

Journal of Urban Affairs

ISSN: 0735-2166 (Print) 1467-9906 (Online) Journal homepage: www.tandfonline.com/journals/ujua20

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To cite this article: Ruoniu Wang (17 Sep 2025): Understanding the financial health of community land trusts in the United States, Journal of Urban Affairs, DOI: 10.1080/07352166.2025.2554755

To link to this article: https://doi.org/10.1080/07352166.2025.2554755

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Published online: 17 Sep 2025.

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JOURNAL OF URBAN AFFAIRS
https://doi.org/10.1080/07352166.2025.2554755

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ABSTRACT

This article examines the financial health of community land trusts (CLTs) in the United States. CLTs are nonprofit organizations that ensure long-term community assets and equitable land use, playing a critical role in community development. Despite the importance of financial health to their mission, little is known about their financial performance over time. Using Internal Revenue Service (IRS) data and survey responses, the article found that CLTs are among the financially top-performing community-based development organizations between 2012 and 2021. Further analysis found that CLTs' financial performances vary based on organizational characteristics such as the organization's age, location, CLT type, and the presence of shared equity units. The study highlights the need for conceptualizing multidimensional financial indicators that account for both internal and external factors, emphasizing the importance of strategic investments to support CLT's long-term community-focused goals.

KEYWORDS

Community land trust; nonprofits; financial health; community development; United States

Introduction

Community land trusts (CLTs) are nonprofit organizations that hold land for the benefit of a community, ensuring long-term access to affordable housing, sustainable development, and equitable land use. Rooted in the civil rights movement (Cohen & Lipman, 2016), the CLT model in the United States (U.S.) has been adopted by 333 entities in 46 states and Washington, DC, serving an increasing number of American communities (Grounded Solutions Network, 2024). Together, they have produced over 44,000 residential units with lasting affordability and a variety of other community assets (Wang et al., 2023). Beyond real estate development, many CLTs initiate community programs and services, contributing to the broader network of nonprofit community-based development organizations (CBDOs) that are essential for sustaining reinvestment and advancing justice in historically underserved communities across the U.S. (Scally et al., 2023).

The impact and potential of CLTs depend on financial sustainability, yet there is a dearth of empirical research that examines the financial health of the CLT model. Aside from knowing that CLTs are financially sound CBDOs in a single year (Wang et al., 2023), there is lack of insight into how CLTs fare financially *over time* compared to CBDOs. The economic turmoil of the past two decades has profoundly reshaped the market and regulatory landscape, adversely affecting CLTs while also introducing new funding streams that have supported their financial health. These dynamics warrant a longitudinal study on CLTs' financial health. Understanding whether CLTs' emphasis on permanent affordability and land stewardship leads to stronger or weaker financial outcomes than other nonprofit housing and community development models is crucial for policymakers and funders. Given wide

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variations in organization structure and programmatic priorities in the CLT model (Wang & Spicer, 2024), it is imperative to also examine factors associated with CLT financial health. Answers to both inquiries can help policymakers, funders, and lenders make informed decisions about resource distribution and guide the design of policies that support CLTs in addressing their specific financial challenges. Broadly, this article advances the theory on determinants of nonprofit financial health by identifying organizational characteristics that are associated with financial health in a subsector of nonprofit organizations focused on real estate and community development.

In practice, lenders to CLTs (primarily community development financial institutions (CDFIs) and credit unions) often apply the same financial metric requirements traditionally used for other nonprofit affordable housing developers. This approach can be challenging for CLTs, as these metrics were designed for different types of entities. As a result, CLTs may struggle to be considered "bankable," creating a significant financial barrier to their growth. This situation highlights the need to identify financial health measures that are appropriate for assessing the CLT model and the broader CBDO sector when making comparisons.

I pose two research questions in this study:

- **Research Question 1**: Do CLTs differ in financial position from the rest of the CBDO sector from 2012 to 2021? and
- **Research Question 2**: What are the organizational and environmental factors associated with CLT financial health?

To address the first research question, I compared financial records of CLTs and CBDOs using Internal Revenue Service (IRS) data. For the second research question, I linked these records to survey responses from a recent nationwide study of CLTs. Through descriptive and regression analyses, this research makes three contributions. First, financial measures representing different financial concepts do not converge into a single construct for CLTs. Second, CLTs are on par with top-performing CBDOs according to key financial stability and sustainability indicators. Third, organizational characteristics—including the organization's age, location, CLT type, and the presence of shared equity units—are associated with certain aspects of financial health.

Literature review

As the nonprofit sector has gained increasing prominence in addressing critical social issues—partly due to the devolution of responsibilities that shifted these challenges onto them, scholars have begun to focus more on the financial health of these organizations. The field of nonprofit financial performance research is distinct from the well-established body of literature on the for-profit sector. Below, I explore the key theoretical frameworks and empirical studies that have shaped this growing knowledge, with a particular emphasis on the CLT field.

Measuring financial performance in the nonprofit sector

The literature on nonprofit financial performance represents a distinct and relatively small field that differs in many ways from the more established body of research on the financial health of the for-profit sector (De Andres-Alonso et al., 2016). Unlike for-profit businesses, which primarily aim to maximize profit and shareholder returns and focus on market competition, nonprofits prioritize advancing their mission, often with limited financial buffers and revenue sources subject to fluctuations, such as donations, government grants, and service fees (Hansmann, 1980). As a result, the risks of financial instability can be particularly acute in the nonprofit sector. Historically, research on nonprofit financial health was underdeveloped, as scholars and practitioners tended to focus on organizational effectiveness or social impact rather than fiscal

sustainability. However, as the nonprofit sector has grown in size and importance, so has interest in its financial dynamics. The comprehensive set of financial metrics developed in the for-profit literature to assess bankruptcy risks is not suitable in the nonprofit sector, as charitable organizations cannot be legally forced into liquidation or reorganization (11 U.S.C.A § 303(a)) and due to the difficulty of identifying inactive or defunct nonprofit entities (Garcia-Rodriguez et al., 2021).

One of the key distinctions in the nonprofit financial literature is the emphasis on *financial vulnerability*, which refers to an organization's ability to maintain operations and services amidst financial uncertainties or external shocks. Tuckman and Chang's (1991) seminal work contributed to this literature by offering a theoretical framework to assess the financial vulnerability of nonprofit organizations. Their approach identifies financial vulnerability as the likelihood that a nonprofit may experience fiscal distress, potentially leading to a decline in services or even closure. The framework centers on four primary indicators of financial vulnerability: revenue concentration, administrative costs, operating margins, and equity balances (Tuckman & Chang, 1991).

Chang and Tuckman (1994) originally used their framework to evaluate the financial vulnerability of nonprofit hospitals. Their research underscored the need for revenue diversification to increase financial sustainability. Since then, the Tuckman-Chang framework has been widely used in nonprofit research across various subsectors, such as social services (Greenlee & Trussel, 2000), arts and culture (Hager, 2001), higher education (Gordon et al., 2002), religious organizations (Keating et al., 2005), charitable foundations (Wang & He, 2018), and nonprofit sports clubs (Feiler et al., 2023). In addition to applying the Tuckman-Chang framework to describe the financial health of nonprofit organizations, research has used the model to predict the level of financial risk in these nonprofit organizations (Graves, 2021). Past studies have also applied the Tuckman-Chang measures as dependent variables in regression models to examine the determinants of financial vulnerability (Dell et al., 2022; Prentice, 2016b).

As more researchers adopted the Tuckman-Chang framework, the model has been expanded, adapted, and refined through subsequent research. For example, Trussel (2002) extended the model beyond its original four measures by including factors such as the debt ratio and fundraising efficiency. Garcia et al. (2023) constructed a pentagram of five financial vulnerability dimensions, adding performance and reputation to the existing three dimensions of operation, leverage, and liquidity. Keating et al. (2005) integrated the model's measures into broader analyses of organizational sustainability and stability by adding financial metrics such as revenue concentration. Crosby and Robbins (2021) developed immediate-, near-, and long-term fiscal indicators to improve productivity and performance. Other studies have adapted the model to reflect contemporary challenges facing nonprofits, including the Great Recession (Graves, 2021; Tinkelman & Donabedian, 2007) and financial shocks related to the COVID-19 pandemic (Feiler & Breuer, 2021).

Within this evolving literature on nonprofit financial health, Prentice (2016a) conducted a comprehensive literature review and identified over 150 financial measures that were used interchangeably across multiple accounting constructs. He argued that researchers should focus on construct validity by applying dimension reduction techniques to combine multiple measures into indices or component scores (Prentice, 2016a). In another article, he developed a conceptual framework that offers a broader approach to understanding financial health. The framework treats financial capacity, resilience, and solvency as strong health indicators, while considering financial vulnerability, revenue volatility, and bankruptcy as poor health traits (Prentice, 2016b). Importantly, the framework views financial health on a continuum, avoiding arbitrary cutoffs employed in previous studies (Prentice, 2016b). Applying the framework to human services and higher education sub-sectors, Prentice (2016b) found that four indicator variables—solvency, asset change, revenues, and program expenses—converged into a single financial health construct after conducting principal component analyses (PCAs). To examine the determinants of financial health, Prentice (2016b) moved beyond traditional accounting measures to include environmental variables, and found that macroeconomic factors, community factors, and a nonprofit's financial prominence in an organization's service area are strong predictors of nonprofit financial health.

This article builds on Prentice's influential research to develop its analytical framework, as described in the "Data and methods" section.

The financial health of CLTs and CBDOs

CBDOs

CBDOs are a subset of nonprofit organizations dedicated to local economic development, affordable housing, and neighborhood revitalization. Their financial health differs significantly from that of other nonprofits due to several unique aspects. First, CBDOs are often highly dependent on government funding, such as Community Development Block Grants (CDBGs) and Low-Income Housing Tax Credits (LIHTCs), for project financing. This reliance leaves CBDOs financially vulnerable to cuts in public budgets and changes in policy priorities (Vidal & Komives, 1989). Second, CBDOs typically engage in capital-intensive and long-term projects such as affordable housing developments, business incubators, and infrastructure improvements. These projects require significant upfront investments without immediate financial returns, increasing financial vulnerability during the project cycle (Gittell & Wilder, 1999; Walker, 2002). Third, CBDOs are deeply embedded in the communities they serve, making their financial health particularly susceptible to local economic fluctuations (Gittell & Wilder, 1999). Furthermore, their complex financial structures, restricted funding, and limited revenue diversification create distinct challenges in maintaining financial sustainability (Graddy & Wang, 2009; Rubin, 1995; Walker, 2002). On the other hand, CBDOs' asset ownership and community partnerships can provide a buffer against financial risks, allowing them to continue their mission-driven work. While owning real estate assets can provide CBDOs a level of financial resilience, managing these assets can also introduce financial risks, especially if properties fail to generate expected income (Bratt & Rohe, 2007).

A recent empirical study provides an extensive analysis of the financial health of nearly 7,000 CBDOs in the U.S., using IRS tax data from 2001 to 2019 (Lo, Scally, et al., 2022). This longitudinal approach offers unique insights into the financial growth and challenges of the subsector over time. The study examines several key financial health metrics under two categories: funding flows (i.e., revenues and expenses) and leverage and liquidity (i.e., assets and liabilities). It identifies factors related to financial health, including reliance on government funding, the vulnerability of small CBDOs, and the critical role of real estate assets (Lo, Scally, et al., 2022). Lo, Scally, et al. (2022) research is instrumental to this article in terms of selecting financial health measures, as CLTs are a type of CBDO.

CLTs

CLTs acquire and hold land to provide affordable housing and other community assets. Their primary goal is to separate the ownership of land from the ownership of buildings, ensuring long-term affordability and community control. While scaling up residential units can help CLTs cover the costs of stewardship to some extent, CLTs still face financial issues relating to real estate taxes and funding to cover operating costs and expansion, including in some cases securing loans from both social and mainstream lenders to acquire land (Crabtree et al., 2012). Long-term financial sustainability is therefore critical due to the lasting affordability model, as healthy and sustainable financial performance ensures that CLTs can maintain, improve, and expand their portfolio of affordable housing and other real estate developments while covering the operational costs of maintaining land and properties. CLTs need strong financial management to handle the dual responsibilities of property management and land stewardship, often with limited rent or sales revenue streams due to affordability constraints. In this regard, while both CLTs and the broader CBDO sector are community-driven and rely on sound financial health, CLTs require a more focused financial approach to managing lasting affordability and land stewardship.

In response to community needs and local policy landscape, CLTs across the U.S. vary greatly in organizational and program design (Wang et al., 2023). Geographically, CLTs are

present in all four census regions of the U.S. (Grounded Solutions Network, 2024). The establishment of the 313 identified CLTs and shared equity entities in the U.S. spans the past half-century, with formation rates rising over time (Wang et al., 2023). CLTs can be grouped into five main categories based on their governance structure and organizational development phase: traditional CLTs, start-up CLTs, government-housed CLTs, nonprofits with a CLT/shared equity program, and adapted CLTs (Wang & Spicer, 2024). CLTs also operate at starkly different scales, from a single neighborhood to an entire state (Wang et al., 2023), with larger service areas perhaps emphasizing more on residential portfolio growth and less on community control-related goals (DeFilippis et al., 2018). In addition to shared equity homeownership units and rental units as the two main residential types, CLTs engage in various residential-related activities, such as property management, home repairs, and homebuyer counseling, as well as nonresidential activities, including community organizing, commercial development, and social services. These organizational and program variations in CLTs have direct implications for revenue streams, cost structures, and risk factors, significantly affecting CLTs' financial performance and health (Lee et al., 2024; Miller, 2015; Palmer, 2019).

Measuring performance in the CLT field

Emerging literature on CLT evaluation has focused on the model's beneficiaries, rather than organizational performance and sustainability. In 2009, the Champlain Housing Trust, the country's largest CLT, published a landmark report assessing affordability preservation, wealth creation, and residential mobility for two objectives: the individual homeowner and the community at large (Davis, 2009). This original analytical framework for evaluating CLT outcomes has been applied and adapted to subsequent studies (Temkin et al., 2010; Wang et al., 2019) and tools such as the HomeKeeper National Data Hub Dashboard of the Grounded Solutions Network. In separate studies, researchers have also empirically examined specific aspects under this framework, demonstrating that CLTs can increase residential stability (Nelson et al., 2020; Thaden, 2011), reduce gentrification (Choi et al., 2018), enhance wealth creation (Acolin et al., 2021), reduce mortgage debt (Theodos et al., 2019), and advance racial and ethnic equity (Lowe et al., 2022; Wang & Thaden, 2022). More recent research has examined factors associated with the number of units in CLTs (Lee et al., 2024). However, the existing evaluation framework does not cover organizational performance and management. This study fills this gap in the literature by examining the financial health and sustainability of CLTs.

Wang et al. (2023) study presents the only research that evaluates the financial performance of CLTs. The study found that, in general, a subset of 147 CLTs in the U.S. outperformed the overall CBDO sector in key financial health indicators in 2018. Specifically, compared to CBDOs, CLTs are less likely to have negative net income or be insolvent, less likely to experience financial disruption—measured as a decrease of 25% or more in net assets within 12 months, and show greater growth potential in terms of liabilities (Wang et al., 2023). However, there is also evidence of financial instability in the CLT field, as a higher percentage of CLTs experienced funding flow shocks compared to CBDOs (Wang et al., 2023). The study falls short in comparing financial measures over time and does not examine factors that affect CLT financial performance.

In summary, the literature on nonprofit financial health has evolved into a distinct field reflecting the core value of mission advancement and the sector-specific risks of financial instability. This growing body of work has prompted the examination of financial health across nonprofit subsectors. However, research on the financial health of CLTs remains limited, highlighting the need for further exploration into the factors driving their financial performance. Seminal studies, including Prentice (2016b) and Lo, Scally, et al. (2022), not only guide the development of this study but also provide useful information for comparison purposes.

Data and methods

Data sources

Annual data for CLTs' financial health measures is based on the IRS Statistics of Income (SOI) program, which includes all numbered items from Forms 990 and 990-EZ for all charitable and exempt organizations in the U.S. with 501(c)(3) status from 2012 to 2021. To identify CLTs in the IRS dataset, I used data from the Grounded Solutions Network's (GSN) new national CLT and shared equity entity study (Wang et al., 2023). Of the 313 CLTs and shared equity entities identified in the study, I excluded those that are not CLTs or did not have a CLT program ($n = 50$). I then conducted a web search to assign the Employer Identification Number (EIN) to each CLT. The EIN, used in this study to connect the CLT dataset with the IRS SOI dataset, is a unique nine-digit number assigned by the IRS to business entities. For the remaining CLTs, I further excluded those without 501(c)(3) status and those too small to be required to file Forms 990 or 990-EZ ($n = 84$). According to Wang et al. (2023), less than 5% of CLTs are operated by a government entity or have a tax status other than 501(c)(3), thus are not included in the IRS SOI dataset. The 990-EZ form is intended for small- to medium-sized organizations with annual gross receipts between $50,000 and $200,000 and total assets of less than $500,000. Organizations with annual gross receipts below $50,000 are generally not required to file a 990-EZ form. As a result, I included 179 CLTs in the comparative analysis for the first research question, representing 68% of all CLTs in the U.S.

The list of CBDOs, including their names and EINs, is based on the Urban Institute's *Community-Based Development Organization Sector and Financial Datasets*. The original list includes a total of 6,897 CBDOs derived from a wide range of local, state, and federal resources. Lo, Lecy, et al. (2022) described data sources and the approach used to compile the list in detail. This list primarily consists of community development corporations and other nonprofit organizations specializing in affordable housing provision, including CLTs. See Appendix A referenced in Lo, Lecy, et al. (2022) for the list of CBDO sources. After merging the list with the IRS SOI dataset for the study period (2012–2021) and excluding CLTs, 5,401 CBDOs remain for comparative analysis.

For the second research question, I relied on a subset of 101 CLTs that responded to GSN's 2022 national survey, which includes information on organizational characteristics, residential portfolio types, and nonresidential development activities. Figure 1 illustrates that the CLTs included in this study are distributed across most states where a CLT exists.

IRS SOI data is supplemented by the National Center for Charitable Statistics (NCCS) database of the Urban Institute, which includes Federal Information Process Standard (FIPS) codes to identify the counties in which CLTs are located, allowing for calculation of the regional share of revenues. Data on gross domestic product (GDP) and GDP by state for the years 2012 to 2021 come from the Bureau of Economic Analysis. Population density and median household income data for the same period are based on the American Community Survey (ACS) datasets hosted by the U.S. Bureau of the Census. I used the 2021 ACS 5-year estimates to cover 2017 to 2021 and the 2016 ACS 5-year estimates to cover 2012 to 2016. To account for inflation, I adjusted all values to 2021 dollars using the consumer price index. All data sources mentioned above are publicly available for free download.

Measuring CLT financial health

For this study, I adopted Prentice's (2016b) inclusive conceptualization by applying multiple continuous measures to capture a broadened view of nonprofit financial health. However, I did not directly use the four measures from Prentice's (2016b) study; instead, I selected a different set of measures based on Lo, Scally, et al. (2022) conceptual framework, which is specifically developed for CBDOs. From the many measures employed in Lo, Scally, et al. (2022) study, I avoided volume-based measures (e.g., revenue amount, program expenses), as these are highly related to the size and development stage of CLTs.

Prentice (2016b) used two volume-based, absolute measures: revenues and program expenses. These two measures are reasonable because that study focuses on human services and higher education sectors, where size can be an important indicator of financial health. However, for CBDOs and, more specifically,

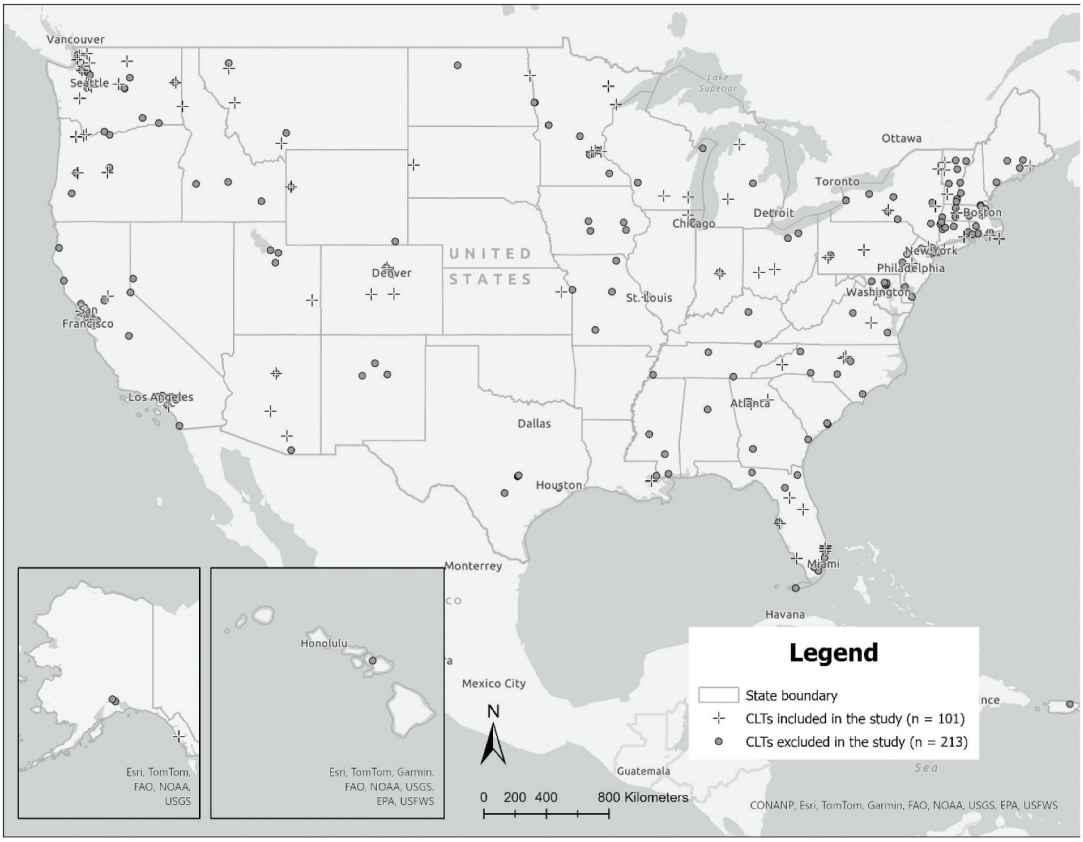


Figure 1. Map of sample and all community land trusts in the United States. Source: GSN CLT database (2023).

for this study on CLTs, startups and small-sized organizations can still be in a strong financial position due to their scope of service areas and the varying focuses of their community development activities.

Thus, I selected four financial measures for this study. The first is the *margin*, which falls under the category of funding flow in Lo, Scally, et al. (2022) framework and represents the difference between an organization's revenue and expenses as a percentage of total revenue. A positive and higher margin indicates that an organization generates substantial revenue compared to its spending, contributing to financial stability and sustainability. The second measure is the *self-sufficiency ratio*, also within the funding flow category, calculated as an organization's annual earned income divided by its total expenses. A higher self-sufficiency ratio suggests that a nonprofit generates a significant portion of its income through its own activities, indicating less reliance on donations, grants, or external funding, and implying greater financial resilience and operational efficiency. The self-sufficiency ratio is also an important indicator of short-term liquidity because an organization's ability to generate revenue and raise unrestricted operating funds supports staff salaries and the growth of organizational capacity.

The third measure is *annual asset change*, a key indicator of an organization's leverage in Lo, Scally, et al. (2022) framework and also used by Prentice (2016b). Asset growth signals an organization's improved programmatic capacity and strong financial management, which point to enhanced financial stability and long-term sustainability. The final measure is the *net assets-to-total-asset ratio*, an important indicator of liquidity. This ratio shows the share of an organization's assets that are funded by its own recourses (i.e., net assets) rather than by debt (i.e., liabilities). A higher ratio indicates lower financial risk and better operational flexibility, contributing to increased financial stability and sustainability.

Following Prentice's (2016b) approach, I first performed PCAs-one PCA for each of the 10 years—to test whether these four measures have sufficient convergence to warrant dimension reduction. However, unlike Prentice's (2016b) study, which successfully reduces four measures into a unidimensional financial health construct, the results of the PCAs consistently fail to show a single component. Full PCA results for each year are provided in Appendix 1. These results suggest that for the CLT field, the selected measures represent different aspects of financial health.

Approach to compare financial health between CLTs and CBDOs

To address the first research question—whether CLTs differ in financial position from the rest CBDO sector over time—I compared four financial health measures of CLTs with those of CBDOs from 2012 to 2021. According to Lo, Scally, et al. (2022), the level of real estate holdings in CBDOs plays a crucial role in distinguishing their financial health. Those with a larger portion of their assets in land, buildings, and equipment (LBE)—an indicator of stable revenues and expenses, tend to experience fewer financial shocks and greater self-sufficiency. However, they face higher leverage, reduced liquidity, and a higher risk of insolvency.

During the study period, the average LBE-to-total-asset ratios are comparable between CLTs and CBDOs, both hovering around 0.4 (Appendix 2). Despite this overall similarity, I stratified CBDOs into quartiles each year based on their LBE-to-total-asset ratio and compared the four financial health measures of CLTs with those of each CBDO quartile.

Analytic plan for predicting CLT financial health

Building on Prentice (2016b) method, this study addresses the second research question by employing a generalized estimating equations (GEE) model, an extension of generalized linear models designed to accommodate correlated data. The GEE model makes it suitable for the analysis of the longitudinal data used in this study. I constructed four GEE models, each using the natural log of one financial measure as the dependent variable. For each model, I applied a backward variable selection process following Prentice's (2016b) approach, where all potential predictor variables are initially included, and the least significant variable is removed one at a time until all remaining variables are significant ($p < .1$).

For the independent variables in the GEE models, I first included a set of CLT variables to test whether organizational and program factors are associated with CLT financial health. Based on the literature review of CLT variations, I utilized six variables: region (Northeast, South, West, Midwest), service area (one or more neighborhoods, single city or county, multiple counties or larger), CLT type (traditional CLT, adapted CLT, startup, nonprofit with CLT/shared equity program), organization establishment year, shared equity homeownership unit presence, and rental unit presence.

These variables may influence the financial health of CLTs in various ways. Regional and local differences in housing markets and policy environments can affect operating costs and the demand for CLT services. Variation in the type of service area may impact access to resources. Well-established models may have stronger organizational systems and more reliable funding pipelines than startups or hybrid forms. Additionally, the presence of specific types of housing units may affect income streams and demonstrate mission alignment, thereby boosting funder confidence.

One limitation of the CLT survey data obtained from GSN is its cross-sectional nature, which differs from the longitudinal analysis pursued for this study. While other organizational and program characteristics may impact CLT financial health, I selected these variables because they either remain constant (i.e., region), are relatively stable over time (i.e., service area), or can be transformed into panel data (i.e., CLT type, organization establishment year, shared equity homeownership unit presence, and rental unit presence).

The CLT dataset includes information about the years in which each organization developed or acquired its first shared equity homeownership unit and its first rental unit. This information enables the construction of a longitudinal dataset with binary variables indicating

the presence of shared equity homeownership and rental units. It also helps identify startup phases for certain CLTs across the three CLT types. For example, a traditional CLT that developed its first shared equity homeownership unit in 2015—its only residential unit type—would be coded as follows: for the variable shared equity homeownership unit presence, the CLT is coded as 0 (no unit) for the years 2012–2014 and 1 (unit present) for the years 2015–2021; for the variable rental unit presence, it is coded as 0 for all 10 years; and for the variable CLT type, it is categorized as startup for the years 2012–2014 and traditional CLT for the remaining years.

Additionally, I included the same accounting variables and environmental variables introduced in Prentice (2016b) study. The eight accounting variables are: total net assets to total revenue ratio, net income to total assets ratio, net income, months of spending, commercial revenue to total revenue ratio, revenue diversification index, natural log of total assets, and land, building, and equipment ratio. These accounting variables reflect asset base and revenue structure, key indicators of an organization's ability to sustain operations and adapt to financial shocks.

The seven environmental variables are: gross domestic product, GDP by state, population density, median household income, national revenue share, state revenue share, and regional (county-level) revenue share. These environmental variables represent the broader economic and demographic conditions that influence funding availability, housing demand, and cost pressures. Prentice (2016b) provides a detailed rationale for selecting each of these variables. Table 1 lists

Table 1. Data source and summary statistics.

Variable	Source	Mean (SD)/%
Financial health indicators:		
Ln(Margin)	IRS SOI, 2012–2021	2.17 (0.11)
Ln(Self-sufficiency ratio)	IRS SOI, 2012–2021	0.66 (0.21)
Ln(1-year asset change)	IRS SOI, 2012–2021	9.35 (0.42)
Ln(Net assets to total asset ratio)	IRS SOI, 2012–2021	0.94 (0.12)
CLT organizational variables:		
Region (Northeast, South, West, Midwest)	GSN 2023 CLT database	19%, 20%, 16%, 45%
Service area(one/more neighborhoods, single city/county, multiple counties/larger)	GSN 2023 CLT database	10%, 58%, 32%
Type (traditional CLT, adapted CLT, startup, nonprofit with CLT/shared equity)	GSN 2023 CLT database	25%, 32%, 13%, 30%
Year of establishment	GSN 2023 CLT database	1996 (10.22)
Shared equity homeownership unit presence (1 = yes)	GSN 2023 CLT database	80%
Rental unit presence (1 = yes)	GSN 2023 CLT database	45%
Accounting variables:		
Total net assets/total revenue	IRS SOI, 2012–2021	5.20 (31.31)
Net income/total assets	IRS SOI, 2012–2021	0.06 (0.16)
Net income	IRS SOI, 2012–2021	749,771 (2,162,518)
Months of spending	IRS SOI, 2012–2021	22.58 (72.13)
Commercial revenue/total revenue	IRS SOI, 2012–2021	0.36 (0.38)
Revenue diversification index	IRS SOI, 2012–2021	8,273.57 (41,134.96)
Ln(total assets)	IRS SOI, 2012–2021	15.47 (1.42)
Land, buildings, and equipment ratio	IRS SOI, 2012–2021	0.42 (0.36)
Environmental variables:		
GDP	BEA, 2012–2021	21,516,323 (1,356,635)
GDP by state	BEA, 2012–2021	744,681 (782,666)
Population density	2016 and 2021 ACS 5-year estimates	1,647.07 (3,029.68)
Median household income	2016 and 2021 ACS 5-year estimates	71,664 (19,530)
National revenue share	IRS SOI, 2012–2021	3.48E–05 (5.46E–05)
State revenue share	IRS SOI, 2012–2021	2.57E–03 (6.84E–03)
Regional revenue share	NCCS, 2012–2021	0.05 (0.11)

Notes: n = 727. SD = standard deviation. CLT = community land trust. IRS SOI = U.S. Internal Revenue Service's Statistics of Income program. GDP: gross domestic product. BEA = Bureau of Economic Analysis, U.S. Department of Commerce. ACS = U.S. Census American Community Survey. NCCS = Urban Institute's National Center for Charitable Statistics. GSN = Grounded Solutions Network.

Sources: IRS SOI (2012–2021); GSN CLT database (2023); BEA (2012–2021); and ACS 5-year estimates (2016, 2021).

all the variables included in the GEE models, along with their data sources and summary statistics.

Findings

Comparing financial health measure between CLTs and CBDOs

According to Figure 2, CLTs exhibit a positive and upward trend in median margins, increasing from 0.08 in 2012 to 0.32 in 2021. In contrast, median self-sufficiency ratios declined from 0.42 to 0.31 over the same period. Both trends suggest that CLTs generated a growing share of revenues from sources other than program income relative to their expenses.

This increase in margins appears to correlate with asset growth, as shown in Figure 2c by the substantial rise in median annual asset changes (from $119,000 to $426,000) and in Figure 2d by the increase of median net-assets-to-total-asset ratios (from 0.75 to 0.81). These trends do not follow a linear pattern, although becoming more pronounced after 2015.

Consistent with the empirical findings by Lo, Scally, et al. (2022), the level of real estate holdings is positively associated with the self-sufficiency ratio and negatively associated with margin, annual asset change, and net assets-to-total-asset ratio, as illustrated in Figure 2 by quartiles of LBE-to-asset ratio for CBDOs. Compared to CBDOs, CLTs consistently outperform the highest quartile of CBDOs in median margin and annual asset growth. Additionally, CLTs are on par with the better-performing CBDOs in the other two financial measures: they generally fall within the third and fourth quartiles of CBDOs in terms of median self-sufficiency ratios and within the first and second quartiles of CBDOs in terms of median net assets-to-total-asset ratios. These findings suggest that CLTs rank among the top-performing CBDOs in key financial health indicators.

Predicting CLT financial health

To answer the second question, I first compared the CLTs included in the study ($n = 101$) with those from the original nationwide dataset ($n = 313$) for a limited number of characteristics known to the CLT/shared equity population. The results are shown in Table 2. Compared to the CLT/shared equity population, the sample CLTs have a higher representation in the West region (44.6% vs. 37.1%) and a lower representation in the South region (15.8% vs. 20.1%). Additionally, the sample CLTs tend to be older: compared to all CLTs in the nation, a larger portion in the sample was established before 2000 (55.4% vs. 42.2%), and a smaller portion was established after 2010 (22.8% vs. 35.2%). I calculated the percentages for the CLT population after having excluded CLTs with unknown establishment year, hence slightly different from what is shown in Table 2. Nine out of ten sample CLTs have at least one shared equity homeownership unit, substantially higher than 63.9% in the CLT population. This comparison suggests that the CLT sample differs from the broader population in key characteristics relevant to this study.

The GEE results for the margin are reported in Table 3. Of the six CLT variables in the model, only the establishment year is statistically significant. Younger CLTs are associated with a lower margin, suggesting that more established CLTs experience higher returns on revenue. Six of the eight accounting variables, except for total assets and the land, building, and equipment ratio, are statistically significant. The results in Table 3 support the hypothesis that better returns on revenue are linked to stronger financial health—reflected by higher net income-to-total-assets ratio, net income, months of spending, and revenue diversification, suggesting greater efficiency and sustainability in managing resources. However, the coefficients for the total net assets-to-total-revenue ratio and the commercial revenue-to-total-revenue ratio are negative, suggesting that greater financial resources relative to revenue and a larger share of revenue from commercial sources lead to lower returns on revenue. Among the environmental variables, an increase in the

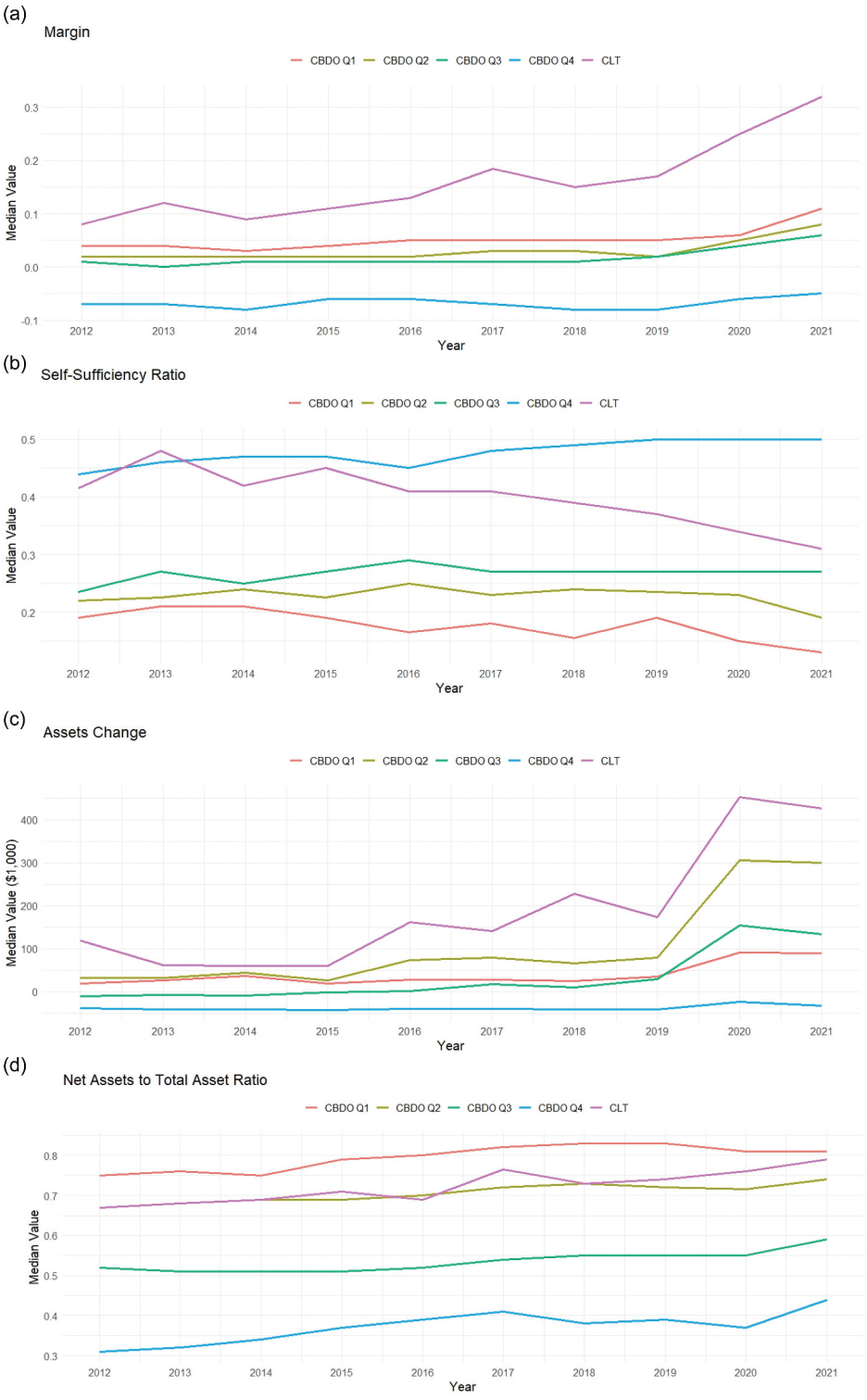


Figure 2. Comparisons of median financial health measures between community land trusts and community-based development organizations by quartiles of LBETA ratio (land, building, and equipment as a share of total assets), 2012–2021. (a) Margin; (b) self-sufficiency ratio; (c) annual assets change; (d) net assets-to-total-asset ratio. Sources: IRS SOI (2012–2021); and GSN CLT database (2023).

Table 2. Comparison of community land trust characteristics between sample and population.

CLT Characteristics	Sample No. (%)	Population No. (%)
Total	101 (100.0%)	313 (100.0%)
Distribution		
Northeast	22 (21.8%)	82 (26.2%)
Midwest	18 (18.8%)	52 (16.6%)
South	16 (15.8%)	63 (20.1%)
West	45 (44.6%)	116 (37.1%)
Period of adoption		
1989 and prior	26 (25.7%)	54 (17.3%)
1990s	30 (29.7%)	49 (15.7%)
2000s	22 (21.8%)	55 (17.6%)
2010–2022	23 (22.8%)	86 (27.5%)
Don't know	0 (0%)	69 (22.0%)
Shared equity homeownership unit presence		
Yes	91 (90.1%)	200 (63.9%)
No	10 (9.9%)	101 (32.3%)
Don't know	0 (0%)	12 (3.8%)

Source: GSN CLT database (2023).

regional revenue share is associated with a higher margin, while increases in GDP by state and state revenue share also lead to higher margins. However, the hypothesis that increases in the gross domestic product, population density, median household income, and national revenue share would yield higher margins are not supported.

Table 4 presents the GEE results for the self-sufficiency ratio. Compared to CLTs in the West, those in the South are associated with lower self-sufficiency. Self-sufficiency ratios for CLTs in the Midwest and Northeast are not statistically different from those in the West. The hypothesis for the other five CLT variables is not supported. For the accounting variables, self-sufficiency increased with key indicators of organizational strength and financial independence, including net income, commercial revenue-to-total-revenue ratio, revenue diversification, and the natural log of total assets. However, an increase in the total net assets-to-total-revenue ratio lead to lower self-sufficiency, reflecting the limited ability of CLTs to leverage their assets to support ongoing operations. Only two of the seven environmental variables were statistically significant: increases in GDP by state and national revenue share are associated with lower self-sufficiency.

Table 3. Generalized estimating equations results—margin.

			Hypothesis test	
	B	SE	Wald chi-square	Significance
(Intercept)	4.610	1.120	16.81	0.000
CLT organizational variable:				
Year of establishment	−1.22E−03	5.63E−04	4.68	0.030
Accounting variables:				
Total net assets/total revenue	−6.26E−04	3.73E−04	2.82	0.093
Net income/total assets	0.136	0.035	15.35	0.000
Net income	6.04E−09	1.40E−09	18.50	0.000
Months of spending	1.62E−04	3.07E−05	27.69	0.000
Commercial revenue/total revenue	−0.063	0.022	7.88	0.005
Revenue diversification index	6.11E−07	1.41E−07	18.73	0.000
Environmental variables:				
GDP by state	−7.75E−09	4.61E−09	2.83	0.093
State revenue share	−0.873	0.351	6.19	0.013
Regional revenue share	0.084	0.049	2.87	0.090

Notes: Dependent variable: ln(margin). $n = 727$. Trimmed model quasi-likelihood under independence criterion (QIC) = 47.41; full model QIC = 85.7.

Sources: IRS SOI (2012–2021); GSN CLT database (2023); BEA (2012–2021); and ACS 5-year estimates (2016, 2021).

Table 4. Generalized estimating equations results—self-sufficiency ratio.

			Hypothesis test	
	B	SE	Wald chi-square	Significance
(Intercept)	0.287	0.090	10.09	0.002
CLT organizational variable:				
[Region = Midwest]	−0.018	0.022	0.65	0.420
[Region = Northeast]	−0.021	0.016	1.92	0.166
[Region = South]	−0.044	0.022	4.05	0.044
[Region = West]	0	–	–	–
Accounting variables:				
Total net assets/total revenue	−5.10E−04	9.52E−05	28.75	0.000
Net income	1.70E−08	3.54E−09	23.10	0.000
Commercial revenue/total revenue	0.431	0.042	104.81	0.000
Revenue diversification index	2.85E−06	2.51E−07	129.52	0.000
Ln(total assets)	0.015	0.006	6.93	0.009
Environmental variables:				
GDP by state	−2.27E−08	1.03E−08	4.84	0.028
National revenue share (by 1,000)	−0.370	0.166	4.97	0.026

Notes: Dependent variable: ln(self-sufficiency ratio). $n = 727$. QIC = 41.2; full model QIC = 212.6.
Sources: IRS SOI (2012–2021); GSN CLT database (2023); BEA (2012–2021); and ACS 5-year estimates (2016, 2021).

In terms of annual asset change, the GEE results show that only one independent variable achieved statistical significance (Table 5). As net income increases, so did the annual change in assets. However, the coefficient is very small, indicating that annual income constitutes only a small fraction of CLTs' assets.

For the net assets-to-total-asset ratio, the GEE results show that two of the six CLT variables achieved statistical significance. Compared to traditional CLTs, startups have a higher net assets-to-total-asset ratio, while adapted CLTs and nonprofits with a CLT/shared equity program are not statistically different. CLTs with shared equity homeownership units are also associated with a higher net assets-to-total-asset ratio than those without. Among the accounting variables, increases in net income-to-total-assets ratio and months of spending are associated with higher net assets-to-total-asset ratios, suggesting that greater reserve capacity lead to higher net assets relative to revenue. In contrast, net assets-to-total-asset ratios decrease with higher commercial revenue-to-total-revenue ratios and revenue diversification, This finding suggests that higher commercial and diversified revenues may involve more spending, reinvestment or restrictions, reducing the growth of net assets relative to total assets. The hypothesis regarding the other four accounting variables is not supported. Finally, among the environmental variables, only the regional revenue share is statistically significant, with a positive coefficient, indicating that an increase in regional revenue share boosts the net assets-to-total-asset ratio. These results are reported in Table 6.

Discussion

As a subgroup of the CBDO sector, CLTs' centrality of land retention and lasting affordability necessitates a focused financial approach that may result in either poor financial performance or,

Table 5. Generalized estimating equations results—1-year asset change.

			Hypothesis test	
	B	SE	Wald chi-square	Significance
(Intercept)	9.290	0.028	110371.60	0.000
Net income	8.36E−08	1.98E−08	17.80	0.000

Notes: Dependent variable: ln(1-year asset change). $n = 727$. QIC = 124.5; full model QIC = 163.2.
Sources: IRS SOI (2012–2021); GSN CLT database (2023); BEA (2012–2021); and ACS 5-year estimates (2016, 2021).

Table 6. Generalized estimating equations results—net assets to total asset ratio.

			Hypothesis test	
	B	SE	Wald chi-square	Significance
(Intercept)	0.889	0.034	695.13	0.000
CLT organizational variables:				
[Type = adapted CLT]	0.006	0.027	0.06	0.813
[Type = nonprofit with CLT/shared equity]	0.010	0.025	0.17	0.682
[Type = startup]	0.081	4.40E–02	3.46	0.063
[Type = traditional CLT]	0	–	–	–
[Shared equity homeownership unit presence = 1]	0.073	0.032	5.02	0.025
[Shared equity homeownership unit presence = 0]	0	–	–	–
Accounting variables:				
Net income/total assets	0.175	0.052	11.16	0.001
Months of spending	2.10E–04	6.23E–05	11.37	0.000
Commercial revenue/total revenue	−0.113	0.032	12.20	0.000
Revenue diversification index	−9.95E–07	2.15E–07	21.44	0.000
Environmental variable:				
Regional revenue share	0.131	0.058	5.17	0.001

Notes: Dependent variable: ln(net assets to total asset ratio). $n = 727$. QIC = 84.66; full model QIC = 192.37.
Sources: IRS SOI (2012–2021); GSN CLT database (2023); BEA (2012–2021); and ACS 5-year estimates (2016, 2021).

conversely, strong financial health. However, empirical research examining the financial health of the CLT model remains limited. Motivated by this gap in knowledge, this study builds on previous research by comparing the financial health of CLTs with that of CBDOs and identifying the organizational characteristics associated with nonprofit financial health. The findings offer new ways to operationalize nonprofit financial health and illuminate the factors affecting financial health in the CLT field.

The four financial measures used in this study—margin, self-sufficiency ratio, annual asset change, and net assets-to-total-asset ratio—capture all aspects of the financial health framework developed by Lo, Scally, et al. (2022) for CBDOs, namely, funding flow, leverage, and liquidity. However, unlike Prentice's (2016b) study, these four financial measures did not converge into a single financial health construct. According to Prentice (2016a), this lack of convergence appears to be more of a norm rather than an exception, and the findings of this study support that conclusion. This discrepancy may be partially attributed to differences in selected financial measures. For instance, Prentice's (2016b) study included volume-based measures like revenue and program expenses, which are likely to correlate strongly with other selected measures. Subsector differences may also play a role: whereas Prentice (2016b) focused on higher education and human services, this study examines the CLT model, which differs in organizational operations, business focus, and financial structure.

The comparison of financial health measures over time between CLTs and CBDOs extends the findings of a previous study (Wang et al., 2023) that focused on a single year. The results suggest that CLTs rank among the top-performing CBDOs in terms of financial positions. The empirical evidence aligns with the core attributes in CLT financial models and operational structures. CLTs consistently show higher margins than CBDOs, likely due to their focus on building community assets with lasting affordability. These real estate activities generate steady and predictable income streams such as ground leases, developer fees, rents, and housing sales. Additionally, CLTs' emphasis on long-term solutions enhances their ability to access external revenues. While CLTs can leverage their track record of long-term development portfolios to secure funding from both social and mainstream lenders, their liabilities remain manageable. In fact, they maintain relatively high net assets-to-total-asset ratios, comparable to CBDOs with lower levels of real estate holdings. Ultimately, stronger margins enable CLTs to build reserves and expand their land portfolios, as reflected in their higher annual asset growth compared to CBDOs.

In addition, I found that CLTs are comparable to top-quartile CBDOs with real estate holdings in generating program revenue relatively to their total revenue, particularly in the early years of the study period. However, the median self-sufficiency ratios of CLTs have consistently remained below 0.5 and have steadily declined since 2015, indicating that external funding sources—such as grants, subsidies, and donations—have become increasingly significant in their total revenue. This finding underscores that, like other CBDOs, CLTs have limited capacity to fully self-finance through earned income alone.

The regression analyses produced several findings that enhance our understanding of nonprofit financial health. First, expanding beyond previous studies that focused solely on accounting variables as intra-organizational factors, this study included organizational characteristics. I found that at least one organizational variable is statistically significant in predicting three out of the four financial measures (except for annual asset change). However, these organizational characteristics are not consistently strong predictors across different financial health concepts. For example, organization age and location are associated with funding flow indicators (i.e., margin and self-sufficiency ratio), while CLT type and the presence of shared equity homeownership units are tied to liquidity (i.e., net assets-to-total-asset ratio). In contrast, service area and the presence of rental unit were not statistically significant for any financial health measures, suggesting that these variables—derived from survey data—did not have a readily measurable impact on overall organizational financial performance.

According to Prentice (2016b), "if we want to ensure nonprofit financial bottom lines are sound, we should shift our focus away from accounting ratios and revenue measures exclusively and toward including environmental factors" (p. 890). This article suggests that studies on nonprofit financial health should adopt a more nuanced approach by considering within-subsector dynamics that include organizational characteristics.

Second, this study contributes to the ongoing debate about whether accounting variables are significant predictors of financial health. I found that for CLTs, most accounting variables included in the study are indeed strong predictors. Specifically, consistent with previous studies (Keating et al., 2005; Ohlson, 1980), net income and months of spending are positively associated with financial health measures. However, contrary to Keating et al. (2005) findings, as the ratio of net income-to-total-assets increased and the ratio of total net assets-to-total-revenue decreased, financial health improved. These findings suggest that CLTs efficiently use their resources to support their mission by generating more surplus for every dollar of assets they hold (hence higher ratio of net income-to-total-assets), or they actively use their net assets for program activities rather than simply building up reserves (hence the lower ratio of total net assets-to-total-revenue).

Also contrary to past evidence (Keating et al., 2005; Prentice, 2016b; Trussel, 2002), I found that total assets in CLTs—a common proxy for organizational size—are not associated with most financial health indicators, except for self-sufficiency. This suggests that total assets in CLTs reflect mission-driven growth and physical footprint more than operational or financial performance.

Additionally, while revenue diversification is generally seen as a way to improve financial stability, I found that revenue diversification can sometimes be negatively associated with financial health measures. This suggests that for CLTs, revenue diversification may be risky if it leads to mission drift, administrative complexity, or increased exposure to market risks. To protect financial health, CLTs must carefully balance diversification with their mission, ensuring that new revenue streams enhance rather than detract from their long-term community-focused goals.

Third, the proposal environmental variables are significantly associated with financial health, although the associations are generally not strong. These findings support the notion that extra-organizational factors influence nonprofit financial health (Prentice, 2016b). The significant findings suggest that macroeconomic factors (e.g., GDP by state) and an organization's financial prominence among peer organizations at the regional, state, and national levels can improve CLTs' financial health.

Limitations

This research is based on data from the IRS SOI and NCCS, both of which have a sampling bias toward more established organizations. The comparative analysis between the CLT sample and population confirms this limitation, as CLTs in the sample tend to be older, more likely to have shared equity homeownership units, and located in the West. According to the GEE analyses, all these CLT organizational characteristics were positively associated with financial health. Therefore, the findings of this study should be interpreted with caution regarding their generalizability.

This study used selected CLT survey data to develop a limited number of variables that capture organizational characteristics over time. The data and the resulting GEE analysis do not allow for measuring the quality or effectiveness of CLT work, nor do they provide detailed information about funding sources, such as public support. This limitation may underestimate the scope and strength of associations between organizational characteristics and CLT financial health measures.

Another limitation arises from using GEE to model financial health. GEE is a population-averaged approach, meaning it produces results that reflect the average response across organizations over time rather than changes at the individual level. Additionally, the method design addresses associations between independent variables and financial health measures, not causality. Consequently, variations in the independent variables offer averaged association results that are applicable to the entire sample.

Conclusion

This study contributes to the literature by examining the financial health of CLTs over time and identifying which factors are associated with their financial health. There are three key findings. First, each of the four selected financial measures—margin, self-sufficiency ratio, annual asset change, and net assets-to-total-asset ratio—represents a distinct concept of financial health. Second, CLTs are on par with top-performing CBDOs in terms of financial position. Third, organizational characteristics—including the organization's age, location, CLT's type, and the presence of shared equity units—are associated with CLT financial health.

Together, the results suggest that while the CLT model's focus on land retention and lasting affordability has led to overall strong financial performance, variations in organizational structure and programmatic priorities can impact CLTs' financial health. Also, like other CBDOs, CLTs continue to rely on external funding sources—such as grants, subsidies, and donations.

The four selected financial measures focus on the stability and sustainability aspects of financial health. These are non-traditional metrics for determining bankability for CLTs and other nonprofit affordable housing developers. Findings from this study suggest that lenders to CLTs should consider incorporating additional metrics, like those used in this study, to redefine their bankability standards in a way that is tailored to the CLT field.

Future research should investigate how organizational factors influence nonprofit financial health, using diverse data across different subsectors to better understand how CLTs can enhance their financial sustainability. Another important direction is to validate financial health indicators by examining their relationship to mission-driven outcomes—such as the ability to house families efficiently, maintain long-term affordability, provide supportive services, and enable families to build equity. Building on this study, researchers might also explore the feasibility of developing a financial health index. While a single index may offer simplicity and ease of use, the results of this study suggest that financial indicators do not always align consistently.

Acknowledgments

I am grateful for the insightful comments provided by five anonymous reviewers and for the detailed feedback from editor Katrin B. Anacker. Additionally, I thank Jackie Burkett, Junxi (Cissi) Xu, and Richard Zhou for their research assistance. I also thank Grounded Solutions Network for supporting this research through data sharing. My gratitude extends to every community land trust practitioner who contributed to the 2022 CLT Census study.

AI: I used ChatGPT (version 4) to support copyediting and sentence refinement during manuscript preparation.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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Appendix 1

Table A1. Financial health component loadings by year and component.

			Component Loadings			
			Indicator 1	Indicator 2	Indicator 3	Indicator 4
Year	Eigenvalue	% of Cumulative Variance	Margin	Self-Sufficiency Ratio	1-Year Asset Change	Net Assets/Total Asset Ratio
Component 1						
2012	1.437	35.9%	-0.553	0.275	-0.682	-0.392
2013	1.630	40.8%	-0.622	0.413	-0.116	-0.655
2014	1.779	44.5%	-0.573	0.274	-0.514	-0.576
2015	1.650	41.3%	-0.619	-0.322	-0.557	-0.45
2016	1.453	36.3%	-0.649	-0.355	-0.329	-0.588
2017	1.326	33.1%	0.713	-0.038	0.151	0.684
2018	1.225	30.6%	0.466	-0.434	0.346	0.689
2019	1.392	34.8%	0.295	0.686	0.333	-0.576
2020	1.419	35.5%	-0.664	-0.232	-0.631	-0.328
2021	1.457	36.4%	0.411	0.575	0.419	-0.569
Component 2						
2012	1.135	64.3%	-0.563	-0.819	0.115	0.019
2013	1.049	67.0%	-0.238	-0.335	-0.895	0.174
2014	0.996	69.4%	-0.312	-0.886	-0.304	0.159
2015	1.128	69.5%	0.244	-0.695	-0.341	0.584
2016	1.084	63.4%	0.129	0.701	-0.676	-0.187
2017	1.172	62.4%	0.285	0.71	0.524	-0.374
2018	1.166	59.8%	0.598	0.619	0.449	-0.241
2019	1.053	61.1%	-0.689	0.1	-0.495	-0.52
2020	1.217	65.9%	-0.033	-0.731	-0.05	0.68
2021	1.002	61.5%	0.565	-0.404	0.579	0.427
Component 3						
2012	0.925	87.4%	-0.166	0.085	-0.357	0.915
2013	0.865	88.6%	0.370	0.824	-0.361	0.232
2014	0.696	86.8%	-0.293	-0.252	0.767	-0.512
2015	0.691	86.8%	0.174	-0.633	0.571	-0.493
2016	0.805	83.5%	0.044	-0.472	-0.646	0.598
2017	0.957	86.4%	0.131	0.578	-0.802	0.073
2018	0.946	83.4%	0.352	0.369	-0.771	0.382
2019	0.918	84.1%	-0.596	-0.121	0.794	0.011
2020	0.724	84.0%	0.434	0.346	-0.760	0.338
2021	0.984	86.1%	-0.590	0.412	0.564	0.405
Component 4						
2012	0.504	100.0%	0.592	-0.497	-0.628	-0.091
2013	0.456	100.0%	-0.648	0.197	0.234	0.698
2014	0.530	100.0%	0.699	-0.276	-0.235	-0.617
2015	0.530	100.0%	0.726	0.110	-0.497	-0.462
2016	0.659	100.0%	0.749	-0.400	-0.130	-0.512
2017	0.546	100.0%	0.627	-0.400	-0.242	-0.622
2018	0.664	100.0%	0.549	-0.541	-0.290	-0.567
2019	0.637	100.0%	0.288	-0.711	0.117	-0.631
2020	0.640	100.0%	0.608	-0.541	-0.149	-0.562
2021	0.558	100.0%	-0.404	-0.580	0.413	-0.574

Notes: The extraction method used is Principal Component Analysis (PCA). The commonly used cutoff for eigenvalue is 1, and the cutoff for cumulative variance is 70%–95%. Based on these standards, two or three principal components are retained. However, within each component and indicator, the direction and magnitude of the component loadings vary greatly across years, suggesting that the attempt at dimension reduction has failed. As a result, four measures should be retained for further analyses in this study. Sources: IRS SOI (2012-2021); and GSN CLT database (2023).

Appendix 2

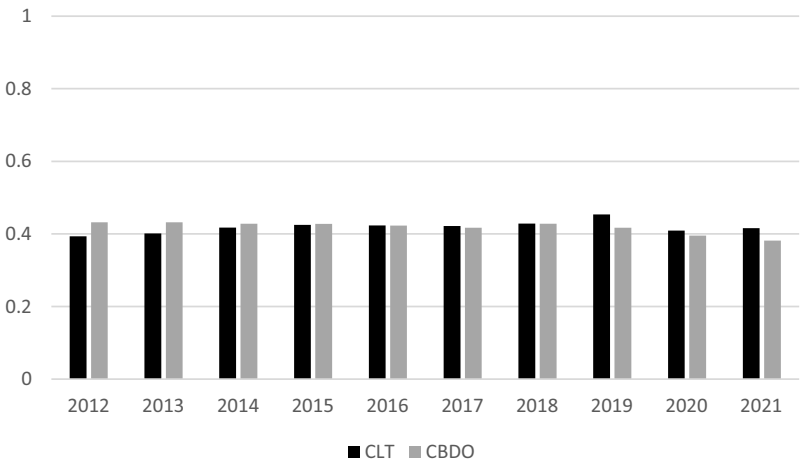


Figure B1. Comparisons of median LBETA ratio (land, buildings, and equipment as a share of total assets) between community land trusts and community-based development organizations, 2012–2021. Sources: IRS SOI (2012-2021); and GSN CLT database (2023).