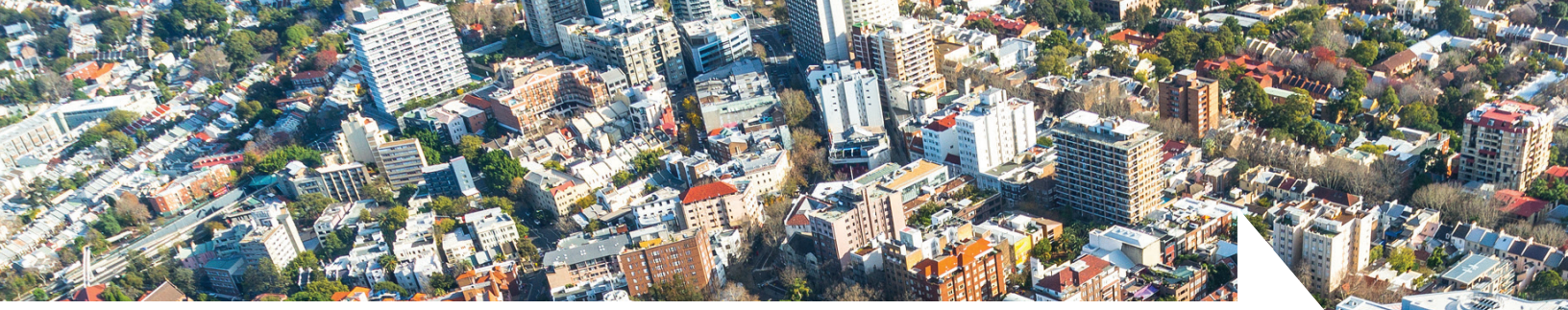

Assessing the Feasibility of a Shared Appreciation Loan Fund

Designed for Long-Term Sustainable Affordable Homeownership

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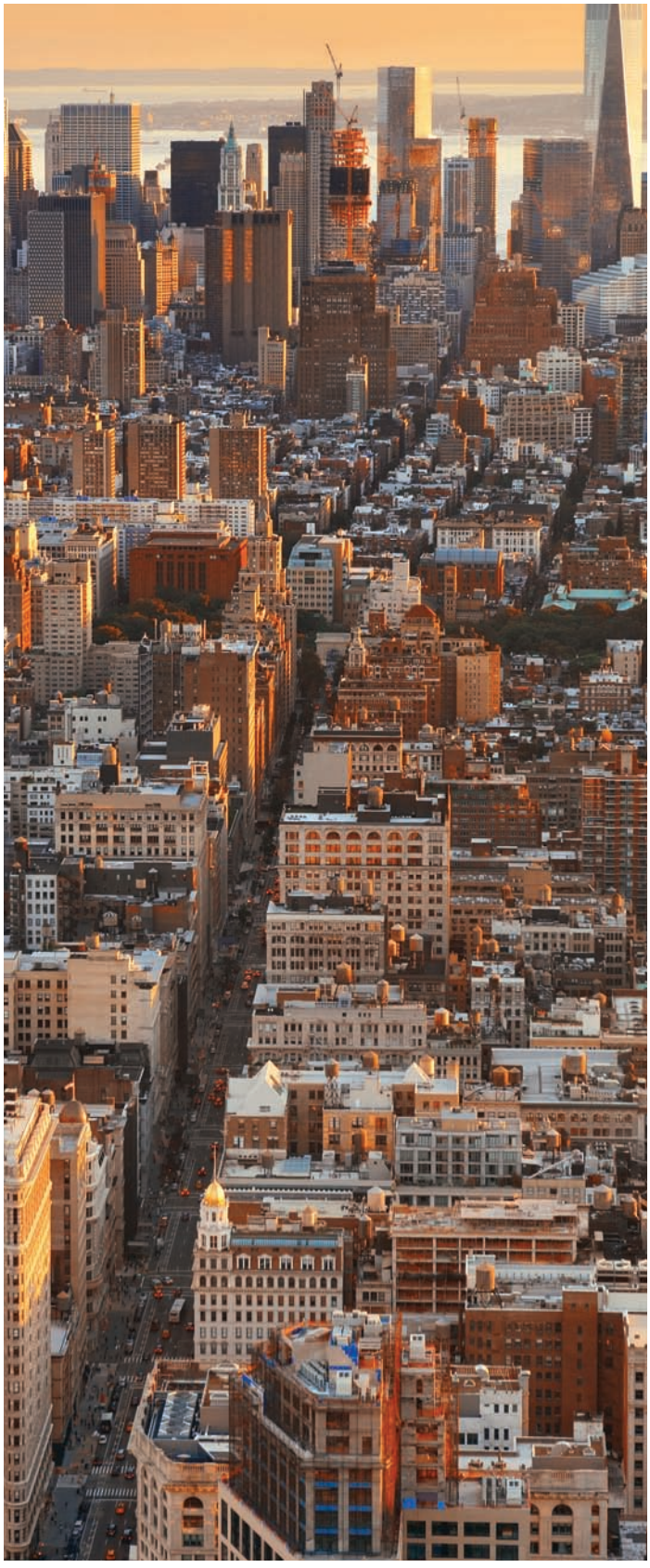
Abstract

This report explores the feasibility of providing shared appreciation loans on a national scale in order to increase access to homeownership for low- and moderate-income households and preserve affordability of properties over the long term. The report begins with some background on the need to improve access and sustainability of homeownership for lower income households and persons of color. The report then describes how these outcomes are achieved through models of shared equity homeownership, as well as through the various uses of shared appreciation loans that exist to date.

Next, the report describes a model of a shared appreciations loan designed to deliver the core components of shared equity homeownership, namely the creation of an affordable home for purchase that remains affordable to subsequent lower income homebuyers over the resales of the home. The report explores the viability of this model in a hypothetical market.

Based on the above model for a shared appreciation loan, the report goes on to explore the viability of an investment fund created to deploy this financing on a national scale. The design of this fund considers whether philanthropic and private capital could be blended to deliver shared appreciation loans for lower income families while also producing returns for investors. Results of sensitivity analyses are presented, showing how several factors introduced more risk for the financial outcomes of the fund or resulted in diminishing the social objectives of the fund. Input to refine models and assess the feasibility of a fund was gathered in interviews and focus groups. While the investment fund—as presented here—was ultimately deemed not viable, considerations and recommendations for advancing the potential success of shared appreciation loans that deliver affordable homeownership opportunities and long-term affordability of properties are presented.



About the Authors

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ASSESSING THE FEASIBILITY OF A SHARED APPRECIATION LOAN FUND

DESIGNED FOR LONG-TERM SUSTAINABLE AFFORDABLE HOMEOWNERSHIP

This report explores the feasibility of providing shared appreciation loans on a national scale to increase access to homeownership for low- and moderate-income households and preserve affordability of properties over the long term. First, background on the need to improve access and sustainability of homeownership for lower income households and persons of color is presented. The report then describes how these outcomes are achieved through models of shared equity homeownership, as well as through the various uses of shared appreciation loans that exist to date. Next, it presents a model of a shared appreciations loan designed to deliver the core components of shared equity homeownership, namely the creation of an affordable home for purchase that remains affordable to subsequent lower income homebuyers over the resales of the home. A shared appreciation loan fund is then presented and its financial feasibility is analyzed, concluding with future considerations and recommendations.

I. How Homeownership Benefits Lower Income Households and Persons of Color

Increased household wealth is a key predictor of many positive economic and social outcomes, such as educational attainment and good health. Homeownership is a major contributor to the wealth held by lower income households and persons of color. During peaks in 1989, 2000, and before the financial crisis in 2007, equity from owning a home accounted for more than half of the wealth held by black and Latino families and a similar proportion of wealth for those in the lowest income quintile in 2000 (Emmons 2017; Herbert and Belsky 2008). The proportions of wealth attributed to homeownership declined after the foreclosure crisis; however, wealth from home equity has continued to represent a very large amount of the total assets maintained by these populations.

The benefits of stable, affordable homeownership extend beyond building equity to other associated psychological and social benefits. Ample research has supported that lower income families and households of color who become homeowners experience increased self-esteem, agency, and sense of purpose (Balfour and Smith, 1996; Rakoff 1977; Saegert, Fields, and Libman 2009). Research finds better physical health and psychological well-being among lower income homeowners than renters (e.g. Macintyre et al. 1998 in Scotland; Robert and House 1996 in U.S). Homeowners have lower mortality rates for their age than renters, and they are less likely to develop chronic health problems or need health services (e.g. Dunn 2000; Macintyre et al.1998). Children in home owning families are less likely to have emotional and behavioral problems (Boyle 2002; Haurin, Parcel, and Haurin 2002a, 2002b) and less likely to become pregnant as a teenager (Green and White 1997). They are more likely to perform better in school and graduate (Aaronson 2000; Boehm and Schlottman 1999; Green and White 1997), and have higher reading and math scores (Essen, Fogelman, and Head 1978; Haurin, Parcel, and Haurin 2002a, 2002b).

Homeowners have longer durations of tenure and move less frequently than renters. Residential stability significantly contributes to better outcomes among children, including less delinquency, truancy, and school drop outs (e.g. Coleman 1988; Haveman and Wolfe 1994; Haveman, Wolfe, & Spaulding 1991). Furthermore, lower income households have stronger place-attachment and kinship ties within their neighborhoods than higher income households; consequently, when they become homeowners they are more likely to stay in their neighborhood and contribute to improving their communities (Dawkins 2006). Homeowners are more actively involved in voluntary organizations, like neighborhood and parent-teacher associations, as well as political activities than renters (e.g. Baum and Kingston 1984; Cox 1982; DiPasquale and Glaeser 1999; Kingston and Fries 1994; Perkins, Brown, and Taylor 1996; Rohe and Stegman 1994; Rossi and Weber 1996). Put simply,

evidence largely supports that the long-term investment of buying a home results in long-term investments in one's family and community.

Nevertheless, these benefits of homeownership for lower income individuals and persons of color are only realized if homeownership is accessible, affordable, and sustainable. Conversely, the foreclosure crisis illustrated that these households may be injured financially and psycho-socially if homeownership proves unsustainable or too burdensome (Saegert, Fields, and Libman 2009; Thaden 2010). When Herbert and colleagues analyzed the literature on homeownership post-foreclosure crisis, a critical takeaway was that, "The most fundamental factor—the true golden rule of how to accumulate wealth through homeownership—is whether ownership is sustained over the long term" (Herbert, McCue, and Rocio Sanchez-Moyano 2013, p. 9).

In order for homeownership to be sustained in the long-term, homeownership must be affordable and responsibly financed, preferably with a competitive, fixed-rate mortgage loan. Affordability is important because lower income households are more vulnerable to "trigger events," such as unemployment, underemployment, health issues, or transportation problems, which can create untenable financial strain (Elmer and Seelig 1999; Haurin and Rosenthall 2004, 2005; Reid 2005). Before and during the foreclosure crisis, lower income and minority homeowners were also more likely to have unaffordable mortgages, high-risk loans, variable interest rates, and predatory lines of credit or disadvantageous refinances, and consequently, they were more likely to default or foreclose (Immergluck 2009). Hence, access to affordable, safe, and sound mortgages is vital to sustain homeownership.

Unfortunately, the market is currently failing to deliver access to affordable and sustainable homeownership for lower income families and communities. In part, this is due to rising housing values that are outpacing incomes in many markets. Another factor is that, in response to the foreclosure crisis, there has been a tightening of credit requirements that do not account for the financial realities of lower income households, and underwriting terms are still relatively conservative. Other challenges that are making homeownership difficult to attain include elevated levels of student loan debt and very high rents, making it difficult for lower income households and persons of color to save for a down payment. The consequence has been lower homeownership rates among these populations, which have not fully rebounded since the foreclosure crisis and Great Recession. For instance, the homeownership rate for black households remained at 42.2 percent in 2016 versus 49.7 percent in 2004 compared to 76.0 and 71.9 respectively for white households (Joint Center for Harvard Studies 2017).

While there are down payment and closing cost assistance programs available, the majority of public investment in affordable housing prioritizes rental units. However, rental housing does little to create transformative wealth that can be instrumental to improving the lives of lower income individuals and persons of color. In fact, renters have very little to no savings, unlike their home owning counterparts (e.g. Boehm and Schlottmann 2004; Reid 2004). Therefore, the purpose of this project was to explore a new potential vehicle for expanding affordable homeownership opportunities to lower income families.

II. Shared Equity Homeownership Improves Access to Sustainable Homeownership

Shared equity homeownership models have proven to successfully deliver affordable and sustainable homeownership opportunities for lower income households and households of color. Despite their efficiency and impressive track records, the existing approaches to shared equity homeownership face challenges in obtaining public and philanthropic investments, which hinders their ability to achieve significant scale and greater impact. To overcome the lack of available funding, one potential solution may be to modify an existing financing model, "shared appreciation loans," which has been used in several ways by for-profit and public entities.

This section describes the various shared equity homeownership models and ends by explaining the concept of how shared appreciation loans may be designed to provide access to sustainable homeownership for more lower income households.

The Inspiration: Shared Equity Homeownership

Shared equity homeownership offers one solution to the affordable housing crisis by providing resale-restricted homes that remain affordable resale after resale, thereby

creating ownership opportunities for lower income households while preserving affordable homes as a community benefit. Typically, a shared equity home is created using public subsidies or private grants to cover the difference between the home's fair market value (or total cost of either construction or acquisition and rehab) and the price that will be affordable to a lower income buyer. In return for purchasing a home at a below market-rate price, shared equity homeowners agree to limit their proceeds upon resale so that the home may be sold at an affordable price to another income-eligible family in the future. There are different models for delivering shared equity homeownership, which include:

Limited Equity Housing Cooperatives (LECs)

LECs are traditionally stand-alone corporations that are owned collectively by low- to moderate-income residents. Beyond the initial subsidy to make the homes affordable, the corporation typically obtains financing through a blanket mortgage. Individual residents may need to obtain an individual share loan to buy into the cooperative corporation. The shareholder agreement, signed by all residents, stipulates resale restrictions. Many LECs have a "sponsor" or "steward," which is a government or nonprofit organization that assists residents to: (1) establish the cooperative and its legal documents, policies, and procedures; (2) secure development financing, permanent financing, and the initial subsidy to make the property affordable; and (3) provide ongoing support and monitoring for successful resident governance, property management, and affordability compliance.

Community Land Trusts (CLTs)

CLTs are nonprofit organizations that own and steward land for the benefit of their community. The traditional CLT homeownership model separates the title to the underlying land from the title to the improvements (i.e. built structures). A typical CLT retains ownership of the land and the homeowner owns and finances the purchase of the improvements. The homeowner is also given a leasehold interest in the land (and pays a nominal monthly fee to lease the land), which is secured by a renewable ground lease that has a 50- to 99-year term, depending on state law. Additionally, the CLT may subsidize the property beyond the cost of the land to ensure the home is affordable for their targeted income levels. In effect, purchasing only the improvements allows homeownership to be affordable to low- to moderate-income households, as the household only needs to secure a mortgage loan for the affordable purchase price.

Deed-Restricted Homes

Homeownership programs operated by nonprofits and public agencies often utilize deed restrictions to create lasting affordability. Deed-restricted homes are made affordable for low- to- moderate-income homebuyers either through direct subsidy (funds) or through inclusionary housing requirements. The homeowner purchases the entire property, including both land and home, for an amount well below fair market value, and in return, agrees to sell the home at an affordable price to another low- or moderate-income buyer. The homeowner signs a deed covenant (also referred to as a "deed restriction" or "deed-restricted covenant") that stipulates resale restrictions.

Shared equity homeownership models prudently use public resources, as a one-time subsidy creates a home that remains affordable and enables multiple generations of homebuyers to build wealth. This model is in stark contrast to down payment assistance programs, which typically help only one homeowner with a grant or forgivable loan. With most down payment assistance programs, when the family sells, the home reverts to market-rate and the public investment is gone.

The Challenge: Shared Equity Homeownership Models Rely on Grants

Despite the efficient use of funds and impressive track record of performance (Thaden 2011, Temkin et al. 2010), there are significant challenges for expanding shared equity homeownership:

1. After the foreclosure crisis, many federal, state and local programs prioritized investing their affordable housing funds into rental projects, limiting the important opportunity for wealth creation among lower income families.

2. An inadequate number of policymakers and funders fully understand the benefits of lasting affordability, in terms of both the frugal use of public dollars and maximizing outcomes of public investment.

3. Demand for affordable housing in recent years has been increasing, while federal funding has decreased or remained relatively level.

4. Grants and subsidies for affordable homeownership programs and ongoing rental assistance are becoming less popular than privately leveraged tax credits and lending programs, such as the Low-Income Housing Tax Credit (LIHTC) program.

Given these trends and the growing interest among some policymakers, housing experts, and academics in supporting economically prudent models for the creation or preservation of affordable homes, this project looked to substantially leverage different sources of funding. Ultimately, the question that this project explored is:

Can private, public and philanthropic financing, rather than grants, be used to deliver shared equity homeownership?

;

The Potential Solution: Shared Appreciation Loans (SALs)

Shared appreciation loans (SALs) are secondary financing typically used to bring down the first lien mortgage amount where, rather than amortizing monthly payments, the debt is due in full upon the resale of the property and the borrower agrees to share any equity increase with the SAL provider. They have been used to create affordable homeownership opportunities for lower income households by nonprofits and governments, and they have been expanding as a product offered by for-profit companies to higher income households in very expensive housing markets. While they may all go by the same name, these financials products are designed differently to serve varying purposes. Grounded Solutions Network set out to explore whether it was feasible to design a shared appreciation loan that could effectively deliver the core components of shared equity homeownership, namely for-sale homes that are affordable for the first lower income homebuyer and remain affordable for subsequent lower income homebuyers of the same property, but that would be funded through public, private and philanthropic financing rather than grants.

Existing Shared Appreciation Loans Not Designed for Lasting Affordability

The earliest SAL products in the United States, known as "shared-appreciation mortgages" (SAMs), were developed in the 1970s (Caplin 2007). SAMs have been used for home purchase, but historically, they were more commonly offered as refinancing products whereby a homeowner would agree to forego appreciation in their home in return for a cash-out, or interest-free debt, at the time of refinancing. In both cases, the homeowner would give the lending institution a portion of the property's appreciation at resale.

SAMs did not result in a solid track record of building wealth for low-to-moderate income homebuyers, and many were considered predatory lending. Unlike shared equity homeownership, SAMs had a negative reputation due to practices employed by Barclays Bank and the Bank of Scotland in the late 90s in the United Kingdom (Kelly n.d., Kitchin 2008). These banks targeted SAM products to pensioners, which resulted in adverse outcomes for borrowers, followed by the filing of numerous lawsuits against the lenders.[1]

SAMs emerging in the United States in the 90s and 2000s faced complex tax issues that affected homeowners and investors, derailing these products (Caplin 2007, Cunningham et al. 2008). Recently, there has been renewed interest in offering SALs from the private sector. Unison may be the most active lender of shared appreciation products. Based in San Francisco and operating in 12 states and the District of Columbia, Unison is a homeownership investment company offering an equity option contract to prospective homebuyers and existing homeowners. Unison varies the percentage of appreciation they receive based upon how much equity they provide to a homebuyer or existing homeowner. Two private sector SAL sources, Own Home Finance and Point, offer shared equity mortgage and investment options, which are similar to Unison. These companies provide financial services to middle- and upper-income homebuyers; however, there are some concerns by housing finance and consumer advocates that these "fin tech" products are inadequately regulated and have the potential to be predatory upon consumers.

Government affordable housing programs and nonprofit housing developers, including some Habitat for Humanity affiliates, have also used SALs to provide low- and moderate-income homebuyers with down payment assistance, particularly in high-cost cities where property values prevent working class residents from buying a home. In these instances, the purpose of the SAL is to help low- and moderate-income households attain homeownership while recapturing the relatively large public investments and a portion of the home's appreciation for future public use; however, these SALs do not maintain the long-term affordability of homes like shared equity homeownership.

[1] *For litigation information, see www.safe-online.org*

Existing Shared Appreciation Loans Designed for Lasting Affordability

Through its membership, Grounded Solutions Network knows of two instances where nonprofits attempted to utilize SALs to deliver the core components of shared equity homeownership. In these instances, the SALs are structured as no interest, due on sale second mortgage loans to help lower income households afford to buy homes. Upon resale, the original loan amount and a share of the appreciation are used to make another SAL for another lower income buyer purchasing the same home.

City First Homes in Washington, DC offered these SALs for up to $75,000 to homebuyers whose incomes were 80 to 120 percent of the area median, and it received 75 percent of the appreciation upon resale. The Housing Fund in Nashville, TN utilized Neighborhood Stabilization Program funding to create roughly 45 homes serving household below 80 percent of the area median income that utilized these SALs. Both nonprofits demonstrated that, while their markets were seemingly receptive to the SAL concept, their programs required significant public subsidies to be viable. The 30 SALs worth approximately $2 million that City First Homes originated in 2010 are still outstanding. The same is true for the 45 SALs that The Housing Fund disbursed from a $3.5 million loan pool. After four years, the fund is starting to experience the first repayments.

III. Can Shared Appreciation Loans Deliver Lasting Affordability & Leverage Private Capital?

Grounded Solutions Network, with consultants from BWB Solutions, set out to explore whether an investment fund with private, philanthropic, and public capital could efficiently and successfully deploy SALs (designed like those offered by City First Homes and The Housing Fund) and still repay investors and yield some return on investment. In order to maintain affordability of the homes, the investment fund (hereinafter "the Shared Appreciation Loan (SAL) Fund" or "the Fund") would need to support an increase of the original SAL amounts for the next lower income buyers, as the homes increase in value over time.

Concept Model of Shared Appreciation Loans

To achieve this, Grounded Solutions Network designed a concept SAL model that would work as follows:

1. A national nonprofit or government agency would establish a SAL Fund using capital from private, public, and philanthropic investors and lenders.
2. The SAL Fund would be used to fund 30-year, second mortgage loans equal to at least 20 percent of the home's value in eligible markets in hopes that the homeowner would not be required to maintain mortgage insurance. The SAL would have zero percent interest and no principal payments throughout the borrower's tenure.
3. A stewardship partner would be identified in each eligible market to educate and work with eligible homebuyers to complete purchases, sales, and maintain compliance with the SAL terms.
4. An eligible homebuyer, who is low- or moderate-income, would purchase a home at its Fair Market Value so long as the property met the Fund's property eligibility standards.
5. The owner would agree to repay the SAL in full plus a percentage of any appreciation upon sale.
6. The SAL Fund would use its share of the appreciation to offer higher levels of second mortgage loans to future homebuyers of the same property, as well as to repay its investors and cover its operating costs, including fees to compensate the stewardship partner.

Assumptions of the Concept Model

This concept SAL model was built upon a set of assumptions derived in part through data from the HomeKeeper National Data Hub. HomeKeeper is a web-based application developed and supported by Grounded Solutions Network for homeownership programs with lasting affordability controls and long-term stewardship responsibilities. Organizations enter information on households, transactions, and properties as part of their day-to-day program management activities, and the HomeKeeper National Data Hub aggregates this data and generates information about the performance and outcomes of roughly 60 affordable homeownership programs. Below are the major assumptions for the concept SAL model:

- SALs funded through the SAL Fund would be available only to households with incomes of no more than 80 percent of the area median income (AMI). Grounded Solutions Network reviewed HomeKeeper data and set a targeted AMI of 63 percent for modeling purposes to ensure an adequate market size of prospective borrowers would be available (i.e. meaning that households between 63-80 percent of the area median income would be able to purchase).
- To estimate the fair market values of homes in shared equity homeownership programs, Grounded Solutions Network reviewed HomeKeeper data and assumed that eligible properties would be purchased for roughly 80 percent of the Median Sales Price of homes in any selected market.
- To determine the appropriate SAL amount, the SAL Fund would take the fair market value of the property, add the closing costs to it, and subtract the sum of the affordable first mortgage amount and the homebuyer's one percent down payment.
- The affordable first mortgage amount for the homebuyer would be calculated based on a total monthly housing cost—including principal, interest, real estate taxes, insurance, and other ownership expenses or "PITIO" -- of no more than one third of the homeowner's gross income. It was assumed that this total monthly housing cost was the amount the homeowner could cover, and the SAL would need to address the gap.
- Due to market conditions at the time of modeling, it was assumed that the homeowner could obtain a 30-year, fixed-rate mortgage with an interest rate of 3.57 percent.
- For the purposes of simplicity, the model looked simply at front-end loan-to-value ratios (i.e. first mortgage loan divided by the fair market value) and did not consider the back-end ratio.
- Upon sale of the property, the seller would receive 20 percent of any appreciation in its value, their original down payment, and all equity accumulated through first mortgage payments made before the sale. The SAL Fund would receive 80 percent of the home's increase in value (i.e. the appreciation), a portion of which would be used to repay its capital investors, operations, and associated fees.

Table 1 illustrates the structure and capital flows for an individual SAL in a hypothetical, moderate-growth real estate market with annual appreciation of 3.5 percent. The model shows how an SAL would cover the "affordability gap" on a home at purchase and maintain the property's affordability for lower income households over several resale transactions. The model assumes the homeowner would sell the house at the prevailing market price after owning it for nine years. See Appendix A for additional detail on the calculations and assumptions.

Table 1. Example of Individual Shared Appreciation Loan Model on a Modestly-Priced Home in a Moderately Appreciating Market with a Nine-Year Homeownership Tenure.

Calculation of Affordable Home Price	First Purchase	Second Purchase	Third Purchase
Median Sales Price	260,000		
Sales Price of SAL-Financed Home	208,000	283,483	386,358
AMI for Family of Three (2013)	56,100	62,173	68,904
Target AMI	35,343	39,169	43,409
Amount of Sales Price Affordable for Target AMI	122,005	122,492	118,415
Calculation of Financing Required			
Sales Price of SAL-Financed Home	208,000	283,483	386,358
Estimated Closing Costs	4,270	4,287	4,145
Stewardship Fee Paid at Closing	1,000	1,126	1,269
Total Financing Required	213,270	288,896	391,771
Buyer's Down Payment	2,080	2,835	3,864
Shared Appreciation Loan	89,185	163,570	269,493
Conventional First Mortage	122,005	122,492	118,415
Total Financing	213,270	288,896	391,771
Annual Property Tax	2,348	3,201	4,362
Annual Property Insurance	1,040	1,417	1,932
Other Annual Fees	-	-	-
Homeowner's Projected Monthly Payment (PITIO)	972	1,077	1,194
Total LTV	1	1	1
SAL LTV	0	1	1
Homeowner's PITIO / Monthly Target AMI	0	0	0
Calculation of Home Price Appreciation			
Average Ownership Tenure - Years	9	9	9
Average Home Price Appreciation/Year	0	0	0
Fair Market Value/Sales Price After 9 Years	283,483	386,358	526,566
Net Home Price Appreciation	75,483	102,875	140,208
Calculation of Proceeds			
Remaining Principal on First Mortgage	102,926	103,336	99,897
SAL Fund's % of Appreciation + Original Loan Amount	149,571	245,870	381,660
5% Realtor Fee	14,174	19,318	26,328
Total Amount Paid by Seller	266,671	368,524	507,885
Gain by Seller	16,812	17,834	18,681
Calculation of SALF Return			
SAL Deferred Operating Expense Per Loan	14,641	14,641	14,641
SAL Sponsor Deferred Fee Due Upon Resale	-	-	-
Annual Stewardship Fee Deferred Until Closing	3,600	4,055	4,568
Borrowed Capital Repaid at Resale	118,886	201,454	324,957
Total Amount Paid by SALF	137,127	220,151	344,166
Cash Available to Invest in SAL for Next Purchase	12,444	25,719	37,493

Table 1 demonstrates how the SAL model would hypothetically yield a financial gain to both the homeowner and the SAL Fund. In addition to paying a return on investment upon the resale of a property under these market conditions, the SAL Fund could utilize a portion of the proceeds from their appreciation share to off-set the larger SAL needed for the subsequent buyer of the same property. This new SAL would combine the proceeds from the first SAL with additional capital in an amount sufficient to keep the next purchase of the home affordable to subsequent households at similar AMI levels. Meanwhile, the homeowner's share of the proceeds from the home sale would help build the family's wealth.

Sensitivity Analysis of Concept Model

Grounded Solutions Network's work in designing this SAL model included testing its assumptions under different market conditions. For instance, changes in the estimated annual appreciation rates either increase or decrease the financial returns available to the homeowner and SAL Fund at the resale of a property. Similarly, an increase in the property tax or insurance rates reduce the capacity of lower income households to cover the monthly expenses for owning a home, which means that the SAL amount must increase more substantially over resales. After completing the sensitivity analysis of these underlying assumptions, Grounded Solutions Network identified the range of market conditions that could support a single SAL transaction. For instance, an average annual home price appreciation rate of less than 2.0 percent would fail to yield sufficient proceeds from a property's resale to cover the investor's return of capital without reducing the amount available to reinvest in the next SAL transaction. Conversely, average annual appreciation rates greater than 7 percent would push the projected market-rate value of the property beyond the means of prospective homebuyers in subsequent resale scenarios.

The results of this sensitivity analysis narrowed the range of favorable market conditions under which a SAL would be successful. To determine whether sufficient demand exists for this product, Grounded Solutions Network conducted focus groups with industry experts, local financial intermediaries that provide loans to homebuyers, and organizations that have existing shared equity homeownership programs (see Appendix C). The general conclusions from these interviews encouraged Grounded Solutions Network to take the next step in this project and begin constructing a model for the SAL Fund that would offer SALs in multiple markets across the country.

IV. What Would a Fund Deploying Shared Appreciation Loans Look Like?

As presented in the previous section, Grounded Solutions Network explored the viability of a conceptual shared appreciation loan (SAL) that would provide affordable homeownership opportunities for lower income households over multiple resales of a property, which would be funded through public, private and philanthropic financing. While the individual SAL model appeared to work under certain market conditions and capital investment terms, it was unclear whether a Fund deploying a portfolio of SALs would be viable. Developing a model for the Fund requires addressing different considerations than the individual SAL model.

With any special purpose entity that raises and invests capital into an economic activity, the design of the proposed SAL Fund required exploring five essential components: (1) Organizational Structure, (2) General Management, (3) Capitalization, (4) SAL Deployment and Repayment, and (5) Stewardship, a function unique to shared equity homeownership structures. A detailed description of each component follows below, which sets forth the assumptions used to model the performance of the Fund in Section V.

Organizational Structure

Given a primary mission of creating a positive social change through increasing the access to capital for lower income households, Grounded Solutions Network envisioned a SAL Fund with attributes consistent with most community development financial institutions (CDFIs).[2] Among the various types of CDFIs, it was anticipated the Fund would operate in a manner similar to a community development venture capital fund as opposed to a community development loan fund.

[2] *Community development financial institutions (CDFIs) are private financial institutions that are 100% dedicated to delivering responsible, affordable lending—including small businesses, microenterprises, nonprofit organizations, commercial real estate, and affordable housing— to help low-income, low-wealth, and other disadvantaged people and communities across the nation join the economic mainstream.*

This distinction lies in how the Fund would cover its operating costs. Venture funds support operations primarily with the proceeds earned from the capital gains generated by investments. In the case of the SAL Fund, its investments in homes sold by eligible homeowners would generate capital gains from the shared appreciation. Also, investors providing equity capital to a venture fund typically pay a management fee of 2% of the amount committed, which the Fund would use to cover a portion of operating costs. Additionally, the Fund could generate investment income from its cash holdings and, as a 501c3 nonprofit organization, it could receive grants and contributions from foundations and corporate funders.

Lastly, it was projected the Fund would have an "evergreen" structure, which would allow the redemption of equity capital from the original investors through new capital commitments from additional investors, the loan repayments, and the recommitment of loan funds by lenders. As a result, the Fund could redeploy new capital into existing investments in line with the maturity dates of the underlying loans, while ensuring its ability to make timely repayments to lenders and investors. The alternative to an "evergreen" structure is a closed-end fund, which would require the Fund to raise and redeem or repay its capital in specific "rounds" tied to a predetermined amount and timeframe.

General Management

The most efficient and beneficial approach to implementing the SAL Fund with relatively modest overhead is to find a qualified partner to run the Fund. The likely candidate for Fund management would be a high-capacity CDFI, which would have principal responsibility for the administration of the Fund as a subsidiary or special purpose entity. Ideally, there would be an alignment in the missions of the Fund and the CDFI for serving lower income households and promoting economic advancement to those underserved in the private market. Additionally, the organizational "home" of the Fund should have the ability to work across the country, extensive experience with underwriting and managing down payment assistance or mortgages loans, and in-depth knowledge of the regulations and procedures pertaining to this activity.

Ideally, the Fund would maintain a modest organizational structure consisting of a board of directors and a small staff, who would provide general oversight of the SAL Fund's lending activities, including underwriting the investments, disbursing funds to and receiving repayments from homebuyers, managing the SAL portfolio, and making payments to investors and lenders. This team would also be responsible for the following activities: (1) recruiting and managing relations with investors and lenders, (2) recruiting and training local stewardship partners, and (3) preparing portfolio performance and other reports.

Capitalization

The ideal capital structure for the SAL Fund would be a combination of debt and equity investments from various financial institutions and other social impact investors. The Fund would deploy up to 95 percent of investable capital into SALs and retain 5 percent of these resources for liquidity purposes, such as investor or lender repayments. In addition, the Fund would establish a loan loss reserve equal to five percent of the total outstanding SALs to absorb losses. Lastly, the Fund would maintain sufficient net assets or equity equivalent capital to prudently manage its operations.

Grounded Solutions Network envisioned raising capital for the Fund from three groups of lenders and investors:

❶ The first group consists of commercial banks that would provide loans with a priority on repayment. These lenders would fall into two categories: (1) "market-rate" lenders, which would likely charge the highest rate of interest, and (2) "CRA" lenders, which would charge a rate commensurate with their community development objectives. These senior lenders would share any losses on an equal basis.

❷ The second group consists of subordinate or "impact" lenders, which would offer capital seeking both a financial and social return on investment. This capital would be the junior debt in the Fund, with its repayment subordinate to senior lenders. The subordinate lenders would also share any losses on an equal basis.

❸ The third group of investors would provide equity or equity-equivalent capital to the Fund. These investors would ultimately achieve a targeted rate of return based on a share of the capital gains (shared appreciation) generated by the sale of homes by eligible homeowners. The SAL Fund model assumes the Internal Rate of Return to be 5.9 percent, with the investor's capital redeemed at the end of 15 years. Along with the subordinate impact lenders, the patient capital investors would likely require the Fund to comply with specific social impact goals.

For its initial capitalization, the Fund would seek to raise approximately $53,000,000 from multiple sources, in the form of senior and subordinated debt and equity capital investments (see Table 2). The minimum loan or investment size would be $500,000. Attaining this target at the launch of the Fund would help ensure the portfolio of SALs would achieve a scale sufficient to provide reasonable dispersion of market risks. Also, the Fund would seek a term for the loans and equity investments that would allow deployment of most of the capital into at least two home purchase and resale cycles, prior to seeking new capital commitments from additional lenders and investors.

Table 2. Assumptions for Investment Terms.

	Market Rate Loans	CRA Loans	Subordinated Loans (Impact Investors)	Equity Capital (or EQ2 Investors)
Investment Amount	Up to $10 million	Up to $25 million	Up to $3 million	Up to $15 million
Rate	Fixed interest rate = 6% per annum	Fixed interest rate = 3% per annum	Fixed interest rate = 2% per annum	Target IRR = 2% - 5.5%
Repayment	Any outstanding principal balance would be payable to lenders or investors at the end of fifteen years. Lenders or investors would be able to extend the maturity for successive periods, at their discretion.			
Pre-Payment	The Fund would be able to prepay any debt obligation or investment, in whole or in part, at any time without penalty.			

SAL Deployment, Diversification, & Repayment

The SAL Fund would operate in select markets to deploy SALs to homebuyers that are income-eligible, mortgage-ready, and educated about home purchasing and the SAL product. Below is additional detail on the considerations and assumptions made related to targeted homebuyers, diversity of markets, and expected repayments of SALS for the Fund.

Target Homebuyers.

As described in the previous section, the SAL Fund would make loans to homebuyers for the purchase of homes at their Fair Market Value. The typical qualified homebuyer for this product would: (1) have an annual household income no greater than 80 percent of the area median, and (2) be able to receive approval from a lending institution for a first mortgage in an amount where the monthly payments for total housing costs (including taxes and insurance) would be less than or equal to 33% their income. As a result, the SAL Fund would make a loan equal to the Fair Market Value plus closing costs, less the first mortgage plus the homebuyer's down payment of roughly one percent.

The homebuyer would need to qualify for and obtain a first mortgage loan. In order to improve access to first mortgages, Grounded Solutions Network worked closely with Freddie Mac, a major supporter of this project, as well as Fannie Mae, to ensure that the proposed SALs would be able to comply with selling guidelines (albeit some changes would be needed) so that first mortgages could be sold to them. Coordination with GSEs would improve lender confidence to work with homebuyers and improve liquidity in this market.

Target Markets.

Initially, the SAL Fund would operate in two or three markets with relatively lower cost housing. Ideally, the housing would be in good condition, just out of reach for lower income households, and in neighborhoods experiencing gentrification and appreciation (or on the cusp of gentrification). Each targeted market would also have strong stewardship partners, non-competing affordable homeownership products, and differing dominant industries to buffer risk for the Fund in terms of economic downturns or unemployment in certain industries or jobs.

An advantage of the Fund model is portfolio diversification, which would allow gains in rapidly appreciating markets to offset losses in slow-growth markets. The Fund model assumed that 27 percent of SALs would be "low growth" with properties appreciating by 1.5 percent each year, 39 percent of SALs would be "moderate growth" with properties appreciating by 3.5 percent per year, and 34 percent of SALs would be "high growth" with properties appreciating by 7 percent per year. These are purely hypothetical assumptions about home price appreciation.

The volume of loans would vary each year over the duration of the Fund's investment activity (See Table 3). Also, the, average loan size and fair market value of homes would vary by submarket. To be successful, the Fund would balance across its portfolio the number of SALs originated within each submarket in accordance with its financial model. The ultimate success of the SAL Fund would significantly depend on its access to analytics and forecasting that would improve the proportion of loans made in moderate or high growth markets, where the fair market values of homes are still relatively modest.

Expected Repayment.

The Grounded Solutions Network model for the Fund assumed the average tenure of homeownership would range from 3 to 15 years, and the typical SAL would be outstanding for approximately nine years; however, it is reasonable to estimate some repayment of SALs will likely occur earlier. Upon sale of the house, the homeowner would receive a 20 percent share of the appreciated value. This distribution of the proceeds allows the homeowner to receive the benefit of the appreciation in the value of a home that one could otherwise not afford. The Fund would use its portion of the proceeds (approximately 80 percent share) to cover its operations, capital costs, and the fees paid to local stewardship partners (see below for description). Any remaining balance would become equity in the SAL Fund, which could be leveraged to increase the pool of capital for future transactions.

Stewardship

The Fund would select a set of stewardship partners, which would be nonprofit organizations or public-sector agencies that have been or are willing to implement long-term affordable housing programs. These partners would receive a fee of $1,000 for each SAL closed. In addition, the Fund would pay each stewardship partner an annual fee of $400 per SAL for ongoing compliance monitoring and resale support.

Under contract with the Fund, each local steward would be responsible for:

❶ marketing the SAL product to potential homebuyers, ensuring a pipeline for SALs;

❷ ensuring that homes are within an eligible market and meet property standards that will enable the owner to succeed at sustaining and benefiting from homeownership;

❸ packaging materials for the Fund to ensure income eligibility, stringent underwriting, and affordable pricing;

❹ ensuring that eligible homebuyers have completed homebuyer counseling to prepare them for financial changes or unexpected hardships as well as SAL-specific counseling to ensure the legal contracts and financial arrangement are fully understood;

❺ providing ongoing compliance monitoring with the terms of the SAL (such as occupancy requirements) as well as communications and relationship-building activities to promote trust and transparency with homeowners; and

❻ assisting with the transfer or sale of the property to ensure legal documents are complied with and that the home is resold to another eligible borrower.

V. What Are the Results of Modeling the Shared Appreciation Loan Fund?

The preceding section laid out the operations and capitalization of the Fund and the underlying assumptions used to develop the financial structure for the SAL Fund. In developing this model, Grounded Solutions Network explored a variety of potential structures for the Fund's operations and engaged in an iterative financial modeling process to formulate and refine the capitalization and cash flow projections. Each iteration of this design process raised new issues to address.

Ultimately, Grounded Solutions Network determined that the model of the Fund outlined here is not presently feasible; however, this final iteration provided the closest example to a workable model, so it is presented below to then explore considerations and lessons learned. A working model assembled from this framework was created and then underwent a series of "stress" tests and sensitivity analyses to determine the limitations of various aspects of the proposed Fund. This section presents those results, as well as several considerations and challenges to Fund operations.

Capitalization

The proposed launch of the SAL Fund begins with an assumption about capitalization. Grounded Solutions Network opted to construct the financial model for the Fund as a nonprofit organization, which would provide an opportunity to obtain capital from philanthropic and private investors. As described above, an initial investment of at least $50 million would enable the Fund to build a SAL portfolio of sufficient scale and diversity to provide a reasonable dispersion of market risks. Also, tying the initial commitment of capital to the deployment of SALs over the first five years offers a conservative approach to fundraising and minimizes the amount of idle cash held by the Fund. Table 3 presents the proposed Capitalization Schedule during the first five years of the Fund's life.

Table 3. Capitalization Schedule of the $50 million Shared Appreciation Loan Fund.

	Impact Investor - Equity	Impact Investor - PRI Debt	Impact Investor - Bank CRA Debt	Market Rate Lenders	Equity Equivalent Investment	Total Capial Raised	Total Capital - Cumulative
Year 1	5,000,000	1,000,000	5,000,000		2,000,000	13,000,000	13,000,000
Year 2		1,000,000	5,000,000	2,000,000	2,000,000	10,000,000	23,000,000
Year 3		1,000,000	5,000,000	2,000,000	2,000,000	10,000,000	33,000,000
Year 4			5,000,000	3,000,000	2,000,000	10,000,000	43,000,000
Year 5			5,000,000	3,000,000	2,000,000	10,000,000	53,000,000

Deployment

The next step in creating the financial structure for the Fund involved projecting the amount of SALs deployed each year. The model assumes that the Fund will operate in two to three markets characterized by low- or moderate-income neighborhoods experiencing gentrification and moderate appreciation in housing values. Based on data collected through interviews with potential referral sources, the Fund model assumed approximately two to four new SALs per month in each projected geographic market for the first five years. The Fund would seek investment opportunities through a broad range of potential referral sources, including members and affiliates of Grounded Solutions Network and other entities interested in adopting shared equity homeownership. Table 4 presents a summary of the SAL Deployments Projections by annual growth submarkets (low growth (LO) = 1.5%; Moderate growth (MO) = 3.5%; high growth (HI) = 7% annual appreciation).

Table 4. Deployment Schedule of Shared Appreciations Loans.

	Total New SALs	Average Loan-Life Expectancy (Years)	Submarket	Average Loan Size	Number of Loans	Approximate FMV of Home
Year 1	$12,307,530	9.2	LO MO HI	$89,185 $89,185 $89,185	37 54 47	$208,000 $208,000 $208,000
Year 2	$8,499,213	9.2	LO MO HI	$90,317 $96,173 $105,068	23 34 30	$211,120 $215,280 $222,560
Year 3	$9,287,508	9.2	LO MO HI	$91,478 $103,466 $122,189	23 34 30	$214,287 $222,815 $238,139
Year 4	$9,074,250	9.2	LO MO HI	$92,653 $111,059 $140,621	21 30 27	$217,501 $230,613 $254,809
Year 5	$9,338,216	9.2	LO MO HI	$93,843 $118,964 $160,456	20 29 25	$220,764 $238,685 $272,646
Total	**$48,506,717**				**462**	

The increase in the "Average Loan Size" and "Approximate Fair Market Value (FMV) of Home" results from the Fund model's assumptions about appreciation rates in the target real estate markets. Since the objective of the Fund is to deploy another SAL on the same property upon resale, the fair market value would increase by the appreciation rates and then the SAL amounts would have to increase, since the assumption is that incomes would not keep pace with rising housing values.

Balance Sheet

The combination of the Capitalization Schedule with the SAL Deployment Projections contributed to the pro forma Balance Sheet (see Appendix B). The financial statement shows a cash inflow of $14 million by the end of the Fund's first year of operations. This capital consists of the investments and loans described in the previous section plus a grant of $1 million to capitalize the Fund's operating reserves.

Moreover, the model assumes a median home tenure of nine years, with individual home tenures ranging from three years to fifteen or more years. Most periods of tenure are in the seven- to ten-year range. The earliest repayment of the SALs will be Year 4, when the SALs made in Year 1 with a three-year tenure are repaid. The model shows the greatest number of repayments beginning in Year 8. These trends are reflected in the Balance Sheet presented in Table 5.

Table 5. Balance Sheet of Shared Appreciation Loan Fund for First Nine Years.

	Year 1	Year 2	Year 3	Year 8	Year 9
ASSETS					
Cash on Hand	$1,281,644	$3,024,236	$2,599,276	$1,175,631	$1,855,327
SALs, BoY	-	12,307,506	20,800,115	48,996,854	54,380,086
New SALs	12,307,506	8,492,609	9,273,777	12,538,012	8,511,855
Repayments	-	-	-	-7,154,779	-4,920,419
SALs, EoY	12,307,506	20,800,115	30,073,891	54,380,086	57,971,523
Reserves at begin. yr.	-	615,375	1,040,006	2,449,843	2,719,004
Additions	615,375	424,630	463,689	269,162	179,572
Reserves at end yr.	615,375	1,040,006	1,503,695	2,719,004	2,898,576
Net SALs	11,692,130	19,760,109	28,570,197	51,661,082	55,072,947
Unrealized Gain on SALs	-	1,163,530	3,183,790	19,562,033	21,935,690
Total Assets	$12,973,775	$23,947,875	$34,353,263	$72,398,746	$78,863,964
LIABILITIES					
Accrued Stewardship Fees	$55,200	$145,722	$272,626	$1,213,313	$1,414,980
Impact Investor - PRI	1,000,000	2,000,000	3,000,000	3,000,000	3,000,000
Impact Investor - Bank CRA	5,000,000	10,000,000	15,000,000	25,000,000	25,000,000
Market Rate Lender 1	-	2,000,000	4,000,000	10,000,000	10,000,000
Equity Equivalent Investment	2,000,000	4,000,000	6,000,000	10,000,000	10,000,000
Impact Investor - Bank CRA	-	-	-	8,000,000	12,000,000
Total Liabilities	$8,055,200	$18,145,722	$28,272,626	$57,213,313	$61,414,980
NET ASSETS					
Impact Investor	$5,000,000	$5,000,000	$5,000,000	$5,000,000	$5,000,000
Temporarily Restricted Net Assets - Operating Reserves BOY	1,000,000	1,000,000	-	-	-
Addition to (Release from) Operating Reserves	(1,000,000)	(1,000,000)	-	-	-
Unrestricted Net Assets - BOY	-	(81,425)	(361,377)	(10,836,215)	(9,376,600)
Net Operating Income	(1,081,425)	(1,279,952)	(1,741,776)	1,459,615	(110,107)
Released from (Added to) Operating Reserves	1,000,000	1,000,000	-	-	-
Unrestricted Net Assets - EOY	(81,425)	(361,377)	(2,103,153)	(9,376,600)	(9,486,707)
Total Net Assets Before Unrealized Gains	4,918,575	4,638,623	2,896,847	(4,376,600)	(4,486,707)
Unrealized Gain on SALs in Portfolio	-	1,163,530	3,183,790	19,562,033	21,935,690
Total Net Assets Including Unrealized Gains	4,918,575	5,802,153	6,080,637	15,185,433	17,448,983
Total Liabilities and Net Assets	$12,973,775	$23,947,875	$34,353,263	$72,398,746	$78,863,964

This financial statement shows a steady accumulation of SAL assets, supported by an inflow of new capital each year. The positive Net Assets shown on the pro forma Balance Sheet are a result of the reporting of the "Unrealized Gains on the SALs in Portfolio", which is attributable to the projected value of these assets over time. Like other real estate investment vehicles, such as REITs, the Fund intends to estimate the value of its SAL assets each year, utilizing market analytics provided by third-party sources.

Income Statement

One of the critical requirements for financing is generated by the fact that the Fund will receive little or no cash flow from outstanding SALs until they are repaid. The fact that the majority of SALs have a tenure of seven to ten years means that the Fund will have, at best, modest revenues from repayments of SALs until Year 8 when the loans made in Year 1 with a seven-year tenure are repaid. This means that the Fund will have a negative Net Operating Income in its initial years of operations, as shown on the following pro forma Income Statement in Table 6 (see Appendix B for additional detail).

Table 6. Income Statement of Shared Appreciation Loan for First Nine Years.

	Year 1	Year 2	Year 3	Year 8	Year 9
REVENUES					
Gain on Sale of Assets	$0	$0	$0	$4,262,142	$2,728,402
Closing Fees Collected for Lending Partners	138,000	87,000	87,000	78,000	49,000
Interest Income on Idle Capital	0	25,633	60,485	32,600	23,513
Management Fee	100,000	0	0	0	0
Gross Financing Revenue	238,000	112,633	147,485	4,372,742	2,800,915
Allowance for loan losses	615,375	424,630	463,689	269,162	179,572
Total Net Operating Revenue	($377,375)	($311,998)	($316,204)	$4,103,581	$2,621,343
EXPENSES					
Interest Expense	$210,000	$365,000	$675,000	$1,705,000	$1,810,000
Closing Costs Paid to Lending Partners	138,000	87,000	87,000	78,000	49,000
Stewardship Fee Due At Closing Accrual	55,200	90,522	126,904	200,096	201,667
OPERATING EXPENSES:					
Personnel	168,750	291,350	400,575	514,259	521,973
Occupancy	14,000	14,210	14,423	15,538	15,771
Marketing	10,000	10,150	10,302	11,098	11,265
Accounting & Admin. Services	37,500	38,063	38,633	41,619	42,243
Financial Audit	20,000	20,300	20,605	22,197	22,530
Legal	10,000	10,150	10,302	11,098	11,265
Travel	30,000	30,450	30,907	33,295	33,795
Board-Related Expenses	5,000	5,075	5,151	5,549	5,632
Overhead	5,600	5,684	5,769	6,215	6,308
Total Operating Expenses	300,850	425,432	536,668	660,870	670,783
Total Expenses	704,050	967,954	1,425,572	2,643,965	2,731,450
Net Operating Income (Expense)	(1,081,425)	(1,279,952)	(1,741,776)	1,459,615	(110,107)
Release from (Addition to) Operating Reserve	1,000,000	1,000,000	0	0	0
Change in Unrestricted Net Assets	(81,425)	(279,952)	(1,741,776)	1,459,615	(110,107)
Unrealized Gains in SAL Portfolio	0	1,163,530	3,183,790	19,562,033	21,935,690
Increase (Decrease) including Unrealized Gains	($81,425)	$883,578	$1,442,014	$21,021,648	$21,825,583

The primary sources of operating revenues include "Interest Income on Idle Capital" and the "Management Fee" of 2% collected from the Fund's equity investors in Year 1. Deducted from these financing resources will be the additions to the loan loss reserves, which would be 5% of SALs originated each year. Furthermore, without a "home" for the Fund definitively determined, the pro forma Income Statement projects the costs for a stand-alone operation. These expenses amount to approximately 1.5% of total assets under management annually.

The projections show grant income offsetting the negative "Net Operating Income" in Years 1 and 2. After that, the negative "Net Operating Income" is offset by "Unrealized Gains in SAL Portfolio" - the Fund's share of the appreciated values from the sale of homes. But it's critical to understand that the "Unrealized Gains in SAL Portfolio" are not cash in hand, and so can't actually be used to fund the negative "Net Operating Income." That funding is provided by the equity and grants invested in the Fund, which is why the equity component of the financing structure is both large and extremely important. This funding structure is similar to how community development venture capital funds are financed, because they, too, make investments that do not generate much return until years into the future when the company goes public, is sold, or gets a new round of venture investing.

Cash Flow

The third financial statement in the base model of the SAL Fund is the pro forma Cash Flow. As shown in Table 7, the Fund relies on grant revenues in the initial two years to offset net cash used by operating activities, and significant repayments of SALs in Years 8 and 11 bringing the net operating income positive.

Table 7. Cash Flow of Shared Appreciation Loan Fund in First Nine Years.

	Year 1	Year 2	Year 3	Year 8	Year 9
CASH FLOWS FROM OPERATING ACTIVITIES:					
Net operating income (expense)	($1,081,425)	($1,279,952)	($1,741,776)	$1,459,615	($110,107)
Provision for loan loss	$615,375	$424,630	$463,689	$269,162	$179,572
Accrued stewardship fees increase	$55,200	$90,522	$126,904	$200,096	$201,667
Net cash provided by operating activities	($410,850)	($764,799)	($1,151,183)	$1,928,873	$271,132
CASH FLOWS FROM INVESTING ACTIVITIES:					
SALs made	($12,307,506)	($8,492,609)	($9,273,777)	($12,538,012)	($8,511,855)
Collections on SALs	$0	$0	$0	$7,154,779	$4,920,419
Net cash provided by investing activities	($12,307,506)	($8,492,609)	($9,273,777)	($5,383,233)	($3,591,436)
CASH FLOWS FROM FINANCING ACTIVITIES:					
Restricted grants for operating reserves	$1,000,000	$1,000,000	$0	$0	$0
Proceeds from equity obligations	$5,000,000	$0	$0	$0	$0
Proceeds from debt investments	$8,000,000	$10,000,000	$10,000,000	$3,000,000	$4,000,000
Net cash provided by financing activities	$14,000,000	$11,000,000	$10,000,000	$3,000,000	$4,000,000
Net increase (decrease) in cash	$1,281,644	$1,742,592	($424,960)	($454,360)	$679,696
Cash at beginning of year	$0	$1,281,644	$3,024,236	$1,629,991	$1,175,631
CASH AT END OF YEAR	$1,281,644	$3,024,236	$2,599,276	$1,175,631	$1,855,327

A detailed description of the calculations used to develop the pro forma financial statements appears in Appendix B.

Sensitivity Analysis of the Fund Model

To test how some of the assumptions used in the Fund's financial model would affect the cash flow outcomes, a sensitivity analyses on the pricing of the debt and equity capital and on the range of home price appreciation was calculated. The results of the sensitivity analysis appear in Tables 8 and 9.

The assessment of the impact of changes in the Fund's capital costs required establishing a range of pricing options, which would be greater or lesser than the current assumptions of 5.5% for equity and 6% for market-rate debt. A reduction in the pricing is not a concern, since it would clearly benefit the Fund. An increase in debt pricing would reduce net operating income, while a similar change in equity pricing would not. The gain paid to the equity holders by the Fund is a direct subtraction from net assets.

Table 8. Impact of Changes in Debt and Equity Pricing on Cash.

Pricing	Cash at EOY 15	Unrealized Gain EOY 15
Less expensive: Equity = 4.5%; Senior Debt = 4%	$4,975,690	$23,226,888
Current assumption: Equity = 5.5%; Senior Debt = 6%	$1,918,966	$33,691,659
More expensive: Equity = 6.5%; Senior Debt = 6%	($1,052,795)	$45,293,750

Table 9. Impact of Changes in Home Price Appreciation on Cash and Unrealized Gain.

Price Appreciation Per Year	"Cash	Unrealized Gain EOY 15
Slower: Low = 0.5%; Mod = 2.5%; High = 6.0%	Unrealized Gain EOY 15	$23,226,888
Current: Low = 1.5%; Mod = 3.5%; High = 7.0%	$1,918,966	$33,691,659
Faster: Low = 2.5%; Mod = 4.5%; High = 8.0%	($4,427,688)	$45,293,750

Determination of Fund Feasibility

Given the range of challenges discussed in this section, Grounded Solutions Network concluded that launching the proposed Shared Appreciation Loan Fund is not feasible at this time. Of primary concern is the proposed capitalization structure. Specifically, the Fund would need a significant amount of very affordable equity capital to support its investment activities until it established a track record for successfully deploying the SALs and receiving repayments during the resales of homes.

The research for the feasibility study did not uncover any sources of capital that would be appropriate for this role because institutional investors are hesitant to commit to a financing vehicle with an exit strategy that is untested. Additionally, traditional lenders are not willing to provide debt for an investment fund that requires at least seven years before receiving interest or principal payments.

VI. What Must be Addressed by Future Efforts to Create a Viable Shared Appreciation Loan Fund?

The completion of the base financial model for the SAL Fund revealed several challenges, risks, and ongoing sensitivities in some of its core aspects. The following section discusses these issues separately for the Fund's capitalization, SAL deployment and repayment, portfolio management, and social impact objectives. Additionally, strategies that the Fund could adopt to mitigate risks and other concerns are identified and explored.

Capitalization

Identifying sources of appropriate capital is an essential requirement for the success of the SAL Fund. As explored below, two obstacles for this are: (1) the illiquid nature of the shared appreciation loans, and (2) a dearth of longer-term capital sources willing to accept lower interest rates or returns on investment for the type of risk presented by the Fund.

Illiquidity of Investments

A significant challenge to the viability of the SAL Fund is its capital structure. Specifically, the base model of the Fund requires a substantial amount of equity or grants to support operating costs over the first seven years, since the investments in the homes will not generate any cash flow until the resale of the properties. The Fund's base model shows $2 million in grants needed to cover a portion of its total operating support. As a result, the Fund would need to maintain sufficient net assets or equity equivalent capital to pay these expenses. The base model envisions fundraising 28 percent of initial capital in the form of equity or equity equivalents. The likelihood of finding funders willing to invest this type of capital into a start-up intermediary is small. Moreover, the grants and contributions needed to cover operating expenses are neither guaranteed nor necessarily renewable income sources, and they are subject to potentially lengthy and stringent application and review processes. Consequently, grant funding can be difficult to obtain, especially in times of economic hardship.

Furthermore, while the Fund would seek to repay lenders and investors on schedule, there is a risk that some SALs will not follow the projected repayment schedule. Specifically, some investments with homeowners might mature beyond the projected average loan life expectancy or even default entirely, which could result in exhausting the capacity of the Fund's reserves to satisfy all outstanding obligations. The SALs are illiquid investments, and the Fund may not be able to access funds necessary to repay its debt obligations when due or at all.

To manage this risk, the Fund would need a strategy for raising additional debt and equity equivalent capital and ensuring the availability of these resources to retire existing debt obligations or increase loan volume. Also, the Fund should develop a strategy for raising sufficient equity equivalent capital, grants and contributions to ensure that it can meet its operating expenses until it receives sufficient proceeds from the repayment of the SALs.

Below Market-Rate Investors/Lenders

The capitalization structure of the base model of the SAL Fund consists of a combination of senior market-rate debt, subordinated below market-rate debt, and equity capital with a concessionary (not risk-adjusted) rate of return. Once adequately capitalized, the leverage under this structure would be $2.67 of debt for every $1.00 of equity and equity-equivalent investments. This arrangement would allow the Fund to create a diverse portfolio of SALs and repay the capital plus a financial gain to the lenders and investors over a 15-year period.

Even in the most favorable market conditions, this capitalization structure depends on the willingness of investors and lenders to make a long-term investment with equity-type risks while accepting a financial return that is less than market-rate.

The financial projections also indicate that new investors and lenders would commit their capital while the Fund experiences negative cash flow during the first eight to ten years of operations. Moreover, the initial investors and lenders in the Fund would assume a higher redemption and repayment risk than subsequent funders, given the untested assumptions for how capital will exit the Fund. As a result, the initial investors and lender would assume significant risks, both known and unknown.

After vetting the base model with several experienced, affordable housing investors and lenders, Grounded Solutions Network was unable to identify any providers of capital willing to consider a long-term investment or loan at a below market-rate of return. Overcoming this obstacle would be particularly important for banks, which are regulated financial institutions with less flexibility in loan structure and pricing than CDFIs or other more mission-oriented lenders. The ultimate success of the Fund's capitalization structure requires a feasible exit strategy for the investors' capital.

To overcome these challenges, the Fund might consider launching with an all-equity structure instead of a leveraged one. An equity fund could appeal to more socially-motivated impact investors, faith-based capital sources, and philanthropic institutions. These investors are typically willing to accept a higher level of risk than the regulated financial institutions. As the Fund builds the SAL portfolio and experiences repayments and redeployments of capital, its track record could provide the evidence necessary to attract additional investments and loans from more risk-adverse sources.

Deployment and Repayment

Two factors, discussed in detail below, are critical for the proposed SAL Fund to successfully originate shared appreciation loans and facilitate the conditions that help ensure the return of capital. First, the Fund's investment strategy should result in a pool of loan assets that spread risks across multiple geographies and types of homeowners. Second, the SALs must be compatible with the homeowners' first mortgage loans, allowing first mortgage originators to sell those assets to a secondary market.

Portfolio Diversification

Consistent with any investment or lending entity, the proposed SAL Fund would need to diversify its portfolio to reduce the risk of losses. While the Fund ideally would be able to scale nationally to serve many markets, portfolio concentration in any single geography could result in higher credit risk, and thereby, impact the Fund's ability to repay its debt obligations. However, geographic diversification also comes with additional administrative burden to identify and train a local stewardship partner as well as research and evaluate appropriate neighborhoods and properties for SALs. Ultimately, various economic conditions can affect the probability of the Fund successfully collecting its share of the projected appreciation from the homeowners. For instance, events in the global, national, and local credit markets could affect the creditworthiness of the Fund's borrowers over the term of the investments or the ultimate value and marketability of the homes financed through the SAL Fund. Yet, trying to consistently predict which markets will achieve the average growth necessary to enable the Fund to attain its share of projected appreciation over the long term is a daunting challenge.

Furthermore, Grounded Solutions Network's HomeKeeper data indicates that lower income households who own shared equity homes tend to have longer durations of tenure than the national average, especially in places where market-rate homes are very high cost. It is also possible that strong markets with costlier market-rate housing would have a greater demand for SALs. Tracking the number and concentrations of loans by market characteristics will be an important task; consequently, loan diversification is an essential element in the Fund's risk management strategy.

As a result, any financial model for the Fund must assume losses would occur in some markets. The model addressed this by assuming that the Fund would lose money in slowly appreciating markets, make modest returns in moderately appreciating markets, and make significant gains in rapidly appreciating markets. Beyond fluctuating trends in individual real estate markets, there is a risk that the nation would experience an economic downturn during the lifetime of the Fund. Effectively managing the portfolio diversification strategy would mitigate some aspects of these risks; however, there is no guarantee that uncertainties in the real estate market would not negatively impact the Fund's ability to achieve its financial objectives. In other words, if the entire real estate market

plunges, it will be very hard for the Fund to break even. This is a risk that is true for almost all investments in real estate. This project identified several markets or target neighborhoods that potentially met the conditions required to attain the SAL Fund's financial goals. Additional research and predictive analytics on neighborhood-level housing markets could help this effort.

First Mortgages Purchased by Freddie Mac or Fannie Mae

Each SAL is structured as a second mortgage, and a first mortgage is required to complete the financing necessary to purchase the home. In order for financial institutions to be interested in originating a first mortgage, they will need to be able to sell that first mortgage to Freddie Mac or Fannie Mae. If these Enterprises could purchase the first mortgages originated with SALs, this would greatly increase the viability of a Fund by removing barriers for prospective borrowers to obtain home purchase loans. Luckily, both Enterprises expressed an interest supporting lower income buyers using the Fund's SALs if the first mortgages were deemed safe and sound and likely to perform well. To formalize access to the secondary market, collaboration and changes to selling guidelines would be necessary. These changes were not completed during this project, since the Fund was ultimately not developed.

Moreover, certain questions would need to be answered to address balancing risk for the Enterprises with protecting the Fund's performance and the homeowners' rights as owners. These questions include: Could the homeowner pay-off the SAL, effectively taking the property out of the Fund's portfolio? How would the homeowner be incentivized to address maintenance and capital improvements considering their limited proceeds from appreciation? Would the SAL be considered "down payment" or "equity" to calculate the Loan-to-Value on the first mortgage, which would enable the homebuyer to save by hopefully not paying mortgage insurance? In the instance of foreclosure proceedings, would the Fund or local steward have the right of first refusal to protect their investment and preserve the home for future lower income buyers? These questions would need to be addressed in the future if a similar fund is pursued.

Partnership with Freddie Mac and Fannie Mae would also help to standardize program design and legal agreements through the Fund. This is an existing challenge in shared equity homeownership programs across the country, which have substantial variation in program design and contracts. This inadvertently decreases lender confidence about whether loans are compliant and able to be sold to the Enterprises. With standardization, it would make it possible for first mortgage loans to be incorporated into automatic underwriting, lessening the burden for originators. If a similar fund is pursued in the future, these factors would need to be addressed to ensure adequate access and liquidity for the associated first mortgages.

Portfolio Management

Effective deployment and repayment of SALs requires an organization capable of developing and maintaining a continuous stream of potential opportunities. Finding the right team to carry out this task, along with managing the other functions of the Fund, would be a considerable challenge. These issues are explored in detail below.

Pipeline Development

Operating in multiple different local housing markets requires the availability of a pipeline of ready buyers in each place. Developing this pipeline would depend on effective marketing and public relations to create interest in the product. Successfully managing this function would present a challenge for the Fund in balancing the diversification of the investment portfolio against the operating expenses incurred to conduct intensive market analyses. To mitigate these risks, the Fund would need to attract and train effective local stewards to build market recognition of the SAL product and develop of pipeline of mortgage-ready buyers. However, this comes with its own risk too, as some local stewards may underperform on this function.

Strong Fund Manager with an Experienced Underwriting Team

The manager of the SAL Fund should be an entity with a lean and experienced underwriting team and strong track record in deploying similar types of financial products. The likely candidate for this role would be a certified CDFI that has a national footprint and experience originating first mortgages and/or down payment assistance. Unfortunately, there are not many CDFIs that fit this description and have capacity. Moreover, the prospective Fund manager would need to launch and engage in the development of the Fund for a potentially protracted period with little to no cash flow generated through its activities. Due to the intensive effort that it would take to get the Fund off the ground and the risk, it may be quite challenging to find a CDFI that would be eager to take on such an initiative.

Social Impact Objectives

Ultimately, the development of a SAL Fund was explored to make a social impact. The goal was to dramatically increase the number of homes with long-term affordability by infusing more capital into the sector. As discussed in this section, the Fund would need to focus on building the capacity of stewardship partners and maintaining affordability of homes over time to achieve its objective.

Supportive Stewardship Partners

A vital requirement for the success of the proposed SAL Fund would be local stewardship partners with the appropriate loan packaging and compliance monitoring experience. These local partners would support the development of a SAL pipeline, provide ongoing assistance to the homeowners, and protect the Fund's investors from risks, such as unauthorized title changes. Also, the stewardship partners would need designated staff available to educate homebuyers and sellers on the SAL product and its requirements. While Grounded Solutions Network has an extensive network of organizations that possess those qualities, the Fund would likely also need to engage directly in building the capacity of local agencies to deliver stewardship services. Additionally, it would have to address the challenge of local partners that underperform, do a poor job assessing property eligibility, or fail to build a pipeline of ready borrowers.

Maintaining Affordability over Time

The SAL Fund would likely encounter several challenges related to keeping properties affordable over resales and asset management. For instance, if the fair market value of a property becomes too high over time and resales, the payments required for real estate taxes and insurance alone would likely exceed the projected 33 percent of income for lower income households. In these cases, even a SAL equal to 100 percent of the purchase price would not make this property affordable for most target buyers. As mentioned previously, another challenge for the Fund is how to handle property improvements. During the tenure of any homeowner, a house will likely experience problems with major systems that require repairs or renovations to the property to preserve its value. As a result, determining how these costs would factor into homeowner's proceeds upon resale would be a critical decision for the Fund. The Fund would likely want to promote a property's upkeep; however, the expectation of sharing proceeds from appreciation without adding compensation for home improvements would be a disincentive for homeowners.

The Fund could address these challenges in several ways. First, the Fund could rotate overvalued properties out of its investment pool and substitute ones with lower values. Those properties turned out of the investment pool would continue to benefit from the SAL financing during the ownership tenure of the current occupant; however, the Fund would not participate in financing these assets for future homebuyers. While this might be a solution for the financial viability of the Fund, it should be noted that this approach compromises the objective to keep the same properties affordable over time. To address how to credit the homeowner for improvements, the Fund would need to develop a list of the types of permitted repairs and improvements as well as the appropriate compensation for homeowners that does not harm the Fund's ability to pay back investors or cover operating costs. Also, the stewardship partner would need to play a role in monitoring the quality of the home improvements.

VII. Conclusions and Recommendations

The purpose of this project was to explore whether private capital could be used to deliver shared equity homeownership opportunities to lower income households through shared appreciation loans (SALs). The social objective of the SAL Fund was to expand the number of affordable homeownership opportunities for lower income households while ensuring that the properties remained affordable over resales to serve subsequent households with modest incomes. This would result in creating a stock of affordable homes in neighborhoods that become rich in opportunity. Unfortunately, it was determined that the SAL Fund, as presented in this paper, was not currently viable.

In order for the Fund to be viable, the equity or debt capital needed to be "cheaper" than market-rate, longer-term, and more risk tolerant. Unfortunately, there was not sufficient investor interest in providing such equity or debt financing at this time. Additionally, the Fund required substantial amounts of grant funds in order to leverage the private capital. Ultimately, a critical take-away from this research is that to scale the number of shared equity homes, subsidy dollars and grants are necessary. What this research does support is that it may be possible to blend public or philanthropic grant dollars with a modest amount of private capital that expects returns on investment. However, it is likely that a large proportion must be subsidy rather than financing dollars. Future research could explore whether federal or local public funds could be used in this manner to leverage private capital.

Ultimately, it is probable that a SAL Fund with heavy subsidization or equity investors may be more viable in certain local markets rather than as a national fund as presented in this paper. A locally-based SAL fund could obtain grants and attract equity investment from individual impact investors, who may be more willing to offer capital at a below market-rate of return and with greater flexibility in repayment terms. Additionally, a local fund could have better control over the problem of how property taxes and property insurance costs impact the affordability of the SAL-funded homes, as it could advocate for better taxation policies. Lastly, a local SAL fund could capitalize upon its intimate knowledge of the local market to select neighborhoods and properties that hold strong promise for financial returns. However, one risk of a local fund is the limited ability to diversify risks associated with geography.

While it is not aligned to the mission of Grounded Solutions Network, another potential option to increase the viability of a SAL Fund would be to compromise the goal of keeping properties affordable over resales. As reviewed in this paper, SALs designed to recapture and grow public investment have been used by governments and nonprofits, but this SAL model does not keep the same homes affordable, and therefore, limits the ability to create an affordable housing stock in higher-opportunity areas. Nevertheless, this is a more efficient financial model that down payment assistance programs that typically lose the public investment through providing grants or forgivable loans. It may be possible that with a SAL Fund of this nature investor confidence would increase since new SALs do not need to be redeployed upon every resale, which minimizes concerns over whether the Fund could continue to recruit additional capital.

Grounded Solutions Network believes that shared equity homeownership opportunities should be expanded and calls upon the philanthropic community and policy makers overseeing public resources to provide more funding for homeownership opportunities that remain affordable in perpetuity. The ultimate objective of creating ownership opportunities for lower income homebuyers is worth the effort to find a more feasible financial model.

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Appendix A. Shared Appreciation Loan Calculations & Assumptions

Sales Price of SAL-Financed Home	First Purchase = Median Sales Price X Market Adjustment (Assumption Table); Subsequent Purchases = 10-Year Fair Market Value at Prior Sale
AMI for Family of Three (2013)	Assumption Table
Target AMI	Family AMI X Target Income % (Assumption Table)
Amount of Sales Price Affordable for Target AMI	Present Value Function based on Target AMI and Homeowner's Housing Costs (Assumption Table)
Sales Price of SAL-Financed Home	SAL-Financed Home Value X Down Payment % (Assumption Table)
Estimated Closing Costs	First Mortgage X Closing Cost % (Assumption Table)
Stewardship Fee Paid at Closing	$1,000 fee paid at closing; COL increases each year
Buyer's Down Payment	SAL-Financed Home Value X Down Payment % (Assumption Table)
Shared Appreciation Loan	SAL-Financed Home Value + Closing Costs - First Mortgage - Down Payment
Conventional First Mortgage	Affordable Home Price for Target AMI
Total Financing	Sales Price + Closing Costs - Down Payment
Annual Property Tax	SAL-Financed Home Value X Property Tax Rate (Assumption Table)
Annual Property Insurance	Average Property Insurance (Assumption Table)
Other Annual Fees	Other Annual Fees
Homeowner's Projected Monthly Payment (PITIO)	
Total LTV	Total Financing / SAL-Financed Home Price
SAL LTV	SAL / SAL-Financed Home Price
Homeowner's PITIO / Monthly Target AMI	Homeowner's Monthly PITIO / Monthly Target AMI
Average Ownership Tenure - Years	Assumption Table
Average Home Price Appreciation/Year	Assumption Table
Fair Market Value/Sales Price After 9 Years	Future Value of Ownership Tenure, Home Price Appreciation, and SAL-Financed Home Price
Net Home Price Appreciation	10-Year Fair Market Value - SAL-Finance Home Price

Single Shared Appreciation Loan Assumptions

% of Fair Market Value for the Typical SAL-Financed Home	80%
Target AMI for SAL-Financed Home	63%
Minimum Down Payment Required for SAL-Financed Home	1%
30-yr Mortgage Interest Rate	5.50%
Maximum Homeowner's Housing Cost (PITIO)	33%
Mortgage Term	30
# of months in a year	12
Average Monthly Household Debt	0
Average Ownership Tenure – Years	9
Homeowner's Share of Appreciation	20%
% of Appreciation Remaining After Homeowner's Share	80%
Borrowed Capital Interest Rate	3.25%
Stewardship Fee @ Closing	$1,000
Annual Stewardship Fee @ Sale	$400
Realtors Fee Paid By Seller	$0
Average Increase in AMI (2000-2013)	1.15%
SALF Internal Interest Rate	1.5%
SALF Deferred Operating Expense per Loan per Year	$1,627
SAL Sponsor Deferred Fee Due Upon Resale	2.0%
Other Annual Fees	$0
Cost of Living Increase (Inflation Rate)	1.015
Closing Costs =	3.50%
Average Property Insurance =	0.5%
Average Property Tax Rate =	1.129%
Area Median Income for 3-Persons Household =	$56,100
Average Home Price Appreciation/Year =	3.5%

Appendix B. Statements, Calculations, and Assumptions of the Shared Appreciation Loan Fund

Income Statement

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16
REVENUES																
Financing Revenue:																
Gain on Sale of Assets	0	0	0	63,139	62,472	381,864	269,459	4,262,142	2,728,402	2,788,980	6,630,800	5,341,537	3,560,749	2,757,577	1,944,526	687,492
Closing Fees Collected for Lending Partners	138,000	87,000	87,000	78,000	76,000	11,000	8,000	78,000	49,000	48,000	92,000	71,000	50,000	38,000	70,000	
Interest Income on Idle Capital	0	25,633	60,485	51,986	47,507	24,187	19,187	32,600	23,513	37,107	84,018	62,143	43,543	47,486	42,300	38,379
Management Fee	100,000	-	-	-	-	-	-	-	-	-	-	-	-	-	100,000	-
Gross Financing Revenue	238,000	112,633	147,485	193,124	185,978	417,051	296,645	4,372,742	2,800,915	2,874,086	6,806,817	5,474,680	3,654,293	2,843,063	2,156,827	725,871
Allowance for loan losses	615,375	424,630	463,689	439,571	465,254	23,729	17,594	269,162	179,572	190,234	446,126	365,361	213,761	193,085	235,352	81,701
Net Financing Revenues	(377,375)	(311,998)	(316,204)	(246,446)	(279,276)	393,321	279,051	4,103,581	2,621,343	2,683,853	6,360,691	5,109,319	3,440,531	2,649,978	1,921,475	644,170
Other Revenue (Grants, Contracts)																
Total Net Operating Revenue	(377,375)	(311,998)	(316,204)	(246,446)	(279,276)	393,321	279,051	4,103,581	2,621,343	2,683,853	6,360,691	5,109,319	3,440,531	2,649,978	1,921,475	644,170
EXPENSES																
Financing Expenses:																
Return to Investors	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Interest Expense	210,000	365,000	675,000	1,000,000	1,340,000	1,540,000	1,615,000	1,705,000	1,810,000	1,995,000	2,195,000	2,325,000	2,420,000	2,480,000	2,680,000	2,935,000
Closing Costs Paid to Lending Partners	138,000	87,000	87,000	78,000	76,000	11,000	8,000	78,000	49,000	48,000	92,000	71,000	50,000	38,000	70,000	-
Stewardship Fee Due At Closing Accrual	55,200	90,522	126,904	159,404	191,977	193,810	195,400	200,096	201,667	203,380	207,860	210,723	212,378	213,306	217,617	219,807
Total Financing	403,200	542,522	888,904	1,237,404	1,607,977	1,744,810	1,818,400	1,983,096	2,060,667	2,246,380	2,494,860	2,606,723	2,682,378	2,731,306	2,967,617	3,154,807
Operating Expenses:																
Personnel	168,750	291,350	400,575	409,527	490,670	499,172	506,659	514,259	521,973	529,803	537,750	545,816	554,003	562,313	570,748	579,309
Occupancy	14,000	14,210	14,423	14,639	14,859	15,082	15,308	15,538	15,771	16,007	16,248	16,491	16,739	16,990	17,245	17,503
Marketing	10,000	10,150	10,302	10,457	10,614	10,773	10,934	11,098	11,265	11,434	11,605	11,779	11,956	12,136	12,318	12,502
Accounting & Admin. Services	37,500	38,063	38,633	39,213	39,801	40,398	41,004	41,619	42,243	42,877	43,520	44,173	44,836	45,508	46,191	46,884
Financial Audit	20,000	20,300	20,605	20,914	21,227	21,546	21,869	22,197	22,530	22,868	23,211	23,559	23,912	24,271	24,635	25,005
Legal	10,000	10,150	10,302	10,457	10,614	10,773	10,934	11,098	11,265	11,434	11,605	11,779	11,956	12,136	12,318	12,502
Travel	30,000	30,450	30,907	31,370	31,841	32,319	32,803	33,295	33,795	34,302	34,816	35,338	35,869	36,407	36,953	37,507
Board-Related Expenses	5,000	5,075	5,151	5,228	5,307	5,386	5,467	5,549	5,632	5,717	5,803	5,890	5,978	6,068	6,159	6,251
Overhead	5,600	5,684	5,769	5,856	5,944	6,033	6,123	6,215	6,308	6,403	6,499	6,597	6,695	6,796	6,898	7,001
Total Operating Expenses	300,850	425,432	536,668	547,661	630,876	641,481	651,103	660,870	670,783	680,844	691,057	701,423	711,944	722,623	733,463	744,465
Total Expenses	704,050	967,954	1,425,572	1,785,065	2,238,853	2,386,291	2,469,503	2,643,965	2,731,450	2,927,224	3,185,917	3,308,146	3,394,322	3,453,929	3,701,080	3,899,272
Net Operating Income (Expense)	(1,081,425)	(1,279,952)	(1,741,776)	(2,031,512)	(2,518,129)	(1,992,970)	(2,190,452)	1,459,615	(110,107)	(243,371)	3,174,774	1,801,173	46,209	(803,951)	(1,779,606)	(3,255,102)
Release from (Addition to) Operating Reserve	1,000,000	1,000,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Change in Unrestricted Net Assets	(81,425)	(279,952)	(1,741,776)	(2,031,512)	(2,518,129)	(1,992,970)	(2,190,452)	1,459,615	(110,107)	(243,371)	3,174,774	1,801,173	46,209	(803,951)	(1,779,606)	(3,255,102)
Unrealized Gains in SAL Portfolio	-	1,163,530	3,183,790	6,081,108	9,922,355	14,410,621	19,335,184	19,562,033	21,935,690	24,473,918	22,296,405	22,162,244	25,515,777	29,768,044	33,691,659	32,057,640
Increase (Decrease) including Unrealized Gains	(81,425)	883,578	1,442,014	4,049,597	7,404,226	12,417,651	17,144,732	21,021,648	21,825,583	24,230,547	25,471,180	23,963,416	25,561,986	28,964,093	31,912,054	28,802,538

Income Statement Calculations

Revenues:

- Gain on Sale of Assets: drawn from SAL Schedule
- Closing Fees Collected for Lending Partners: drawn from SAL Schedule
- Interest Income on Idle Capital: Calculated as cash on Balance Sheet times assumption on investment earnings from Investment Assumptions
- Management Fee: Equity Investment (from Investment Schedule) times Management Fee % (from Investment Assumptions)
- Allowance for loan loss: drawn from Balance Sheet

Financing Expenses:

- Interest Expense – drawn from Investment Schedule
- Closing Costs Paid to Lending Partners – the negative of Closing Fees Collected for Lending Partners
- Stewardship Fee Due At Closing Accrual: drawn from SAL Schedule

Operating Expenses:

- All Operating Expenses are drawn from Income Statement Assumptions

Net Income and Gains:

- Net Operating Income (Expense) – calculated as Total Net Operating Revenue minus Total Expenses
- Release from (Addition to) Operating Reserve – drawn from Balance Sheet
- Change in Unrestricted Net Assets – calculated as Net Operating Income (Expense) plus Release from (Addition to) Operating Reserve
- Unrealized Gains in SAL Portfolio – drawn from Investment Schedule
- Increase (Decrease) including Unrealized Gains Net – calculated as Change in Unrestricted Net Assets plus Unrealized Gains in SAL Portfolio
- Annual Operating Expense per Outstanding Loan – calculated as Total Operating Expense divided by number of outstanding loans (from SAL Schedule)
- Average for First Seven Years – calculated as average of the first seven years of Annual Operating Expense

Income Statment Assumptions

Personnel	Annual Salary	Benefits @25%
CEO	$135,000	$33,750
Chief Lending Officer	$94,000	$23,500
Administrative Assistant / Investor Relations	$36,000	$9,000
Underwriter	$45,000	$11,250
Portfolio Manager	$60,000	$15,000

Inflation Rate =	1.5%
Fund Management Fee =	2.0%
Impact Investor – Equity =	5.5%
Impact Investor – PRI =	2.0%
Bank Lender - CRA =	3.0%
Market Rate Lender =	5.0%
Equity Equivalent Investment =	2.0%

Operating Expenses	Year 1
Occupancy	$14,000
Marketing	$10,000
Accounting & Admin. Services	$37,500
Financial Audit	$20,000
Legal	$10,000
Travel	$30,000
Board-Related Expenses	$5,000
Overhead	$5,600
Total Operating Expenses	$536,668
Stewardship Fee @ Closing	$1,000

Balance Sbeet

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16
ASSETS																
Cash on Hand	1,281,644	3,024,236	2,599,276	2,375,327	1,209,347	959,330	1,629,991	1,175,631	1,855,327	4,200,897	3,107,128	2,177,162	2,374,282	2,115,020	1,918,966	2,331,353
Total Current Assets	1,281,644	3,024,236	2,599,276	2,375,327	1,209,347	959,330	1,629,991	1,175,631	1,855,327	4,200,897	3,107,128	2,177,162	2,374,282	2,115,020	1,918,966	2,331,353
SALs:																
SALs, BoY	0	12,307,506	20,800,115	30,073,891	38,865,304	48,170,386	48,644,973	48,996,854	54,380,086	57,971,523	61,776,194	70,698,724	78,005,947	82,281,176	86,142,876	90,849,912
New SALs	12,307,506	8,492,609	9,273,777	9,058,967	9,597,931	1,507,851	1,188,383	12,538,012	8,511,855	9,000,012	18,599,026	15,460,742	11,717,060	9,575,250	18,951,978	14,078,612
Repayments	0	0	0	(267,554)	(292,849)	(1,033,264)	(836,503)	(7,154,779)	(4,920,419)	(5,195,340)	(9,676,496)	(8,153,520)	(7,441,831)	(5,713,549)	(14,244,943)	(12,444,593)
SALs, EoY	12,307,506	20,800,115	30,073,891	38,865,304	48,170,386	48,644,973	48,996,854	54,380,086	57,971,523	61,776,194	70,698,724	78,005,947	82,281,176	86,142,876	90,849,912	92,483,932
Reserve for loan losses:																
Reserves at begin. yr.	0	615,375	1,040,006	1,503,695	1,943,265	2,408,519	2,432,249	2,449,843	2,719,004	2,898,576	3,088,810	3,534,936	3,900,297	4,114,059	4,307,144	4,542,496
Additions	615,375	424,630	463,689	439,571	465,254	23,729	17,594	269,162	179,572	190,234	446,126	365,361	213,761	193,085	235,352	81,701
Reserves at end yr.	615,375	1,040,006	1,503,695	1,943,265	2,408,519	2,432,249	2,449,843	2,719,004	2,898,576	3,088,810	3,534,936	3,900,297	4,114,059	4,307,144	4,542,496	4,624,197
Net SALs	11,692,130	19,760,109	28,570,197	36,922,039	45,761,867	46,212,725	46,547,011	51,661,082	55,072,947	58,687,385	67,163,788	74,105,649	78,167,117	81,835,733	86,307,416	87,859,735
Unrealized Gain on SALs	0	1,163,530	3,183,790	6,081,108	9,922,355	14,410,621	19,335,184	19,562,033	21,935,690	24,473,918	22,296,405	22,162,244	25,515,777	29,768,044	33,691,659	32,057,640
Total Other Assets	11,692,130	20,923,639	31,753,987	43,003,147	55,684,222	60,623,346	65,882,195	71,223,115	77,008,637	83,161,303	89,460,193	96,267,893	103,682,894	111,603,777	119,999,075	119,917,374
Total Assets	12,973,775	23,947,875	34,353,263	45,378,474	56,893,569	61,582,675	67,512,187	72,398,746	78,863,964	87,362,201	92,567,322	98,445,055	106,057,175	113,718,797	121,918,041	122,248,727
LIABILITIES																
Accrued Stewardship Fees	55,200	145,722	272,626	432,030	624,007	817,818	1,013,218	1,213,313	1,414,980	1,618,360	1,826,220	2,036,943	2,249,320	2,462,626	2,680,243	2,900,050
Total Non-Debt Liabilities	55,200	145,722	272,626	432,030	624,007	817,818	1,013,218	1,213,313	1,414,980	1,618,360	1,826,220	2,036,943	2,249,320	2,462,626	2,680,243	2,900,050
Borrowed Funds:																
Investors - First Five Years																
Impact Investor - PRI	1,000,000	2,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	2,000,000	1,000,000	-	-	-	-	-
Impact Investor - Bank CRA	5,000,000	10,000,000	15,000,000	20,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	20,000,000	15,000,000	10,000,000	5,000,000	-	-	-
Market Rate Lender 1	-	2,000,000	4,000,000	7,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	8,000,000	6,000,000	3,000,000	-	-	-
Market Rate Lender 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Market Rate Lender 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equity Equivalent Investment	2,000,000	4,000,000	6,000,000	8,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
Investors - Years 6-16																
Impact Investor - PRI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Impact Investor - Bank CRA	-	-	-	-	-	2,000,000	5,000,000	8,000,000	12,000,000	18,000,000	24,000,000	32,000,000	40,000,000	50,000,000	62,000,000	67,000,000
Market Rate Lender 1	-	-	-	-	-	-	-	-	-	4,000,000	8,000,000	10,000,000	12,000,000	12,000,000	12,000,000	12,000,000
Market Rate Lender 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Market Rate Lender 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equity Equivalent Investment	-	-	-	-	-	-	-	-	-	2,000,000	4,000,000	6,000,000	8,000,000	10,000,000	10,000,000	10,000,000
Total Debt Liabilities	8,000,000	18,000,000	28,000,000	38,000,000	48,000,000	50,000,000	53,000,000	56,000,000	60,000,000	66,000,000	70,000,000	74,000,000	78,000,000	82,000,000	94,000,000	99,000,000
Total Liabilities	8,055,200	18,145,722	28,272,626	38,432,030	48,624,007	50,817,818	54,013,218	57,213,313	61,414,980	67,618,360	71,826,220	76,036,943	80,249,320	84,462,626	96,680,243	101,900,050
Net Assets																
Impact Investor	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	-	-
Impact Investor - Equity (Yrs 6-16)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,000,000	5,000,000
Total Equity	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000
Temporarily Restricted Net Assets - Operating Reserves BOY	1,000,000	1,000,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Addition to (Release from) Operating	(1,000,000)	(1,000,000)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Temporarily Restricted Net Assets - Operating Reserves EOY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unrestricted Net Assets - BOY	0	(81,425)	(361,377)	(2,103,153)	(4,134,664)	(6,652,794)	(8,645,763)	(10,836,215)	(9,376,600)	(9,486,707)	(9,730,078)	(6,555,304)	(4,754,131)	(4,707,922)	(5,511,873)	(13,453,861)
Net Operating Income	(1,081,425)	(1,279,952)	(1,741,776)	(2,031,512)	(2,518,129)	(1,992,970)	(2,190,452)	1,459,615	(110,107)	(243,371)	3,174,774	1,801,173	46,209	(803,951)	(1,779,606)	(3,255,102)
Equity Gain Paid to Investors	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(6,162,382)	0
Released from (Added to) Operating Reserves	1,000,000	1,000,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unrestricted Net Assets - EOY	(81,425)	(361,377)	(2,103,153)	(4,134,664)	(6,652,794)	(8,645,763)	(10,836,215)	(9,376,600)	(9,486,707)	(9,730,078)	(6,555,304)	(4,754,131)	(4,707,922)	(5,511,873)	(13,453,861)	(16,708,963)
Total Net Assets Before Unrealized Gains	4,918,575	4,638,623	2,896,847	865,336	(1,652,794)	(3,645,763)	(5,836,215)	(4,376,600)	(4,486,707)	(4,730,078)	(1,555,304)	245,869	292,078	(511,873)	(8,453,861)	(11,708,963)
Unrealized Gain on SALs in Portfolio	-	1,163,530	3,183,790	6,081,108	9,922,355	14,410,621	19,335,184	19,562,033	21,935,690	24,473,918	22,296,405	22,162,244	25,515,777	29,768,044	33,691,659	32,057,640
Total Net Assets Including Unrealized Gains	4,918,575	5,802,153	6,080,637	6,946,444	8,269,561	10,764,858	13,498,969	15,185,433	17,448,983	19,743,841	20,741,102	22,408,113	25,807,855	29,256,171	25,237,798	20,348,677
Total Liabilities and Net Assets	12,973,775	23,947,875	34,353,263	45,378,474	56,893,569	61,582,675	67,512,187	72,398,746	78,863,964	87,362,201	92,567,322	98,445,055	106,057,175	113,718,797	121,918,041	122,248,727

Balance Sheet Calculations and Assumptions

Assets:

- Cash on Hand – Total Assets minus Total Other Assets
- New SALs - drawn from SAL Schedule
- Repayments - drawn from SAL Schedule
- Reserves for Loan Losses: Additions – New SALs plus Repayments times Loan Loss Reserve Rate
- Unrealized Gains on SALs – drawn from Investment Schedule

Liabilities:

- Accrued Stewardship Fees - drawn from SAL Schedule
- Impact Investor – PRI - drawn from Investment Schedule
- Impact Investor - Bank CRA - drawn from Investment Schedule
- Market Rate Lender - drawn from Investment Schedule
- Equity Equivalent Investment - drawn from Investment Schedule

Assumptions:

- Loan Loss Reserve Rate = 5.0%
- Temporarily Restricted Net Assets: Operating Reserves BOY - drawn from Investment Assumptions

Cash Flow Statement

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16
CASH FLOWS FROM OPERATING ACTIVITIES:																
Net operating income (expense)	(1,081,425)	(1,279,952)	(1,741,776)	(2,031,512)	(2,518,129)	(1,992,970)	(2,190,452)	1,459,615	(110,107)	(243,371)	3,174,774	1,801,173	46,209	(803,951)	(1,779,606)	(3,255,102)
Adjustments to reconcile change in net assets to net cash provided by operating activities:																
Depreciation and amortization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Provision for loan loss	615,375	424,630	463,689	439,571	465,254	23,729	17,594	269,162	179,572	190,234	446,126	365,361	213,761	193,085	235,352	81,701
Loss on investments	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Changes in operating assets and liabilities:																
Restricted cash	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other receivables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-interest payables and accruals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Accrued interest increase (decrease)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Accrued stewardship fees increase	55,200	90,522	126,904	159,404	191,977	193,810	195,400	200,096	201,667	203,380	207,860	210,723	212,378	213,306	217,617	219,807
Interest payable	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deferred revene	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other liabilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net cash provided by operating activities	(410,850)	(764,799)	(1,151,183)	(1,432,537)	(1,860,898)	(1,775,430)	(1,977,458)	1,928,873	271,132	150,242	3,828,760	2,377,257	472,348	(397,561)	(1,326,636)	(2,953,594)
CASH FLOWS FROM INVESTING ACTIVITIES:																
SALs made	(12,307,506)	(8,492,609)	(9,273,777)	(9,058,967)	(9,597,931)	(1,507,851)	(1,188,383)	(12,538,012)	(8,511,855)	(9,000,012)	(18,599,026)	(15,460,742)	(11,717,060)	(9,575,250)	(18,951,978)	(14,078,612)
Collections on SALs	0	0	0	267,554	292,849	1,033,264	836,503	7,154,779	4,920,419	5,195,340	9,676,496	8,153,520	7,441,831	5,713,549	14,244,943	12,444,593
Net cash provided by investing activities	(12,307,506)	(8,492,609)	(9,273,777)	(8,791,412)	(9,305,083)	(474,587)	(351,880)	(5,383,233)	(3,591,436)	(3,804,672)	(8,922,529)	(7,307,223)	(4,275,229)	(3,861,701)	(4,707,036)	(1,634,020)
CASH FLOWS FROM FINANCING ACTIVITIES:																
Restricted grants for operating reserves	1,000,000	1,000,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proceeds from equity obligations	5,000,000	0	0	0	0	0	0	0	0	0	0	0	0	0	5,000,000	0
Repayments of equity obligations - principal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(5,000,000)	0
Repayments of equity obligations - gain on sale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(6,162,382)	0
Proceeds from debt investments	8,000,000	10,000,000	10,000,000	10,000,000	10,000,000	2,000,000	3,000,000	3,000,000	4,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	12,000,000	5,000,000
Repayments of debt investments - principal	0	0	0	0	0	0	0	0	0	(6,000,000)	(8,000,000)	(8,000,000)	(8,000,000)	(8,000,000)	0	0
Net cash provided by financing activities	14,000,000	11,000,000	10,000,000	10,000,000	10,000,000	2,000,000	3,000,000	3,000,000	4,000,000	6,000,000	4,000,000	4,000,000	4,000,000	4,000,000	5,837,618	5,000,000
Net increase (decrease) in cash	1,281,644	1,742,592	(424,960)	(223,949)	(1,165,980)	(250,017)	670,662	(454,360)	679,696	2,345,570	(1,093,769)	(929,966)	197,119	(259,261)	(196,054)	412,387
Cash at beginning of year	0	1,281,644	3,024,236	2,599,276	2,375,327	1,209,347	959,330	1,629,991	1,175,631	1,855,327	4,200,897	3,107,128	2,177,162	2,374,282	2,115,020	1,918,966
CASH AT END OF YEAR	1,281,644	3,024,236	2,599,276	2,375,327	1,209,347	959,330	1,629,991	1,175,631	1,855,327	4,200,897	3,107,128	2,177,162	2,374,282	2,115,020	1,918,966	2,331,353

Appendix C. Interviewees & Focus Group Participants

Maggie Amado-Tellez, Pima County Community Land Trust
Luke Apicella, Prudential Impact Investments
Heather Benham, Athens Land Trust
Maria Benjamin, City of San Francisco, CA
Norah Blair, City of Arlington Heights, IL
Robert Burns, City First Enterprises
Sandy Council, City of San Mateo, CA
Joan Davis and Angela Belcher, The Housing Fund
Robert Dowling, Community Home Trust
Nicki Duesberg, City of Oakland, CA
Brian Elbogen, Unison
Sue Haigh, Twin Cities Habitat for Humanities
Jane Harrington, Colorado Community Land Trust
Rick Jacobus, Street Level Advisors
Anthony Jones, Bright Community Trust
Chris Krehmeyer, Beyond Housing
Shawn Larson and Marcus Randolph, JPMorgan Chase
Scott Loomis, Community Housing of Park City
George McCarthy, Lincoln Institute of Land Policy
Tracy Menuez, HRDC
Jeff Meyers, Citibank
Jennifer Minnick, Frederick County Habitat for Humanities
Mardie Oakes, Hello Housing
Tony Pickett, Urban Land Conservancy
Mark Pinsky, FiveFour Advisors
Melinda Pollack, Enterprise Community Partners
Amber Randolph, Deutsche Bank Social Investments
Mark Sato, Pricewaterhouse Cooper
Paul Staley, Self-Help Federal Credit Union
Megan Teare and Tom Rafal, Wells Fargo
Katie Ulrich, Proud Ground
Jeff Washburne, City of Lakes Community Land Trust
Mike Williams, Habitat for Humanities of South Palm Beach County
Kelly Wise, Community Wheelhouse
Jeff Yeagin, City of Boulder, CO