial health measurement frameworks in use today.

Financial health conceptualizations and measurement approaches have varied significantly depending on programs' target populations, objectives, and scale. For example, at the national level, several governments including the US have developed independent financial health frameworks to enable population-wide measurement that quantifies levels of financial security and helps identify pathways to improving it. In the international context, financial health initiatives have focused on measurement primarily to track progress against international development goals and provide country-level benchmarks. Understanding the history, origins, and objectives of past financial health initiatives helps provide context for the metrics most commonly used in financial health frameworks today.

### **A.1** History of financial health initiatives in the US

In the US, initiatives to understand and improve the financial lives of Americans have been around for several decades. Modern efforts grew out of financial education programs developed with the passage of the Fair and Accurate Credit Transactions Act of 2003, an amendment to the Fair Credit Reporting Act, as policymakers recognized that individual financial decisions and well-being had aggregate economic impacts at the national scale.<sup>163</sup> At the time of its passing, policymakers had particular concerns about high consumer debt and personal bankruptcy, low savings rates, and consumer challenges navigating an increasingly complex landscape of financial services. Additionally, research showed that most Americans were not well-educated about basic personal finances, impeding their ability to make informed financial decisions.<sup>164</sup> The new legislation created the Financial Literacy and Education Commission (FLEC), an interagency structure to coordinate and strengthen the federal government's role in financial literacy.<sup>165</sup> FLEC was primarily oriented toward improving Americans' financial knowledge and skills by increasing access to educational programs and resources offered across twenty-two federal agencies and the White House. The Commission also launched a public website with basic financial education resources.

FLEC led to the development of the first National Strategy for Financial Literacy in 2006, which included a pillar focused on research and evaluation. As FLEC-coordinated agencies provided a variety of financial education programs, FLEC was tasked with evaluating their efficacy and identifying

evidence-based strategies for teaching financial literacy.<sup>166</sup> However, research efforts were limited to measuring whether financial literacy program participants increased their knowledge of financial concepts and products, and did not touch on overall financial outcomes. FLEC's early efforts were built on research that showed increased knowledge was associated with better financial behaviors and practices,<sup>167</sup> thus assuming that improved literacy would lead Americans to improve their financial well-being. However, research emerging at the time also demonstrated mixed results in the ability of financial education to drive long-term financial well-being, and some researchers expressed doubt about the role of literacy programs even where they did observe positive outcomes.<sup>168</sup> In particular, research demonstrated gaps in the efficacy of financial literacy programs for lower income individuals and families, which face additional structural barriers to accessing affordable products, managing debt, and building financial stability and wealth.

In the aftermath of the 2008-2009 financial crisis, the objectives of FLEC shifted beyond financial literacy and education for the first time. With many American households struggling during the recession, FLEC evolved its mission to focus on broadly improving the financial well-being of Americans. This was codified in the 2011 National Strategy for Financial Literacy, which outlined a vision for "Sustained financial well-being for all individuals and families in the United States."<sup>169</sup> The previous national strategy put forth by FLEC did not mention financial health or financial well-being as focus areas.<sup>170</sup> Around this time, the Financial Industry Regulatory Authority (FINRA) launched the first National Financial Capability Study, which went beyond assessing knowledge to measure "financial behaviors, attitudes, knowledge, and access to financial products and services" for US adults.<sup>171</sup>

The passing of the Dodd-Frank Act in 2010 created the Consumer Financial Protection Program (CFPB), tasking the new agency with working towards the financial security of Americans, in part through implementing financial literacy programs and activities. In 2015, the CFPB articulated financial well-being as the objective of all financial education programs, responding to growing consensus that financial literacy should strive for impacts beyond building knowledge, as well as the lack of a standardized definition of financial well-being as a concept.<sup>172</sup> That year, the CFPB also released a milestone report detailing its new Financial Well-Being Scale, a standardized, survey-based tool to assess financial capabilities and behaviors of Americans. This formalized the shift from financial education and literacy to a broader focus on financial security and outcomes among federal programs. In 2015, the US Financial Diaries released its findings from first-of-its-kind research that followed over 200 low to moderate income American households for over a year, focusing on day-to-day financial management and challenges. The initiative further shifted attention from knowledge to household cash flows and resilience.

Since then, federal agencies and independent organizations have doubled down on financial health and financial well-being measurement as key to improving the financial security of Americans. Starting in the mid-2010s, several key donors began funding initiatives by practitioners to define financial health and develop measurement approaches.<sup>173</sup> In 2015, the Financial Health Network, formerly the Center for Financial Services Innovation, established a national financial health framework and a toolkit that can be used by consumers and financial services providers to assess financial health.<sup>174</sup> Several think tanks and nonprofit organizations including the Aspen Institute and the Urban Institute have also released research on the state of financial health in the US, helping policymakers understand the geographies and populations facing the greatest challenges.<sup>175</sup> This momentum eventually spread to bank regulators—in 2023 the Office of the Comptroller of the Currency (OCC) released a report encouraging banks to measure the financial health of their customers, the first articulation by prudential regulators that financial institutions should prioritize this.<sup>176</sup>

## A.2 History of financial health initiatives internationally

In the international context, financial health initiatives grew out of poverty alleviation and international development strategies focused on financial inclusion. Multilateral institutions such as the United Nations (UN) have organized financial inclusion programs for several decades, with the goal of bringing more people, especially those facing poverty in developing countries, into the formal banking system. By helping increase access to affordable financial services, these initiatives are intended to help people generate income, save for times of crisis, manage their cash flows, and invest in opportunities to escape poverty.<sup>177</sup> In 2009, the UN created a high-profile advocacy role, the UN Secretary General's Special Advocate for Inclusive Finance for Development, and appointed Queen Máxima of the Netherlands. In 2015, the UN incorporated financial inclusion as a global target to its new Sustainable Development Goals, and named financial inclusion as an important component of seven other Sustainable Development Goals. Partly as a response to the global financial crisis in 2008, the G20 also got involved in financial health by establishing the Global Partnership for Financial Inclusion and developed the G20 Financial Inclusion Action Plan to help its members drive progress on increasing access to banking products and services.

Because these multilateral initiatives have been oriented around financial inclusion, impact measurement focused initially on the reach of financial services—or the number of individuals with depository accounts or access to credit products. Tracking the impact of financial inclusion programs has been possible in part through the World Bank's Global Findex survey, a global measure of financial inclusion that collects data on how adults around the world access and use financial services.<sup>178</sup> The Global Findex is conducted every three years and allows for both globally aggregated and economy-level measures of progress against financial inclusion goals by surveying more than 100,000 people across 141 economies. The survey began tracking just account ownership, but has evolved over the last two decades to capture deeper insights into consumer interactions with financial services products. Over the last two decades, survey data from the Global Findex indicates that over one billion people gained access to a financial account, marking significant progress on financial inclusion globally, representing an increase in bank account ownership from 51 percent of the world's population in 2011 to 76 percent in 2021.<sup>179</sup>

As access to financial services has grown significantly around the world, international bodies have started to shift their financial inclusion programs to focus on financial health. This is partly driven by a recognition that access alone is not sufficient to drive poverty alleviation and development goals, as well as the reality that even consumers in the largest economies continue to struggle with economic volatility and insecurity.<sup>180</sup> For example, in South Africa and Kenya, despite account ownership growing to nearly 80 percent of the population, large shares of the population still use expensive, informal financial services.<sup>181</sup> With greater access to financial services materializing, multilateral institutions began pivoting their focus to the quality of products and services as well as the outcomes they deliver. CGAP, the global financial inclusion think tank, has been a leading voice in moving the sector beyond financial access by developing a financial inclusion strategy focused on outcomes.<sup>182</sup> This includes a research agenda focused on understanding how financial services drive positive change and development outcomes.

The Covid-19 pandemic accelerated the shift to financial health by revealing the extent of financial vulnerabilities during times of crisis that cause income shocks. In 2024, the UN Secretary General's Special Advocate role held by Queen Máxima of the Netherlands formally evolved from financial inclusion to financial health after 15 years, codifying the shift by the UN. The new role works towards "empowering people with suitable financial products and tools that enhance their ability to manage their day-to-day finances, build resilience to financial shocks, plan for the future, and feel confident

about their financial lives.”<sup>183</sup> In the last five years, the G20 and the World Bank have also formally shifted toward financial health. In 2024, the G20 published a policy note on financial well-being, marking it as a core focus area of the Global Partnership for Financial Inclusion.<sup>184</sup> This year, the World Bank has also expanded the Global Findex survey to include new questions targeting financial health measurement specifically.<sup>185</sup> The new questions expand evaluations of consumer resilience in the face of emergencies or income shocks, short-term financial behaviors, and long-term savings and investment opportunities. With these new programs and expanded measurement tools, multilateral institutions are now working actively toward financial health at the global scale. CGAP has also recently released the Impact Pathfinder, an online platform that compiles insights from over 600 existing research studies on the relationship between financial services and development outcomes.<sup>186</sup> The tool is intended to give policymakers and financial services providers a greater understanding of the role that financial products and services play in driving financial stability and growth, and ultimately, poverty reduction.

# APPENDIX B

## *CDFI Impact Measurement Practices and Challenges*

As discussed in the report, community development financial institutions (CDFIs) employ a variety of practices and metrics to measure their impact. While most CDFIs aspire to track outcomes such as financial growth and wealth-building among clients, and even broader community impacts, few have the capacity or resources to do so. Only about half of CDFIs collect outcomes data, often with varying levels of depth and rigor.<sup>187</sup> The following appendix provides a deeper discussion of the different practices CDFIs employ to measure their impacts, their associated challenges and considerations, and the factors that influence their decisions.

### B.1 CDFI impact measurement practices

#### B.1.1 Outputs: Program delivery summary metrics

Most CDFIs measure the outputs of their activities to quantify the scale and reach of their programs. This includes counts of loans deployed, total dollars lent, and hours of technical assistance offered.<sup>188</sup> Roughly two thirds of CDFIs also capture client and portfolio characteristics, including demographic information such as income and geography, primarily to demonstrate that they are reaching their target markets.<sup>189</sup> Many also track characteristics of the small businesses they lend to, such as industry, business age, and employee counts. One reason this is such a commonly used approach is that CDFIs can easily collect output data at loan origination or program intake through application documents, online portals, loan origination systems, or face-to-face interactions with clients. While outputs provide important operational insights, they do not tell CDFIs what happened to clients after they received support.

#### B.1.2 Projected metrics and other indirect estimates: Easier-to-measure or early indicators that stand in for longer-term outcome metrics

Getting one step beyond program outputs, the most common “outcomes” tracked by CDFIs are projected metrics such as jobs created and anticipated revenues.<sup>190</sup> These projections are often based on information collected from small businesses during the application process, and therefore do not depend on follow-up with clients. For example, borrowers may be asked to estimate the jobs or revenue they expect their business will generate as a result of receiving financing. Other CDFIs generate projections using internal models and data about past borrowers.<sup>191</sup> While they do not capture actual results, projections may be helpful for understanding client goals and providing baseline estimates of potential impact, particularly when CDFIs lack the capacity for extensive follow-up tracking. Some

industry observers have noted that because projections are easy to collect, the field has coalesced around a common set of these metrics including jobs created, jobs retained, and projected revenues.

Some CDFIs also rely on other indirect ways to estimate impact. For example, by tracking client demographics and the share of capital deployed to specific populations, CDFIs can determine whether they are successfully reaching target populations, and use this as evidence that they are likely generating positive outcomes for those clients and communities. Lending performance indicators such as delinquency rates, repayment rates, and charge-offs are also used as partial or indirect windows into client financial well-being. Strong loan repayment performance, for instance, may suggest that clients are maintaining financial stability and managing their debt obligations effectively, which could reflect that the affordable capital or that technical assistance received from CDFIs are having a positive effect. In both cases, CDFIs are drawing reasonable inferences from data they already collect, rather than measuring outcomes directly. While this is a practical response to real capacity constraints, it means that what is being tracked may differ from or not fully capture the actual changes in clients' lives and communities that CDFIs ultimately want to understand.

### B.1.3 Intermediate outcomes: Impact measured over shorter timelines

Some CDFIs, often those with more resources and capacity, do track intermediate outcomes for at least a subset of borrowers, typically by following up with clients during loan servicing and sometimes after their loans are paid off. This usually involves administering surveys at regular intervals, such as annually or biannually, and sometimes includes collecting supplementary documentation from clients such as tax returns, profit and loss statements, or other financial records. Data on client outcomes can also be obtained through repeat borrower analysis, using updated business or financial information in cases when clients return for additional financing. Other CDFIs use external data sources such as macroeconomic datasets and third-party data to capture broader impacts across clients and communities, particularly for longer term outcomes.

Beyond surveys and updated financial data, another widely used method for CDFIs to measure intermediate outcomes is collecting client and community stories. CDFIs typically conduct interviews and periodic check-ins with clients to gather information about how businesses grew from the capital or advisory services they received and how clients progressed to larger loans or financing from traditional lenders over time. This allows CDFIs to directly capture clients' perspectives and understand the nuanced experiences and broader context in which outcomes occur. However, stories also have limitations. Storytelling can be subjective and biased toward positive outcomes, potentially overlooking challenges or setbacks. Additionally, it can be difficult to determine the extent to which any individual story represents the broader experience of CDFI clients.

Intermediate outcome measurement represents one of the closest ways CDFIs come to capturing "true" outcomes. They typically serve as early signals of impact, especially where long-term outcomes may take years to materialize or are difficult to measure. Commonly tracked intermediate outcomes include actual (as opposed to projected) jobs created and retained, revenue growth, profitability, asset acquisition and growth, and business survival rates. To a lesser extent, some CDFIs track changes in household income, asset levels, and business owner credit scores.<sup>192</sup> A small number of CDFIs also track whether clients are meeting the goals they have set for their businesses.<sup>193</sup> Intermediate outcomes provide meaningful evidence of near-term impact, and go deeper than outputs or projections, but they have some limitations. They typically capture cross-sectional snapshots rather than tracking individual clients across entire CDFI portfolios over time. They also rely on self-reported data that can be difficult to verify and tend to measure relatively high-level metrics that may not fully capture the factors driving business performance.

### B.1.4 Long-term outcomes: Deeper societal outcomes CDFIs seek in long-term

Very few CDFIs systematically track long-term outcomes, which are the most resource-intensive form of impact measurement. These outcomes include many of the same metrics as intermediate outcomes but are measured several years after the initial loan origination, loan payoff, or provision of technical assistance and often extend beyond individual clients into the broader community. For example, rather than tracking just jobs created or retained, some CDFIs assess job quality indicators such as wages, wage growth over time, benefits offered, and workplace conditions such as schedule flexibility. This reflects a desire to understand whether their clients are having deeper, positive community impacts, not just by creating jobs, but by generating meaningful, quality employment in their communities.<sup>194</sup> Long-term outcomes may also capture systemic community impacts, including neighborhood economic growth and wealth building in areas served by CDFI-supported businesses. Some CDFIs have begun tracking outcomes that extend beyond traditional economic indicators to measure how their lending supports community networks, strengthens trust and social capital, and builds longer-term resilience.<sup>195</sup>

Because long-term outcomes are considerably more difficult and resource-intensive to measure, CDFIs pursuing this level of measurement typically conduct discrete studies with external support from consultants, third-party data collectors, or academic research partners. These external actors may administer surveys, conduct focus groups and interviews, or employ more rigorous quasi-experimental methods.<sup>196</sup> These evaluations also often incorporate external data sources such as federal, state, or local macroeconomic data to provide broader context or comparison for client outcomes. Although external evaluations can provide robust evidence of impact, the extent to which CDFIs use them depends largely on organizational capacity and available resources, as these studies can be quite costly.<sup>197</sup>

Some CDFIs also use client stories and interviews to capture long-term outcomes, as they can effectively capture deeper individual and community impacts. For example, client stories may illustrate how growth rippled through neighborhoods via local hiring and increased economic activity, as well as broader impacts such as strengthened social capital, expanded entrepreneurial networks, and improvements in community trust and neighborhood safety.<sup>198</sup> However, over longer periods of time, it can be more challenging for CDFIs to get sufficient responses or engagement from past clients to be meaningful.

## B.2 Factors that shape CDFIs' approach to measurement

Only a small number of CDFIs can carry out robust outcome measurement, in part because collecting downstream data from large numbers of borrowers is challenging. Their efforts are further constrained by limited resources and by the need to prioritize compliance and funder reporting over more in-depth evaluation. These factors underscore the value of new data sources and evaluation measures that could provide consistent and detailed longitudinal data for CDFI small business customers without requiring substantial active borrower participation or survey management by CDFIs.

### B.2.1 Practical and resource burdens

CDFIs' reliance on output measurement stems largely from practical necessity. Tracking outputs is a routine part of origination, portfolio management, and annual certification processes, and this data often flows from existing loan management or CRM databases without requiring additional client outreach.<sup>199</sup> Measuring outcomes, by contrast, is more likely to involve supplemental data

collections from customers, requiring impact evaluation expertise and resources, dedicated follow-up over multiple years, and data analytics—demands that can be challenging given CDFIs' staffing and resource limitations.<sup>200</sup>

One challenge to CDFI impact measurement is the lack of dedicated staff with program evaluation experience. Even though digital tools such as SurveyMonkey and Google Forms have made surveys easier to administer, designing effective survey questions and turning results into meaningful insights requires some level of experience with qualitative research methods and data analysis. Many CDFIs operate with small teams that lack dedicated staff with experience in program evaluation. Instead, staff typically perform multiple roles outside of impact measurement and may not be specifically trained in evaluation methods. One stakeholder noted that realistically only CDFI loan funds with more than \$20 million in assets per year have the capacity to conduct annual customer surveys.

Limited staff resources can also make it challenging for CDFIs to conduct the client follow up required for deeper outcome measurement, which can lead to data quality issues. The systemic changes that CDFIs seek—such as client wealth accumulation, business stability, and community economic development—can take many years to materialize, often well beyond typical loan terms. But CDFIs often struggle to effectively engage past clients over time. Clients who have already received funding or completed a TA program may not prioritize responding to surveys or interview requests. If clients do not return for additional services, CDFIs may also lose touch with them. Additionally, participating in interviews and surveys can be burdensome for borrowers who are busy managing their businesses and may view data requests as intrusive. When CDFIs make multiple requests to satisfy various funder obligations, clients can also experience survey fatigue. This can lead to skewed impact measurement results, where only the most satisfied or unsatisfied clients continue to respond. Low response rates or skewed respondent populations can make it difficult for CDFIs to obtain the information they need to learn about their impact, even when working with external evaluations partners.

The sector also lacks standardized metrics, frameworks, or collectivized approaches for outcome measurement that could otherwise help fill gaps in capacity or expertise. The outcomes CDFIs seek, such as wealth-building, social capital, and community revitalization, are inherently difficult to define and quantify, making it challenging for CDFIs to independently conduct impact measurement.<sup>201</sup> For example, CDFIs rarely make their survey tools publicly available, and there are no widely adopted outcomes measurement templates across the sector. As a result, many CDFIs design impact surveys from scratch. While this approach allows CDFIs to tailor questions and topics to their specific needs, it requires each organization to decide what to measure and how to translate that into questionnaires effectively, a process that can be time-consuming and inefficient. Furthermore, the ability to customize surveys may limit CDFIs' ability to measure outcomes longitudinally, as questions often change over time to align with new programs or priorities. Additionally, without standardized metrics to compare their results against similar CDFIs, organizations cannot easily benchmark their performance to determine how their outcomes compare to peers, making it difficult to identify where they should focus improvement efforts. This lack of comparability has often been noted as a limitation for other stakeholders as well, such as funders and researchers seeking to understand impact across the sector.

Outside of resourcing constraints, CDFIs face challenges in managing and analyzing internal data for outcome measurement. For many CDFIs, impact data resides across multiple systems and databases. For example, survey responses may be housed in one platform, loan data in another, and client records in a CRM. Linking these records requires technical infrastructure and analytical expertise that many organizations cannot afford.<sup>202</sup> This limits their ability to connect outcomes across datasets, track changes over time, or identify patterns across client segments.

## B.2.2 Structural factors

Structural factors also shape what CDFIs measure and how they approach measurement, including funding relationships, regulatory requirements, and industry norms. Certification and funding documentation requirements have not only caused CDFIs to place greater emphasis on outputs over deeper outcomes but even shape what specific metrics get prioritized—with especially strong influence from the CDFI Fund’s annual certification and reporting requirements. And like CDFIs themselves, many of these external sources often face tradeoffs between prioritizing resources for direct service delivery as compared to program measurement when they decide to set their program conditions and requirements. A lack of standardization and different reporting cadences among funders also contribute to complexity around impact measurement. CDFIs are often required to collect different sets of metrics for each program and funding source, reducing the capacity to gather additional information that they would find most helpful for their own internal planning and evaluation purposes.

CDFIs, intermediary organizations, and funders have recognized these patterns and made some efforts to deepen and harmonize approaches. Many funders seek “good enough” data either because of a desire to prioritize direct service delivery or to balance potential burdens on borrowers and lenders. But a subset of funders, such as impact investors and some foundations, have supported more ambitious evaluation programs with an eye toward evolving practices across the sector. Their aim is to both help individual CDFIs and contribute to broader initiatives to identify and prioritize the most impactful strategies and programs.<sup>203</sup>

Individual CDFIs, advocates, and intermediary organizations have also launched a range of initiatives to strengthen impact measurement practices.<sup>204</sup> These efforts have largely taken two forms: developing practical tools to help CDFIs overcome capacity and resource constraints, and encouraging CDFIs to better align outcome measurement with internal learning and decision-making. The first set of initiatives has focused on easing the practical burden of measurement, including by improving data collection methods and addressing challenges such as low survey response rates and limited client follow-up. For example, stakeholders have encouraged the use of client incentives—such as small cash payments, gift cards, or access to training and business development resources—to increase participation in surveys. Others have started to test shared tools and frameworks, such as community-specific scorecards, that standardize key metrics while allowing for contextual flexibility, reducing the need for each CDFI to build measurement systems from scratch.

The second set of efforts has focused on the longer-term objective of moving CDFIs towards measuring outcomes rather than outputs. Many frameworks emphasize the importance of cultivating a learning-oriented approach in which measurement serves the CDFI’s own strategic needs, supported by tailored metrics, theories of change, and prioritization of a limited set of high-value indicators.<sup>205</sup> Recognizing the diversity of the CDFI industry across loan funds, credit unions, banks, and venture capital funds—each with different missions, target markets, and operating contexts—experts emphasize that effective impact measurement should be tailored to each organization’s unique circumstances rather than following standard industry practices.<sup>206</sup> Developing a Theory of Change or logic model can help CDFIs articulate how their activities and products link to outputs, outcomes, and desired long-term impact, providing a roadmap for what to measure and why. Given that most CDFIs engage in numerous activities with limited resources, experts also recommend prioritizing by narrowing down what to measure to just a few metrics that matter most and measure those very well rather than attempting to track everything.<sup>207</sup>

However, these efforts highlight an ongoing tension between customization and standardization—while tailored approaches better reflect the diversity of CDFIs’ missions, contexts, and

programs, standardized metrics could potentially enable comparability across the sector.<sup>208</sup> Some initiatives have attempted to bridge this gap by defining common metrics or creating shared frameworks, while others have pushed institutions toward more comprehensive impact measurement practices that include deeper insights such as unintended negative outcomes.

Despite these initiatives, progress has been uneven. Larger, more established CDFIs have been better positioned to adopt more robust measurement practices due to greater resources, dedicated staff, and stronger leverage with funders, while smaller institutions often remain constrained by limited capacity and competing priorities. Across the sector, persistent challenges—including the cost and complexity of data collection, reliance on self-reported data, and ongoing reporting burdens—continue to limit the adoption of meaningful outcome measurement. As a result, while these initiatives have helped clarify pathways for improvement, they have not fundamentally transformed measurement practices to date, and most approaches continue to rely on collecting supplemental data directly from borrowers rather than leveraging emerging data sources and technologies that could enable more scalable and effective solutions.

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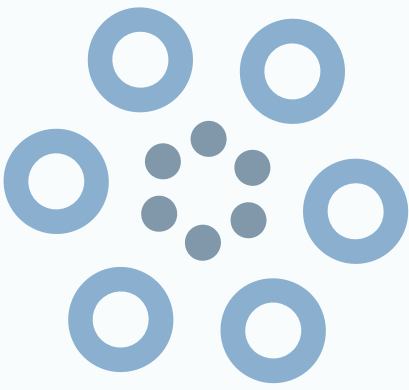
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