Freddie Mac Duty to Serve Underserved Markets Plan

For 2018–202~~0~~1

Revised ~~December 20, 2019~~ December 23, 2020

DUTY TO SERVE

Underserved Markets Plan ~~3~~4-Year Activities and Objectives
(By Evaluation Area and Year)

Manufactured Housing

	EVALUATION AREA				PLAN YEAR			
Activities and Objectives	Loan Purchase	Loan Product	Outreach	Investment	Year 1 (2018)	Year 2 (2019)	Year 3 (2020)	Year 4 (2021)
Activity 1 – Support for Manufactured Housing Titled as Real Property: Regulatory Activity								
Objective A: Increase Single-Family Loan Purchases of Manufactured Housing Titled as Real Property	✓				✓	✓	✓	✓
Objective B: Design New Product Flexibilities to Facilitate the Origination of Mortgages Securing Manufactured Housing Titled as Real Property		✓			✓	✓	✓	✓
Objective C: Increase Homebuyer Access to Education and Resources			✓		✓	✓	✓	
Activity 2 – Support for Manufactured Housing Titled as Personal Property (Chattel): Regulatory Activity								
Objective A: Conduct Outreach and Research on the Chattel Market		✓			✓			
Objective B: Develop Initiative Guidelines for Chattel Pilot ~~and Initiate Chattel Purchases~~		✓			✓			
~~Objective B: Develop Initiative Guidelines for Chattel Pilot and Initiate Chattel Pilot~~	✓					✓	✓	
~~Objective C: Conduct Market Outreach to Support Chattel Pilot and Increased Access Homebuyer Access to Education~~			✓			✓	✓	
Activity 3 – Manufactured Housing Communities Owned by a Governmental Entity, Non-Profit Organization, or Residents: Regulatory Activity								
Objective A: Promote Understanding of the Resident-Owned Communities Market			✓		✓	✓		
Objective B: Develop a New Offering for Resident-Owned Communities		✓			✓	✓		
Objective C: Purchase Resident-Owned Community Loans	✓						✓	✓
Activity 4 – Manufactured Housing Communities with Certain Pad Lease Protections: Regulatory Activity								
Objective A: Conduct Tenant Protection Survey			✓		✓			

Objective B: Develop Pilot Offering for Borrowers That Institute Duty to Serve Tenant Protections		✓				✓	✓	
Objective C: Purchase Loans that Institute Duty to Serve Tenant Protections	✓						✓	✓

DUTY TO SERVE

Underserved Markets Plan ~~3~~4-Year Activities and Objectives
(By Evaluation Area and Year)

Rural Housing

	EVALUATION AREA				PLAN YEAR			
Activities and Objectives	Loan Purchase	Loan Product	Outreach	Investment	Year 1 (2018)	Year 2 (2019)	Year 3 (2020)	Year 4 (2021)
Activity 1 – Support for High-Needs Rural Regions: Regulatory Activity								
Objective A: Increase Single-Family Loan Purchases in High -Needs Rural Regions	✓				✓	✓	✓	✓
Objective B: Design New Product Flexibilities to Facilitate the Origination of Mortgages in High-Needs Rural Regions		✓			✓	✓	✓	
Objective C: Design Improved Product Flexibilities to Facilitate the Origination of Renovation Mortgages		✓			✓	✓		
Objective D: Increase Future Homebuyer Access to Education and Resources			✓		✓	✓	✓	
Objective E: Develop Rural Mapping Tool		✓			✓	✓		
Objective F: Research the Use of and Opportunity for LIHTC in Support of Middle Appalachia			✓		✓			
Objective G: Research the Use of and Opportunity for LIHTC in Support of the Lower Mississippi Delta			✓			✓		
Objective H: Research the Use of and Opportunity for LIHTC in Support of Persistent-Poverty Counties Not Included in Other High-Needs Rural Regions			✓				✓	
~~Objective I: Purchase Loans to Preserve Properties with USDA Section 515 Debt in High-Needs Rural Regions~~	✓						✓	
Objective I~~J~~: Engage in LIHTC Equity Investment				✓	✓	✓	✓	✓
Objective J~~K~~: Facilitate Thought Leadership and Research Related to Housing and Mortgage Financing in Rural Communities			✓			✓	✓	✓
Activity 2 – Support for High-Needs Rural Populations: Regulatory Activity								

Objective A: Increase Homebuyer Access to Education and Resources for Members of a Federally Recognized Indian Tribe in Indian Areas			✓		✓	✓	✓	
Objective B: Increase Technical Expertise in Indian Areas			✓		✓	✓	✓	✓
Objective C: Conduct Research on Tribal Lands in Association with LIHTC and Other Federal Programs			✓		✓			
Objective D: Develop LIHTC Equity Investment Offering		✓			✓			
Objective E: Engage in LIHTC Equity Investment				✓		✓	✓	✓
Activity 3 – Financing by Small Financial Institutions of Rural Housing: Regulatory Activity								
Objective A: Increase Loan Purchases from Small Financial Institutions Serving Rural Regions	✓				✓	✓	✓	✓
Activity 4 – Small Multifamily Rental Properties in Rural Areas: Regulatory Activity								
Objective A: Develop a New Offering to Preserve Properties with USDA Section 515 Debt		✓			✓			✓
~~Objective B: Make Purchases to Preserve Properties with USDA Section 515 Debt~~	~~✓~~						~~✓~~	
Objective ~~C~~B: Research and Develop a New Offering to Support the USDA Section 538 Program		✓				✓	~~✓~~	
Objective ~~D~~C: Develop a Tool to Identify LIHTC Properties and Section 8 Properties for Preservation Around the Country (Including DTS Designations)			✓				✓	
Objective ~~E~~D: Engage in LIHTC Equity Investment in All Rural in 5- to 50-unit Properties				✓				✓
Activity 5 – Single-Family Rental (SFR) in Rural Markets: Additional Activity								
Objective A: Research Rural SFR Market Characteristics and Opportunities			✓		✓			
Objective B: Develop Offering for SFR Transactions Containing Homes in Rural Areas		✓			✓			
Activity 6 – LIHTC Investment in All Rural Areas: Additional Activity								
Objective A: Engage in LIHTC Equity Investment in All Rural Areas				✓	✓	✓	✓	✓

DUTY TO SERVE

Underserved Markets Plan ~~3~~4-Year Activities and Objectives
(By Evaluation Area and Year)

Affordable Housing Preservation

	EVALUATION AREA				PLAN YEAR			
Activities and Objectives	Loan Purchase	Loan Product	Outreach	Investment	Year 1 (2018)	Year 2 (2019)	Year 3 (2020)	Year 4 (2021)
Activity 1 – Low Income Housing Tax Credits (Debt): Statutory Activity								
Objective A: Provide Liquidity and Stability Through LIHTC Loan Purchases	✓				✓	✓	✓	✓
Objective B: Develop a New Mezzanine Financing Offering to Close Capital Gaps for LIHTC Preservation Transactions		✓			✓	✓		
Activity 2 – Section 8: Statutory Activity								
Objective A: Provide Liquidity and Stability Through Section 8 Loan Purchases	✓				✓	✓	✓	✓
Objective B: Develop a New offering with a More Efficient Origination Path for Section 8 Preservation		✓			✓			
Activity 3 – HUD Rental Assistance Demonstration Program: Regulatory Activity								
Objective A: Provide Liquidity and Stability Through RAD Loan Purchases	✓				✓	✓	✓	✓
Activity 4 – Section 515: Statutory Activity								
Objective A: Develop a New Offering to Preserve Properties with USDA Section 515 Debt		✓			✓			✓
~~Objective B: Make Purchases to Preserve Properties with USDA Section 515 Debt~~	✓						✓	
Activity 5 – Financing of Small Multifamily Rental Properties: Regulatory Activity								
Objective A: Develop a New Offering for Small Balance Loan Pool Securitization		✓			✓			
Objective B: Develop a New Offering for Small Balance Loan Pool Credit Enhancements		✓			✓			
Objective C: Develop a New Offering for Small Balance Loan PC Securitization		✓				✓		

Objective D: Purchase/Guarantee Seasoned Small Balance Loans from Small Financial Institutions	✓				✓	✓	✓	✓
Objective E: Develop Offering for Loan Credit Enhancement for Secondary Market Transactions "SMART CE"		✓						✓
Activity 6 – Energy or Water Efficiency Improvements on Multifamily Rental Properties: Regulatory Activity								
Objective A: Publish an Annual Study of Energy and Water Efficiency Through the Green Advantage Program			✓		✓	✓	✓	✓
Activity 7 – Financing of Energy or Water Efficiency Improvements on Single-Family Properties: Regulatory Activity								
Objective A: Research the Relationship of Energy Efficiency Homes to Property Values and Loan Mortgage Performance		✓			✓	✓	✓	
Objective B: Develop Valuation Guidelines and Data Collection Requirements		✓			✓	✓	✓	
Objective C: Facilitate Financing of Energy Efficiency Improvements and Energy Efficient Homes		✓			✓	✓	✓	
Activity 8 – Support for Shared Equity Programs for Affordable Housing Preservation: Regulatory Activity								
Objective A: Develop Product Flexibilities and Guidelines that Facilitate New Mortgage Originations under Shared Equity Programs		✓			✓	✓	✓	
Objective B: Inform Loan Product Design Through Loan Purchases and Increase Single-Family Purchases of Loans Secured by Properties under Shared Equity Programs		✓			✓			
Objective B: Inform Loan Product Design Through Loan Purchases and Increase Single-Family Purchases of Loans Secured by Properties under Shared Equity Programs	✓							✓
Objective C: Support Standardization of Data Collection at the Transaction Level		✓			✓	✓	✓	
Objective D: Promote Market Awareness of Shared Equity Programs			✓		✓	✓		
Activity 9 – Support for Residential Economic Diversity: Additional Activity: Regulatory Activity								
Objective A: Purchase Loans on Properties that Support Economic Diversity	✓				✓	✓	✓	✓
Objective B: Create a Mapping Tool to Enable Deeper Understanding of the Various Aspects of RED		✓			✓		✓	
Objective C: Conduct and Publish Three Research Projects on Housing in High-Opportunity Areas			✓		✓	✓	✓	
Objective D: Conduct and Publish Three Research Projects on Housing in Areas of Concentrated Poverty			✓		✓	✓	✓	

(QCTs and R/ECAPs)								
Objective E: Conduct and Publish Three Research Projects on States that Prioritize or Could Prioritize RED in QAPS			✓		✓	✓	✓	
Objective F: Develop a Tool to Identify LIHTC Properties and Section 8 Properties in Areas of Residential Economic Diversity for Preservation Around the Country		✓					✓	
Objective G: Conduct and Publish Research on Zoning Practices that Further Residential Economic Diversity			✓					✓
Activity 10 – Financing of Single-Family Properties in Opportunity Zones								
Objective A: Facilitate the Creation and Preservation of Long-term Affordable Housing Units in Opportunity Zones			✓				✓	✓
Activity 11 – Sustainability and Resiliency: Additional Activity								
Objective A: Conduct and Publish a Report on Resiliency Efforts Within Multifamily Housing			✓					✓

Executive Summary

Since Congress chartered us in 1970, Freddie Mac's mission has been to provide liquidity, stability and affordability to all corners of the U.S. housing market. Supporting affordable housing and access to credit is an integral part of what we do.

In 2008, Congress called on Freddie Mac to provide leadership by developing loan products and flexible underwriting guidelines to serve those families that have been hardest to reach. Working with the Federal Housing Finance Agency (FHFA) under the Duty to Serve rule, we have now been asked to responsibly increase liquidity and improve the distribution of investment capital to serve very low-, low-, and moderate-income families within three historically underserved markets—manufactured housing, rural housing and affordable housing preservation.

The Duty to Serve rule is an important extension of our efforts to reach more families in underserved markets across the country. These efforts include our work to meet our affordable housing goals and our contributions to national affordable housing funds.

Duty to Serve presents an opportunity—one that Freddie Mac welcomes—to lead the entire mortgage industry in developing effective solutions to some of society's most persistent housing problems.

Our ultimate goal is clear: We look forward to helping more of America's families with their housing needs.

Our Community Mission

Freddie Mac is committed to undertaking Duty to Serve in the spirit of our broader community mission, which includes our efforts to stabilize communities, prevent foreclosures, responsibly expand credit, educate future borrowers, counsel current borrowers and support affordable rental housing.

During the past several years, our commitment to ensuring sustainable liquidity in support of our community mission has grown deeper. In fact, we are more effectively delivering on it each year with efforts that responsibly increase access to credit for more homebuyers and fund affordable rental housing across the nation.[1] For example, Freddie Mac purchased nearly 1.7 million single-family home loans in 2016. On the multifamily front, we were the nation's top lender for the second year in a row in 2016, and about 90 percent of our multifamily business supported working families earning at or below 100 percent of their area median income.

Examples from our Single-Family and Multifamily business areas, respectively, underscore our community mission work:

In 2016, Freddie Mac purchased more than 268,000 mortgages of first-time homebuyers, representing 42 percent of our owner-occupied, purchase-money mortgages. We focused our efforts on meeting the needs of first-time and underserved homebuyers through responsible offerings and a heightened focus on broadening access to credit. Additionally, we continue to engage non-profit organizations, lenders and housing professionals in educational and outreach initiatives designed to inform and prepare homebuyers and homeowners for building and maintaining better credit, making sound financial decisions and understanding the steps to successful long-term homeownership.

In rural areas, manufactured housing communities (MHC) are the prevalent form of affordable and easily accessible housing for many very low- and low-income households. Since starting our MHC program in 2014, we

have become one of the top sources of funds. By providing $2.8 billion to MHCs, we are making housing available for more than 68,000 families in more than 272 communities across 34 states. Nearly 20 percent of our MHC loans are made in rural areas. We intend to continue to grow our MHC offering through creative problem-solving that focuses on rural communities, while effectively managing associated risks. We hope to provide financing for communities in all 50 states over the next few years.

Our Duty to Serve Underserved Markets Plan reflects a continuation of our efforts to facilitate the financing of housing for very low-, low- and moderate-income families. Our plan also affirmatively demonstrates that we are focusing our efforts on some of the more difficult to serve areas—where we believe, over time, we can provide liquidity, stability and affordability to these deserving, but underserved, markets. While we acknowledge that there will be challenges to meeting the housing needs of these markets, going forward, we will seek to be even more innovative and creative in our efforts to responsibly increase access to homeownership and quality rental opportunities.

As a result, we are delivering a multi-pronged plan of action. In addition to loan purchases in various segments of these markets, we plan to engage in community and local outreach activities, increase homebuyer education, increase industry technical expertise, develop new offerings, enhance existing offerings, and conduct and publish market research. One of the cornerstones of our plan is our intention to work with the many dedicated organizations that are deeply knowledgeable about these markets. In other words, we will not go it alone; we will leverage partnerships with public, private and governmental entities. We believe that collaboration is a key ingredient to successfully fulfilling our Duty to Serve.

Addressing Challenges in Order to Support Our Duty to Serve Commitment

The focus of Duty to Serve is on underserved markets, or segments thereof, where normal commercial and traditional activities by the government-sponsored enterprises (GSEs) are only partially serving the marketplace today. Increasing our involvement in the many ways specified in the Duty to Serve regulation will lead to a range of activities. Preliminary research indicates that these activities will have an impact that individually ranges from potentially large to probably quite modest, and that the “degree of difficulty” of implementation will similarly range all the way up to quite challenging.

Consequently, as we developed our Plan, we took into account a number of such challenges. First, to ensure sustainability as well as safety and soundness, we must engage in extensive research and data collection with industry participants and other stakeholders. Second, the GSEs’ business model in conservatorship is to securitize almost all loans into the capital markets, rather than hold mortgage loans in portfolio, which must be reduced by government mandate. Therefore, we anticipate working with market participants and the FHFA, especially during the first few years of the plan, to meet the challenge of the Duty to Serve with the goal of securitizing the loans we purchase under the Plan.

Meeting our Plan’s goals is a top priority. We have been thoughtful and deliberate in selecting the activities we plan to support, and we believe our Plan is balanced and reasonable. We are, however, realistic that we and industry stakeholders will learn what is possible, implementable and impactful as we go through the early years of the Plan, and so we anticipate being flexible and may modify our Plans accordingly in order to better serve borrowers, taxpayers, renters and the markets in general.

Summary of Our Underserved Markets Plan

Manufactured Housing

Our activities and objectives related to manufactured housing will be multi-faceted, supporting manufactured housing titled as real property and as chattel, as well as resident-owned manufactured housing communities. In addition, we will be exploring opportunities for the comprehensive set of tenant protections identified in the Duty to Serve final rule.

While we have programs in place to purchase loans on manufactured homes titled as real property, there is a need for additional resources that include enhanced product offerings, additional homebuyer education and technical training for lenders to increase financing of manufactured homes titled as real property. Additionally, we plan to address the challenges facing the chattel market by conducting thorough data-gathering and analysis prior to developing and initiating a chattel pilot program to support chattel purchases, subject to FHFA approval. ~~To build support for secondary market activities in the chattel market, we will also focus on standardizing data collection, documentation and underwriting, as well as education and consumer protections.~~

Rural Housing

The rural areas we will be serving are socially, economically and geographically diverse but face many similar challenges. In order to support this market, over the next ~~three~~ four years, we intend to work directly with appraisers, lenders, non-profits, housing finance agencies, small financial institutions and title companies by~~:~~

- launching research projects,
- enhancing product offerings,
- providing homebuyer education and technical training,
- collaborating with the U.S. Department of Agriculture (USDA) and the U.S. Department of Housing and Urban Development (HUD),
- re-engaging in the Low-Income Housing Tax Credit (LIHTC) equity market, and
- exploring opportunities in the single-family rental market to increase access to credit, provide liquidity, and promote more affordable housing options in rural areas.

In addition to engaging in these proactive activities, our single-family business plans to increase its purchase of mortgage loans in certain high-needs rural regions each Plan year to increase liquidity in these submarkets. Furthermore, our multifamily business intends to develop a product that leverages LIHTC equity investment in order to help meet the affordable rental needs of low-income families that are members of Indian tribes in Indian areas as well as agricultural workers in designated rural areas.

Affordable Housing Preservation

Freddie Mac will expand our strong support for affordable housing preservation through loan purchases, new offerings and new partnerships that will channel private capital to the communities that need it most. Our efforts to serve renters are particularly focused on several vital federal programs, such as LIHTC, the Section 8 program, Rental Assistance Demonstration (RAD) and Section 515 from USDA.

We anticipate providing liquidity to small financial institutions that are best positioned to serve their communities. In turn, they will be able to provide more financing to small, unsubsidized, multifamily properties. We also plan to work with them to make inroads in energy efficient financing. In addition, we plan to focus on shared-equity programs that are administered by community land trusts, other non-profit organizations, or state or local governments. During our outreach and discussions with shared-equity program sponsors, we continually heard that shared-equity structures are not widely understood by lenders and other market participants; thus, one of our activities will be to increase awareness of such programs.

Revisions to the Plan

FHFA received over a hundred public comments on Freddie Mac's and Fannie Mae's Proposed Duty to Serve plans. As we developed our final Duty to Serve Plan, we carefully considered the public comments combined with FHFA feedback on Freddie Mac's Proposed Plan in the context of our additional research and market data. We have made significant efforts to strengthen the activities by creating additional and more aggressive purchase objectives, accelerating research and product development and adding more detail on our activities.

The activities in the final Plan were selected to meet the dual long-term strategic goals of increasing liquidity and providing long-term stability in these markets. In general, the earlier years of the Plan focus on critical research and product development, which will lay the foundation for increased purchases as we progress through the Plan cycle. We also intend to lead increased standardization and counseling efforts that will result in greater liquidity in the future. Implementing all of the activities in the Plan will be challenging; we look forward to working with a wide range of interested parties and are committed to including them as we begin our work in these markets.

Conclusion

Freddie Mac strongly believes that "a decent home and a suitable living environment," in the words of the Housing Act of 1949, is a vital component of strong, healthy and sustainable communities, and a critical gateway to opportunity and family mobility. As housing prices continue to rise, as homebuyer and renter demographics continue to change, and as the supply of affordable single-family and multifamily housing continues to be inadequate to meet the needs of many lower- and moderate-income families, Freddie Mac's mission becomes ever more important. In spite of—indeed, perhaps because of—the challenges outlined above, continuing to carry out our community mission becomes increasingly vital.

The Duty to Serve final rule builds upon what are already the most comprehensive affordable housing requirements in the financial services industry. The challenges of providing a stable supply of affordable homes are as numerous as they are complex. Among them is the availability and distribution of affordable mortgage financing.

Freddie Mac is proud to take a leadership role in overcoming those challenges and serving these important markets. We will seek experienced partners and pioneering solutions to some of society's most intractable housing problems.

Moreover, in everything we do, we will emphasize responsible lending practices.

Disclaimer: Implementation of the activities and objectives in Freddie Mac's Duty to Serve Underserved Markets Plan may be subject to change based on factors including FHFA review for compliance with the Charter Act, specific FHFA approval requirements and safety and soundness standards, and market or economic conditions, as applicable.

Strategic Priorities Statement

Manufactured housing is an important source of affordable housing for millions of families nationwide. Freddie Mac has consistently provided financing for manufactured homes titled as real property and is a leading provider of financing for manufactured home communities (MHCs). We will continue our strong support for these markets, and improve upon that support. We will do so through thoughtful leadership, leveraging our experience, building new partnerships, and addressing important challenges highlighted in our outreach—titling, consumer and tenant protection, servicing and loss mitigation, access to specialized financing, appraisals, lender reluctance to enter the market, and a general need for more robust information.

Freddie Mac will encourage greater liquidity by increasing loan purchases, providing standardization, increasing consumer education, and broadening investor understanding of the market. While we have products in place to purchase loans on manufactured homes titled as real property, this market needs enhanced product offerings, additional homebuyer education specific to manufactured housing titled as real property, and technical training for lenders to increase financing of manufactured homes titled as real property. Additionally, we plan to ~~address the challenges facing the chattel (also known as personal property) market by~~ conduct~~ing~~ thorough data gathering and analysis on the challenges facing the chattel (also known as personal property) market prior to initiating a chattel pilot, subject to FHFA approval. ~~We also intend to address standardization and consumer protections in the chattel market.~~

To provide liquidity to the specific subset of the MHC market identified in the Duty to Serve regulation, we must develop a broader understanding of the current state and growth potential of the market for MHCs owned by a governmental entity, non-profit organization or residents, as well as manufactured housing communities with certain pad-lease protections. Today there is a general lack of sufficient data about these communities, which limits our ability to scale offerings and loan purchases and attract additional capital. As we promote a broader understanding of this segment of the market, we also intend to pilot offerings with the potential to help it to grow and seek to purchase loans under these offerings.

Over the next ~~three~~ four years, Freddie Mac intends to expand our support for the manufactured housing market in the following ways:

1. Support Manufactured Housing titled as real property:
    a. Increase future homebuyer access to education and resources.
    b. Increase technical assistance and information sharing to market participants.
    c. Provide new product flexibilities to facilitate the origination of mortgages secured by manufactured homes.
    d. Increase purchases of loans secured by manufactured homes titled as real property.

2. Support Manufactured Housing titled as personal property:
    a. Promote a greater understanding of the market through research to develop a chattel pilot, subject to FHFA approval.
    ~~. Begin purchasing chattel loans.~~
    ~~. Develop homebuyer education in support of chattel financing.~~

~~5.~~3. Support the Resident Owned Community (ROC) market:
    a. Promote a greater understanding of the market through published research.
    b. Develop a pilot offering to serve the financing needs of ROCs.
    c. Purchase loans on ROCs.

~~6.~~4. ~~Explore~~ Support opportunities for Duty to Serve qualifying tenant protections:
    a. Conduct a 50-state survey of tenant protections.Develop pilot offering for borrowers that implement the Duty to Serve tenant protections.
    b. Purchase loans on properties that commit to implement Duty to Serve tenant protections.

Freddie Mac's strategy is intended to respond to the public input we received regarding manufactured housing market needs, while enabling us to make informed decisions about an appropriate level of loan purchases within the bounds of safety and soundness. We intend to be sensitive at all times to concerns that our activities in this defined subset of the market do not lead to market distortion.

Market Context

Overview

Freddie Mac recognizes that manufactured housing is a critical source of affordable housing, especially in non-metropolitan areas. According to Prosperity Now (formerly Corporation for Enterprise Development (CFED)), 12 percent of low-income households live in manufactured housing.[2] Manufactured homeowners typically have lower median incomes and overall household net worth than owners of site-built homes.[3] Manufactured housing is prevalent in rural areas, especially in southern and western states.[4] Currently, more than 90 percent of manufactured homes are located in suburban and rural areas.[5] In rural areas, 43 percent of such homes are located in MHCs and 57 percent are located on privately-owned land.[6] In 2010, more than 17 million Americans lived in 6.9 million manufactured homes.[7]

Manufactured homes are a unique form of housing in that they may be titled as either personal property or real property. A borrower's titling choice can have significant ramifications for taxation, financing, consumer protections, and remedies in case of default.

Reporting on manufactured housing in the U.S., the Consumer Financial Protection Bureau (CFPB) stated that chattel financing will typically cost a homeowner more over the long term through higher interest rates and shorter loan terms while providing fewer consumer protections.[8] Despite this, the majority of new manufactured home purchasers elect to title them as personal property and rely on chattel financing. According to the Census Bureau, new manufactured housing titled as chattel increased from 67 percent in 2009 to 80 percent in 2015.[9]

Through our research and public outreach, Freddie Mac understands that this disparity is explained by

- homeowner concerns about encumbering land that is owned outright;
- a lack of awareness of available mortgage (that is, real property) financing; and
- the need for quicker settlement processes and lower upfront closing costs.

Many market participants are actively working and investing in the manufactured housing market to educate homebuyers about appraisals and borrowing options as well as advancements in manufactured housing construction. Nonetheless, data from the Home Mortgage Disclosure Act (HMDA) shows that only five lenders provided more than 50 percent of the financing for manufactured homes titled as real property and personal property in 2014 and 2015.

As noted above, close to half of all manufactured homes are located in MHCs. Accordingly, financing these MHCs is also an important part of serving this market. Datacomp/JLT, the authoritative data source for the MHC market, tracks 37,897 MHCs serving people of all ages.[10] Many of these MHCs may not be in suitable condition to finance in a safe and sound manner for a number of reasons, including their physical condition, concentration of homes built prior to 1976 Housing and Urban Development manufactured home construction safety standards, sponsorship, and safety issues. In addition, a portion of these MHCs may be too small for the GSEs to finance cost-effectively.

Based on available data from approximately 16,000 MHCs, the average community is around 43 years old. In the 1960s, 3,808 MHCs were constructed. The 1970s saw a surge, with 5,535 MHCs constructed, roughly 80 percent of which were not restricted to certain age groups. Construction declined in the 1980s, with 2,942 MHCs constructed. The decline continued as the first decade of the 2000s (2000-2010) saw only 478 MHCs built, the lowest on record since the 1940s. Since 2010, only 43 communities have been constructed.

The limited creation of new MHCs is generally attributed to local zoning restrictions as well as a general preference for other land uses. As a result, it is more common to see expansion within existing MHCs rather than newly established MHCs.

Geographically, MHCs are heavily concentrated in several states. A quarter of the MHCs are in Florida and California, while 18 percent are in Michigan, Texas and Arizona. In all, 61 percent of all MHCs are in 10 states.[11]

Current Freddie Mac Support for Manufactured Housing and MHCs

Freddie Mac is committed to purchasing mortgages secured by manufactured homes in support of expanding homeownership opportunities. Our requirements for purchase and refinance transactions are designed to help qualified borrowers buy and stay in homes they can afford.

Despite market fluctuations, we remain a purchaser and securitizer of loans for manufactured homes titled as real property. Our manufactured housing program finances loans to very low-, low- and moderate-income borrowers at a higher rate than our overall business.

We currently purchase a variety of manufactured housing residential loans, including fixed-rate mortgages, 7/1 and 10/1 adjustable rate mortgages (ARMs) and our low down payment Home Possible® mortgages.

In July 2014, Freddie Mac's Multifamily Business launched our MHC program, purchasing our first MHC loan in October of that year. Since starting this program, we have become one of the top sources of funds for MHCs. In total, we have provided $2.8 billion in financing, making housing available for more than 68,000 families living in more than 272 MHCs across 34 states, with a sizable portion of our purchases in non-metro and rural areas.

In addition to our existing offerings and efforts to support the manufactured housing market, we formed the Manufactured Housing Industry Task Force (MHIT) in 2016 and invited industry participants and experts to work with us. The MHIT includes lenders (originators of homes titled as both real property and personal property), housing counseling agencies, representatives of manufactured housing trade organizations, housing finance agencies, builders of manufactured housing, a non-profit that supports development of resident-owned communities, and a manufactured housing community owner. Since its inception, MHIT has been an invaluable resource and we will continue leveraging the combined knowledge and expertise of the group to better understand the market and develop solutions to the challenges identified below.

Freddie Mac recently partnered with Next Step®, a Louisville, Kentucky-based non-profit housing intermediary, to implement a consumer education curriculum for buyers of manufactured homes. Our Next Step partnership also includes participation in the SmartMH® Task Force, which is made up of lenders, retailers, housing finance agencies, trade association and non-profit housing counseling agencies that will provide market intelligence and data to inform loan-product needs and suggested variations to grow the market.

Challenges and Needs

In Freddie Mac's public outreach and in the comments we received on our proposed Plan, we repeatedly heard concerns from a wide range of market participants about the limited number of active lenders providing loans to manufactured housing buyers. These market participants encouraged us to expand the secondary market by providing greater liquidity and standardization and to address consumer protections. From our outreach, including through FHFA's public listening sessions and more recently the public comments on our Plan, we have gained a deeper understanding of the current challenges facing this market and the unique needs that must be met in order to serve it successfully.

1. *Limited supply of manufactured homes*

The production of manufactured housing has significantly declined since its peak in the 1990s. Although it is beginning to rebound, the low volume of new manufactured housing continues to limit market growth. In addition to the low volume of new units, there is also a limited number of units available for resale due to financing issues on older units, title constraints and declining values on chattel-financed homes.

2. *Specialization and limited size of the Duty to Serve-identified MHC market*

The Duty to Serve regulation provides credit for activities that serve a small subset of the MHCs market. Two categories of MHCs are eligible for credit:

Communities owned by a non-profit a government instrumentality, or by the majority of its residents

Communities that have a combination of specific tenant protections

Datacomp/JLT does not currently track the ownership structures of MHCs and there are no other definitive data sources. Based on our outreach, we understand that there are likely no more than 1,000 resident-owned communities, and only a few non-profits and instrumentalities that operate MHCs. Of these, not all are suitable for financing due to their condition and/or size, with a portion containing fewer than 25 homes and some with fewer than five.

Moreover, our outreach and research efforts have not revealed any states that require all of the tenant protections identified in the regulation, nor have surveys of leases among communities for which we have purchased loans revealed any communities that currently include the full complement of tenant protections. Assuming that approximately 1,000 MHCs are eligible for Duty to Serve credit, that equals roughly 2.5 percent of the MHC market.

Communities in this segment of the market generally require specialized financing, particularly ROCs. This specialization, combined with the very small market size, makes it difficult to attract private capital at scale.

3. *Limited number of manufactured housing lenders*

Due at least in part to relaxed underwriting credit standards and less stringent requirements for supporting loan documentation, the manufactured housing industry experienced a crisis in the late 1990s. The poor quality of the originated loans led to a large number of distressed loans with high rates of delinquencies, defaults and, eventually, repossessions. This led to a collapse in the secondary market for manufactured housing real property loans. Even today, many lenders are reluctant to provide manufactured housing mortgage financing and the secondary market remains constrained.

4. *Appraisals of manufactured housing*

Appraising manufactured housing as real property is a challenge due to the limited amount of comparable data in the Multiple Listing Service used by real estate professionals, the variety of secondary market and lender requirements concerning the comparable property's distance from the subject property, and the timeframe between sales of comparable properties. In addition, appraisal guidelines currently do not account for energy-efficiency improvements, which can lead to undervaluation of the home and overestimation of the borrower's cost burden. These challenges can impede a borrower's ability to obtain a mortgage loan, which in turn creates an incentive for borrowers to rely on chattel financing.

There are additional challenges when appraising manufactured housing titled as chattel. Although there are no consistent standards, and while lenders may set their own appraisal standards, manufactured housing titled as chattel is typically appraised according to the National Automotive Dealer Association guidelines. These guidelines allow for numerous adjustments, which result in a broad variance of values. The guidelines also do not take location into consideration during valuation, which can lead to higher depreciation rates in comparison to manufactured housing titled as real property.

According to a Consumers Union study, the appreciation rate of manufactured housing financed through mortgage loans is in line with the appreciation rate of site-built housing.[12] In contrast, according to the Virginia Center for Housing Research, chattel-financed manufactured housing may actually depreciate in value.[13]

5. *Titling manufactured housing as real property*

Titling manufactured housing as real property can be challenging for lenders because laws concerning manufactured housing vary by state. State ordinances also vary on converting title from personal property to real property, which may act as a disincentive for borrowers to complete such conversions.

6. *Lack of mortgage financing products*

During our public outreach into manufactured housing finance, participants frequently indicated that the market needed new secondary market offerings, enhancements to existing offerings, flexible underwriting, more purchase volume, pricing adjustments, low closing costs and shorter processing times.

7. *Lack of defined standards, borrower education, and data for analysis*

Many market participants expressed the need for research, technical assistance and best practices for appraising and titling homes, along with loan-product assessment and testing to evaluate potential enhancements to underwriting guidelines. In addition, we frequently heard of the need for additional outreach by the GSEs to educate borrowers about both manufactured housing generally and mortgage financing availability.

In addition, the market lacks comprehensive data on chattel financing. The available HMDA information shows that, due at least in part to the limited secondary market for manufactured housing loans, more than 70 percent of chattel loans are held in lenders' portfolios, compared to only 16 percent of mortgages on site-built homes.[14] Analysis of the HMDA data is limited as it does not require institutions to distinguish chattel financing versus financing of homes titled as real property.

8. *Lack of private mortgage insurance*

The manufactured housing market currently suffers from limited offerings from private mortgage insurers providing comprehensive mortgage insurance coverage on manufactured homes, which affects the ability of the GSEs to purchase mortgages with loan-to-value ratios of more than 80 percent. This impedes lenders' ability to provide conventional financing. Because very low-, low-, and moderate-income households frequently lack the financial resources for significant down payments, limited availability of mortgage insurance reduces the availability of affordable low down payment mortgages.

Activities and Objectives

Activity 1 – Support for Manufactured Homes Titled as Real Property: Regulatory Activity

Freddie Mac's strategic approach to increasing liquidity and expanding the distribution of capital in the manufactured housing market includes three objectives targeted to manufactured housing titled as real property. During the Plan Term, Freddie Mac intends to pursue the following objectives:

- Increase our purchases of single-family loans secured by manufactured homes titled as real property.
- Design new product flexibilities to facilitate the origination of mortgages securing manufactured homes.
- Increase future homebuyer access to education and resources.

OBJECTIVE A: INCREASE SINGLE-FAMILY LOAN PURCHASES OF MANUFACTURED HOUSING TITLED AS REAL PROPERTY

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Purchase	**1, 2, ~~and~~ 3 and 4**	**VLI, LI, MI**	**Not applicable**

Freddie Mac plans to use a variety of tactics to increase our manufactured housing real property loan purchases, including enhancing our existing secondary market offerings, conducting a significant amount of outreach, providing investment and technical training, as well as adding new Seller/Servicers. We believe that an incremental and strategic approach will allow Freddie Mac to increase our share of manufactured housing loans to reflect more closely the overall market.

Baseline for 2018-2020

The following table reflects Freddie Mac's single-family loan purchases of manufactured housing from 2014 to 2016. Our baseline for performance in this market is a three-year average of all Freddie Mac manufactured home loans purchased that meet the Duty to Serve income-qualifying definition of very low-, low- and moderate-income borrowers. All loan counts represented include purchase-money originations and refinances for owner-occupied properties.[15] The overall loan count includes all manufactured housing loans without a limiter for qualifying borrower income segments. The income-qualifying loan count is limited to only purchases of loans to qualifying borrower income segments of very low-, low-, and moderate-income borrowers. It should be noted that the historical loan volume previously represented in Freddie Mac's initial draft Plan did not distinguish the loan population by qualifying income, but instead included all conventional loans securing manufactured housing on owner-occupied properties.

Freddie Mac Single-Family Loan Purchase Volume – Manufactured Housing[16]			
Year	**2014**	**2015**	**2016**
Overall Loan Count	4,346	4,710	4,682
Income-Qualifying Loan Count **(A three-year average of this loan count was used to establish the baseline)**	2,820	3,064	3,071
Baseline	2,985		

Baseline for 2021

Freddie Mac followed the same methodology to create the baseline for our 2021 loan purchase target as we used to calculate our 2018-2020 targets. We calculated the three-year average of all Freddie Mac manufactured home loans purchased that meet the Duty to Serve income-qualifying definition for very low-, low-, and moderate-income borrowers, as shown in the following table. The loans are purchase-money originations and refinances for owner-occupied properties. The following table shows Freddie Mac's purchase volume in this market from 2017 through 2019 and the baseline that reflects the average annual volume.

Freddie Mac Single-Family Loan Purchase Volume – Manufactured Housing[17]			
Year	**2017**	**2018**	**2019**
Income-Qualifying Loan Count **(A three-year average of this loan count was used to establish the baseline)**	3,824	3,601	4,390
Baseline	3,938		

2018-2020 Targets

Our single-family purchase targets over the Plan Term are set forth in the following table. Loan purchase volume in prior years reflects an increasing trend, and we anticipate that our purchase volume will continue to increase as we deploy a variety of tactics, including expanding our lender footprint, leveraging various purchase execution options (including selling for cash, bulk portfolio sales and flow purchases), conducting outreach, enhancing our product features and providing technical training that enables lenders to lend confidently to very low-, low-, and moderate-income homebuyers.

Single-Family Loan Purchase Targets – Manufactured Housing		
Year 1 – 2018	**Year 2 – 2019**	**Year 3 – 2020**
3,075 – 3,100 loans	3,200 – 3,350 loans	3,500 – 4,000 loans

Projected volume for the first two years of the Plan takes into account that not all of the activities intended to promote growth will have been implemented. Freddie Mac's forecast for 2018, relative to 2016, includes higher interest rates, higher consumer prices and a 25 percent[18] decrease in single-family origination volume. A three-year historical average as a benchmark will ensure that we realistically grow our share to gradually increase our loan purchases as we implement activities that will further increase market growth and purchase opportunities.

2021 Target

Our single-family purchase target for Plan Year 2021 is set forth in the following table. We anticipate that our purchase volume will continue to increase relative to our historical average as we deploy various tactics to expand lender adoption of the product flexibilities previously introduced under our Plan to help create more homeownership opportunities for very low-, low-, and moderate-income households.

Projected volume for 2021 does not take into account potential market reactions to the historically low interest-rate environment or the coronavirus pandemic.

Single-Family Loan Purchase Targets – Manufactured Housing
Year 4 – 2021
4,200 – 4,700 loans

Market Opportunity and Impact

Assuming we are successful in increasing the amount of loan purchases securing manufactured housing titled as real property, we will increase liquidity by providing lenders with more than $300 million annually in years 1 through 3 to make additional loans in two underserved markets: manufactured housing and rural areas. Because of the relatively small size of the market, any increase in origination volume for loans secured by manufactured housing titled as real property will be significant in terms of market impact and encourage lending and standardization in the market.

As we look to Year 4 from our current vantage point in Year 3, Freddie Mac estimates that we could provide more than $400 million in liquidity in the marketplace in 2021. We will engage lenders already active in this market as well as encourage additional lenders to participate in this underserved market.

OBJECTIVE B: DESIGN NEW PRODUCT FLEXIBILITIES TO FACILITATE THE ORIGINATION OF MORTGAGES SECURING MANUFACTURED HOUSING TITLED AS REAL PROPERTY

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Product	**1, 2, ~~and~~ 3 and 4**	**VLI, LI, MI**	**Not applicable**

During our public outreach and comments on our draft Plan, we identified four key areas of concern related to the origination of manufactured housing mortgages:

1. A need for additional financing options and underwriting flexibility related to borrower qualification, including expansion of options for down payment assistance to further support the purchase of manufactured homes by very low-, low- and moderate-income households
2. A market need for additional solutions related to the collateral, including appraisal guidance, property use restrictions, land-ownership designations, and product parameters to further support the expense of siting and installing the home
3. A lack of information on comparable sales in the market
4. A lack of information and understanding of the attributes of energy efficiency in manufactured housing and the long-term affordability advantages through utility savings

In response, Freddie Mac intends to undertake a comprehensive review of our existing product offerings to determine how we can enhance our collateral underwriting parameters to better serve manufactured housing titled as real property. Freddie Mac has developed a strategy intended to address market challenges by increasing product flexibility, lender participation, and borrower assistance.

Freddie Mac will undertake a comprehensive review of our existing underwriting parameters to better serve potential homebuyers and existing homeowners of manufactured housing titled as real property, while establishing a foundation for future product development. We intend to collaborate with industry participants, such as lenders, community development financial institutions, housing finance agencies and non-profits, to help inform the design of additional product features. Based on the reviews of our products and the needs of the market, we intend to make enhancements and underwriting changes consistent with prudent underwriting and safety and soundness. We will start by undertaking an assessment of our requirements related to

- borrower qualifications,
- collateral valuation,
- down payment and closing costs,
- renovation financing criteria, and
- pricing.

We anticipate that obtaining additional information on market needs and publishing what we learn about the efficacy of manufactured housing products and consumer behavior on financing can lead to additional innovations by Freddie Mac and other industry participants when developing lending products.

We intend to provide further underwriting automation to promote lender confidence in making loans to very low-, low-, and moderate-income borrowers who are purchasing manufactured housing. We also plan to research ways to enhance current product requirements and methodologies to address the challenge of finding similar and recent comparable sales to support valuations.

Cumulatively, we expect that enhancements will have a significant impact on potential buyers of manufactured housing titled as real property by providing increased access to credit for very low-, low- and moderate-income borrowers through flexibility in underwriting parameters to lenders.

We will leverage advisory councils to assist with product calibration and socialization of features we plan to bring to market.

- The Manufactured Housing Initiative Task Force, which currently meets bi-annually, and is comprised of lenders, representatives from manufactured housing trade organizations, retailers, housing counseling agencies, housing finance agencies, builders of manufactured housing, a non-profit that supports the development of ROCs, a community owner and community development financial institutions
- The Next Step SmartMH Task Force, which currently meets bi-annually and is comprised of lenders, retailers, a community owner, representatives from a manufactured housing trade organization, housing counseling agencies, housing finance agencies, builders of manufactured housing and community development financial institutions
- Freddie Mac's Affordable Housing Advisory Council, which currently meets quarterly and is comprised of lenders, affordable housing trade organizations, a mortgage insurer, housing counseling agencies, housing finance agencies, and community development financial institutions
- Lender and servicing advisory boards, which currently meets quarterly, and consist primarily of Seller/Servicers.

This objective is designed to address enhancements to our existing offerings, flexible underwriting, pricing adjustments, lower closing costs and shorter processing times. We expect that these improvements will result in increased purchase volume and additional liquidity to this market. Freddie Mac plans to follow a strategic and progressive schedule in conducting our review and addressing market challenges. Incremental enhancements of product offerings focusing on certain features and underwriting guidelines can be efficiently and effectively launched and adopted by the market.

In addition, because a significant amount of manufactured housing is sited in rural areas, the challenges borrowers face in obtaining financing in rural areas overlaps with those related to the financing of manufactured homes. Accordingly, where possible, we intend to promote further lender standardization by making product changes that lenders, including housing finance agencies, can leverage broadly for both the rural and manufactured housing markets.

To address industry requests and help lay the foundation for further market growth and transformation, Freddie Mac will analyze which areas across the country currently do not receive shipments of new homes but offer significant potential opportunity for manufactured housing. We also will provide information and resources that industry participants could use to help educate the public on how zoning affects perceptions and acceptance of manufactured homes. Zoning is one of the greatest impediments to the manufactured housing market's growth.

Baseline

Freddie Mac has fixed- and adjustable-rate mortgage options, including our affordable product, Home Possible, that offer low down payment and refinance solutions for very low-, low- and moderate-income borrowers. In addition, we have the HFA Advantage® product that provides additional flexibility and enhancements to our affordable product for housing finance agencies. As mission-oriented institutions offering a broad spectrum of support to the affordable housing market, the housing finance agencies are focused on regional challenges and provide local solutions, including down payment assistance and homebuyer education to very low-, low- and moderate-income homebuyers in their specific markets. However, current policy parameters within the HFA Advantage product do not support manufactured housing. Given the housing finance agencies' community focus, Freddie Mac will consider changes to our HFA Advantage program to support manufactured housing. Even with these financing options, the market experiences many limitations related to pricing, borrower qualification and collateral requirements that inhibit growth.

Challenges, Actions and Market Impacts

Market Challenge	Freddie Mac Action
Limited product usage and product awareness ▪ There are limited conventional product features and incentives available to support the financing of manufactured homes for very low-, low- and moderate-income borrowers. Access to credit is further limited by a lack of lending on small loan sizes and unique borrower profiles, including those with limited credit histories. To increase originations of manufactured housing titled as real property, lenders need solutions that address lending costs and product flexibilities that are more closely aligned with product requirements of site-built homes. ▪ Freddie Mac's product features in support of manufactured housing may not be obvious to market participants and difficult to distinguish from site-built requirements. ▪ Conventional financing requirements supporting the construction costs of manufactured-home siting and installation are more onerous than the requirements for site-built homes. Borrowers may encounter less-favorable terms if lenders opt for portfolio products to finance homes. **Historical perception of manufactured housing as a mobile home or "trailer"** ▪ Manufactured housing is plagued by the stereotype of the "trailer" or mobile home typically represented by manufactured homes built prior to the 1976 Housing and Urban Development manufactured home construction and safety standards (HUD code), even though the latest generation of homes have standard features and finishes similar to site-built homes and are seldom moved after installation. **Appraisal and valuation impediments** ▪ Some of the barriers to obtaining conventional financing on a manufactured home titled as real estate include, but are not limited to, lack of guidance and underwriting flexibility on appropriate comparable sales, no recognition of energy efficiency improvements in the valuation, titling the home as real property, lending restrictions on unit size, land ownership and zoning that may exclude homes titled as real estate.	**Year 1 – 2018** Freddie Mac will focus on increasing awareness of product features, research opportunities to improve collateral valuations, test new product features, leverage purchases to inform product design and conduct a product assessment to determine opportunities for new or updated product features to support the financing of manufactured homes. Freddie Mac will take these actions: 1) Publish to the Selling Guide and Freddie Mac website an update of our current product features and highlight at least one new product feature in support of manufactured housing to make the requirements more obvious to the market and to clarify the availability of product features to Seller/Servicers to increase awareness in the market. 2) Develop and implement a marketing campaign to promote quality energy efficient manufactured housing and de-emphasize the perception of manufactured housing as "trailers," highlighting it as a viable source of sustainable and affordable homeownership. 3) Evaluate and assess the barriers of existing manufactured housing policies focused on very low-, low- and moderate-income borrower qualifications to identify at least three policies that may need to be adjusted to support financing for existing homeowners and potential homebuyers of manufactured housing; outline an action plan to address product parameters that will have the greatest impact on the market. Assessment will include the following activities: a. Assessing policies related to down payment requirements and options for down payment assistance that can assist borrowers purchasing manufactured housing. To inform policy design, Freddie Mac will initiate at least one Test and Learn pilot with at least three lenders (national and regional) and at least one non-profit to assist borrowers with options for down payment assistance to increase the ability of very low-, low- and moderate-income homebuyers to purchase a manufactured

- Real estate appraisers attempting to value a manufactured home are challenged by a lack of data about manufactured-home sales. Transactions are not always listed in the Multiple Listing Service, and the difficulty is exacerbated when the home is in a rural market that has few overall home sales.
- There is a lack of appraisers that are experienced in assessing value of manufactured homes also impacts access to credit because it limits financing options, which leads to higher lending costs.

State titling variations add complexity

- States do not have a standardized process for recording the title conversion from personal property to real property, which adds operational complexity for lenders.

Limited down payment assistance and funds for closing

- Underlying challenges exist related to availability of programs that provide down payment and closing cost assistance to support manufactured housing as an eligible property type.

Product support for housing finance agencies (HFAs)

- The housing finance agencies are mission-focused to assist low- to moderate-income households but have limited product features to leverage for very low-, low- and moderate-income homebuyers and existing homeowners of manufactured housing titled as real property.

Lack of market data and information

- The market lacks transparency and information on the efficacy of manufactured-housing products and loan performance.

Limited renovation financing support

- A significant number of existing manufactured homes in the market can benefit from renovation or replacement strategies.
- Limited financing solutions are available to homeowners who are attempting to renovate a manufactured home; these issues may also inhibit homeowners who want to sell or refinance their homes.

home.

b. Conducting policy assessment of Freddie Mac's renovation product offering to determine product changes necessary to support the renovation of existing manufactured homes, including energy-efficiency retrofits.

c. Researching available property databases or data sources to determine whether sufficient data is available to support automated valuations on manufactured housing titled as real property and to further inform solutions on aggregation of data.

d. Conducting collateral policy assessment on manufactured-housing property characteristics to identify the policies that need to be adjusted in support of additional appraisal guidance and best practices, including valuation of energy efficient features, eligible manufactured housing collateral, titling the home as real property, property use restrictions and land ownership. Freddie Mac will work in partnership with at least one appraiser, lender and appraisal trade organization to develop a comprehensive curriculum for lenders on eligible manufactured housing collateral. This outreach activity will further inform additional collateral guidance that can be published to the Selling Guide.

e. Purchasing more manufactured housing loans to obtain data on loan characteristics and performance to increase understanding of product flexibilities being provided by other lending institutions to further inform product enhancements. See also Objective A, Increase Single-Family Loan Purchases, for measurable purchase actions.

f. Conducting quarterly outreach with market participants, such as lenders, housing finance agencies, appraisers, community development financial institutions, manufactured housing trade organizations and non-profits, via at least four industry events to understand the barriers to financing and related opportunities.

g. Convening our Manufactured Housing Initiative Task Force and the Next Step SmartMH Task Force at least bi-annually and leveraging at least one meeting of the Affordable Housing Advisory Council to

	discuss manufactured housing. 4) Submit findings and an action plan to FHFA once assessments are completed and implement resulting policy changes in 2019 and 2020. **Year 2 - 2019** Freddie Mac will begin to implement policy changes resulting from the assessment completed in 2018 in addition to building up our marketing efforts to educate stakeholders on new product features. 1) Issue at least one change to the Seller/Servicers Guide to support manufactured housing financing for existing homeowners and potential homebuyers, based on results from the assessment of existing program policies conducted in 2018. 2) Complete renovation mortgage product development leveraging outreach and assessment conducted in 2018 to support manufactured housing. Updated product enhancements will be issued via a negotiated term of business with select lenders or via the Seller/Servicers Guide depending on whether additional data is needed. 3) Initiate a consumer research project that will entail a variety of outreach components, including a survey, to gather data on consumers' choices in manufactured housing financing. 4) Use results and learnings from the collateral policy assessment conducted in 2018 to achieve the following: a. Develop best practices and a training curriculum for lenders on manufactured housing valuations and titling homes as real property and implement it by conducting a training session with at least five lenders. Freddie Mac anticipates expansion of a comprehensive curriculum to all lenders in 2020. b. Publish at least one policy change to the Seller/Servicers Guide giving additional underwriting guidance on acceptable collateral and valuation of a manufactured home. 5) Update our valuation model and incorporate changes in applicable applications (e.g., Loan Advisor Suite®) for lender use, if research conclusions related to available data sources for manufactured housing support an update

	to our valuation methodology. 6) Assess the effectiveness of a pilot related to down payment assistance issued in 2018 to determine the impact on purchase volume for very low-, low- and moderate-income households. Gather industry feedback from at least five lenders and one non-profit to gauge success and market reaction. Findings will be submitted in a report to FHFA. 7) Issue at least one negotiated term of business to each Freddie Mac-approved housing finance agencies that provide additional product support of manufactured housing titled as real property so they may assist more very low-, low- and moderate-income households. 8) Assess historical loan performance and effectiveness of Freddie Mac's current manufactured housing policy by using available public data and data on our existing loan portfolio. Analyze the impact on housing affordability for very low, low- and moderate-income borrower segments and geographic distribution, including high-needs rural regions. Freddie Mac will document results and publish a report on our website. 9) Socialize product changes with market participants by publishing updated collateral material to our website, Freddie Mac's News Center, and Freddie Mac blogs and via email to all Single-Family News subscribers and present the changes at least six industry events. 10) Hold at least one meeting with our Affordable Housing Advisory Council and/or servicing advisory boards to discuss manufactured housing, in addition to bi-annual meetings of the Manufactured Housing Initiative Task Force and the Next Step SmartMH Task Force, to obtain feedback and further calibrate product features. 11) Develop best practices for lenders related to underwriting, appraisal and settlement criteria obtained from outreach activities. Publish the summary of best practices along with product features in a fact sheet on Freddie Mac's dedicated manufactured housing webpage by year-end. 12) Provide ongoing manufactured housing training to lenders on best practices and product features via on-demand webinars and/or scheduled quarterly webinars.

Year 3 – 2020

Freddie Mac will focus on ~~implementing remaining policy changes related to funds for closing,~~ publishing research findings on consumer behavior related to financing manufactured homes, ramping up ~~increase in~~ purchases, and conducting initial assessments of changes implemented in 2018 and 2019. Freddie Mac will take these actions:

1) Assess the effectiveness of policy changes made in 2018 and 2019 by obtaining market feedback from at least five lenders for any changes issued broadly via the Seller/Servicer Guide, analyzing internal data including impact on purchase volume and income-eligible borrower segments. Freddie Mac will document results and provide a report to FHFA.

~~2) Conduct ongoing surveys with lenders on the manufactured housing lender curriculum and the web-based training to gather feedback on the effectiveness of the lender curriculum.~~

~~3)~~2) Complete a research project on manufactured housing consumer financing selections, analyze the information and data from the research project and publish findings on Freddie Mac's website.

~~4)~~3) Convene our Affordable Housing Advisory Council~~, Manufactured Housing Initiative Task Force and the Next Step SmartMH Task Force at least bi-~~annually to obtain feedback and further calibrate product features.

Year 4 – 2021

1) Perform a quantitative analysis to identify markets that currently receive no manufactured home shipments yet offer significant opportunity. Freddie Mac will share the results with the industry to help inform efforts to grow the market and promote manufactured homes as a means of increasing the affordable housing supply.

~~1)~~2) Provide materials and resources to support industry participants in educating audiences on how zoning affects the acceptance and siting of manufactured homes.

Market Impact

The manufactured housing market currently makes limited use of conventional financing for either the purchase or refinance of a manufactured home titled as real property. Providing product adjustments that increase a borrower's entry into conventional financing will have a significant impact on lenders and

housing finance agencies as they look for liquidity rather than holding manufactured housing loans in portfolio.

Freddie Mac anticipates the following focused activities will have a significant impact on the market:

- Enhancing products will allow the collection of automated property values where none exist currently. Furthermore, we expect sharing best practices and training for lenders on eligible collateral will provide more confidence in lending, which increases liquidity and homebuyers' entry into the real property financing market.
- Providing new incentives and underwriting flexibilities with respect to manufactured housing via HFA Advantage to housing finance agencies will have a material impact on very low-, low- and moderate-income consumers as it can translate to lower lending costs (housing finance agencies typically cap the fees that can be charged to a borrower).
- Increasing the data available to inform property values increase confidence in lending against the collateral, may reduce the time and cost to obtain a property value, and address a primary obstacle to lending in this market.
- Increasing knowledge and understanding of the market by sharing information regarding the efficacy of manufactured housing products and consumer behavior on financing can lead to significant innovations by Freddie Mac and other industry participants in lending products and increase usage of our product.
- Providing immediate alternatives and assistance for down payment and closing costs will have a dramatic impact by increasing a qualified borrower's ability to purchase by closing the asset gap that is significant in the very low-, low- and moderate-income homebuying market.
- Supporting renovation activity will ultimately reduce barriers to entry to conventional financing for existing homeowners of manufactured housing, including homeowners in rural markets who can benefit from energy-efficiency retrofits if their utility costs are making housing unaffordable.
- Identifying and supporting education about opportunities to introduce manufactured homes where they currently are prohibited through zoning or otherwise absent will equip industry participants with data and tools they have requested to help in lowering barriers to market growth. These efforts will help raise the visibility and image of manufactured housing, encourage acceptance of manufactured homes in more communities, and expand possibilities for affordable homeownership.

Understanding the product levers that have the most impact on very low-, low- and moderate-income borrower qualifications and providing operational simplification can result in increased lender usage, solutions for small balance loans, and, with the right incentives, more affordable financing for borrowers in the long run, especially in high-needs rural markets where manufactured housing tends to be sited.

The assessment of existing policies will include outreach to lenders, mortgage insurers, appraisers and appraisal trade organizations, manufactured housing trade organizations, housing finance agencies and other housing professionals. This will require resources from multiple areas internally at Freddie Mac to complete varied analyses including Single Family teams responsible for affordable lending, Seller/Servicers relationships, credit decisions, modeling, pricing and product development to understand the economics, credit risk and operational impacts, including impacts to our supporting applications. Once product development activities have been completed in years 1 and 2, we will increase our focus on loan purchases by leveraging policy changes to source more loans from lenders and reach more homebuyers through outreach activities. See also Objectives A and C for measurable actions on homebuyer outreach and loan purchases. Freddie Mac expects that encouraging additional lenders to offer manufactured housing financing products will lead to more purchases of manufactured housing loans. Freddie Mac will enhance the Seller/Servicers Guide in cases where we have clear data and performance information to support a broad policy change. We may use a negotiated term of business with select lenders in limited cases where we need additional data to inform product development and support a product change with the intention of publishing future Guide adjustments once we have sufficient data to make informed policy and business decisions.

Additional transparency and marketing of product solutions and publication of research should also assist

other housing professionals, including housing counselors, who are educating borrowers on financing options. We believe the market can realize increased industry participation through dedicated efforts by Freddie Mac to provide information and product clarity through education and training. Freddie Mac has extensive experience in training and educating market participants. However, engaging more lenders and other housing professionals to support this market will present a significant level of effort if it is to be accomplished within the Plan cycle. Increasing purchase opportunities will involve a high degree of coordination and production from many departments in Freddie Mac to research, produce, coordinate, publish and monitor the effectiveness of product features and training.

Freddie Mac also is uniquely positioned to deliver insights and resources that could help open new avenues toward market growth. The industry lacks data for identifying significant openings for expansion beyond current markets. By performing and sharing a quantitative analysis of where manufactured homes have not been shipped but could make an important difference in the affordable housing supply, Freddie Mac can help industry participants better understand market opportunities and develop strategies for expanding the use and acceptance of manufactured housing into additional geographies. In addition, zoning laws in many states and localities nationwide severely limit the industry's potential and perpetuate misperceptions about manufactured homes. Industry participants have been striving for years to overcome these obstacles. The information and tools that we can provide them will enhance their ability to educate key stakeholders on zoning's impacts on access to quality, affordable homes for a wide range of very low-, low-, and moderate-income households. Supporting industry efforts in these ways, we will help lower systemic barriers to the advancement of manufactured housing.

OBJECTIVE C: INCREASE HOMEBUYER ACCESS TO EDUCATION AND RESOURCES

Evaluation Area	Year	Incomes Targeted	Extra Credit
Outreach	**1, 2 and 3**	**VLI, LI, MI**	**Not applicable**

During our outreach on manufactured housing and review of public comments on the draft Plans, we repeatedly heard that the manufactured housing market requires focused homebuyer education to address consumer questions about the unique aspects of manufactured housing, and the benefits of energy efficient manufactured homes, as well as general homebuyer education. Freddie Mac intends to address this need by developing a more expansive homebuyer education curriculum that specifically addresses manufactured housing, expanding existing outreach activities to a larger geographic area, promoting homeownership with partners through homebuyer fairs and providing a more comprehensive homebuyer education platform that includes credit counseling along with pre-purchase and post-purchase education. Through borrower education, we hope to help manufactured housing consumers build and maintain better credit, and understand the steps to sustainable homeownership.

Freddie Mac strongly supports the benefits of homebuyer education and providing educational tools to consumers. We believe that well-informed and well-prepared homebuyers are more likely to enjoy successful and sustainable homeownership. Freddie Mac has extensive experience with homebuyer education and housing counseling. Over the past nine years, we have provided education and counseling through our 14 Borrower Help Centers and the national Freddie Mac Borrower Help Network. However, prior to 2017 our homebuyer education did not incorporate manufactured housing. In addition, we did not include information related to manufactured housing in homebuyer fairs that we sponsor.

Baseline

Freddie Mac recently partnered with Next Step and eHome America to develop an online homebuyer education curriculum that is inclusive of manufactured housing tailored to prospective buyers of manufactured homes in

Kentucky. The pilot is Next Step's SmartMH program, which aims to expand the opportunity for sustainable homeownership by educating consumers about the benefits of energy efficient manufactured homes. The curriculum, which was launched in April 2017, covers information about purchasing a manufactured home, including the benefits of energy efficient features, financing options, the availability of down payment assistance programs, and credit-rebuilding services via housing counseling agencies. Potential homebuyers who can benefit from education will be referred by lenders and retailers.

The pilot with Next Step also has a working group, the SmartMH Task Force, made up of lenders, retailers, housing finance agencies, trade associations and non-profit housing counseling agencies that will provide market intelligence and data to inform loan product needs and suggested variations to grow the market. Leveraging the pilot, we anticipate expanding the number of local lenders who originate energy efficient manufactured homes that are titled as real property. We currently have 11 active lenders engaged in the pilot and hope to expand the network to include 23 lenders in at least six additional states over the Plan cycle.

Given that 70 percent of manufactured homebuyers choose chattel loans when selecting financing, we will deem the pilot to be successful if we can assist lenders with increasing the number of mortgage-ready borrowers they can realize by leveraging education to facilitate converting loan application denials to approvals and by increasing the percentage of borrowers choosing conventional financing and real property ownership. We anticipate that in 2017 approximately 80 consumers will complete the SmartMH online homebuyer education curriculum, which should give us preliminary data on potential homebuyers choosing a conventional loan as their financing solution.

Freddie Mac plans to expand our outreach beyond the State of Kentucky by partnering with non-profit housing counseling agencies, housing finance agencies and community development financial institutions that provide homebuyer education and credit counseling to grow capacity and serve very low-, low-, and moderate-income homebuyers. We also plan to track results following education and use the information obtained to adjust the curriculum in the future. The schedule proposed is reasonable and incorporates sufficient flexibility for us to learn from initial program feedback and make course corrections, if necessary.

Challenges, Actions and Market Impacts

Market Challenge	Freddie Mac Action

Lack of comprehensive homebuyer education
▪ Comprehensive homebuyer education and credit counseling that include manufactured housing as part of the curricula are rarely available. There is a critical need to provide a sustainable education platform that includes the following:
  ▪ Awareness of the benefits and low costs of manufactured housing.
  ▪ Available products and options for securing financing.
  ▪ Emphasis on quality home selections, including energy efficient features that can lower the overall cost of homeownership.
  ▪ Pre-purchase financial education in addition to housing counseling, if needed, to develop homebuyers who are mortgage-ready.
  ▪ Post-purchase education and counseling to
	Year 1 – 2018
	1) Expand the homebuyer education pilot beyond the State of Kentucky to address manufactured housing titled as real property and the benefits of energy efficiency:
	  a. Expand pilot to at least two additional states.
	  b. Expand network to include four additional lenders.
	  c. Provide education and/or credit counseling to a total of 275 consumers in three states (includes Kentucky), and
	  d. Train any new non-profit partners, and lenders being included in the network.
	2) Provide additional information on available resources—including educational resources on Freddie Mac's website—to support

increase sustainability of homeownership and the future maintenance of manufactured homes.	manufactured housing content for potential homebuyers, including promotion of Smart MH. Include a survey that allows people to provide feedback on the usefulness of the manufactured housing information that was provided. **Year 2 – 2019** 1) Conduct analysis on performance of pilot, including participation, conversions from lender declinations to approvals, and the share of conventional mortgage financing versus other financing types: a. Survey eight participating lenders on the effectiveness of the pilot. b. Using analysis, calibrate the pilot as needed to meet the identified measures of success by helping lenders to increase the percentage of buyers choosing conventional financing and converting application denials to approvals. c. Include findings in reporting to FHFA 2) Continue to expand the homebuyer education pilot: a. Expand the pilot to at least two additional states. b. Expand the network to include four additional lenders. c. Provide education and/or credit counseling to a total of 475 consumers in five states, including Kentucky. d. Train any new non-profit partners, and lenders. 3) Launch a video series with Next Step about the benefits of the SmartMH program. 4) Ask consumers to complete surveys on the effectiveness of the homebuyer education and/or credit counseling at all sessions to inform updates. 5) Hold one to two homebuyer fairs in strategic areas that have a high concentration of manufactured housing and are currently being served by the pilot. Fairs will include a discussion of the value and benefits of manufactured housing titled as real property. **Year 3 – 2020**

	1) Further expand the homebuyer education pilot: ~~a. Expand the pilot to at least two additional states.~~ ~~b. Expand the network to include four additional lenders.~~ ~~c.~~a. Provide education and/or credit counseling to a total of 675 consumers in seven states, including Kentucky). ~~d.~~b. Train any new non-profit partners and lenders; and ~~e.~~c. Analyze performance and provide key findings in a report to FHFA. 2) Continue asking consumers to complete surveys to determine efficacy of the homebuyer education and/or credit counseling and use results to inform further enhancements, as applicable. ~~3) Hold one to two homebuyer fairs in states where we have expanded the homebuyer education curriculum and have a high concentration of manufactured housing. Fairs will include a discussion of the value and benefits of manufactured housing.~~ ~~4)~~3) Publish to Freddie Mac's website key findings and outcomes from the homebuyer education training curriculum.

Market Impact

The market is significantly challenged by an inadequate amount of homebuyer education that provides information about manufactured housing and related financing options. The inadequate access to comprehensive homebuyer education that is inclusive of manufactured housing has contributed to the stymied growth in the manufactured housing market. Freddie Mac has initiated a pilot with Next Step in Kentucky. It will take a significant level of effort to expand the pilot to additional regions, including finding additional non-profit partners to administer the curriculum, and establishing additional relationships with lenders and retailers to make the pilot successful and grow the real property financing market.

Given that there was not a curriculum focused on manufactured housing available prior to the launch of Freddie Mac's pilot with Next Step, we anticipate that our pilot will have a significant positive impact on homebuyers as it relates to home selection, financing and maintenance. Over the period of the Plan, the total number of lenders participating will increase from 11 to 23 and the education curricula will be expanded from one state to seven. Lenders will be able to expand their conventional lending portfolios for manufactured housing, increase or strengthen partnerships with retailers and counseling agencies, and ultimately realize greater consumer purchases due to an increased number of qualified loan applicants.

Freddie Mac will monitor feedback on the education materials through surveys to understand additional consumer needs that should be addressed. These efforts will have a direct impact on the borrowers who are accessing the educational curricula. Through its expansion, we expect that the market will experience future growth. Together, these efforts should receive cross-market Duty to Serve credit in energy efficiency

because the curricula incorporate the benefits of purchasing energy efficient manufactured housing as part of the borrower's home selection decision.

Activity 2 – Support for Manufactured Housing Titled as Personal Property (Chattel) Regulatory Activity

The manufactured housing industry has seen a continuous and significant increase in chattel financing throughout the last several years. It is unsurprising, then, that we consistently heard a call for GSE support of chattel financing during our outreach to bring affordable lending to the chattel market. Freddie Mac does not currently purchase chattel loans. We do not have the requisite systems in place to purchase chattel loans, nor do we have historical data on chattel loan performance that would allow us to make determinations about whether the purchases of these loans can be made in a safe and sound manner. We appreciate FHFA's efforts to assist us in our information gathering through the Duty to Serve Chattel Pilot Request for Information (RFI) ~~and we are committed to developing and implementing a chattel pilot program that will meet the needs of the market~~. ~~We reviewed and considered the thoughtful comments received under that RFI as we develop our internal capability to serve this market.~~

Freddie Mac has taken into consideration our lack of experience with chattel loans and being mindful of safety and soundness concerns, Freddie Mac intends to conduct a systematic and incremental review ~~to develop a product before entering the chattel market~~. We are firmly committed to understanding it better ~~and developing a pilot program to test our findings and to apply what we learn~~.

~~Historically, Freddie Mac has provided deep liquidity to the conventional mortgage market and we look forward to bringing this level of expertise to the chattel market.~~ During the Plan Term, Freddie Mac intends to engage in the following objectives in support of chattel:

- Engage in research and due diligence into the chattel market.
- Implement a chattel loan pilot and purchase loans, subject to receipt of FHFA approval.
- ~~Develop homebuyer education and continue market outreach related to chattel financing.~~

OBJECTIVE A: CONDUCT OUTREACH AND RESEARCH ON THE CHATTEL MARKET

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Product	**1**	**VLI, LI, MI**	**Yes**

By partnering with well-established industry participants, Freddie Mac plans to conduct extensive research on the chattel loan market to guide the development of our chattel pilot parameters. Our understanding is that information about the chattel market is currently fragmented and not widely available. With an eye toward future secondary market activity, we plan to focus on gathering information related to performance data, current underwriting parameters, risk offset or credit enhancement options, servicing practices, and consumer protections.

In 2017, Freddie Mac issued a Request for Information (RFI) and followed up with a Request for Proposal (RFP) to find a partner, or partners, to provide data and analytical support to assist in the development of our chattel pilot. The RFI helped us identify the organizations in the marketplace that have the interest and capability to contract with Freddie Mac to develop responsible underwriting parameters and other appropriate requirements for a chattel pilot based on loan-level data and subsequent loan performance. This will allow us to develop sufficient safeguards, along with the analytics necessary to track the performance of the chattel loan pilot. We believe this is a crucial first step. Without this foundational work, we cannot serve the market effectively.

Given the work that will be involved in obtaining and synthesizing data, Freddie Mac intends to expend significant resources to gather and analyze the results of our research. We expect that we will have garnered sufficient information by Year 2 to develop guidelines for a chattel pilot. Freddie Mac will complete sufficient research to enter the chattel market in a safe and sound manner.

Baseline

Freddie Mac does not currently provide liquidity to the chattel market and, therefore, does not have experience serving the market; nor do we have the historical data to model the associated credit risks and develop policies to support the loan life cycle.

Challenges, Actions and Market Impacts

Market Challenge	Freddie Mac Action
Lack of transparency and available data on loan terms and performance ▪ The market lacks transparency and standardization in multiple areas of the chattel loan life cycle, including the loan origination process, loan servicing and loan performance, which inhibits growth in the secondary market.	**Year 1 – 2018** To help inform pilot design, Freddie Mac will conduct research on chattel performance and chattel loan life cycle and complete the initial analysis by year end. 1) Research activities: a. Evaluate chattel loan performance, including finding viable sources for data on loan performance and valuation across agency and proprietary products. b. Establish partnerships with subject matter experts on data analysis. c. Review current underwriting models or underwriting criteria supporting chattel financing. d. Explore credit enhancements and risk sharing solutions. e. Review loan servicing practices, including servicing compensation. f. Review disposition activities. g. Review current pricing and explore securitization models. 2) Research activities described above will involve coordination and collaboration to establish additional partnerships and advisors, information collection and sharing: a. Convene the Manufactured Housing Initiative Task Force, Affordable Housing Advisory Council and Next Step SmartMH Task Force at least bi-annually; working

	subgroups will meet at least quarterly. b. Engage at least six lenders to assist with opportunities and solutions. c. Participate in at least one manufactured housing trade show and four key industry conferences to gather information. 3) Use research findings to inform pilot development. See also Objective B for measurable actions on this pilot.

Market Impact

As FHFA noted in the Duty to Serve rule, there is a significant lack of information on chattel loans, especially relating to loan performance. The results of our research will inform our next steps, including the structure of a pilot. Notwithstanding the difficulty involved in starting from a baseline of zero on loan purchases, we believe that one year is a reasonable timeframe to conduct research and leverage findings to define pilot requirements.

The secondary market for manufactured housing chattel loans is currently very limited. Our success in meeting this objective will have a significant impact on the market. First, we understand that a lack of widely available information is a key challenge. We intend to address this by publishing notable findings from our research as indicated in Objective C. Second, our ability to provide liquidity to this market in a safe and sound manner hinges on gaining a greater understanding of it.

Gaining deep insights into the chattel market will require Freddie Mac to seek additional resources and subject matter experts to assist us with the analysis. We mentioned previously that we have undertaken a RFI and a RFP to find a partner, or partners, to provide data and analytical support. Understanding the loan origination, loan packaging, servicing and disposition processes will also require resources from multiple areas internally to complete varied analyses, including Single-Family teams responsible for affordable lending, credit risk, securities, modeling and analytics, servicing and REO.

OBJECTIVE B: DEVELOP INITIATIVE GUIDELINES FOR CHATTEL PILOT ~~AND INITIATE CHATTEL PURCHASES~~

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Product	**1**	**VLI, LI, MI**	**Yes**
~~**Purchase**~~	~~**2 and 3**~~	~~**VLI, LI, MI**~~	~~**Yes**~~

Based on the results of our research and outreach, Freddie Mac will develop a chattel loan pilot. We intend to purchase chattel loans in years two and three of the Plan, subject to FHFA approval. We recognize that the launch date, in Year 2, may be dependent on the FHFA approval process.

The parameters for the chattel pilot will depend upon our research and outreach described in Objective A. Freddie Mac does not have a product to support financing of chattel nor have we purchased chattel loans in the last three years; thus, we have no recent historical data on which we can base assumptions on loan profiles and

performance. The scope of the pilot will include these activities:

- Creation of the standards for credit, servicing, pricing and risk structures necessary to support a pilot.
- Loan purchases that we will make using varied purchase execution options (including bulk portfolio transactions) to model risk and assist with product design to support future loan purchase capabilities on a flow basis. A comprehensive effort of marketing quality energy efficient manufactured homes will complement our activities to increase liquidity and promote manufactured housing as a viable investment to attract private capital.

Baseline

Freddie Mac does not have a chattel product. We have not purchased chattel loans in the past three years. Our baseline is zero.

Challenges, Actions and Market Impacts

Market Challenge	Freddie Mac Action
No standardized products ▪ Products in support of this market vary from lender to lender because most originations are held in retained portfolio due to the proprietary products used to originate loans. ▪ There is a lack of standard underwriting practices and automated underwriting model will continue to limit growth and private capital in this market. **No standard collateral valuation approach** ▪ There is no consistent approach to assessing property values and current valuation methods, including the use of NADA guides, which are inconsistent with how real property is valued. **Historical perception of manufactured housing as a mobile home or "trailer"** ▪ Manufactured Housing is plagued by the stereotype of the "trailer," even though the new class of homes have standard features and finishes similar to site-built homes and are seldom moved after installation.	**Year 1 – 2018** Freddie Mac will develop pilot parameters and determine counterparties for the pilot to support loan purchases. 1) Complete policy parameters to support chattel pilot program: a. Underwriting criteria b. Credit enhancement and risk sharing structures c. Requirements that address consumer protections d. Pricing e. Delivery criteria f. Quality control g. Servicing and disposition requirements, including servicing compensation h. Exploration of potential securitization structures 2) Determine counterparties to be included in pilot activities. 3) Purchase a set minimum number of loans from at least one regional or national lender to obtain data, such as loan characteristics and performance, to facilitate pilot design, subject to FHFA approval. 4) Develop and implement a marketing campaign to further promote quality energy efficient manufactured housing as a viable source of

	sustainable and affordable homeownership to increase market opportunities. ~~**Year 2 – 2019**~~ ~~Freddie Mac will request FHFA approval, and begin purchasing loans under the pilot if approval is obtained.~~ ~~1) Request FHFA approval to implement a chattel pilot. In order to initiate purchases under the pilot program we will need an approval no later than the second quarter.~~ ~~2) Implement a chattel pilot with select national or regional lenders.~~ ~~3) Purchase 200 - 500 loans to help inform future product design to build out capabilities for flow path.~~ ~~**Year 3 – 2020**~~ 1) ~~Freddie Mac will continue purchasing loans under the pilot. We will purchase 600 – 1,500 loans to help inform future product design to build out capabilities for flow path.~~

Market Impact

Freddie Mac frequently uses pilots to test potential offerings and markets prior to a broad rollout. In our experience, pilots are an efficient and effective tool that permits us to adjust features quickly on a small scale in response to feedback. ~~There is currently a limited secondary market for manufactured housing chattel loans. The results of a pilot program will have a significant impact on manufactured housing titled as personal property because the pilot can assist in the development of a more robust secondary market and will provide Freddie Mac with additional information on how to build a sustainable product to support this market.~~

~~The success of the pilot will include providing the market with the framework for consistent standards for credit risk and servicing, including a reliable underwriting and valuation model, a framework for risk sharing and securitization, and consistent requirements for servicing and disposition activities. We anticipate that pilot activities will not only provide the market with immediate liquidity of up to $87 million over the Plan cycle, but also grow the market opportunity.~~

~~Assuming timely FHFA approval, we believe the timeframe is reasonable, given the current outreach efforts and Freddie Mac's high level of commitment. We anticipate that pilot activities will not only provide the market with immediate liquidity, but also grow the market and opportunity to attract private capital.~~

~~Freddie Mac will have limited experience in analyzing chattel loans prior to our purchase activities; therefore, we will be relying on additional resources and partners, selected via a proposal process, to assist with data and analytical support. Additionally, resources from multiple areas internally at Freddie Mac will be relied upon to complete varied analysis, including Single-Family teams responsible for affordable lending, Seller/Servicers relationships, credit decisions, modeling, pricing, securitizations and product development to understand the economics, credit risk and operational impacts, including impacts to our supporting applications.~~

~~OBJECTIVE C: CONDUCT MARKET OUTREACH TO SUPPORT CHATTEL PILOT AND INCREASED ACCESS TO HOMEBUYER EDUCATION~~

~~Evaluation Area~~	~~Year~~	~~Incomes Targeted~~	~~Extra Credit~~
~~Outreach~~	~~2 and 3~~	~~VLI, LI, MI~~	~~Yes~~

~~Freddie Mac intends to publish findings resulting from our research referenced in Objective A to offer transparency and engagement in the market related to the loan life cycle and performance. This will provide the market with the opportunity to review a broad spectrum of data and analytics to inform lending and appraisal decisions. Further, we will actively and continuously engage the market for feedback pre- and post-chattel pilot implementation to determine best practices and ensure we are aligning with market needs.~~

~~We also plan to develop a homebuyer education curriculum that emphasizes the benefits of manufactured housing, including a discussion on chattel financing that is focused on the underwriting parameters of Freddie Mac's chattel pilot. This objective will target the manufactured housing market titled as personal property. The goal of this objective is to expand on our existing homebuyer education curriculum to focus on pre-purchase education that delves into the unique characteristics of manufactured housing chattel loans along with the benefits of purchasing energy efficient manufactured homes.~~

~~Freddie Mac intends to expand on its current Next Step® and eHome America pilot efforts by including a discussion in the curriculum on chattel financing that is aligned with our chattel pilot activity. Freddie Mac recently partnered with Next Step® and eHome America to develop an online homebuyer education curriculum that is inclusive of manufactured housing tailored to prospective buyers of manufactured homes in Kentucky. The pilot is Next Step's "SmartMH" program, which aims to expand the opportunity for sustainable homeownership by educating consumers about the benefits of energy efficient manufactured homes, as more fully discussed in Objective C of Activity 1. We will implement the updated curricula in the first quarter of the third year of the plan in the states where the homebuyer education will be available.~~

~~Baseline~~

~~Freddie Mac has not previously published information on chattel financing including the loan life cycle and performance. We do have experience performing outreach as it relates to manufactured housing and we plan to leverage existing advisory groups to assist with information collection and sharing, and, ultimately, feedback on pilot development and implementation. The advisory councils include the Manufactured Housing Initiative Task Force, Next Step SmartMH Task Force, and Affordable Housing Advisory Council. See also Activity 1, Objective B, for meeting frequency and representation. We do not currently have a homebuyer education curriculum that includes chattel financing.~~

~~Challenges, Actions and Market Impacts~~

~~Market Challenge~~	~~Freddie Mac Action~~
~~**Lack of information and data to support chattel lending**~~ ~~• Market research and data to support scalable chattel financing is lacking in the market.~~ ~~• Transparency of lending activities, performance and product parameters need to be readily~~	~~**Year 2 – 2019**~~ ~~Freddie Mac will provide transparency to the market with results from our research. We will also continue outreach to obtain feedback on pilot implementation, promote quality manufactured housing and seek additional opportunities to grow the market. Freddie Mac will take these actions:~~

~~available to the market.~~

~~**Lack of homebuyer education inclusive of manufactured housing**~~

- ~~Comprehensive homebuyer education that includes manufactured housing as part of the curriculum inclusive of chattel financing options is rarely available. There is a critical need to provide a sustainable education platform that includes these topics:~~
  - ~~Awareness of the benefits and low costs of manufactured housing~~
  - ~~Available products and options for securing financing~~
  - ~~Emphasis on quality home selection, including energy efficient features that can lower the overall cost of homeownership~~
  - ~~Pre-purchase financial education in addition to housing counseling, if needed, to develop homebuyers who would be eligible for loans~~
  - ~~Post-purchase education and counseling to increase sustainability of homeownership and the future maintenance of a manufactured home~~

~~1) Publish key research findings in a white paper related to chattel performance and loan practices on our website to inform the market about chattel financing.~~

~~2) Socialize key findings of research through convenings with the Manufactured Housing Initiative Task Force and the Next Step SmartMH Task Force at least bi-annually and obtain feedback on pilot implementation to further calibrate requirements as necessary.~~

~~3) Participate in at least one manufactured housing trade show and four key industry conferences to discuss our efforts to support development of a secondary market for chattel, seek additional opportunities to support the market and gain additional industry knowledge.~~

~~**Year 3 – 2020**~~

~~Freddie Mac will provide homebuyer education that includes chattel financing and will achieve the following:~~

~~1) Expand our homebuyer education pilot that showcases the benefits of manufactured housing and energy efficiency to include chattel financing in the states where the online curriculum referenced in Activity 1, Objective C, has been implemented:~~

~~a. Provide education inclusive of chattel financing in all states where the manufactured housing online curriculum has been implemented.~~

~~b. Expand the lender network referenced in Activity 1, Objective, C by at least one lender that supports chattel financing.~~

~~2) Ask for consumer surveys at each homebuyer education or counseling session. Use survey results to inform future changes to the curriculum and counseling efforts.~~

~~3) Continue outreach with the Manufactured Housing Initiative Task Force and the Next Step SmartMH Task Force at least bi-annually to obtain feedback on the chattel pilot and to further calibrate requirements as necessary.~~

~~4)~~2) ~~Participate in at least one manufactured housing trade show and four key industry conferences to discuss our pilot activities and seek additional opportunities to support the~~

	~~market and gain additional industry knowledge.~~

~~Market Impact~~

~~Freddie Mac will publish and actively socialize key findings to the market based on extensive research completed in the first year of the Plan. This activity will provide transparency to the market on the chattel loan process and performance that has not been previously available to the public. Given Freddie Mac's limited knowledge about the chattel market, obtaining feedback from market participants about the chattel financing process and ecosystem, including lenders, retailers, manufactured housing trade organizations, community owners, builders of manufactured housing, as well as affordable housing advocates and non-profit organizations, will be critical to the success of the pilot.~~

~~Continued engagement and partnerships with organizations that support manufactured housing will be needed to ensure that we are consistently meeting market need as we undertake loan purchases in a safe and sound manner to build out future capabilities to support the market broadly.~~

~~The market is significantly challenged by an inadequate amount of homebuyer education that provides information about manufactured housing and chattel financing. The lack of capacity and degree of education does not meet the demand of the market and has limited growth in the manufactured housing market.~~

~~It will take a significant level of effort to expand to additional regions, to update our curriculum to include chattel financing solutions that is consistent with the philosophy and policies for how we are considering a chattel loan structure to support loan purchases, and to find additional non-profit partners to administer the curriculum.~~

~~Given that there is not curriculum that focuses on chattel financing options available to the market, we anticipate that our pilot will positively impact homebuyers behavior and outcomes as it relates to home selection, financing and home maintenance.~~

~~Freddie Mac will monitor the feedback on the education materials through surveys to understand additional consumer needs that can be addressed through enhanced platforms. These efforts will have a direct impact on the borrowers who are accessing the services and, through expansion, the market will also experience future impact. These efforts should receive cross-market Duty to Serve credit in energy efficiency because the curriculum incorporates the benefits of purchasing energy -efficient manufactured housing as part of the borrower's home-selection decision.~~

~~Acitivity~~Activity 3 - Manufactured Housing Communities Owned by a Governmental Entity, Non-Profit Organization, or Residents: Regulatory Activity

Based on our outreach in the Resident Owned Community (ROC), non-profit, and governmental entity MHC market, we have found that there is a strong interest in our potential role in the ROC market, while the parameters of our existing MHC financing offerings can be leveraged for non-profit and governmental entities. Therefore, during this three-year Plan, we intend to focus our efforts in support of ROCs, although we will continue to monitor needs and opportunities for communities owned by governmental entities or non-profits. ROCs are typically created when investor-owned MHCs are bought by their residents. Although there are no formal data tracking the incidence of conversions from investor-owned to ROCs across the entire market, our outreach to lenders suggests that up to 25 communities are converted each year. We have also learned that there are some communities being sold back to traditional MHC sponsors/investors, although the exact numbers are not known.

The completion of a conversion from an investor-owned community to a ROC is a challenging process that requires a unique alignment of circumstances. Generally, at least seven factors must come together:

- A community must be put up for sale.
- The residents must want to own their community.
- A sophisticated tenant group must be appropriately organized to purchase it
- Sufficient equity or equity-equivalent financing must be available.
- Specialized debt financing products must also be available.
- Adequate technical assistance must be provided,
- The seller must choose to sell the community to the residents.

Although many MHCs are sold annually (the exact number of which is unknown), these seven factors presumably align in only a small minority of these cases. Additionally, state laws and programs can influence the conversion to resident ownership. According to Prosperity Now, only 10 states currently encourage resident ownership through pre-sale notices or tax incentives.[19] While there are rough estimates of the size of the ROC, non-profit and instrumentality-owned MHC market, there is not a clear and uniform definition of a ROC, nor is there a universal set of standards for community governance models. In order to provide liquidity to the ROC market and develop a sustainable, replicable infrastructure, we must first more fully understand the market's needs, challenges and opportunities. We will then promote that understanding along two separate but equally necessary paths: to the residents so they have a greater understanding of their opportunities and to the market as a whole, in order to attract additional private capital support. Simultaneously, we will seek to develop and test a new loan offering in support of ROCs, building toward loan purchases.

Ultimately, we intend to address the challenges and needs of the ROC market during the Plan Term through the following objectives:

- Promote understanding of the ROC market.
- Develop a new offering for ROCs.
- Purchase ROC loans.

OBJECTIVE A: PROMOTE UNDERSTANDING OF THE RESIDENT-OWNED COMMUNITIES MARKET

Evaluation Area	Year	Incomes Targeted	Extra Credit
Outreach	**1 and 2**	**Affordable**	**Not applicable**

In order to provide long-term, consistent liquidity to the ROC market, it is necessary to better understand this market and promote this understanding to both improve ROCs' abilities to meet requirements for financing and attract private capital to support them at scale. We will do this over two years of deliberate, foundational research. To begin understanding the scope and variety of MHC ownership structures, Freddie Mac will commission data-gathering across the known MHC market. This will enable us to define the size of the MHC market generally and better understand what is needed to help it grow. Because of the size and methodology of this survey, which will attempt to reach all known MHCs, it will take a full year to complete.

In Year 2 of the Plan, we will publish a report that identifies the size of the ROC market and the geographic distribution of ROCs based on the year one survey. In this report, we will also analyze various models for purchasing MHCs and converting them to ROCs and identify best practices and standards around which the market can scale and attract further capital.

Based on the utility of these findings and the lessons we learn from our first survey, we will assess how we might improve the survey and/or report in order to best benefit the market. Though we will not seek Duty to Serve credit for doing so, we will look to continue this survey on an annual basis. In both the data gathering and analysis, we plan to work with leading industry partners.

Baseline

Today, there is no available comprehensive understanding of the ROC market. Current research efforts tend to focus on specific or localized cases but do not take a national view of the market, its challenges, and the opportunities for financing. Our research will be the first of its kind.

Challenges, Actions and Market Impacts

Market Challenge	Freddie Mac Actions
▪ Market for ROCs is limited. ▪ There is currently no broad view of existing ROCs. ▪ The market has unique financing and technical assistance requirements. ▪ No comprehensive dataset is available on ROCs. **Resource Challenge** ▪ Throughout the Duty to Serve Plan, we are taking on a considerable number of research efforts, all of which require extensive planning, collaboration with key stakeholders, and analysis. The design and research of all of these objectives will have many unique components and will leverage the expertise and skills of our internal research	**Year 1 – 2018** 1) Design and commission research on ROC market size, ownership structures of MHCs and market needs. Survey will cover all 50 states and include at least the following data points, if available: a. Location b. Ownership type c. Community size (total number of pad sites) d. Percent resident owned e. Percent of community as rental units f. Length of resident ownership period

organization, whose focus extends beyond the scope of the Duty to Serve Plan.	g. Age of community h. Whether community Has debt financing i. Property value j. Pad rents k. Community fees l. Age restrictions m. Rent restrictions ▪ Note: Due to the extensive scope of surveying more than 30,000 MHCs across all 50 states, this survey will take a full year to complete and will rely on the support of third-party organizations. **Year 2 – 2019** 1) Receive full survey results, analyze results, and publish report. 2) Report will include a summary of survey results, an estimate of overall ROC market size and characteristics, the geographic distribution of ROCs, analysis of models for purchasing MHCs and converting them to ROCs, a description of best practices and standards that will enable future purchases, and a review of a selection of existing financing options for ROCs. In completing this report, we will engage with leaders in the ROC market to inform our analysis and observations. 3) Report will also include any lessons learned from attempted pilot transactions under the loan offering described in Objective B below. 4) Report will be published on our website and promoted with a press release and through our social media outlets so that market participants have access to the work.

Market Impact
The ROC market is currently very limited, is not comprehensively researched, and relies on unique financing agreements that are not conducive to attracting private capital at sufficient scale to grow the market. Our research will help to define the ROC market and its characteristics, lay out new standards and best practices, and provide the foundation for scalability to attract private capital. Year 1 – 2018. Our survey will set a first of its kind baseline by analyzing the state of the market and establishing a foundation for future growth. Achieving this will require an extensive effort to reach all known MHCs across all 50 states. Our research will be difficult to complete because it may involve challenges with response rates from MHCs and other resource obstacles. This research and subsequent publication of what we learn will enable a broader understanding of the market, set a foundation for attracting more capital, and help bring standards and more technical assistance to these communities. Ultimately, this research will identify what is needed for the market to be able to grow. Year 2 – 2019. The publication of our report in Year 2 will have three substantial benefits to the market. First, it will describe the market size and geographic distribution of all identified ROCs for the first time. Second, it will identify and analyze different models for purchasing MHCs and converting them to ROCs identified in our survey and/or outreach. Third, it will identify standards and best practices that can be leveraged to better formalize ROC ownership structures around which we, and the market generally, can direct capital. By publishing standards and best practices learned from our research, we will enable more ROCs across the country to follow these standards, which will enable them easier access to financing. We will also leverage the lessons learned from our survey and analysis, as well as the best practices and standards, to inform key criteria in our product development efforts as we refine our ROC loan offering described in Objective B below. This report will also allow us to direct the attention of our seller/servicer network to ROCs around the country to pursue financing opportunities with them using our newly designed offering. Through the standards identified in our analysis and leveraged for our ROC loan offering, and by generating more loans to ROCs based on these standards, we will be able to apply our market-leading risk-distribution methods to attract private capital to support ROCs, enabling this market to grow in a safe and sound manner.

OBJECTIVE B: DEVELOP A NEW OFFERING FOR RESIDENT-OWNED COMMUNITIES

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Product	**1 and 2**	**Affordable**	**Not applicable**

In Year 1 of our Plan, we intend to work with ROC industry partners such as research organizations, trade organizations, and lenders to best understand their needs and challenges in order to develop a pilot offering with guidelines that will specifically work for these communities and allow us to lend safely with an eye towards attracting private capital to this market and distributing risk away from taxpayers. In Year 2 of our Plan, we intend to continue to refine the offering and pursue pilot transactions.

Baseline

Freddie Mac has been in the MHC lending business since 2015, and we have purchased $2.8 billion of loans on

MHCs. Of those, two purchases have been ROCs. To our knowledge, we are the only GSE to have ever purchased ROC loans. However, we have never had a specific product tailored to the ROC market, and there is not currently a product tailored for ROCs that can attract private capital at sufficient scale to allow this market to grow. This product will be the first of its kind.

Challenges, Actions and Market Impacts

Market Challenge	Freddie Mac Action
▪ The limited number of ROCs. ▪ The specialized nature of the financing required. ▪ ROCs generally require debt of over 100 percent loan-to-value (LTV), which would require GSEs to allow subordinate debt above conforming levels. ▪ The need for technical assistance to both form the properly structured ownership organization and operate the property over the long term. ▪ The need for sufficient equity or equity-like financing to enable lending to be done in a safe and sound manner.	**Year 1 – 2018** 1) Publish a product term sheet for a pilot product and distribute it to one or more seller/servicers engaged in the pilot. 2) Term sheet will contain at least the following elements: a. Product overview and loan purpose b. Borrower and/or property eligibility requirements c. LTV limits d. Debt coverage limits e. Allowable lengths of loan term f. Allowable lengths of amortization 3) Engage at least one lender within our seller/servicer network to test and refine the pilot offering, which may include loan purchases. **Year 2 – 2019** 1) Engage in at least one transaction based on the published term sheet. Due to the limited market size for ROCs, this pilot will be available nationally to communities that meet the minimum requirements described in our term sheet and are affordable to residents making 100 percent of the area median income (AMI) or below per FHFA's affordability estimation method. a. Update the term sheet based on pilot transaction(s) and market acceptance of the product to address transaction challenges and feedback identified during the pilot, while allowing for transaction customization as needed based on the market and borrower. b. We will view this pilot as successful if we are able to quote at least one ROC transaction and either purchase a loan as a result or

	receive recommendations from the seller/servicer and/or the borrower on how we might adjust product terms to better serve the market. c. Include lessons learned from the attempted transaction(s) in our report, described in Objective A above.
Underwriting Challenge	**Freddie Mac Action**
▪ Limited experience of newly converted ROC ownership organizations in operating a ROC and understanding and meeting requirements of sophisticated debt obligations ▪ The unique nature of each property with regard to the ownership structure, rules and regulations, and asset requires a case-by-case analysis	**Year 1 – 2018** 1) Develop internal underwriting parameters and policy guidelines for ROCs that address particular components of the ROC market, including, but not limited to these: a. Borrower net worth and liquidity requirements b. Acceptable forms of subordinate debt c. LTV and debt coverage parameters d. Operating reserve requirements e. Third-party technical assistance requirements f. Home rental allowance g. Home sales requirements h. Rules and regulations enforcement covenants 2) Provide one to three training session(s) to internal production and underwriting staff covering product parameters and underwriting guidelines. 3) Provide one to three training session(s) to Freddie Mac seller/servicers covering product parameters and underwriting guidelines.

Market Impact
Today, financing for ROCs is generally provided by CDFIs or banks using specialized products that often require considerable leverage with combined loan amounts in excess of the appraised value of the property. Additionally, these loans have limited secondary market outlets, which is one of many factors contributing to the relatively small size of this market. Although we have completed what we believe to be the only two ROC transactions by a GSE (and evaluated loan quote requests for several others), we have done so on a case- by-case basis, leveraging current policies. As a result, we have learned first-hand the challenges of financing ROCs. By engaging in one sample transaction in Year 2, we will have the ability to test our offering parameters in the ROC market and refine our offering parameters based on this transaction as well as the results of our survey and analysis described in Objective A above. We believe this offering has the potential to both provide an outlet for current ROC financing providers and establish standards to enable other MHC financing providers, such as Freddie Mac's existing Multifamily seller/servicers, to enter and further develop this market. This will also enable us to provide the benefits of our risk distribution models to this market. The volume under such an offering is likely to be minimal in the near and mid-term relative to the total MHC market and is directly related to the availability of technical assistance to the borrowers from industry experts and the ability to structure a product that provides sufficient leverage while maintaining safety and soundness and attracting private capital for risk distribution. However, we believe that the opportunity it creates has the potential for significant long-term benefit for ROCs. We believe our timeline for this objective is reasonable given our experience with ROCs to date, the needs of the market, the potential for refinement over time, and the benefit of sharing our experience with the market generally.

OBJECTIVE C: PURCHASE RESIDENT-OWNED COMMUNITY LOANS

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Purchase	**3 and 4**	**Affordable**	**Not applicable**

As a result of our ROC offering described above and our study in years 1 and 2 of this Plan, we intend to measure ROC loan purchases in Year 3 and 4. In the first year after our landmark research and report publication, we expect the market will still be small and broad capital-markets interest will still be limited. Therefore, purchasing ROC loans and promoting those purchases and their replicability through press releases or news stories on our website will be fundamental to growing this market over time.

Baseline for 2018-2020

Year	Number of Transactions	Total Amount ($)
2014	0	0
2015	0	0
2016	2	$5.4 million

We have purchased two ROC loans since the inception of our MHC program in 2014 for a total of approximately $5.4 million. To our knowledge, we are the only GSE to have purchased ROC loans. Our baseline is calculated based on the average of the last three years (2014, 2015, 2016): one transaction or $1,800,000. Our two prior transactions were brought to us as part of our normal course of business in 2016. In 2017, we have not purchased any loans on ROCs, and in the more than 150 loan quotes we have provided for MHCs through 3Q2017, only one was for a ROC. Therefore, we do not view these two transactions as reliable predictors of future purchase volume.

Baseline for 2021

In 2018 we formally released our offering for MHROCS and quoted and purchased one loan on a ROC. Through the second quarter of 2020, since the program inception in 2016, we have quoted five ROCs, purchased loans on three ROCs and have a fourth under application.

Year	Number of Transactions	Total Amount ($)
2017	0	0
2018	1	$5 million
2019	0	0

The ROC market is relatively small and we have realized we are better suited to support refinance transactions which further shrinks the available market we can serve. Based on the fact that we have funded one transaction over three years, our three-year average baseline will be one transaction or $1.7 million.

2020 Target

The ROC market, as described above, is relatively small, with perhaps up to 25 conversions per year. Additionally, there are other secondary market capital providers today in the form of life insurance companies and mission-driven banks, though their participation is somewhat limited, in part by the nature of their commitments and existing product infrastructure. Therefore, we believe that a target of supporting roughly 10 percent of this market, translated as the lesser of two transactions or $5 million, is a meaningful impact in our first year of deliberate ROC loans, especially given that the benefits from our survey and publication described in Objective A and the loan offering described in Objective B will take some time to gain market acceptance. We will likely seek to increase purchases in subsequent years as we refine our product offering and gain more market adoption.

Year	2020
Target	The lesser of two transactions or $5 million

As we gain experience in the ROC market, we may revise these targets given market conditions and the results of our pilot efforts described above.

2021 Target

Based on our Manufactured Housing Resident Owned Communities Research Report published November 2019, the MHROC market consists of 1,065+ communities, only 2.4% of the broader MHC market, and 0.09% of

households in the country. The vast majority of MHROC conversions are supported by organizations such as CDFIs that can provide capital in excess of the appraised value of the property – something that Freddie Mac cannot do – along with technical assistance. Therefore, Freddie Mac's role is better suited to supporting refinance transactions that can help MHROCs obtain more cost-effective long-term debt. This is an even smaller market, with great unpredictability year-over-year and few transaction opportunities to be pursued by both Freddie Mac and Fannie Mae. Our lender network is actively pursuing MHROC transactions, and our purchase target represents our continued commitment to seek opportunities to provide liquidity to this market.

Our 2021 target is more conservative than 2020 based on our market experience that demonstrates that there are very few ROCs seeking financing in a given year and that transactions can be highly reliant on factors outside of Freddie Mac's control, such as reliance on additional capital sources with unpredictable timelines and underwriting criteria.

Year	**2021**
Target	One transaction

Market Challenges

The primary challenge involved in making loan purchases on ROCs is the unique circumstances for a ROC loan to occur. For a ROC loan to initiate, the following must happen: A community must be put up for sale, the residents must want to own their community, a sophisticated tenant group must be appropriately organized to purchase, sufficient equity or equity- equivalent financing must be available, specialized debt financing products must be available, adequate technical assistance must be provided, and the seller must choose to sell the community to the residents. It is very rare that all of these factors combine to enable a transaction.

This long list of requirements is lengthened by other factors. In the case of refinances, properties must show a history of stable operation and professional management of the community and borrowing entity. Also, and perhaps most importantly, the prevailing financing model in the market is not conducive to either significant growth or attracting the private-capital investment at scale necessary to distribute risk away from the public. ROCs generally require subordinate debt with foreclosure rights in addition to the senior loan, bringing the combined loan-to-value over 100. This falls well outside typical credit parameters for the GSEs.

Market Impacts

We believe having a stable capital source for senior debt will provide consistent liquidity to this market. Today, ROC financing is dependent upon select originators and investors, which makes the market narrow. With the introduction of a new product and future loan purchases, we can open this market to a wider range of private capital. This will remove barriers that restrict growth in the ROC market and enable the provision of a renewable source of capital. ~~Our involvement in this market will provide long-term liquidity that will protect senior lenders from undue risk and expand the market to create more business flow. Our two transactions will be precedent-setting, and, through press releases or deal stories that summarize the transactions, we will promote their replicability, which will lead to a growth in purchases in future years.~~ Our previous transactions were precedent-setting, and, through press releases and deal stories that summarize the transactions, we promoted their replicability. As with these transactions, continued liquidity can enable ROCs to refinance their high interest rate existing debt into a longer term MHROC loan that materially reduce their operating expenses and leave more funds for community needs.

Activity 4 – Manufactured Housing Communities with Certain Pad-Lease Protections: Regulatory Activity

During the public listening sessions and consistently throughout our outreach, we have heard from advocacy groups that MHC tenant protections are key to creating a stable tenant base which, in turn, increases stability in the MHC market.

We intend to work to provide a broader market understanding of the gaps between what the market currently offers for MHC tenant protections and what is identified in the Duty to Serve regulation, and explore ways to close that gap over time through the following objectives:

- Conduct and publish a 50-state tenant protection survey.
- Develop a pilot offering for MHC borrowers that institute Duty to Serve tenant protections.
- Purchase loans on properties that commit to implement Duty to Serve tenant protections.

OBJECTIVE A: CONDUCT TENANT-PROTECTIONS SURVEY

Evaluation Area	Year	Incomes Targeted	Extra Credit
Outreach	**1**	**Affordable**	**Not applicable**

In 2016, Freddie Mac commissioned a study of state tenant-protection laws in the top 11 states in which we purchase MHC loans.[20] This study reviewed both laws specifically related to MHCs and laws generally applicable to tenant protections. The resulting data revealed that none of these 11 states has the necessary combination of tenant protections for eligibility for credit under the Duty to Serve regulation.

We also reviewed a representative sample of leases from our top 10 MHC owner/operators whose properties contain the most home sites. In the course of our review, we did not discover the requisite combination of Duty to Serve tenant protections.

Accordingly, we believe it is unlikely that an active market of MHC properties with these tenant protections currently exists.

This study was designed to identify the presence or absence of a market, rather than to identify the gaps between current state tenant protections and the Duty to Serve tenant protections. The study was also limited in scope, and did not involve extensive borrower outreach. Therefore, in Year 1 of our Plan, we intend to expand the scope of our survey and focus on what needs to be done to develop an MHC market for properties with the full complement of Duty to Serve tenant protections. To do this, we will commission a 50-state survey of state MHC tenant-protection laws and perform outreach to a representative sample of MHC owner/operators to whom we have provided financing as well as investors in our risk-distribution offerings, such as our K-Deal. Our outreach

will request MHC owner/operators' views on the adoptability of Duty to Serve protections without a state law requirement to do so, and how owner/operators might implement the Duty to Serve protections. We will also seek the input of investors in our securitizations to determine their views on these tenant protections and how they may impact securitization performance. This is a natural progression of the work that we began in anticipation of the Duty to Serve regulation. As a service to the market, and to encourage awareness, we will publish a report summarizing state-by-state tenant-protection laws and the gaps between those laws and the Duty to Serve tenant protections. We will also summarize impediments to voluntary adoption identified by the borrowers and securitization investors surveyed.

Baseline

Today, our research on tenant protections is limited to 11 states and focused on the tenant protections in the proposed Duty to Serve regulation. This research reveals the absence of a market of properties with the full set of Duty to Serve tenant protections within these 11 states. Our outreach will expand upon and update prior research to conduct a fifty state survey to determine the national scope of this market and our ability to conduct business.

Challenges, Actions and Market Impacts

Market Challenge	Freddie Mac Action
▪ We have not found a market for the full suite of Duty to Serve tenant protections. ▪ We do not have a broad understanding of the gaps between current tenant protections and those identified in the Duty to Serve regulation. **Resource Challenge** ▪ Throughout the Duty to Serve plan, we are taking on a considerable number of research efforts, all of which require extensive planning, as well as collaboration with key stakeholders, and analysis. The design and research of all of these objectives will have many unique components, and will leverage the expertise and skills of our internal research organization, whose focus extends beyond the scope of the Duty to Serve Plan.	**Year 1 – 2018** 1) Conduct 50- state review, obtain MHC owner/operator feedback, survey securitization investors, and publish results. Survey will include: a. List of tenant protections by state b. List of MHC tenant protections by state c. List of Duty to Serve tenant protections not covered in each state 2) Study will examine the following points from state statutes and regulations: a. Requirements for written lease agreements, including any required minimum lease terms and automatic renewals b. Limitations on evictions and treatment of defaults c. Requirements for rent increases, subleasing and assignment and restrictions on tenant's right to sell or place "For Sale Signs" d. Requirements to provide tenants with notice of change of use or intended MHC closure 3) Study will identify gaps between state tenant protections and Duty to Serve tenant protections

	and any barriers to adopting this specific set of tenant protections. 4) Study will be published on our website, distributed to manufactured housing research organizations, advocacy organizations, and the MHC seller/servicer network, and will be promoted with a press release.

Market Impact

We believe that expanding the scope of our recently-completed 11-state survey to cover all fifty states, as well as borrower and investor feedback, is an important first step in developing and growing the market for MHCs with Duty to Serve tenant protections. Our preliminary research gave an indication of the market, or lack thereof, for MHCs with Duty to Serve tenant protections.

Expanding upon our research to represent all 50 states will lay the foundation to make future MHC loan purchases. Publishing the results of our survey will give borrowers, states, and the general public a better sense of the tenant protections that exist and those that need to be implemented in order to meet the full complement of Duty to Serve tenant protections. From the results of our survey, we see the following benefits:

1. We will be better able to identify the optimal set of product parameters for our pilot offering described in Objective B below.
2. States will be better positioned to assess and close the gaps between their current tenant protections and those deemed optimal by FHFA.
3. Borrowers will have clarity as to what tenant protections they could voluntarily add to their leases, in combination with state tenant protections, to meet the standards identified by FHFA.
4. In the event that borrowers or investors identify barriers to adopting of the Duty to Serve tenant protections, we will be able to inform FHFA and the market of such barriers and potential alternative combinations of protections.

Over time, should states and borrowers choose to adopt the Duty to Serve tenant protections, this will enable the formation of a market of MHCs with such tenant protections.

OBJECTIVE B: DEVELOP PILOT OFFERING FOR BORROWERS THAT INSTITUTE DUTY TO SERVE TENANT PROTECTIONS

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Product	**2 and 3**	**Affordable**	**Not applicable**

In our research to date, we have not found states that require the full complement of Duty to Serve tenant protections, nor have we identified MHC owner/operators (other than ROCs or non-profits) who have included the full complement of Duty to Serve tenant protections in their leases. Given that these tenant protections are neither a common market practice nor required in full by state law, unless state laws change, we will likely need to offer some form of incentive or recognition for borrowers to adopt these protections in full. At this time, the specifics of the necessary combination of incentives and product parameters are not known.

Freddie Mac will work with seller/servicers, industry experts, and MHC owners to develop a pilot offering that recognizes borrowers who adopt the full complement of Duty to Serve tenant protections pursuant to state law, through voluntary adjustments to their leases, or a combination of both. The development of the pilot's terms will be largely dependent upon the results of our 50-state survey and our work with industry experts and MHC owners. We also plan to publish lessons learned from our pilot and, depending on these results, seek market guidance on what is required for this market to develop.

Baseline

To date, Freddie Mac has not purchased any loans on properties that have this specific set of Duty to Serve tenant protections, nor have we seen any evidence that such properties are available in the market. Our current MHC offerings do not have specific recognition or incentives for this set of tenant protections. Our pilot offering will be the first Freddie Mac product of its kind and will illustrate whether or not there is market appetite for this particular combination of tenant protections.

Challenges, Actions and Market Impacts

Market Challenge	Freddie Mac Action
▪ Limited understanding of the gap between current market practice and the market potential for the Duty to Serve tenant protections. ▪ Limited market interest beyond ROCs and non-profit entities for adoption of Duty to Serve tenant protections. ▪ Unclear path to, or optimal method of, implementation of the Duty to Serve tenant protections	**Year 2 – 2019** 1) Publish a term sheet on our website for an offering that incentivizes or recognizes borrowers who adopt the full complement of Duty to Serve-compliant tenant protections through state law, voluntary adjustments to their leases, or a combination of the two. 2) Term sheet will contain at least the following elements: a. Product overview and loan purpose b. Borrower and/or property eligibility requirements c. Loan-to-Value limits d. Debt coverage limits e. Allowable lengths of loan term f. Allowable lengths of amortization g. Required tenant protections to be found in lease terms, in state law, or in the combination thereof 3) Engage one or more seller/servicers and one or more MHC sponsors to test and refine the pilot concept. Because of the absence of a market for MHCs with the specific set of Duty to Serve tenant protections, this pilot will be available nationally to communities affordable to residents who make 100 percent of AMI or less, based on FHFA's recommended estimation method.

	4) Provide one to three training sessions to internal production and underwriting staff covering product parameters and underwriting guidelines. 5) Provide one to three training sessions to Freddie Mac seller/servicers covering product parameters and underwriting guidelines. **Year 3 – 2020** 1) As part of the pilot, purchase at least one loan on a community with the full complement of Duty to Serve tenant protections. 2) Publish lessons learned from our pilot and, depending on the results, seek market guidance on what is required for this market to develop. If we are unable to purchase any loans with the full complement of Duty to Serve tenant protections, this report will include a description of attempts made and a summary of market feedback we received. 3) We will view this pilot as successful if we are able to either (1) purchase a loan as a result, (2) receive recommendations from the seller/servicer and/or the borrower on how we might adjust product terms to better create this market, or (3) provide FHFA with market feedback on the viability of this particular combination of tenant protections.

Market Impact

In order to determine market interest and potential, it is important to test market appetite with a pilot offering to recognize or incentivize borrowers who adopt all of the Duty to Serve tenant protections. This pilot is a foundational activity that we believe is required to advance the future development and growth of a market that adopts the Duty to Serve tenant protections.

This pilot will also clearly indicate if borrowers can be incentivized to add the full complement of Duty to Serve tenant protections to their leases when they have other sources of financing available to them that will likely continue to have no expectation that such protections be considered. Success will be in the form of the lessons learned and shared with the market, not necessarily in resulting purchases in the first Plan Term.

Through this product, we expect to be able to leverage our industry leading risk-distribution methods, which leverage private capital to promote safety and soundness.

OBJECTIVE C: PURCHASE LOANS THAT INSTITUTE DUTY TO SERVE TENANT PROTECTIONS

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Purchase	**3 and 4**	**Affordable**	**Not applicable**

Based on our research and the eight transactions we completed in 2019, we believe we have identified adoptable parameters to provide the full complement of Duty to Serve protections to homeowner tenants in their MHC leases. In 2020 and 2021, we are setting a loan purchase target for this market.

Loan purchases will count under this objective based on the borrower's commitment to implement tenant protections in accordance with our Manufactured Housing term sheet at the time of our mortgage purchase.

Baseline for 2020

We implemented the product in 2019 so we don't have additional historical volume to reference. We funded a total of 8 deals in 2019 and we anticipate volume will continue to expand as more borrowers participate.

Year	2019
Total Loan Amount	$88 million
Loans	8
# of Qualifying Pads*	1,322 units

*Qualifying Pads means pads occupied by a tenant who owns their home at the time of origination. Vacant pads and pads occupied by homes that are rented are excluded.

2020 and 2021 Targets

Based on our success with our pilot offering for MHCs with tenant protections present in our 2018-2020 plan and our 2019 performance in this space, we are adding 2020 and 2021 purchase targets. We have set our 2020 and 2021 targets higher than the achieved volume in 2019 in terms of number of loans but expect to have less units because we have found this product to be attractive for smaller communities. In recognition that both small communities and large communities benefit from this offering, we have set our target as the lesser of a number of pads or transactions completed so as not to disadvantage smaller communities.

Should market conditions change, we will work with FHFA to responsibly adjust our targets based on our volume cap, market needs and capacity. We anticipate that we will reach our target goal by leveraging our MHC network.

Year	**2020**	**2021**
Target	Lesser of 1,170 qualifying pads or 10 transactions	Lesser of 1,800 qualifying pads or 15 transactions

Challenges

It is unclear how the market will recover from the COVID-19 outbreak. Our role, particularly in 2020, will be to focus on being a stable source of liquidity as the market recovers. Affordable housing is likely to remain in very high demand for existing renters, and demand may increase if new renters enter the market due to negative financial impacts of COVID-19. Acquisition might be slow to recover; however, we may see increases in refinances depending on economic indicators at the time. Because of such a substantial market disruption, it is especially difficult to set targets and plan for business opportunities outside of providing continuous liquidity to meet market needs.

Market Impact

Freddie Mac intends to continue our role of providing liquidity in these hard-to-serve markets though our innovation and dedicated platform, providing support to more families through our MHC tenant protections financing. From our experience in this space, we have learned that we play an important role in providing greater liquidity to smaller communities in particular. Our role in establishing a market standard for tenant protections and providing liquidity will continue to have a profound influence on the MHC market—and MHC tenants—in the near- and long-term.

Recognizing the critical role the GSEs may play in providing stable source of capital during this period of market turmoil, we will be mindful of our purchase volume and credit standard are consistent with safety and soundness. In furtherance of this goal, we are also able to distribute risk away from taxpayers through our market-leading credit risk transfer program. This allows us to provide attractive financing and flexible terms to borrowers, channel private capital to support public good efficiently and cost effectively while protecting taxpayers and maintaining safety and soundness.

Disclaimer: Implementation of the activities and objectives in Freddie Mac's Duty to Serve Underserved Markets Plan may be subject to change based on factors including FHFA review for compliance with the Charter Act, specific FHFA approval requirements and safety and soundness standards, and market or economic conditions, as applicable.

Strategic Priorities Statement

Affordable rural housing is essential to the stability, economic development and viability of rural communities. Through outreach, the FHFA Duty to Serve public listening sessions and public comments on our Plan, Freddie Mac understands that significant challenges exist to supporting affordable rural housing. We repeatedly heard about limited access to financial services, challenging appraisals, poor infrastructure, home overcrowding, a prevalence of substandard housing, and higher-than-average poverty rates. In addition, we learned of specific needs to support rural markets, such as product enhancements, comprehensive education, technical training, and capacity building for non-profits to expand their resources. Almost by definition, there is limited demand for multifamily housing in areas of deconcentrated populations where renters are more often served by single-family rental (SFR) properties.

While the challenges are great and important to understand, we see opportunities to provide liquidity and capital for very low-, low-, and moderate-income households in rural areas over time. Our strategic approach will include significant efforts to increase our understanding of the market, align with experienced strategic partners to increase our impact, leverage technical expertise from industry participants, provide well-researched product enhancements to meet the needs of the market in a safe and sound manner, and maintain or increase the share of quality loans we purchase. Freddie Mac will approach the challenges through both single-family and multifamily initiatives. In so doing, we will be responsive to market needs, while remaining mindful of the appropriate levels of purchases and investments to ensure safety and soundness.

Our outreach also underscored that private stakeholders' and federal agencies' interests frequently align with Freddie Mac's strategic priorities in the rural market. We believe partnerships with these entities will allow us to better implement products and services that will be beneficial to this market and will help maintain housing affordability in these areas. Finally, we see opportunities to engage in Low-Income Housing Tax Credit (LIHTC) equity investments, which will allow us to further invest in areas where debt is not the prevalent source of financing, and explore the single-family rental market to improve affordable housing options for rural renters.

Over the next ~~three~~ four years, Freddie Mac will expand our support for the rural housing market in the following ways:

1. Expand our research to better understand the rural market as defined by FHFA and enrich the national conversation by sharing information about the opportunities and underlying challenges involved in supporting the housing needs of rural communities nationwide.
2. Expand our outreach to provide comprehensive homebuyer education to consumers and technical training for industry professionals.
3. Increase financing for both rural homebuyers and rental-housing developers.
4. Develop a robust renovation mortgage product to serve the need for rehabilitation of aging housing stock.
5. Collaborate with the USDA to provide third-party financing for various programs.
6. Re-engage in the LIHTC equity market.
7. Conduct research on SFR market characteristics~~,~~ and develop a new SFR product offering~~, and make loan purchases to support the SFR market~~.
8. Conduct research on multifamily housing supporting high-needs regions and populations.
9. Develop a rural mapping tool to promote broader understanding of the rural market as defined by FHFA and to easily identify properties that qualify under the rural definition.

Market Context

Overview

Today, rural areas encompass over 90 percent of our country's landmass, but they are home to less than a quarter of the population.[21] While rural areas are socially, economically and geographically diverse, they face many common challenges. In many rural areas, industries that historically drove the economy—including manufacturing, timber and agriculture—are shrinking. The population is aging as the younger generation leaves in search of job opportunities.[22] As a result, rural areas have disproportionately high rates of unemployment, under-employment and poverty.

According to the 2010 U.S. Census, 42 percent of homes in rural areas were owned "free and clear" versus only 27 percent in urban and suburban areas.[23] This may be in part because homes are less expensive overall[24] or because older populations may have had more time to pay off mortgages or transfer equity from another property. However, there remains an overall need to provide affordable housing due, in part, to poor economic conditions. These economic conditions, in turn, can lead to borrowers with poor credit histories who lack available assets for down payments.[25]

There are approximately 7.1 million renter-occupied units in rural communities, comprising 28.4 percent of the rural and small- town housing stock. The physical composition of rural rental housing differs from rental characteristics nationally. Rural renters are most likely to live in single-family homes or in small multifamily structures rather than large buildings or apartment complexes. Among rural renters, 49 percent live in one-unit, single-family rental homes, while 17 percent live in two- to four-unit rentals, 16 percent in five- to 49-unit multifamily properties, and 3 percent in properties with 50 or more units. The remainder live in manufactured housing rental units.[26] Quick facts about the high-needs rural regions are listed in the table below.[27]

Metric	Total U.S.	Middle Appalachia	Lower Mississippi Delta	Border Colonias	Native American Regions
Population	301,461,533	8,841,811	8,922,311	5,586,664	1,191,561
Poverty Rate	13.5%	17.8%	19.7%	23.8%	24%
Small-Town/ Rural Population	21.2%	54.8%	50.8%	29.8%	Not Listed
Homeownership	66.9%	73.0%	68.0%	67.7%	70.1%
Manufactured Housing	6.8%	20.7%	17.1%	19.2%	15.8%

High-needs rural regions and populations share common characteristics, but they may also have unique social, economic and demographic features that will make it challenging for Freddie Mac to create sustainable mortgage programs to support housing in these areas.

Middle Appalachia Region

The Middle Appalachia region includes 238 counties in Kentucky, North Carolina, Ohio, Tennessee, Virginia and West Virginia. This region is rich in natural resources; it has relied on coal mining and timber for employment for over a century.[28] This has recently shifted, and the main industries are now education and health care.[29] In this region, it is not uncommon for families to live on land that has been in the family for generations.[30] Manufactured housing is very common, but the units may be old and in substandard condition.[31]

The Middle Appalachia region's total population is less than nine million, with a majority (55 percent) living in rural areas.[32] Like many other rural areas, Middle Appalachia is experiencing an aging population and an exodus by the younger workforce. Although a high percentage (73 percent) of households own their homes compared to the national average, the value of the homes is low.[33] Persistently low property values have impeded household asset accumulation.

Lower Mississippi Delta Region

The Lower Mississippi Delta region includes 219 counties in parts of Mississippi, Louisiana, Arkansas, Alabama, Tennessee, Kentucky, Missouri and Illinois. The region encompasses a 200-mile plain that includes over 90,000 miles of rivers and streams and has some of the richest soil in the country. Notwithstanding its richness in natural resources, the region is home to some of the poorest populations in the country.[34] Its residents have suffered through devastating natural and man-made disasters, including multiple hurricanes since the mid-2000s and the Gulf of Mexico oil spill in 2010, which have caused massive property destruction and stalled segments of the economy.

The Lower Mississippi Delta region has a population of slightly less than nine million, with more than half of the residents living in rural areas. According to the 2010 U.S. Census, the population only grew by 1 percent from 2000 to 2010. This region also experiences a large degree of out-migration, with the younger workforce moving to the urban centers for job opportunities. Homeownership rates in this region are high (70.9 percent), and ownership is sought after as a means of stability, investment and asset accumulation.

Colonias

Colonias are located in parts of Arizona, California, New Mexico and Texas along the U.S.-Mexico border.[35] The U.S. Department of Housing and Urban Development (HUD) has designated 86 colonias in Arizona; 1,800 in Texas; 142 in New Mexico; and 15 in California. Although these colonias are classified as one group, they have significant differences both socially and economically. They vary widely in size, population, infrastructure and

housing quality. Some colonias have as few as 40 lots, while others have more than 300 lots. However, many share a lack of basic infrastructure, such as potable water and sewage systems.

Colonias residents often live in substandard housing.[36] They continue to live there for a multitude of reasons, including a desire to remain close to relatives, the security of a familiar culture and limited ability to move into other areas of the country. Many of these communities developed because housing was not provided by the agriculture industry that hired residents as seasonal and migrant workers.[37] In addition, land owners in Texas were historically given the legal right to split plots of land into smaller lots without providing the infrastructure to support housing.[38]

Approximately 1.7 million people live in the rural border colonias. Most of the population is foreign-born residents and nearly two-thirds of the adults are U.S. citizens.[39] The residents typically work in manufacturing, government and agricultural jobs outside of the colonias.

A significant portion of residents in colonias have historically been subjected to predatory contract-for-deed (CFD) arrangements. Under this type of contract, the borrower pays a developer directly for housing but, unlike with a mortgage, the title to the property is not placed in the borrower's name until the entire contract price is paid in full. The CFD industry has historically been rife with abuse. The contracts typically have high interest rates, allow for foreclosure with one late payment and are not recorded in the land records, leaving borrowers with few remedies in case of default. In 1995, Texas passed the Colonia Fair Land Sales Act, which required deeds to be recorded. Since its passage, most developers use a recorded deed with a prescribed foreclosure process. However, approximately 6,500 unrecorded CFDs remain, according to an estimate.[40] The total number of CFDs, including both recorded and unrecorded deeds, is still extremely high due to the difficulty of converting CFDs to regular deeds. As a result, clouded deeds may be a challenge to providing secondary market financing in the colonias.

Federally Recognized Indian Tribe Populations

There are 337 federally recognized Native American tribes, primarily located in the Southwest and the Plains, and 229 federally recognized Alaskan native villages. There are approximately 326 Native American reservations. Historically, there were approximately 1,000 Native American tribes living on more than two billion acres.[41] These populations have declined significantly, and as of 1997, only 54 million acres remain under tribal control. There are currently over two million persons who identify as Native American, but only 23 percent live on Native American lands.[42] Each tribe has a unique culture and history, which makes generalizing about this market difficult. However, through the Housing Assistance Council's (HAC's) research, we have learned that Native American tribes living in rural areas often face substandard housing, lower education levels and persistent poverty.

Each tribe has its own government and, through treaties with the U.S. government, authority over its tribe and land. Land controlled by Native American tribes can be tribal or trust-owned land. Tribal land can be owned by an individual or the tribe, whereas trust land has a title that is held in trust by the federal government. The legal complexities of land titles have made mortgage financing difficult due to, among other things, the inability of a mortgage holder to foreclose on the property in cases of default. "Checkerboarding," a term that is used to describe the variety of land titles used, hampers the ability of the tribes to accumulate land under one type of ownership.

As in other rural areas, there is a larger percentage of owner-occupied housing; approximately 70 percent of homes in Indian areas are owner-occupied. The majority are single-family homes, including manufactured homes. According to the National Congress of American Indians, up to 40 percent of housing located on reservations is considered substandard, and up to one-third is considered overcrowded due to high levels of poverty and the lack of affordable rental housing. In addition, less than half are connected to a public sewage system.[43]

Agricultural Worker Population

The agricultural industry in the U.S. is a multibillion-dollar industry that requires more than two million farmworkers annually to harvest crops.[44] Agricultural workers are considered a high-needs population due to evidence of persistently lower income levels and higher rates of residence in substandard housing. The 25 percent poverty rate is almost twice the national average of 13.4 percent.[45]

Agricultural workers often rely on seasonal or temporary work, requiring them to move from location to location to maintain employment, which can make owning a home impractical. While agricultural workers today move less often than in past decades, many continue to live in poverty.[46] Given their reliance on short-term employment, as well as employment instability and low wages, agricultural workers are frequently renters instead of homeowners.

Freddie Mac's Current Support

Freddie Mac offers a variety of loan products that support rural borrowers. Freddie Mac's Home Possible Advantage® product provides flexible underwriting and low down payment requirements, allows borrowers to obtain their down payment funds from a variety of sources, and permits total loan-to-value ratios up to 105 percent. Home Possible Advantage can also be combined with a USDA Section 502 single-family leveraged second loan, which can be beneficial to rural households. Our HFA Advantage® product is an extension of our Home Possible Advantage product and it includes affordable product features with additional flexibilities provided for housing finance agencies. Additionally, we recently offered guidance to assist with rural property valuations. We recognize, however, that more work remains to be done.

In addition to single-family loan products, Freddie Mac has loan products that are designed for multifamily borrowers. Our ability to serve rural areas is constrained by the small number of multifamily properties to finance as well as a lack of data on the specific needs of borrowers in this market and programs to support. Even so, Freddie Mac has increased our activities in rural markets over the past several years consistent with our community mission and beyond the scope of Duty to Serve. From 2014-2016, we provided $2.6 billion of financing in support of more than 47,000 households living in more than 365 multifamily properties in rural areas.[47] During that period, we roughly doubled our annual purchase activity. We believe that the objectives detailed below will provide the specialized loan products and investment necessary to more effectively support rural markets.

Challenges and Needs

Freddie Mac's outreach to a wide range of rural market participants has identified that challenges in rural regions can be multifaceted and affect virtually all residents, extending beyond housing affordability, and can include persistent poverty, declining employment opportunities, and limited access to financial services, among other factors.

Through our research and outreach, we have gained a deeper understanding of the current challenges facing this market and the unique needs that must be met in order to successfully serve it.

- **Lack of affordable housing and high cost burdens** - Households in rural areas experience a high housing "cost burden," which is defined as housing costs that exceed 30 percent of a family's income. This is one of the most significant barriers to homeownership.[48] Our outreach suggests that this may be due to a combination of four factors: low employment; poor economic conditions that can lead to weaker credit; lack of housing stock due to construction costs; and lack of access to financial services. Many rural areas do not have adequate access to financial services because they are often very remote and have low populations. The comments we received suggested the lack of financial services leads to higher borrowing costs and higher interest rates. Additionally, a significant portion of the population may have poor credit and a higher percentage of owners have high-cost loans in comparison to non-rural areas. High-cost loans result in decreased asset accumulation, higher default rates, and an increased cost burden of ownership.

- **Persistent poverty** - Approximately 16.3 percent of the rural population lives in poverty.[49] As of 2016, there are currently 353 counties in the United States seen as having persistent poverty; 85 percent of these are located outside metropolitan areas.[50] In 2012, while the national median household income was $51,914, the rural median household income was $41,962; 30 percent of rural household incomes are below $25,000.[51] According to the Duty to Serve rule, a county has persistent poverty if 20 percent or more of its population has been living in poverty for the past 30 years.

- **Substandard/Overcrowded housing** - Compared to the national housing market, rural areas have higher rates of substandard housing and overcrowding as well as a shortage of certified professionals to construct and repair homes. Due to higher rates of unemployment and poverty, extended families may live together. These same factors lead to delayed home repairs and deteriorating properties. There are also a high number of abandoned homes and vacant units, as low market values make selling a property uneconomical and households move to find work.

- **Declining employment** - The unemployment rate is higher in rural areas than the national average.[52] The limited growth of traditional rural industries—manufacturing, timber and agriculture—has led to limited employment opportunities. An inconsistent employment history may make it difficult or impossible to access credit.

- **Lack of access to lenders** - Rural borrowers have access to fewer mortgage lenders. Given the relatively low volume of loans in rural areas, it is less profitable for lenders to provide financial services in these areas. In addition, rural borrowers may not have access to reliable, consistent internet service. As a result, these borrowers may be completely reliant on one or two local lenders, who may have limited loan products and charge higher rates in order to maintain a local presence.

- **Appraisals** - Rural appraisals are challenging for a number of reasons: there are limited comparable sales; those sales may not be similar to the subject property; and those sales may not be physically near the property being appraised. As a result, rural appraisals may take additional time, research and justification to determine an acceptable value for a property. Because of the additional work involved, rural appraisals may also cost more, an expense that is proportionately greater where the property value may be low.

Additional Challenges Facing Middle Appalachia and Lower Mississippi Delta

The Middle Appalachia and Lower Mississippi Delta areas face the same challenges described earlier, but on a greater scale. The economies in these areas lack diversity, which exacerbates unemployment and underemployment. The population centers of these areas are geographically isolated, which makes the lack of available financial services providers more of a concern. This isolation also means that infrastructure may be a problem; a relatively large percentage of homes lack plumbing and electricity. The housing stock is also aging and, combined with a lack of certified professionals to do repairs, more housing is becoming substandard.

Additional Challenges Facing Colonias

Colonias continue to make basic infrastructure improvements and build better quality housing; however, a significant amount of work still needs to be done to address the challenges faced by the residents of these communities. The level of education in the colonias lags behind the national average; only 75 percent of residents graduated from high school versus 84 percent nationally. This lowers their opportunities to secure higher-paying jobs and could decrease the possibility of obtaining a mortgage. Additionally, a significant portion of the population has limited English proficiency and limited access to financial services. In addition, the poverty rate is high; 23.8 percent live below the poverty line. Eight counties in Texas are among the poorest counties in the country.[53] This region also experiences housing-related issues due to the limited presence of financial services, home overcrowding and high housing cost burdens. A large percentage of households pay more than 30 percent of their income towards housing costs.

Additional Challenges Facing Native American Populations

In addition to the challenges common to all rural areas, lending to federally recognized Indian tribe members in an Indian area is difficult for many reasons, including the complexity around land titling, understanding and negotiating with distinct governments, the supply and quality of available housing, the need for flexibility around standard mortgage parameters and the involvement of multiple federal programs.

Access to financial services is especially critical for this population; only 14 percent of Native American communities contain financial institutions. Moreover, only 50 percent of the population can easily access ATMs and 6 percent have to travel more than 100 miles to reach a bank.[54]

Additional Challenges Facing Agricultural Workers

Agricultural workers face many challenges common to rural areas generally and experience hardships including poverty, substandard housing, lower educational levels and home overcrowding. A critical challenge in creating liquidity for the mortgage market for agricultural workers is that data on the population are scarce. Furthermore, although agricultural workers currently are less mobile than they have been historically and may be more likely to stay in one area for longer periods of time, they remain more likely to rent rather than own. As we discussed above, there is limited rental housing in rural areas, and housing dedicated to agricultural workers is an even smaller submarket that is often heavily reliant on LIHTC equity and cannot support debt financing.

Activities and Objectives

Activity 1 – High-Needs Rural Regions: Regulatory Activity

The high-needs rural regions include the Middle Appalachia, Lower Mississippi Delta, colonias and other rural tracts located in persistent-poverty counties not previously included in one of the other three categories. These regions are diverse in their landscapes as well as the economies that support them and their residents. As discussed in more detail above, they share common challenges, notwithstanding their unique characteristics.

Freddie Mac's strategic approach to increasing liquidity and expanding the distribution of capital in high-needs rural regions includes objectives targeted to individual regions as well as challenges faced by multiple regions. During the Plan Term, Freddie Mac intends to engage in the following objectives:

- Increase single-family purchase volume in high-needs rural regions
- Design new product flexibilities to facilitate the origination of mortgages in high-needs rural regions
- Design improved product flexibilities to facilitate financing of renovation costs
- Increase future homebuyer access to education and resources
- Develop a rural mapping tool
- Research the use of LIHTC in support of high-needs rural regions and populations
- Purchase loans to preserve properties with USDA Section 515 debt in high-needs rural areas
- Engage in LIHTC equity investment

OBJECTIVE A: INCREASE SINGLE-FAMILY LOAN PURCHASES IN HIGH-NEEDS RURAL REGIONS

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Purchase	**1, 2, ~~and~~ 3 and 4**	**VLI, LI, MI**	**Yes – HNRR**

Freddie Mac intends to increase purchases of single-family mortgage loans in certain high-needs rural regions each Plan year to increase liquidity in these markets. For purposes of this objective, we are focusing specifically on the rural census tracts in the following high-needs regions: 1) persistent poverty counties; (2) Lower Mississippi Delta, (3) Middle Appalachia; and (4) colonias in the Texas counties of El Paso, Cameron, Hidalgo, Starr, Webb and Maverick. We will focus our efforts to increase purchase volume in these Texas counties because they have both the largest number of colonias and the largest relative colonia population. This combination increases the likelihood that our activities will have impact and yield purchase volume.[55] We have limited the target areas in the colonias for this objective so that we can appropriately deploy resources to support our plans. Over time, we intend to extend our efforts to additional colonias in other states.

Baseline for 2018-2020

The following table reflects Freddie Mac's historical single-family loan purchases in the high-needs rural regions, as described above, from 201~~6~~7 to 201~~8~~9. Our baseline for performance in this market is a three-year average of all Freddie Mac loans purchased that meet the Duty to Serve income-qualifying definition of very low-, low- and moderate-income borrowers. The income-qualifying loan count is limited to only DTS income-qualifying loan purchase volume located in rural census tracts. The baseline represents a three-year average of income-qualifying loan volume from 201~~6~~7 through 201~~8~~9. In 2020, we reset our baseline, shifting the years averaged, as a first step in raising our purchase target for the year. Because of historically low interest rates combined with our outreach efforts, we met and exceeded our 2020 purchase target by mid-year. Recognizing the impact we were having on the market, we revised our 2020 target upward.

Freddie Mac Loan Purchase Volume – High-Needs Rural Regions			
Year	**201~~6~~7**	**201~~7~~8**	**201~~8~~9**
Income-Qualifying Loan Count (A three-year average of this loan count was used to establish the baseline)	~~7,801~~8,505	~~8,505~~9,202	~~9,202~~9,849
Baseline	~~8,503~~9,167		

Baseline for 2021

For 2021, we used the recalculated baseline that we referenced for modifying our 2020 purchase target, as shown in the following table.

Freddie Mac Loan Purchase Volume – High-Needs Rural Regions			
Year	**2017**	**2018**	**2019**
Income-Qualifying Loan Count (A three-year average of this loan count was used to establish the baseline)	8,505	9,202	9,849
Baseline	9,167		

2018-2020 Targets

Our purchase targets over the Plan Term are set forth in the following table. Purchase volume in prior years reflects an increasing trend, and we anticipate that our purchase volume will continue to increase as we deploy a variety of tactics, including expanding the number of lenders, leveraging various purchase-execution options (including selling for cash, bulk portfolio sales and flow purchases), conducting outreach, enhancing our product features and providing technical training that enables lenders to lend confidently to very low-, low-, and moderate-income homebuyers.

Projected volume for the first two years of the Plan takes into account that not all of the activities intended to promote purchases will have been implemented by that time. Using a three-year historical average as a benchmark will ensure that we have set realistic targets as we implement activities to grow our share and gradually increase our loan purchases.

In 2020, the market experienced unprecedented refinance volume. Interest rates continued the decline that began in the second half of 2019, breaking previous record lows. In addition, we continued to engage with lenders more actively. Our Year 3 purchase target reflects our greater success and opportunity in supporting affordable homeownership and increase liquidity in high-needs rural regions.

Purchase Targets – High-Needs Rural Regions		
Year 1 – 2018	**Year 2 – 2019**	**Year 3 - 2020**
7,900 – 8,000 loans	8,550 – 8,600 loans	~~8,700 – 9,000~~9,200 – 10,500 loans

2021 Target

Our 2021 purchase target is shown in the following table. We expect that historically low interest rates will continue to drive high refinance volumes for the first few months of the year. However, that level of activity is unsustainable and will decrease. To help maintain momentum in rural areas relative to our historical average, our efforts will focus on increasing our volume of loans that finance home purchases. Examples include conducting outreach, expanding the number of lenders selling loans to us, leveraging various execution options, and providing technical assistance to raise lenders' confidence in lending to very low-, low-, and moderate-income homebuyers and homeowners.

Projected volume for 2021 does not take into account potential market reactions to the interest-rate environment or to the coronavirus pandemic.

Purchase Targets – High-Needs Rural Regions
Year 4 – 2021
10,500 – 12,000 loans

Market Opportunity and Impact

This objective will provide liquidity of more than $911 million per year to financial institutions that serve high-needs rural regions in years 1 through 3. Targeted loan volume may also include loans originated by small financial institutions and loans securing manufactured homes.

Meeting this objective will be difficult due to the high level of need in each region and the unique challenges that face individual regions. Our ability to meet this objective will be somewhat dependent upon our ability to meet our other objectives, as well as the ability of our existing seller/servicers to increase purchase activity in these regions. Developing relationships with new counterparties will require a significant investment in resources to support and sustain the level of purchase growth targeted in the Plan cycle. Further, it will take time to onboard new seller/servicers as approved counterparties before we can realize any purchases from them. After establishing multiple partnerships, we will increase our outreach in Year 2 in specific regions anticipating that this

activity will result in increased purchases in years 2 and 3.

However, Freddie Mac plans to engage with lenders that are already active in this market and seeks to increase the purchase of both new and seasoned rural housing loan originations. We also intend to expand our outreach to increase support of small financial institutions, including community development financial institutions and housing finance agencies. This will provide these institutions with access to capital and further capacity, which, in turn, can help grow loan volume and serve very low-, low- and moderate-income homebuyers. Accordingly, notwithstanding the challenges, we believe the targets we have set are reasonable.

As we look ahead to Year 4 from our vantage point in Year 3, Freddie Mac estimates that we could provide more than $910 million in liquidity to the marketplace in 2021. Targeted loan volume may also include loans originated by small financial institutions and loans securing manufactured homes. We will continue our outreach efforts to expand adoption of our offerings and increase loan purchases relative to historical volume in high-needs rural regions, including with small financial institutions.

OBJECTIVE B: DESIGN NEW PRODUCT FLEXIBILITIES TO FACILITATE THE ORIGINATION OF MORTGAGES IN HIGH-NEEDS RURAL REGIONS

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Product	**1, 2 and 3**	**VLI, LI, MI**	**Yes - HNRR**

Through our public outreach and review of public comments on the draft Duty to Serve Plan, we understand that the high-need rural regions require additional underwriting flexibility that takes into consideration the varied borrower profiles that are in these regions and the challenges with obtaining property valuations. In response, Freddie Mac intends to undertake a comprehensive review of our current loan products and underwriting parameters to determine how we can enhance our product offerings to better serve high-needs regions.

To further engage the underserved rural regions and produce meaningful impact, we will undertake an assessment to determine how we will enhance our offerings to further serve the needs of this market, including reviewing our requirements related to the following:

- Borrower qualification
- Collateral valuation
- Down payment and closing costs
- Pricing criteria

In making any product adjustments to borrower qualifying criteria, we intend to incorporate changes into our automated underwriting tools. Providing automated underwriting solutions will promote lender confidence in making loans to very low-, low-, and moderate-income borrowers who are in high-needs rural regions as it provides representation and warranty relief on certain components of the underwriting decision. We also plan to research ways to enhance current product requirements and methodologies around finding similar and recent comparable sales to support rural valuations.

Freddie Mac intends to look beyond our current products to innovations from other industry participants, such as housing finance agencies, appraisal trade organizations and small financial institutions. We also plan to enhance our product training for lenders so they can help more borrowers in rural communities purchase or refinance a home.

Freddie Mac will share key information, research and data with FHFA and the public to provide support and transparency to high-needs rural regions to encourage additional innovation and investment.

Based on the results of the review of products currently in the market, feedback from both market participants and communities, and the needs of the market, we intend to make loan product enhancements and underwriting changes that are consistent with prudent underwriting and safety and soundness. We believe that a strategic enhancement of Freddie Mac's overall product line that supports the rural underserved markets will increase liquidity for high-needs rural regions.

Baseline

Freddie Mac has fixed- and adjustable-rate mortgage options and an affordable product suite with Home Possible® and Home Possible Advantage® that offers low down payment options for very low-, low- and moderate-income borrowers, including borrowers in rural underserved communities. Home Possible Advantage can also be combined with a USDA Section 502 single-family leveraged second loan. In addition, we have a HFA Advantage® product that provides additional flexibility and enhancements to our affordable product for housing finance agencies, which are mission-oriented institutions that offer a broad spectrum of support to the affordable housing market.

Freddie Mac has conventional loan products that serve rural populations, but the market can benefit from additional flexibilities in mortgage and borrower eligibility and simplification of operational processes if we can support policy changes through further automation. A comprehensive review of product parameters and the purchase of portfolio loans from lenders with products serving high-needs rural regions will help determine the product adjustments needed to deliver the greatest impact to the market and increase in loan purchases. Additionally, Freddie Mac currently has criteria to determine collateral value for properties in rural regions; however, the market will benefit from any additional guidance and training we can provide that will facilitate more confidence in lending and valuations.

Challenges, Actions and Market Impacts

Market Challenge	Freddie Mac Action
Limited product usage and product awareness ▪ Lenders may not be making full use of conventional product features in high-needs rural regions due in part to a lack of awareness of financing options available to very low-, low- and moderate-income rural borrowers. Limited product usage may also be due to a need for additional product flexibilities, such as financing solutions for small balance loans, borrowers with resolved financial hardships and limited or non-traditional credit profiles. **Appraisal and valuation impediments** ▪ There are a variety of challenges facing appraisers attempting to value rural properties -- lack of available comparable(s), lack of similar comparable(s), distance of comparable(s) and age of comparable(s). **Limited cash for home purchase**	**Year 1 – 2018** 1) Update Freddie Mac's product features in the Selling Guide and on Freddie Mac's website to make the requirements more obvious to the market and to increase awareness of current product features. 2) Evaluate and assess the effectiveness of all Freddie Mac products that serve rural borrowers to determine the parameters that hinder the very low-, low- and moderate-income households' ability to purchase or refinance a home in high-needs rural regions. The results of this assessment will inform an action plan to address product parameters that will have the greatest impact on the market. The assessment will include these activities:

▪ Many low- and moderate-income households in high-needs rural regions are challenged by the cash required to purchase a home, including the down payment and closing costs.	a. Conducting an analysis of historical mortgage performance in high-needs rural regions and correlating performance to opportunities regarding credit terms and pricing. b. Conducting a policy assessment related to down payment requirements and options for down payment assistance that can assist borrowers in high-needs rural regions. To inform policy design, Freddie Mac will initiate at least one pilot to assist borrowers with options for down payment assistance with at least three lenders (national and regional) and at least one non-profit. c. Researching available property databases to determine whether there is sufficient data available to support increased output of automated valuations in rural regions. d. Conducting a policy assessment on rural property characteristics and Freddie Mac's collateral policy parameters to determine additional collateral guidance and potential flexibilities that would provide clarification and support to lenders. Freddie Mac will conduct outreach with appraisers, lenders and appraisal trade organizations to develop a comprehensive curriculum for lenders on rural appraisals and acceptable collateral guidelines for rural properties. e. Purchasing more loans in high-needs rural regions to obtain data on loan characteristics and performance that will increase our understanding of product flexibilities being provided by other lending institutions and further inform product enhancements. See also Objective A, Increase Single-Family Loan Purchases, for measurable purchase actions. f. Conducting quarterly outreach with market participants, such as lenders, housing finance agencies, appraisers, community development financial institutions, rural trade organizations and non-profits via industry meetings and our Affordable Housing Advisory Council, to understand the opportunities, barriers to financing and challenges that are specific to residents in the various geographies of the high-needs

	rural regions. 3) Submit findings and an action plan to FHFA once the assessment is completed and implement resulting policy changes in 2019 and 2020. **Year 2 – 2019** 1) Issue one or more changes to the Seller/Servicers Guide in support of financing for existing homeowners and potential homebuyers in high-needs rural regions, based on results from the assessment of existing program policies conducted in 2018. 2) Use results from the 2018 product assessment on rural property characteristics to achieve the following: a. Develop a training curriculum and best practices for lenders on rural housing valuations. We will implement this by conducting training sessions with at least five lenders. Freddie Mac anticipates broad expansion of this comprehensive curriculum to all lenders in 2020. b. Publish in the Seller/Servicers Guide additional guidance on appraising rural properties. 3) Analyze available rural property databases and update our valuation model if the research conclusions support such a change. Incorporate changes in applicable applications (e.g.., Loan Advisor Suite®) for lender use. 4) Publish relevant findings about the high-needs rural regions on our website, based on our 2018 assessment of product needs, to provide further transparency on mortgage access in the regions. 5) Assess the effectiveness of the pilot issued in 2018 for down payment assistance to determine the impact on purchase volume for very low-, low- and moderate-income households in markets where implemented. Gather industry feedback from at least three non-profits and at least 10 lenders to gauge success and market reaction. Findings will be submitted in a report to FHFA. 6) Socialize product changes to the market through our website, sharing product changes and market updates to at least four industry events, providing updates during

	Freddie Mac Affordable Housing Advisory Council meetings, Freddie Mac's Single-Family News Center, Freddie Mac blogs and email to all Single-Family News subscribers, which currently circulates to approximately 7,000 lenders. **Year 3 – 2020** 1) Finalize a rural appraisal curriculum and release it as part of a rural tutorial series, to include focus on product features that can be leveraged with appraisal best practices and rural property scenarios. Roll it out broadly on Freddie Mac's website to all seller/servicers and socialize availability as set forth in our communications plan (including industry forums, advisory meetings, Single-Family News Center updates). 2) Assess the effectiveness of policy changes made in 2019 to determine whether the change(s) did or will increase participation and production in the market. Analyze internal data, including the impact on purchase volume and income-eligible borrower segments. Obtain market feedback from at least 10 participating seller/servicers for changes issued broadly via the Seller/Servicers Guide. Freddie Mac will provide results in its report to FHFA. 3) Increase our focus on loan purchases. Enhance product adoption through the development and release of updated marketing material that supports lenders, housing finance agencies, housing counselors, and other industry professionals. See also Objectives A and D for measurable actions on loan purchases and homebuyer reach.

Market Impact
The challenges for high-needs rural markets include a general lack of low-priced capital and liquidity for mission-oriented institutions serving the regions, a lack of knowledge of available financial products and programs, difficulty in appraising rural properties, and a lack of available product flexibilities that can facilitate financing of homes for very low-, low- and moderate-income households. Although Freddie Mac has loan initiatives that serve rural populations, the market can benefit from additional flexibilities in mortgage and borrower eligibility and simplification of operational processes. A comprehensive review of product parameters and the purchase of portfolio loans from lenders with products serving high-needs rural regions will help determine the product adjustments needed to deliver the greatest impact to the market and increase in loan purchases. The market is also challenged by the difficulty experienced in appraising rural properties due to the

expansive geography of rural regions, uniqueness of homes and lack of comparable sales. These challenges can increase the cost of appraisals in high-needs rural regions. The market also lacks a coordinated and informed platform with sufficient information to provide a confident collateral value. Researching additional databases or data sources may result in the ability to incorporate more data into Freddie Mac's valuation model. As a result, this activity could improve our model, which may result in Freddie Mac's ability to further support lenders financing rural properties in high-needs rural regions. Conducting research and outreach will inform additional guidance and opportunities.

Another substantial obstacle for very low-, low- and moderate-income homebuyers is the cash required for the down payment and closing costs on a home. To address these challenges and have a sizable, immediate impact on the market, a multi-prong approach will be undertaken. We will review opportunities within our product features and underwriting requirements, and review down payment assistance programs to determine synergies between our product and available programs.

Providing these initiatives and enhancements will take significant efforts including both internal and external coordination at Freddie Mac. Internal coordination on product enhancements include engaging Single Family teams responsible for affordable lending, seller/servicer relationships, credit decisions, modeling, pricing and product development, to analyze the economics, credit risks, operational impacts, counterparties and support application adjustments. External coordination with stakeholders will also require a significant level of effort due the geographic span of the rural regions. Freddie Mac will update the Seller/Servicers Guide where data supports a change will benefit the borrower and meets the requirements of safety and soundness. We may use a negotiated term of business with select lenders to test product features in limited cases where we need additional data to inform product development and support a product change with the intention of publishing future Guide adjustments once we have sufficient data to make informed policy decisions. These actions will have a high level of impact on the market by providing further transparency on options for financing and liquidity to lenders serving the regions which increases purchase opportunities in the long term.

Freddie Mac plans to follow a strategic and progressive schedule in conducting our review so that incremental product enhancements and underwriting guidelines can be efficiently and effectively launched and adopted by the market. We believe the schedule proposed is reasonable given our current strategic focus on the rural housing market challenges and the significant level of effort already underway.

By sharing what we learn through our outreach and requesting feedback from industry participants including seller/servicers, appraisers and non-profits, we will develop partnerships with relevant parties and encourage innovative solutions to the challenges facing these regions.

OBJECTIVE C: DESIGN IMPROVED PRODUCT FLEXIBILITIES TO FACILITATE THE ORIGINATION OF RENOVATION MORTGAGES

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Product	**1 and 2**	**VLI, LI, MI**	**Yes - HNRR**

During our public outreach, we heard that the high-needs rural regions require additional product features that can support renovation of aging housing stock and homes impacted by natural disasters. In response, Freddie Mac intends to undertake a comprehensive review of our current renovation mortgage parameters to determine how we can further enhance this offering to better serve high-needs rural regions.

Freddie Mac intends to partner with other industry participants, including community development financial institutions that are locally based in rural regions and are currently providing renovation financing, to better understand their product efficacy and innovations in this area. Reviewing product parameters and operational execution of what's working in the market today, in addition to purchasing seasoned loans used to finance home improvements, can further inform our product design.

To enhance our offerings to further serve the needs of this market, we will focus our activities on the following actions over the Plan cycle:

- Analyze existing renovation mortgage product features to determine how we will provide new underwriting criteria and operational execution.
- Engage with lenders currently providing rehabilitation/renovation loans in rural regions and purchase renovation loans from select lenders to further inform product design.
- Provide product flexibilities to complement and support self-help programs, where borrowers use sweat equity to construct or renovate homes.
- Provide new and improved renovation mortgage product features to support the financing of renovation costs.

Baseline

Freddie Mac has a renovation mortgage feature that can be used with our affordable product, Home Possible; however, our renovation product feature is not widely used by lenders in part due to limitations on the amount of improvements that can be financed and the operational timeline for completion of work. Our current product will need to be redesigned.

Challenges, Actions and Market Impacts

Market Challenge	Freddie Mac Action
Limited renovation financing support ▪ There is a large percentage of homes in high-needs rural regions that require renovation due to age, deferred maintenance, vacancy and/or lack of certified professionals available to perform rehabilitation at a reasonable cost. ▪ Due to the complexity of administering	**Year 1 – 2018** 1) Conduct an analysis of existing renovation product features to determine underwriting and operational flexibilities needed to support renovation financing in high-needs rural regions for very low-, low- and moderate-income households. The findings will be

construction lending, there is a lack of innovative financing options to assist borrowers that need to renovate a property to bring it up to state and local code requirements and/or habitability.	submitted in a report to FHFA and we will implement resulting policy changes in 2019. 2) Engage with lenders, non-profits, housing finance agencies and community development financial institutions that have successful rehab programs and/or provide direct renovation financing to understand the opportunities to support programs and loan structures. We would also engage mortgage insurers as part of the outreach effort. 3) Purchase renovation loans from at least one regional or national lender or community development financial institution to further inform product design. 4) Provide underwriting flexibilities with lenders via the Seller/Servicers Guide or a negotiated term of business to facilitate borrowers' use of sweat equity and/or participation in self-help programs. **Year 2 – 2019** 1) Complete the product development process based on the results of the renovation product assessment conducted in 2018 to support the renovation of aging housing stock in high-needs rural regions. 2) Implement the product, including updating any supporting processes, and issue new product terms via a negotiated term of business with lenders or via the Seller/Servicers Guide. Freddie Mac will provide product features through a negotiated term of business with select lenders if we need additional data to model risk; however, if the analysis produces sufficient data, we will issue a Seller/Servicers Guide change.

Market Impact

The high-needs rural regions have a large percentage of existing homes that, due to age or deferred maintenance, require a significant amount of renovation. Even though these homes may have an affordable sales price, the overall cost to purchase and renovate is prohibitive and there is a lack of financing solutions to make the cost of repair affordable. By completely redesigning our renovation product, Freddie Mac will have a high impact on the market by bolstering the purchase of homes in need of renovation and increasing affordable housing in high-needs rural regions. This effort will require significant resources by several departments within Freddie Mac, including Single Family teams responsible for affordable lending, seller/servicer relationships, credit decisions, modeling, pricing and product development, to analyze the economics, credit risks, operational and system impacts. We also intend to take short-term, direct measures to enhance product terms to further support borrowers who leverage self-help programs for renovation activity, that will have an immediate and direct impact because it will be rolled out to the broad market.

OBJECTIVE D: INCREASE FUTURE HOMEBUYER ACCESS TO EDUCATION AND RESOURCES

Evaluation Area	Year	Incomes Targeted	Extra Credit
Outreach	**1~~,~~ and 2 ~~and 3~~**	**VLI, LI, MI**	**Yes – HNRR**

Freddie Mac heard many public comments on the draft Plan requesting a comprehensive approach to financial education to strengthen and increase the pool of potential borrowers. Specifically, there was a demand for pre-purchase homebuyer education for potential borrowers, as well as continued education about responsible homeownership. In response, Freddie Mac intends to update our curriculum on financial education. We will also partner with organizations that provide pre-purchase and post-purchase homebuyer education, housing counseling, employment services and credit rebuilding.

To further engage the high-needs rural regions and have a meaningful impact, we intend to continue expanding our footprint in high-needs rural regions by partnering with local non-profits, housing finance agencies and community development financial institutions to increase their capacity to provide homebuyer education and counseling. We will leverage our experience in providing education and solicit feedback from industry leaders on effective content that addresses the regional needs of individual homebuyer-education programs. We also plan to track training outcomes and use the information obtained to adjust our program in the future.

Freddie Mac will expand our existing financial education curriculum to address area-specific challenges, such as the use of contracts-for-deeds in the colonias, promotion of estate planning to create clear title for future generations, and technical training for education providers in specific areas. Freddie Mac will initially expand our education efforts in the Lower Mississippi Delta and the colonias in Texas, and then to Middle Appalachia and other persistent-poverty counties. We intend to partner with non-profits, housing finance agencies and community development financial institutions to conduct outreach regarding borrower needs in these regions. Based on the high demand for such a program, we anticipate that a comprehensive educational curriculum will have a meaningful, positive impact in the high-needs rural regions.

Baseline

Freddie Mac has extensive experience with financial education; our successful CreditSmart® curriculum is available in five languages and has been available for over 15 years. In addition, Freddie Mac provides outreach, homebuyer education and counseling through our Borrower Help Centers and the national Freddie Mac Borrower Help Network that has been in place for the past nine years. We recently opened a new Borrower Help Center in McComb, Mississippi, in partnership with the D&E Power Group, a HUD-approved housing counseling agency.

Challenges, Actions and Market Impacts

Market Challenge	Freddie Mac Action
Need for comprehensive education ▪ The market lacks the full array of services and education to support the very low-, low- and moderate-income households in the high-needs rural regions regarding financial education, credit counseling, employment services, pre-purchase counseling and post-purchase counseling.	**Year 1 – 2018** 1) Conduct research and outreach to assess areas in the colonias in the State of Texas, Lower Mississippi Delta (beyond McComb, MS), Middle Appalachia and persistent-poverty counties in other states to target expansion of homebuyer education and resources. The assessment will include the

	geographic location and availability of potential partners, including housing finance agencies, small or regional lending institutions, non-profit organizations and community development financial institutions providing housing support in the regions. 2) Upon completion of the assessment, Freddie Mac will partner with mission-oriented organizations in these regions that are active in affordable housing and who are closest to the communities to increase their capacity to provide services and education. Freddie Mac will establish at least three additional partnerships with non-profits, housing finance agencies or community development financial institutions serving the colonias in Texas, Lower Mississippi Delta and Middle Appalachia regions that provide homebuyer education, housing counseling, individual development accounts, employment services and related resources that are relevant to very low-, low- and moderate- income individuals. **Year 2 – 2019** 1) Expand financial and homebuyer education curricula in specific persistent-poverty counties by partnering with two additional mission-oriented organizations that support affordable housing activities that benefit very low-, low- and moderate-income individuals. 2) Expand access to homeownership information by holding at least two homebuyer fairs—one in the Lower Mississippi Delta and one in a colonia in Texas. 3) Ask consumers to complete a survey on our financial education and homebuyer education curricula at each session to inform future enhancements. ~~**Year 3 – 2020**~~ ~~Expand financial and homebuyer education curricula in at least two additional persistent-poverty counties by partnering with at least two additional mission-oriented organizations that support affordable housing activities that benefit very low-, low- and moderate-income individuals.~~ ~~Socialize homeownership information by holding at least two additional homebuyer fairs leveraging newly established partnerships in the persistent-poverty~~

	~~counties.~~ ~~Ask consumers to complete a survey on our financial and homebuyer education curricula at each session to inform future enhancements.~~ ~~Assess consumer survey results and adjust education curricula, as appropriate, and submit findings to FHFA.~~

Market Impact

Research, outreach and public comment suggest comprehensive educational services and resources are lacking in high-needs rural regions. A solid homebuyer education foundation significantly increases the likelihood of sustainable homeownership. This is a substantial challenge in the high-needs rural regions due to the geographic scope and wide variety of needs specific to each region; the cost to develop, update, train and sustain a variety of services and outreach; locations and distance to cover with services and the need for additional training or resources for regional specific challenges. Additionally, once partnerships are developed it will take additional time to train and scale resources and education we plan on offering potential homebuyers and existing homeowners.

Conducting surveys to track success are important to benchmark progress and determine updates needed. These homebuyer educational efforts and other services will have a direct impact in areas where they are being provided and will have a future impact as we expand to additional regions. We believe that providing comprehensive financial and homebuyer education and other support services will lead to an increase in sustainable homeownership in the high-needs rural regions. ~~It is also very important to survey the participants to confirm that Freddie Mac is meeting the needs of the market and providing any necessary adjustments.~~

OBJECTIVE E: DEVELOP A RURAL MAPPING TOOL

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Product	**1 and 2**	**VLI, LI, MI**	**Yes – HNRR**

There are many definitions of “rural” for purposes of defining the market, which creates market confusion. A lack of market research in rural regions contributes to this confusion. The FHFA Duty to Serve definition takes significant steps to solve this problem. We intend to build upon this foundation and provide further clarity. To define the scope of the market consistently and allow market participants and our network of seller/servicers to better support this market, Freddie Mac intends to create a rural property mapping tool. This mapping tool will be inclusive of all rural areas and include filters to specify if a property is located in a high-needs rural region.

Baseline

Freddie Mac does not currently offer such a mapping tool. There are other mapping services in the market, but, to our knowledge, none of them have the foundation that is specific to rural regions and the distinct areas they represent as well as the foundational infrastructure to include the layers of information that we intend to build.

Challenges, Actions, and Market Impacts

Market Challenge	Freddie Mac Action
Lack of readily accessible rural data ▪ Current rural data is unconsolidated due, in part, to a lack of institutional investment. As a result, the locations and characteristics of these properties are not clearly documented. **Market awareness** ▪ Private capital investment is lacking in rural areas. **Lack of data for high-needs rural populations** ▪ We recognize that targeting high-needs rural populations is important to success under the Duty to Serve rule; however, there is not sufficient data available to efficiently define and understand these markets.	**Year 1 – 2018** 1) Initiate a technology project that will ultimately deliver an interactive mapping tool to identify rural areas and high-needs rural census tracts for internal and public use. The tool will also allow users, such as Seller/Servicers, borrowers, and lenders, to query by address or other geographic markers to be determined during development. Steps to achieve this in 2018: a. Identify/Develop appropriate software for the tool. b. Aggregate and align data from a selection of the following and other sources we discover in our research for use in the mapping tool: National Housing Preservation Database, data.gov, HUD, and Census Bureau c. Test the mapping tool in beta form prior to formal release. d. Solicit market feedback from seller/servicers, syndicators, and rural research organization(s). e. Note: With any mapping and searching of data, there will be a margin of error in trying to identify exact locations of properties—address mismatches and latitude/longitude imprecisions may create some ambiguity or false positives in a small minority of cases. **Year 2 - 2019** 1) Release the tool for public use. Note that, depending on data licenses, this release may have a mix of public and private components. 2) Develop enhancements to the mapping tool that will outline further areas of interest for high-needs rural regions (and all rural regions). This may include income distributions, zoning information, and population density. A final list will be determined based on feedback, analysis, the availability of data, and technical constraints of the tool. 3) The tool will include an avenue for users, including key stakeholders (research and

	policy organizations, localities, borrowers, seller/servicers) to provide feedback for additional enhancements. 4) Refine the tool based on input from seller/servicers, syndicators, and rural research organization (s) and incorporate data updates from FHFA, census bureau, and/or the National Housing Preservation Database as appropriate. 5) Add capability to identify or link to Freddie Mac term sheets for TAH offerings.
Resource Challenge	**Freddie Mac Action**
Deficiency of consolidated data ▪ Gathering the necessary data to create the mapping system will be labor intensive. ▪ We will need to purchase data from external vendors, which can be costly. **Software development** ▪ Creating an internal software can be a time-consuming process. ▪ The development cycle will require multiple tests to ensure the product's practicality. ▪ There will need to be multiple teams of developers, testers, researchers, and business planners to implement this product.	**Year 1 – 2018** 1) Assemble a design team, bringing together the necessary individuals who will design and implement the product from IT, Research, and business areas. 2) Reach out to external vendors to acquire or purchase the necessary data to build the platform. 3) Identify the needs of stakeholders including: a. Research organizations b. Trade organizations c. Borrowers d. Seller/Servicers **Year 2 – 2019** 1) Refine the tool based on changing needs of stakeholders.

Market Impact

During our outreach in rural areas, we repeatedly heard that the lack of a consistent definition of "rural" was a barrier to the creation of a secondary market. Multiple definitions with different purposes added an unnecessary level of complexity to structuring efficient and effective financing for multifamily properties.

While the Duty to Serve rule provides a clear definition of "rural" around which the industry can now standardize, stakeholders will need tools to be able to easily and quickly identify whether a property falls within that definition. Creating this tool and making it available to the entire industry will provide the market with an understanding of the geographic parameters and promote better channeling of rural housing financing. An entirely public mapping tool will eliminate barriers that are associated with rural housing financing such as identifying properties, developers and investors in rural areas. This tool will reduce the time-consuming burdens that come along with serving rural markets by making it easier to locate and define properties based on the FHFA definition and take advantage of Freddie Mac's offerings in support of rural markets. Therefore, financing will be expedited throughout the process.

Today, there are no comparable mapping tools in the market. We expect that development of a rural mapping tool will require a significant dedication of resources and a high level of effort. Multiple collaboration sessions to identify stakeholder needs and incorporate them into our requirements are critical to the success of this tool. In order for it to be effective, the tool must be user-friendly. We expect that such a tool will have multiple uses.

These include 1) enabling investors to understand which properties lie in rural areas and see the extent to which investment in rural areas differs from urban and suburban properties and 2) enabling researchers to better study the distribution of properties and investment in rural areas. Given the current lack of standardization around rural housing and the need for data and information, we believe that an effective rural properties mapping tool lays the groundwork for other rural lending activities because it will decrease barriers to financing and allow for the better focusing of private capital in rural areas in the future by Freddie Mac and other industry players.

OBJECTIVE F: RESEARCH THE USE OF AND OPPORTUNITY FOR LIHTC IN SUPPORT OF MIDDLE APPALACHIA

Evaluation Area	Year	Incomes Targeted	Extra Credit
Outreach	**1**	**VLI, LI, MI**	**Yes**

Low Income Housing Tax Credits (LIHTCs) are the subsidy most commonly used to finance affordable rental housing. They are particularly important for multifamily housing in Middle Appalachia, where debt financing is limited outside of highly specialized USDA and HUD programs. Indeed, many properties cannot support debt at all, so they must be funded entirely with LIHTC equity. Despite the importance of LIHTC equity, there is not currently sufficient understanding of how to best leverage the LIHTC and attract investors to Middle Appalachia. Freddie Mac plans to engage with leading rural LIHTC market participants and researchers and publish a research paper focused on the use of LIHTCs in supporting Middle Appalachia.

Baseline

We have not been able to particpate in the LIHTC market for the last 10 years; therefore, we do not currently have a baseline of experience in LIHTC equity generally, or in Middle Appalachia specifically. In 2017, we have been attending conferences and conversing with leading mission-focused LIHTC syndicators with expertise in Middle Appalachia in order to understand how we might best support the market.

Challenges, Actions and Market Impacts

Market Challenge	Freddie Mac Action
▪ Insufficient understanding of how LIHTC may be used to support Middle Appalachia and how to attract more investment ▪ Limited data about the prevalence of LIHTC in Middle Appalachia. Throughout the course of our research there have been instances where data was temporarily unavailable or where combining sources proved to be more difficult than originally anticipated. The wide range of topics that we intend to cover for our research in Middle Appalachia will rely heavily on data, and completing the objective within a narrow	**Year 1 – 2018** 1) Engage with at least one syndicator, lender, governmental entity, housing finance agency, and developer who have expertise in Middle Appalachia and LIHTC.[56] 2) Leverage data aggregated and aligned in conjunction with the mapping tool described in Objective E above from a selection of the following and other sources we discover in our research in order to explore how LIHTCs are used in Middle Appalachia today and the possible gaps in the market: National Housing

timeframe will be very difficult if data issues are encountered.

- Limited tax credit allocations in rural Middle Appalachia relative to non-rural areas.

Resource Challenge

- Throughout the Duty to Serve Plan, we are taking on a considerable number of research efforts, all of which require extensive planning, as well as collaboration with key stakeholders, and analysis. The design and research of all of these objectives will have many unique components and will leverage the expertise and skills of our internal research organization, whose focus extends beyond the scope of the Duty to Serve Plan.

Preservation Database, data.gov, HUD, and Census Bureau. Engage with at least one leading researcher on Middle Appalachia areas to help inform and structure our research and analysis.

3) Include information in the report on the following, based on available data:
   a. Geographic distribution of properties receiving LIHTC allocations
   b. Estimated market size
   c. Percentage of properties receiving allocations in Middle Appalachian states that are in rural versus urban and suburban locations
   d. Percentage of properties receiving allocations that also receive other major subsidies, such as USDA 515, 538, or Section 8
4) Publish the report on our website, share it with the organizations involved in our outreach so they can distribute it further, share it with our Multifamily seller/servicer network, and promote it with a press release

Market Impact

There is currently limited analytical work about the prevalence of LIHTCs in support of Middle Appalachia, and data that is available is contained in disparate sources that are not necessarily easy to reconcile. While we understand anecdotally that the market for multifamily properties supporting Middle Appalachia is small, we believe this data may reveal opportunities for multifamily support.

We intend to leverage these various sources of data, our analytical capabilities and our relationships with various parties such as syndicators, HFAs, and seller/servicers to provide the rural housing industry and LIHTC investors with a baseline understanding of the ways tax credits are being used in both the debt and equity arenas, and the opportunities provided there.

Our outreach will allow us to further define our other objectives in support of Middle Appalachia. The results of our research will be foundational to determining the extent to which Freddie Mac, as well as states and allocating agencies, can leverage LIHTCs to bring more liquidity to Middle Appalachia in a safe and sound manner. As a result of our research, we believe other industry participants, such as borrowers and seller/servicers, will gain the foundational understanding of the Middle Appalachian market and will increase their involvement in this area.

OBJECTIVE G: RESEARCH THE USE OF AND OPPORTUNITY FOR LIHTC IN SUPPORT OF THE LOWER MISSISSIPPI DELTA

Evaluation Area	Year	Incomes Targeted	Extra Credit
Outreach	**2**	**VLI, LI, MI**	**Yes**

LIHTCs are the subsidy most commonly used to finance affordable rental housing. They are particularly important for multifamily housing for the Lower Mississippi Delta, where debt financing is limited outside of highly specialized USDA and HUD programs. Indeed, many properties cannot support debt at all, so they must be funded entirely with LIHTC equity. Despite the importance of LIHTC equity, there is not currently sufficient understanding of how the LIHTC may be used to support these high-needs rural areas. Freddie Mac plans to partner with leading rural LIHTC market participants and experts to publish a research paper focused on the use of LIHTCs in supporting the Lower Mississippi Delta.

Baseline

We have not been able to particpate in the LIHTC equity market for the last 10 years; therefore, we do not currently have a baseline of experience in LIHTC equity generally, or in the Lower Mississippi Delta specifically. In 2017, we have been attending conferences and conversing with leading mission-focused LIHTC syndicators with expertise in the Lower Mississippi Delta in order to understand how we might best support the market.

Challenges, Actions and Market Impacts

Market Challenge	Freddie Mac Action
▪ Insufficient understanding of how LIHTC may be used to support the Lower Mississippi Delta and how to attract more investment. ▪ Limited data about the prevalence of LIHTC in the Lower Mississippi Delta. Throughout the course of our research, there have been instances where data was temporarily unavailable or where combining sources proved to be more difficult than originally anticipated. The wide range of topics that we intend to cover for our research on the Lower Mississippi Delta will rely heavily on data, and completing the objective within a narrow timeframe will be very difficult if data issues are encountered. ▪ Limited tax-credit allocations in rural Lower Mississippi Delta relative to non-rural areas. **Resource Challenge** ▪ Throughout the Duty to Serve Plan, we are taking on a considerable number of research efforts, all of which require extensive planning, as well as collaboration with key stakeholders,	**Year 2 – 2019** 1) Engage with at least one syndicator, lender, housing finance agency and developer who have expertise in the Lower Mississippi Delta and LIHTC.[57] 2) Leverage data aggregated and aligned in conjunction with the mapping tool described in Objective E above from a selection of the following and other sources we discover in our research in order to explore how LIHTCs are used in the Lower Mississippi Delta today and the possible gaps in the market: National Housing Preservation Database, data.gov, HUD, and Census Bureau. 3) Engage with at least one leading researcher on rural and/or affordable housing to review or discuss our research in this area. 4) Include information in the report on the following, based on available data: a. Estimated market size b. Geographic distribution of properties

and analysis. The design and research of all of these objectives will have many unique components and will leverage the expertise and skills of our internal research organization, whose focus extends beyond the scope of the Duty to Serve Plan.	receiving LIHTC allocations c. Percentage of properties receiving allocations in Lower Mississippi Delta states that are in rural versus urban and suburban locations d. Percentage of properties receiving allocations that also receive other major subsidies, such as USDA 515, 538, or Section 8 5) Publish a report on our website, promote it with a press release and share on social media so that research organizations, advocacy organizations, and lenders have access to the work.

Market Impact

There is currently limited analytical work about the prevalence of LIHTCs in support of the Lower Mississippi Delta, and data that is available is contained in disparate sources that are not necessarily easy to reconcile. While we understand anecdotally that the market for multifamily properties supporting the Lower Mississippi Delta is small, we believe this data may reveal opportunities for multifamily support.

We intend to leverage these various sources of data, our analytical capabilities and our relationships with various parties, such as syndicators, HFAs, and seller/servicers to provide the rural housing industry and LIHTC investors with a baseline understanding of the ways tax credits are being used in both the debt and equity arenas, and the opportunities provided there.

Our outreach will allow us to further define our other objectives in support of the Lower Mississippi Delta. The results of our research will be foundational to determining the extent to which Freddie Mac, as well as states and allocating agencies, can leverage LIHTCs to bring more liquidity to the Lower Mississippi Delta in a safe and sound manner. As a result of our research, we believe other industry participants, such as borrowers and seller/servicers, will gain the foundational understanding of the Lower Mississippi Delta market, and will increase their involvement in this area.

OBJECTIVE H: RESEARCH THE USE OF AND OPPORTUNITY FOR LIHTC IN SUPPORT OF PERSISTENT-POVERTY COUNTIES NOT INCLUDED IN OTHER HIGH-NEEDS RURAL REGIONS

Evaluation Area	Year	Incomes Targeted	Extra Credit
Outreach	**3**	**VLI, LI, MI**	**Yes**

LIHTCs are the subsidy most commonly used to finance affordable rental housing. They may be particularly important for multifamily housing for persistent-poverty counties, where debt financing is limited outside of highly specialized USDA and HUD programs, and second to equity as the chief source of funding. Despite the importance of LIHTC equity, there is not currently sufficient understanding of how the LIHTC may be used to support persistent-poverty counties not located in other high-needs rural regions. Freddie Mac plans to partner with leading rural LIHTC market participants and experts to publish a research paper focused on the use of LIHTCs in supporting persistent-poverty counties not located in other high-needs rural regions.

Baseline

We have not been able to particpate in the LIHTC equity market for the last 10 years; therefore, we do not currently have a baseline of experience in LIHTC equity generally, or in persistent-poverty counties specifically. In 2017, we have been attending conferences and conversing with leading mission-focused LIHTC syndicators with expertise in persistent-poverty counties in order to understand how we might best support this market.

Challenges, Actions and Market Impacts

Market Challenge	Freddie Mac Action
▪ Insufficient understanding of how LIHTC may be used to support persistent-poverty counties and how to attract more investment. ▪ Limited data about the prevalence of LIHTC in persistent-poverty counties. Throughout the course of our research, there have been instances where data was temporarily unavailable or where combining sources proved to be more difficult than originally anticipated. The wide range of topics that we intend to cover for research on persistent-poverty counties will rely heavily on data, and completing the objective within a narrow timeframe will be very difficult if data issues are encountered. ▪ Limited tax-credit allocations in persistent-poverty counties. **Resource Challenge** ▪ Throughout the Duty to Serve Plan, we are taking on a considerable number of research efforts, all of which require extensive planning, as well as collaboration with key stakeholders,	**Year 3 – 2020** 1) Engage with at least one syndicator, lender, government entity, housing finance agency, and developer who have expertise in persistent-poverty counties and LIHTC [58] 2) Leverage data aggregated and aligned in conjunction with the mapping tool described in Objective E above from a selection of the following and other sources we discover in our research in order to explore how LIHTCs are used in the persistent-poverty counties today and the possible gaps in the market: National Housing Preservation Database, data.gov, HUD, and Census Bureau. 3) Engage with at least one leading researcher on persistent-poverty counties to review or discuss our research in these areas. 4) Include information in the report on the following, based on available data: a. Estimated market size b. Geographic distribution of properties

and analysis. The design and research of all of these objectives will have many unique components and will leverage the expertise and skills of our internal research organization, whose focus extends beyond the scope of the Duty to Serve Plan.	receiving LIHTC allocations c. Percentage of properties receiving allocations in persistent-poverty counties that are in rural versus urban and suburban locations d. Percentage of properties receiving allocations that also receive other major subsidies, such as USDA 515, 538, or Section 8 5) Publish the report on our website, share it with the organizations involved in our outreach so they can distribute it further, share it with our seller/servicer network, and promote it with a press release.

Market Impact

There is currently limited analytical work about the prevalence of LIHTCs in support of the persistent-poverty counties, and data that is available is contained in disparate sources that are not necessarily easy to reconcile. While we understand anecdotally that the market for multifamily properties supporting persistent-poverty counties is small, we believe this data may reveal opportunities for multifamily support.

We intend to leverage these various sources of data, our analytical capabilities and our relationships with various parties, such as syndicators, HFAs, and seller/servicers, to provide the rural housing industry and LIHTC investors with a baseline understanding of the ways tax credits are being used in both the debt and equity arenas, and the opportunities provided there.

Our outreach will allow us to further define our other objectives in support of persistent-poverty counties. The results of our research will be foundational to determining the extent to which Freddie Mac, as well as states and allocating agencies, can leverage LIHTCs to bring more liquidity to persistent-poverty counties in a safe and sound manner. As a result of our research, we believe other industry participants, such as borrowers and seller/servicers, will gain the foundational understanding of the market in persistent-poverty counties, and will increase their involvement in this area.

~~OBJECTIVE I: PURCHASE LOANS TO PRESERVE PROPERTIES WITH USDA SECTION 515 DEBT IN HIGH-NEEDS RURAL REGIONS~~

~~Evaluation Area~~	~~Year~~	~~Incomes Targeted~~	~~Extra Credit~~
~~Loan Purchase~~	~~3~~	~~VLI, LI~~	~~Yes~~

~~USDA's Section 515 program is vital for the preservation of highly affordable rural multifamily housing. It provides rental assistance to ensure that tenants pay no more than 30 percent of their income toward rent. According to an analysis by the Housing Assistance Council (HAC), the USDA has financed approximately 28,000 multifamily properties with over 533,000 units through the Section 515 program.[59] As of early 2016, there were approximately 13,830 properties with 416,000 units still in the program. HAC has determined that the following number of units will exit the 515 program by 2040 based on their loan maturity dates.[60]~~

~~Years~~	~~2017-2027~~	~~2028-2032~~	~~2033-2040~~
~~**Annual Unit Loss**~~	~~1,800 units~~	~~16,000 units~~	~~22,600 units~~
~~**Cumulative Units Lost Per Period**~~	~~18,000 units~~	~~64,000 units~~	~~158,200 units~~
~~**Cumulative Units Lost**~~	~~**18,000 units**~~	~~**82,000 units**~~	~~**240,200 units**~~

~~When these units exit the program, affordable housing is lost in rural areas because owners will no longer be able to access the rental assistance that enables them to preserve rents at affordable levels to residents making very low incomes for their area while maintaining the property. This is often referred to as the "maturing mortgage crisis." We have repeatedly heard from advocacy groups that USDA's annual budget is not sufficient to preserve this number of properties at the rate at which they would exit the program. Therefore, the introduction of private capital is necessary to recapitalize and preserve these properties to maintain this important housing stock for rural communities.~~

~~Despite the small market size, purchases of loans on properties with USDA 515 debt are an integral part of our strategy of providing liquidity in support of the 515 program and the high-needs rural multifamily housing market. We will leverage our loan product offering for properties with 4 percent tax credits and USDA 515 debt to purchase loans on properties that are in the rural housing regions. In addition to the loan offering, we will also leverage the research being done to better serve the regions through the creation of our loan offering. Maintaining long-term affordability is key to providing the rural regions with a stable source of housing. As a result of our initial outreach, we have determined that loans on properties with USDA 515 debt are usually originated in portfolios of multiple properties and it could take as long as three years to originate one portfolio with USDA 515 debt.~~

~~Understanding that this process can take multiple years, we plan on using the lessons learned from our first USDA 515 preservation transaction, and hope to initiate one more transaction, initiated in Year 2 and funded in Year 3, to further prove to the market that the loan offering is efficient and repeatable. This new transaction will include properties that are in one or more high-needs rural regions.~~

~~Baseline~~

~~We last purchased a loan on a Section 515 property in 2010, so our baseline of recent experience is zero transactions. This is to be expected because the vast majority of transactions involving USDA's Section 515 properties use other USDA programs, such as Section 538 or the preservation and rehabilitation (MPR) program.~~

~~Target~~

~~Prior to the creation of this third-party financing offering, there is no precedent to accurately determine the market for this product. Also, these transactions are highly complex and slow to develop. Therefore, during Year 3 we plan to execute one multi-property portfolio with USDA 515 debt that will contain properties located in at least one of the high-needs rural regions, but will not be limited to these areas.~~

~~We believe one such transaction is an appropriate initial target given (1) the limited number of units in high-needs rural regions generally; (2) the even smaller number of properties that are likely to mature, be ready for recapitalization, or experience a transfer of ownership during this time period, which limits the likelihood of a transaction occurring at all; and (3) the multi-year lead time for any transaction. This combination leads to high unpredictability and limits our ability to deliberately target properties in any particular geographic locations.~~

~~As we gain experience in the Section 515 market and more borrowers accept our product, we will have a greater scope and be able to better predict where these purchases will take place. Any purchases in the early years will be precedent setting and will be used to attract developer interest in the products we offer.~~

~~Market Challenges~~

~~There are several challenges to making loan purchases to preserve properties with USDA Section 515 Debt in rural regions.~~

~~First, there are limited financing sources. Apart from USDA's Section 538 Guaranteed Rural Rental Housing Program, there are very few outside debt sources being used in conjunction with USDA's Section 515 program. This is due to the tightly integrated USDA requirements between USDA programs.~~

~~Second, many USDA 515 properties rely on the rental assistance provided by the Section 521 program. Without this rental assistance, very low- and low income renters would be overburdened and unable to fulfill rent obligations. The USDA 521 program provides borrowers with a one-year contract to cover rent payments on behalf of tenants in a designated number or percentage of the units. The one-year contract is only renewed as many times as funds are made available. Because the USDA 521 rental assistance is only available if 515 debt is still on the property, it is important that any additional financing be compatible with USDA 515 debt.~~

~~Third, there is a very small market for 515 properties in high-needs rural regions. Per our analysis of USDA data from data.gov, within the total 515 portfolio, approximately 19 percent are located in high-needs locations: 5 percent in Middle Appalachia, 8 percent in the Lower Mississippi Delta, and 6 percent in persistent-poverty counties not located in other high-needs rural regions. We found that, on average, these properties were built in 1988 or 1989, which means that, with up to a 50-year USDA 515 loan, they are not likely due to mature until well into the future. Therefore, in the near term, the market for these properties is likely to be even smaller and limited to prepayments, recapitalizations, and transfers of ownership.~~

~~Fourth, unlike most markets, where one could expect transactions to be initiated and closed in the same year, this is far less likely to be the case for properties with USDA 515 debt. These transactions are highly complex with multiple parties, multiple properties, and sometimes challenging market conditions. Even once initiated, a transaction can fall through due to many factors, such as disruptions in the LIHTC equity market, rising interest rates, or change in local market conditions.~~

~~Market Impacts~~

~~The immediate benefit of these transactions will be to rehabilitate and preserve safe, decent, and affordable rental homes for tenants who are at risk of becoming homeless if these properties exit the 515 program. This cannot be understated in the near term or in the long term. Indeed, these initial loan purchases lay the foundation for more third-party financing and enable long-term, stable liquidity, which is fundamental to providing long-term residence to many thousands of households. Upon completion, we will issue a press release and/or publish a news story on our website that summarizes the transaction and promotes its replicability, which will lead to a growth in purchases in future years.~~

~~Through these transactions, we will demonstrate to rural developers that there is a new and replicable source of innovative financing for 515 properties that will enable the recapitalization and rehabilitation of these properties. In so doing, we will introduce new standards and efficiencies into the market. We will also look to attract private capital and promote safety and soundness by leveraging our capital markets infrastructure and risk distribution capabilities.~~

~~We recognize that these innovations will likely take some time to catch on, especially in the very small high-needs rural market, as each transaction in the early years will likely be slow to develop and new opportunities will likewise be slow to follow. However, with each transaction, we will preserve more affordable rental homes and build more momentum and market adoption so that, by the time 515 properties start to mature at scale, the market has a well-functioning and well-tested execution in place to preserve a meaningful share of rental homes for tenants in need.~~

OBJECTIVE I~~J~~: ENGAGE IN LIHTC EQUITY INVESTMENT

Evaluation Area	Year	Incomes Targeted	Extra Credit
Investment	**1, 2, ~~and~~ 3 and 4**	**VLI, LI**	**Yes**

The LIHTC is perhaps the most important resource for creating affordable housing in the U.S. today. Created by the Tax Reform Act of 1986, the LIHTC program gives state and local LIHTC-allocating agencies the equivalent of nearly $8 billion in annual budget authority to issue tax credits for the acquisition, rehabilitation, or new construction of rental housing targeted to lower-income households. By providing an incentive for private sector investment, the LIHTC has financed nearly three million housing units for low-income households, with approximately 100,000 units added to the inventory each year.

In order to support rural markets with LIHTC equity, we will need to conduct the activity in a safe and sound manner, which will take into account factors such as concentration risk, diversity of investments, and investment at sufficient scale to ensure a stable business platform.

The majority of LIHTC in large and medium-sized metropolitan areas are purchased by financial institutions that are motivated by their Community Reinvestment Act (CRA) requirements. Often, strong competition leads investors to pay high prices. Most of the LIHTC-financed properties that are located within census tracts in the high-needs rural regions are outside of most banks' CRA assessment regions and, thus do not receive the most competitive pricing for their credits.

Therefore, by focusing some of our investment capital in these areas, Freddie Mac will introduce more competition into the rural marketplace, which will improve LIHTC pricing. The higher the LIHTC pricing, the lower the need for a portion of the rent to pay for debt service; thus, increased LIHTC equity pricing makes properties more affordable.

Freddie Mac intends to make LIHTC equity investments in order to help meet the affordable rental housing needs of low-income families in all rural areas, including high-needs regions. In Year 1 of our Plan, we intend to re-enter the LIHTC equity investment market by partnering with at least two LIHTC syndicators and investing in at least one high-needs region LIHTC deal per syndicator. Although Freddie Mac was a substantial LIHTC investor prior to 2008, we have made no LIHTC investments in the interim. Recent disruption in the LIHTC equity market due to uncertainty surrounding the impact of potential changes to corporate tax rates has highlighted the need for Freddie Mac to enter the market as a source of liquidity and stability.

Investing in LIHTC equity will bring many positive changes to the market including the following:

- Stability by making long-term and consistent investments regardless of market volatility
- Liquidity particularly for investments that positively impact low-income renters in underserved areas, such as rural communities, Indian reservation communities, and agricultural worker communities, as well as preservation deals and for any other investment type that may not receive consistent investment interest year after year
- Affordability for investments that may not be as attractive to the largest investors, such as preservation deals, Section 8 deals, and bond deals with high losses-to-LIHTC ratios

To achieve these benefits, we plan to make steady improvements through the three-year Plan. In Year 1, we will increase our knowledge of the LIHTC market, develop product parameters, and build the necessary infrastructure within our production, underwriting, legal, and asset management teams to engage LIHTC equity investing. We will also look to form partnerships with at least two LIHTC syndicators and close at least one high-needs-region LIHTC equity investment with each syndicator. Without recent involvement in this market, it will be difficult to

create the necessary internal infrastructure.

Baseline for 2018-2020

We have not made any LIHTC equity investments in the last 10 years, so we do not have a baseline for this objective.

Baseline for 2021

The following table shows Freddie Mac's investment volume in this market from 2018 through 2019 and the baseline reflects the average annual volume of five transactions. We do not have investment volume for 2017 as the program was under development.

Year	2018	2019	Two-Year Avg.
Number of Transactions	5	4	5

2018-2020 Targets

Our intention is to partner with at least two syndicators and make investments at an increasing rate each year, starting at two investments in Year 1. This leads to the following targets across all of the high-needs rural regions.

Year	2018	2019	2020
Number of Transactions	2	3	4

We believe it reasonable and appropriate to view these targets across all high-needs rural regions, as opposed to within any particular high-needs rural regions at this stage because (1) the market for LIHTC deals in each region is relatively small and not fully known, and (2) it is not clear that there will be both viable projects and sufficient allocations of credits each year in each region to support setting region-specific targets at this time. Moreover, while there are fewer investors in non-CRA markets, it is unlikely that we, or the syndicator with whom we work, will be the only participant; therefore, we have no guarantee that we will win each investment deal on which we bid.

Should we exceed these targets in a material way in the early years of our Plan, and the market allows for it, we will likely revise the Plan to include higher targets. Likewise, if we find there is a smaller-than-anticipated market and fewer-than-anticipated investment opportunities, we will revise our targets downward.

2021 Target

The target established is based on the two prior years of performance. The target maintains liquidity in high needs rural regions during current challenging market conditions.

Year	2021
Total High Needs Rural Regions Transactions	5 Transactions

Market Challenges

There are several challenges that will be presented when making LIHTC investments in high-needs rural regions. The primary market challenges are caused by a lack of investment and volatility of LIHTC allocation.

In the LIHTC market generally, there have been significant disruptions in the price of credits.

As 2017 progressed, we have seen more and more examples of large scale LIHTC market disruption, two of which particularly highlight the impact:

1. On March 15, 2017, the California Tax Credit Allocation Committee (TCAC) passed a resolution allowing developers to exchange their 2016 9 percent LIHTC allocation for 2017 LIHTCs. Given delays in finding equity investors, developers found it impossible to close in time to complete construction by the end of 2018 (LIHTC deals must be “placed in service,” meaning 100 percent construction completion and receipt of the certificate of occupancy, by the end of the second year after receiving a LIHTC allocation).

2. In the Midwest, the Ohio Housing Finance Agency (OHFA) had to increase the allocation of LIHTC to deals awarded in 2016 because developers were not getting sufficient equity pricing to allow the deals to be economically feasible. Unfortunately, the additional credits had to come from the 2017 allocation, thus reducing the 2017 pool by approximately 12 percent.

Both examples illustrate how fewer LIHTC-assisted units are likely to be built, ultimately hurting low-income families across the country.

Properties in the rural regions have an additional challenge because they are frequently not in areas that typically attract multiple bids from financial institutions seeking CRA credit. Lack of investor interest lowers LIHTC pricing, which makes the credits less effective. Additionally, State Qualified Allocation Plans (QAP) change annually and rural areas may not be as competitive year in and year out for the limited number of deals that receive a LIHTC allocation.

There is a meaningful difference between a LIHTC deal located in a rural county like Wetzel County, West Virginia, where there is not much CRA-motivated demand for investment, and one in Charlotte, North Carolina. Based on current market information from the Community Affordable Housing Equity Corporation (CAHEC), a Raleigh, North Carolina-based LIHTC syndicator with 25 years' experience and covering the Southeast, a deal in Wetzel County is expected to receive approximately 86 cents on the dollar, while a deal in Charlotte would receive up to 95 cents on the dollar. In a hypothetical transaction with $10 million of debt and a need for $6 million of equity, this difference in tax-credit pricing equates to a $540,000 funding gap, which would require additional tax credits, soft debt, or a deferral of developer fee (with payment from cash flow) to close. This gap financing is often more expensive than LIHTC equity.

There are also several underwriting challenges. Transactions in rural areas often require additional review and analysis. Deals in these areas are frequently in smaller markets, often with marketing and lease-up challenges compared to more urban and suburban properties.

Lastly, resource challenges will hinder our ability to make investments, at least in the early years. The first challenge is our need to develop expertise in these markets. Freddie Mac has not originated new LIHTC investments or had partnerships with LIHTC syndicators in close to 10 years. Therefore, we will develop expertise in-house or hire new talent to support this offering. Additionally, we will need to develop partnership agreements

at both syndicator and individual deal levels.

Market Impacts

By initiating investments in the LIHTC market for high-needs rural regions, Freddie Mac will provide stability to the equity market specifically for investments that are directly impacted by the lack of investment due to investors' tax-reform concerns and lack of CRA credit. This is particularly important for LIHTC properties supporting high-needs rural regions due to the volatility in allocation and lack of investors.

Building a LIHTC equity investment team will help to formalize the infrastructure and ensure that each investment is well-structured and underwritten. Engaging outside counsel also will allow us to create a legal infrastructure leveraging the expertise of a lawyer that is experienced in drafting partnership agreements.

Our initial investments will not only provide a meaningful benefit to the people living in rural markets by providing them with safe, decent and affordable housing that is so hard to come by, it will also introduce competition into a segment of the market that lacks it and often lacks investor interest at all. By doing so, we could potentially increase the price per credit, which could make the development of properties viable where they were not previously, or allow developers to create or preserve more units than they would otherwise.

These investments will also set an important precedent as we build out our market presence and lay the foundation for future investment by us and others. To raise awareness of these transactions and potential replicability, we will issue a press release and/or publish news stories on our website highlighting these transactions and their impact.

2021 Market Impact

COVID-19 impacted us on a global scale and has changed the LIHTC investment landscape. It has weakened LIHTC investment demand due to uncertainty while available supply of tax credits has seen a 4% increase for a total of $9.5B per Novogradac. If investor demand continues to weaken, unused credits will be placed into a national pool, likely leading to a concentration of credits in easier to serve markets. Further, with less competition, investor yields typically increase, leading to an equity financing gap that requires additional subordinate financing from states and localities that are already short on funds. Our continued presence in high needs rural regions will help to mitigate this risk and help to ensure that vital LIHTC properties are placed in service in these underserved markets.

OBJECTIVE J~~K~~: FACILITATE THOUGHT LEADERSHIP AND RESEARCH RELATED TO HOUSING AND MORTGAGE FINANCING IN RURAL COMMUNITIES

Evaluation Area	Year	Incomes Targeted	Extra Credit
Outreach	**2, ~~and~~ 3 and 4**	**VLI, LI, MI**	**Yes - HNRR**

Baseline

Few opportunities exist today to share research and discuss opportunities related to housing and finance in rural communities. However, such interaction is vital to inform development of innovative solutions that can help meet rural America's housing needs. The housing industry would benefit from an annual forum with the purpose of stimulating research, promoting information sharing, and discussing potential solutions for increasing access to affordable housing and homeownership in rural markets. Freddie Mac has not previously held such a forum but can lead the industry forward by hosting a Rural Research Symposium that increases transparency and offers varied perspectives into market activity as well as promotes thought leadership on challenges such as improving housing supply and access to mortgage financing for consumers in rural regions.

Market Challenge	Freddie Mac Action
Need for research ▪ Research that provides insight into affordable housing trends and access to financing in rural markets is limited and narrowly available.	**Year 2 – 2019** 1) Host an inaugural Rural Research Symposium that focuses on rural mortgage markets to better understand who is being served and the effectiveness of mortgage products, services, and financing as well as the effect on communities, consumers, and financial institutions. **Year 3 – 2020** 1) Host a second annual research symposium that focuses on rural mortgage markets to better understand who is being served and the effectiveness of mortgage products, services, and financing. The second annual symposium will focus on new research and insights developed since the 2019 symposium. **Year 4 – 2021** 1) Host a third annual research symposium that focuses on rural mortgage markets to better understand who is being served and the effectiveness of mortgage products, services, and financing. The third annual symposium will focus on new research and

	insights developed since the 2020 symposium.

Market Impact
Freddie Mac is uniquely positioned to attract a broad spectrum of housing experts—such as members of the academic community, government agencies, lenders, policy makers, and non-profit organizations to discuss research findings that can inspire new ideas and solutions toward tackling persistent challenges to renting and owning homes in rural communities. Providing a forum for sharing and exploring a diversity of thought leadership on rural housing and finance will increase the visibility of research in this field and make it available to more leaders as well as across the housing industry. It also will help build cross-disciplinary relationships and reinforce the affordable lending ecosystem. As a result, the symposium will motivate additional research, collaboration, and innovation that is not possible today but greatly needed to help overcome housing challenges that distress rural residents and communities nationwide.

Activity 2 – High-Needs Rural Populations: Regulatory Activity

High-needs rural populations include federally recognized Indian tribes located in Indian areas and agricultural workers. These populations have unique histories, cultures and economies. However, both face similar challenges that significantly impact their access to credit, including substantially higher poverty rates than the national average and extremely limited access to financial services.[61] Additionally, 40 percent of the housing is substandard[62] and almost one-third of homes are overcrowded.[63] Approximately 26 percent of the Native American population is living in areas close to Indian areas and may be interested in living in Indian areas if they could obtain mortgage financing.[64]

Freddie Mac's strategic approach to serving high-needs rural populations includes partnering with local non-profits, housing finance agencies, CDFIs and other small financial institutions to provide homebuyer education, and providing technical expertise to lenders and appraisers serving Indian areas. During the Plan Term, Freddie Mac intends to engage in the following objectives:

- Increase access to education and resources for Native Americans planning to buy homes in Indian areas.
- Provide technical expertise to lenders and non-profits serving Native Americans in Indian areas.
- Research the use of LIHTC.
- Develop an LIHTC equity investment offering.
- Engage in LIHTC equity investment

OBJECTIVE A: INCREASE HOMEBUYER ACCESS TO EDUCATION AND RESOURCES FOR MEMBERS OF A FEDERALLY RECOGNIZED INDIAN TRIBE IN INDIAN AREAS

Evaluation Area	Year	Incomes Targeted	Extra Credit
Outreach	**1, 2 and 3**	**VLI, LI, MI**	**Yes – HNRP**

Freddie Mac strongly supports responsible lending, homebuyer education and counseling. We believe that well-informed and well-prepared homebuyers are more likely to enjoy successful and sustainable homeownership. We support 14 Borrower Help Centers to provide comprehensive education that includes credit counseling and homebuyer education.

During our outreach and review of public comments on the draft Duty to Serve Plan, we heard requests for a comprehensive approach to homebuyer education for both pre- and post-purchase. Particularly in Indian areas, where land titling can be complex and the cultural approach to land ownership may be distinct from traditional mortgage practices. Freddie Mac intends to address this need by developing a comprehensive set of best practices for non-profits, lenders and appraisers that will include education on credit counseling and home ownership in Indian areas.

To engage the Native American population in Indian areas and provide meaningful impact, we will undertake an analysis to determine the tribal regions we can lend support and partnerships we can establish with non-profits, housing finance agencies and community development financial institutions to expand our homebuyer education and counseling efforts to serve very low-, low- and moderate-income homebuyers in Indian areas. In addition, we will complete homebuyer surveys to monitor the effectiveness of education platforms and adjust our efforts as

needed. Through borrower education, we hope to help Native Americans build and maintain credit, understand the steps to sustainable homeownership and increase the demand for homeownership in Indian areas.

Baseline

Freddie Mac has extensive experience with financial education; our successful Credit Smart program is available in five languages and has been taught for over 15 years. In addition, Freddie Mac provides outreach, homebuyer education and counseling through our network of 14 Borrower Help Centers and the national Freddie Mac Borrower Help Network that has been in place for the past nine years. However, for the past three years we have not conducted these services in Indian areas. In addition, we do not have any Borrower Help Centers that specifically serve Indian areas and will need to find additional partners to expand our services. We currently participate in committee meetings on a quarterly basis with the Center for Indian Country Development (CICD) to better understand homebuyer readiness in Indian areas.

Challenges, Actions and Market Impacts

Challenge	Freddie Mac Action
Limited homebuyer education and resources ▪ Homebuyer readiness is one of the most challenging issues facing Native Americans in Indian areas today. The market faces the need for education to initiate the desire for home ownership as a wealth building strategy and then the means to successfully embark on the process to become a homeowner. ▪ In addition, the market has long suffered from a lack of financial institutions to educate the population and promote homeownership. ▪ The lack of education and resources has left a large percentage of Native Americans without the financial knowledge, satisfactory credit, adequate assets and desire to become homeowners. ▪ There are additional challenges that face the Native Americans who want to become homeowners face due to the additional challenges of lending on trust land and understanding the rights and responsibilities of the borrower purchasing property on trust lands and the diverse needs of various tribes.	**Year 1 – 2018** 1) Participate and collaborate monthly on initiatives outlined in quarterly CICD homebuyer readiness subcommittee meetings to better understand the opportunities and challenges of Native American lending in Indian areas 2) Initiate a review of Indian areas to assess where partnerships can be established and begin the design of homebuyer education specific to the Native American market. Establish at least one partnership with a non-profit, housing finance agency or community development financial institution to increase their capacity to provide financial and homebuyer education, housing counseling or other resources. 3) Provide financial and homebuyer education and housing counseling with an established partner in one Indian area. **Year 2 – 2019** 1) Continue to participate and collaborate on initiatives outlined in homebuyer readiness subcommittee meetings to better understand the opportunities and challenges of Native American lending in Indian areas. 2) Establish one additional partnership with a non-profit, housing finance agency or community development financial institution that provides homebuyer education, housing counseling and other resources relevant to potential Native American homebuyers in

one additional Indian area to expand our area of outreach and increase access to financial and homebuyer education to promote sustainable homeownership in Indian areas.

3) Provide financial and homebuyer education and housing counseling with an established partner in one additional Indian area.

4) Ask consumers to complete a survey on our financial and homebuyer education curricula at each session to inform future enhancements.

Year 3 – 2020

~~1) Continue to participate and collaborate on initiatives outlined in quarterly CICD homebuyer readiness subcommittee meetings to better understand the opportunities and challenges of Native American lending in Indian areas.~~

~~2)~~1) Establish one additional partnership with a non-profit, housing finance agency or community development financial institution that provides financial and homebuyer education, housing counseling and other resources relevant to potential Native American homebuyers in one additional Indian area to increase their capacity to provide education in Indian areas.

~~3) Hold at least two homebuyer fairs with established partners to educate consumers on available products, programs and resources.~~

~~4)~~2) Conduct homebuyer and financial education and housing counseling in the Indian areas selected in 2018 and 2019 to further expand access to education to promote sustainable homeownership.

~~5)~~3) Ask consumers to complete a survey on our education curricula at each session to inform future curricula enhancements.

~~6)~~4) Assess consumer survey results, and adjust homebuyer and financial education curricula as appropriate. Findings on survey results will be included in a report to FHFA.

~~7)~~5) Publish lessons learned from the three-year Plan initiatives and survey results on Freddie Mac's website.

Market Impact
Providing comprehensive homeownership education will require a significant amount of research and coordination needed internally at Freddie Mac through various divisions including Single-Family teams responsible for affordable lending and relationships with Seller/Servicers, non-profits, housing finance agencies and community development financial institutions. Externally, we need to develop partnerships to successful initiate and later expand into additional Indian areas with various cultures and governments. We also plan to track training outcomes and use the information obtained to adjust the program in the future. We believe the schedule proposed is reasonable as it incorporates time for us to learn more about the specific needs of the target population, and gives sufficient flexibility for us to learn from initial program feedback to make course corrections. This objective addresses the need for information about financing options developed specifically for members of Indian tribes. We anticipate that the homebuyers' needs will include financial and homebuyer education, pre- and post-purchase counseling and resources, to help them qualify for a mortgage in Indian areas. A successful education program will be a significant development with high impact for this high-needs rural population because it is expected to increase the number of mortgage-ready borrowers that can qualify for financing options that may be available. Given the prevalence of very low-, low- and moderate-income families living in Indian areas, targeting homebuyer education to these areas will be key to increasing sustainable homeownership.

OBJECTIVE B: INCREASE TECHNICAL EXPERTISE IN INDIAN AREAS

Evaluation Area	Year	Incomes Targeted	Extra Credit
Outreach	**1, 2, ~~and~~ 3 and 4**	**VLI, LI, MI**	**Yes – HNRP**

In order to support increased lending activity in this market, Freddie Mac will engage in efforts to increase understanding the barriers to lending and the priority of needs to develop education for lenders on the unique aspects of lending in Indian areas, including but not limited to education on title processing, deed restrictions, tribal government transition education and default processes. In addition, Freddie Mac will encourage standardization of title search processes with government entities. Doing so will bring efficiency to title processing and expedite the lending process, which should benefit all parties involved. In addition, Freddie Mac will provide training and outreach on our mortgage products that may be useful by Native Americans in Indian areas. Once we complete an analysis on which tribal regions we can lend support during this Plan cycle, we will align our focus for technical assistance in the same geographies we will undertake for providing further access to homebuyer education as referenced in Objective A.

Baseline

Freddie Mac does not currently have best practices and training dedicated to increasing technical expertise for lenders and housing professionals on the intricacies of lending in Indian areas.

Challenges, Actions and Market Impacts

Challenge	Freddie Mac Action
Insufficient support of industry participants ▪ Native Americans in Indian areas experience specific challenges in finding diverse financing options due to the legal intricacies of trust land ownership and the difficulty of finding lenders willing to finance loans on trust land. ▪ Additional challenges involve the title processing along with lease processing and approvals involving the federal government and the lack of capacity of tribal governments. ▪ The tracking of Native American loans on Indian areas is not currently being incentivized or tracked in affordable lending products. ▪ The market suffers from a lack of sustainable capacity and resources to further initiatives that will increase homeownership over the long term. ▪ The market also suffers from a lack of coordination and collaboration to develop and increase the use of best practices to further homeownership.	**Year 1 – 2018** 1) Evaluate and assess by year-end the opportunities and barriers to lending through outreach to three lenders, non-profit organizations or governmental entities. Findings will be submitted in a report to FHFA. 2) Conduct bi-annual outreach to at least two market participants, such as housing finance agencies, community development financial institutions or other Native American organizations, to assist with research on the development of mechanisms to better track conventional purchase volume for loans to members of a federally recognized Indian tribe in Indian areas. 3) Participate in quarterly meetings of the CICD committee, CICD secondary market subcommittee, and CICD lending products subcommittee to better understand the opportunities and challenges of Native American lending in Indian areas and their need for technical support. **Year 2 – 2019** 1) Leverage relationships with partners established in 2018 to develop best practices for lending to Native Americans in Indian areas. Share this information with lenders by publishing best practices for lending to Native Americans in Indian areas on Freddie Mac's website. 2) Provide broad-based product and program support to lenders through industry conferences, website material, and Freddie Mac training programs that is specific to Native Americans in Indian Areas. 3) Provide capacity building with at least one Indian tribe through a partnership with a non-profit, Tribally Designated Housing Entity (TDHE) or housing finance agency to offer resources and assistance related to loan packaging, title clearance or other priorities identified that will increase the efficiency of lending on trust lands. 4) Depending on the results of outreach in 2018, by year-end, complete an evaluation

of potential changes that allow us to identify membership of borrowers in federally recognized Indian tribes members to track loan purchase activity. Submit findings in report to FHFA.

5) Participate in quarterly meetings of the CICD committee, CICD secondary market subcommittee and CICD lending products subcommittee to better understand the opportunities and challenges of Native American lending in Indian areas.

Year 3 – 2020

~~1) Monitor and assess the usage and impact of best practices and training provided to lenders via ongoing outreach to lenders and surveys to obtain feedback. Adjust and re-publish best practices as appropriate.~~

~~2)~~1) Continue outreach efforts leveraging ~~industry conferences,~~ website material~~,~~ and Freddie Mac training programs that are specific to Native Americans in Indian areas.

~~3)~~2) Expand capacity building with at least one additional Indian tribe through a partnership with a non-profit, TDHE or housing finance agency for loan packaging, title clearance or other priorities identified that will increase the efficiency of lending on trust lands.

~~4)~~3) Participate in quarterly meetings of the CICD Lending Systems Focus Group~~committee, CICD secondary market subcommittee and CICD lending products subcommittee~~ to better understand new opportunities and challenges of Native American lending in Indian areas.

Year 4 – 2021

1) Work in partnership with a non-profit organization that supports lending activities in Indian areas to create a training module on packaging conventional loans for the secondary market. This module will be used to train at least 40 industry professionals from non-profit organizations and Native CDFIs to help them become more familiar with Freddie Mac product offerings and facilitate the use of conventional financing in Indian areas.

2) Engage at least two lenders serving tribal areas to establish direct or indirect selling relationships that can support future loan purchase activities in Indian areas. Once

	the lenders are engaged: a. Educate the lenders on integrating with Freddie Mac's systems and on our affordable lending offerings to enable them to deliver loans to us. ~~a.~~b. Enhance existing product offerings based on the lenders' feedback, making operational adjustments necessary to facilitate mortgage lending in Indian areas.

Market Impact
This objective will require significant amount of outreach, research, partner building and coordination that needs to be accomplished to successfully build sustainable capacity. This will entail work with federal government agencies, tribes, non-profits, and other partners to provide resources and capacity in this market. There currently exists an extremely large knowledge gap in the Indians areas due to different cultures, different tribal governments, different operating laws, turnover of leadership, remoteness and distance from other tribal communities. Freddie Mac's efforts and participation through outreach, research and participation in meetings will begin to assist in bridging this gap. It will take a significant level of effort and resources to establish new relationships as we do not currently have established partners in Indian areas. It will also take time to develop and coordinate activities to begin bridging the gap to provide more loan packaging and processing efficiencies. These efforts will have a direct effect as we share best practices and provide capacity support and resources. They will also have an increasing and future impact as they are expanded through the plan period. Our outreach activities will help bolster industry collaboration, build a pathway to more conventional lending, and, as a result, increase the flow of liquidity into these communities.

OBJECTIVE C: CONDUCT RESEARCH ON TRIBAL LANDS IN ASSOCIATION WITH LIHTC AND OTHER FEDERAL PROGRAMS

Evaluation Area	Year	Incomes Targeted	Extra Credit
Outreach	**1**	**VLI, LI, MI**	**Yes**

LIHTCs are the most commonly used subsidy for affordable rental housing. They are particularly important for multifamily housing on tribal lands, where debt financing is limited outside of highly specialized HUD programs. Indeed, most properties cannot support conventional debt at all. Despite the importance of LIHTC equity, there has not been sufficient equity investment to solve the affordable housing challenges on tribal lands. Additionally, LIHTC investments on tribal lands generally do not receive much competition from banks or other investors. This lack of competition results in a lower price per credit, which means it is even harder to amass sufficient equity to finance these properties.

While there are various sources of data and research reports on housing and LIHTC equity on tribal lands, our research will pull together disparate sources of data, identify challenges and opportunities for investment, identify debt financing options and their viability, and popularize this understanding with a broader audience than is currently familiar with the challenges of housing on tribal lands today.

Baseline

We have not been able to particpate in the LIHTC equity market for the last 10 years; therefore, we do not currently have a baseline. In 2017, we have been attending conferences and conversing with leading-mission focused LIHTC syndicators with expertise on tribal lands. We have not performed or published any formal research on this topic.

Challenges, Actions and Market Impacts

Market Challenge	Freddie Mac Action
▪ Limited data about the prevalence of LIHTCs in support of multifamily housing on tribal lands. Throughout the course of our research, there have been instances where data was temporarily unavailable or where combining sources proved to be more difficult than originally anticipated. The wide range of topics that we intend to cover for our tribal land research will rely heavily on data, and completing the objective within a narrow timeframe will be very difficult if data issues are encountered. ▪ Insufficient knowledge of the market size and scope. ▪ Limited opportunities for third party financing. ▪ Geographic challenges; tribal lands are often in remote areas. ▪ Many properties on tribal lands are LIHTC equity driven, which leaves little room for debt financing. ▪ Definition of qualifying tribal lands contains some uncertainty. As a result, there may be some margin of error in our analysis, and the time it takes to perform this analysis will be greater than for areas with more readily defined boundaries. **Resource challenge** ▪ Throughout the Duty to Serve Plan, we are taking on a considerable number of research efforts, all of which require extensive planning, as well as collaboration with key stakeholders, and analysis. The design and research of all of these objectives will have many unique components and will leverage the expertise and skills of our internal research organization, whose focus extends beyond the scope of the Duty to Serve Plan.	**Year 1 – 2018** 1) Conduct outreach by engaging with three tribal housing authorities, two syndicators, and two advocacy organizations with expertise in LIHTC and/or the housing needs on tribal lands. 2) Aggregate and align data to determine whether, and how much, sufficient information there is on LIHTC housing for members of Indian tribes living on Indian land today based on definitions provided by FHFA and the possible gaps in the data from the following sources and any others we discover in our research: National Housing Preservation Database, data.gov, HUD, and Census Bureau. 3) Engage with at least one leading researcher on tribal lands to help inform and structure our research and analysis in these areas. 4) Include information in the report on the following, based on available data: a. Estimated equity market size b. The identification and applicability of relevant federal programs, and eligibility for third-party financing to be applied c. Identification of gaps in data that could be closed over time to provide a stronger understanding of this market 5) Publish the report on our website, share it with the organizations involved in our outreach so they can distribute it further, and promote it with a press release.

Market Impact
There is currently limited data about the prevalence of LIHTCs in support of members of Indian tribes on tribal lands. While we understand anecdotally that the market for multifamily properties supporting these populations is very small, we believe this data may reveal opportunities for further investment and draw greater attention to the challenges and opportunities for LIHTC equity investment and multifamily housing on tribal lands. This study will also reveal whether there are opportunities for providing multifamily first mortgage debt financing on tribal lands. By identifying and promoting these opportunities, we are laying the foundation for more competition in the LIHTC market on tribal lands, which can increase the price per credit and, therefore, the effectiveness of LIHTC equity in creating and preserving affordable rental housing on tribal lands.

OBJECTIVE D: DEVELOP LIHTC EQUITY INVESTMENT OFFERING (populations)

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Product	**1**	**VLI, LI**	**Yes**

Freddie Mac intends to develop a product that leverages LIHTC equity investment in order to help meet the affordable rental housing needs of low-income families that are members of Indian tribes in Indian areas as well as agricultural workers in designated rural areas. According to a 2017 Urban Institute study, “during the past two decades, although improvements have been made, the overcrowding and physical housing problems of American Indians and Alaska Natives (AIANs) living on reservations and other tribal areas remain strikingly more severe than those of other Americans. Particular circumstances of tribal areas--remoteness, lack of infrastructure, and complex legal and other constraints related to land ownership--make it extremely difficult to improve housing conditions in those areas.”[65] Also, according to the HAC, 52 percent of housing units recently surveyed were overcrowded, which is nearly 10 times higher than the national average. Despite these challenges, the LIHTC program has been effective in producing new affordable units for these underserved populations, particularly in states that set aside tax credits specifically for multifamily properties, though there is still need for more housing.

Freddie Mac anticipates building relationships with experienced LIHTC syndicators that work with established developers that focus on these populations in their affordable housing development businesses. In addition, Freddie Mac will provide direct equity investments in properties where the developer is a Freddie Mac client or has a relationship with one of our existing financing partners. Throughout Year 1 of our Plan, we will research the LIHTC market with a focus on investment opportunities to support high-needs populations as mentioned in Objective C. We will also hire experienced staff, develop internal capacity and controls and introduce our LIHTC equity investment product offering. Ultimately, we will begin investing in order to better understand the market while making a direct impact.

We recognize in creating this LIHTC equity investment offering that the fundamentals described and established here are applicable across all LIHTC equity investments, with some specific terms tailored to the needs of these populations. It will be important to make LIHTC investments that have sufficient geographic diversity to control for concentration risk, invest at a large enough scale to operate a viable and sustainable business that allows us to continually serve these markets, and do so in a safe and sound manner. We will be mindful to make these investments in markets and cases where there is not sufficient CRA-motivated investment already. Indeed, our role will be to support those parts of the market that are underserved by CRA-motived investment.

Challenges, Actions and Market Impacts

Market Challenge	Freddie Mac Action
Difficulty in developing multifamily housing in tribal areas ▪ This is due to remoteness, lack of infrastructure, and complex legal and other constraints related to land ownership. **Difficulty in developing multifamily housing for agricultural workers** ▪ This is due to limited tenant incomes and cyclical residence, the combination of which require properties that often cannot support first mortgage debt. **Market size** ▪ The ability to make a visible impact in the market may be capped by its small volume. **Cultural effects** ▪ Many tenants who are members of an Indian tribe living on tribal lands prefer single-family homes over multifamily properties.	**Year 1 – 2018** 1) Partner with at least one experienced LIHTC syndicator that focuses on high-needs rural populations. Partnership will be evidenced by an investment agreement. 2) Set up internal infrastructure to enable future LIHTC work.
Underwriting Challenge	**Freddie Mac Action**
▪ Cyclical tenant income among agricultural workers ▪ High turnover rates ▪ Small market size	**Year 1 – 2018** 1) Develop underwriting parameters, as evidenced by internal credit policy and an underwriting checklist. The LIHTC underwriting checklist will include at least the following: a. Developer experience b. LIHTC property management and compliance experience c. Balanced and detailed sources and uses budget d. 15-year operating proforma with rents trending less than operating expenses e. All financing sources have commitments by closing f. Acceptable insurance coverage g. Acceptable Phase 1 environmental assessment h. Acceptable market study

Resource Challenge	Freddie Mac Action
Development of expertise ▪ Freddie Mac has not originated new LIHTC investments in close to 10 years. Therefore, we will develop expertise in-house or hire new talent to support this offering. **Development of partnership agreements at both the syndicator and individual-deal levels** ▪ Freddie Mac has not entered a new partnership with a syndicator in close to 10 years and will need to hire outside counsel to understand the market for LIHTC investors.	**Year 1 – 2018** 1) Create a team to support the production lead including a production analyst and investment underwriting lead. 2) Engage outside counsel to review both syndicator partnership legal documents as well as individual investments at the lower-tier level within each fund. 3) Develop a checklist of important deal points (business issues) and legal points that should be included in all individual LIHTC deals and develop a process for exceptions.

Market Impact

By focusing some of its investment capital in these areas, Freddie Mac will introduce more competition for LIHTC equity investment in properties supporting high-needs populations, which will result in improved LIHTC pricing for these properties. The higher the LIHTC pricing, the greater amount of equity in the financing stack, which decreases pressure on rents, because the borrower needs less income to service the debt. Ultimately, support for LIHTC equity will make properties more affordable, and perhaps enable properties to be built that otherwise would not have been economically viable, thereby creating more affordable housing for some of the hardest to serve populations.

We will develop our LIHTC equity investment capabilities and product in accordance with safety and soundness principles, setting strong underwriting parameters that will mitigate the risks of investment in these properties and allow us to responsibly serve these populations and communities.

OBJECTIVE E: ENGAGE IN LIHTC EQUITY INVESTMENT

Evaluation Area	Year	Incomes Targeted	Extra Credit
Investment	**2, ~~and~~ 3 and 4**	**VLI, LI, MI**	**Not applicable**

The LIHTC program is perhaps the most important resource for creating affordable housing in the U.S. today. Created by the Tax Reform Act of 1986, the LIHTC program gives state and local LIHTC-allocating agencies the equivalent of nearly $8 billion in annual budget authority to issue tax credits for the acquisition, rehabilitation, or new construction of rental housing targeted to lower-income households. By providing an incentive for private sector investment, the LIHTC has financed nearly three million housing units for low-income households, with approximately 100,000 units added to the inventory each year.

Investing in LIHTC equity will bring many positive changes to the market including but not limited to the following:

1. Stability by making long-term and consistent investments regardless of market volatility.

2. Liquidity, particularly for investments that positively impact low-income renters in underserved areas, such as rural communities, Indian reservation communities, and agricultural worker communities as well as preservation deals, and for any other investment type that may not receive consistent investment interest year after year.

3. Affordability for investments that may not be as attractive to the largest investors such as preservation deals, Section 8 deals, and bond deals with high losses-to-LIHTC ratios.

In years 2, ~~and~~ 3, and 4 we intend to measure LIHTC equity investments in support of high-needs rural populations relative to market opportunity.

Baseline for 2018-2020

Freddie Mac has not been permitted to make LIHTC equity investments for many years, so our baseline of recent experience is zero investments.

Baseline for 2021

In 2018 we were re-establishing our LIHTC business. In 2019, we had secured two transactions, but neither funded for reasons outside of our control.

Year	2018	2019
Number of Transactions	0	0

2019-2020 Targets

Today, the size of the LIHTC equity market in rural areas with high-needs populations is unknown. As part of our research, described above in Objectives F and G, we intend to estimate the annual market size. Generally, though, we understand it to be very small, with few transactions per year, and to be unpredictable—the amount or presence of LIHTC equity investment opportunities on tribal lands and for agricultural workers may vary. Therefore, in our early years of investment, as we come to better understand this market and develop a presence in it, we intend to make two investments in tribal lands or for agricultural workers in 2019, and three in 2020. As we learn this market better, we may be able to set specific targets for each category, but we believe it is premature to do so at this time.

Year	2019	2020
Number of Transactions	2	3

2021 Target

We are selecting 2 transactions for 2021 as there are a limited number of transactions available that also meet FHFA definition of rural based on the DTS Rural census tract. Typically, state QAPs make it difficult to score highly in a competitive 9% round, where the emphasis is often on features such as proximity to grocery stores or transportation nodes. Based on our experience, few state QAPs have set-asides to prioritize these high-needs populations. Further, these transactions are less predictable in moving through the development process and closing in a timely way, thus reducing likelihood that they would be able to close in a particular calendar year. To counter these concerns and develop a pipeline going forward of transactions in Indian areas we have focused on

working with Royal Bank of Canada (RBC) who has deep expertise in these transactions and understands well our DTS targets and criteria. Additionally, the Production team will review HFA 9% LIHTC winners in states with a tribal and/or farmworker set-aside in case our syndicator partners miss an opportunity.

Year	2021
Total Rural Populations Transactions	2 Transactions

Challenges

There are several challenges that will be presented when making LIHTC investments for high-needs rural populations.

First, there is a lack of investors in rural areas. Properties in rural areas and those serving high-needs populations are frequently outside of most banks' CRA assessment areas; thus, there is typically far less competition. This lack of competition leads to lower LIHTC pricing, which makes the credits less effective. There is a meaningful difference between a LIHTC deal located in a rural county like Wetzel County, West Virginia, where there is not much CRA-motivated demand for investment, and one in Charlotte, North Carolina. Based on current market information from the Community Affordable Housing Equity Corporation (CAHEC), a Raleigh, North Carolina-based LIHTC syndicator with 25 years' experience and covering the Southeast, a deal in Wetzel County is expected to receive approximately 86 cents on the dollar, while a deal in Charlotte would receive up to 95 cents on the dollar. In a hypothetical transaction with $10 million of debt and a need for $6 million of equity, this difference in tax-credit pricing equates to a $540,000 funding gap, which would require additional tax credits, soft debt, or a deferral of developer fee (with payment from cash flow) to close. This gap financing is often more expensive than LIHTC equity.

Second, there is volatility of LIHTC allocation. Many state housing finance agencies do not have a set-aside for Indian housing or agricultural workers, making them virtually uncompetitive with urban and suburban properties that better meet the requirements of the state Qualified Allocation Plans (QAPs). QAPs change annually and rural areas may not be as competitive year in and year out for the limited number of deals that receive a LIHTC allocation.

Third, we will have resource challenges. We will need to develop expertise. Freddie Mac has not originated new LIHTC investments in close to 10 years, let alone on tribal lands or for agricultural workers. Therefore, we will develop expertise in house or hire new talent to support this offering. We also need to develop partnership agreements at both the syndicator and individual-deal levels. Freddie Mac has not entered a new partnership with a syndicator in close to 10 years and will need to hire outside counsel to understand the current market for LIHTC investors.

Market Impact

By initiating investments in the LIHTC market for high-needs rural populations, Freddie Mac will provide stability to parts of the market that receive less favorable LIHTC pricing due to limited competition, inconsistent allocations, and challenging transactions.

Building a LIHTC equity investment team will help to formalize the Freddie Mac infrastructure and ensure that each investment is well-structured and -underwritten. Engaging outside counsel also will allow us to create a legal

infrastructure leveraging the expertise of a lawyer that is experienced in drafting partnership agreements.

Our initial investments will not only provide a meaningful benefit to the hardest to serve segments of the rural population by providing them with safe, decent and affordable housing that is so hard to come by, we will also introduce competition into a segment of the market that lacks it, and often lacks investor interest at all. By doing so, we could potentially increase the price per credit, which could make the development of properties viable where they were not previously, or allow developers to create or preserve more units than they would otherwise.

These investments will also set an important precedent as we build out our market presence and lay the foundation for future investment by us and others. To raise awareness of these transactions and their potential replicability, we will issue at least one press release and/or publish at least one news story on our website, highlighting these transactions and their impact.

2021 Market Impact

COVID-19 impacted us on a global scale and has changed the LIHTC investment landscape. It has weakened LIHTC investment demand due to uncertainty while available supply of tax credits has seen a 4% increase for a total of $9.5B per Novogradac. If investor demand continues to weaken, unused credits will be placed into a national pool, likely leading to a concentration of credits in easier to serve markets. Further, with less competition, investor yields typically increase, leading to an equity financing gap that requires additional subordinate financing from states and localities that are already short on funds. Our engagement in this market will help to mitigate this risk and help to ensure that vital LIHTC properties are placed in service in these underserved markets.

Activity 3 – Financing by Small Financial Institutions of Rural Housing: Regulatory Activity

A small financial institution is defined for Duty to Serve purposes as one with less than $304 million in assets. During the FHFA listening sessions and our public outreach, we heard that, in many rural areas, these institutions are the only source of financial services. They are well-positioned to understand the needs and know the stakeholders in their communities.

Freddie Mac is committed to partnering with small financial institutions to leverage their market knowledge, experience and stakeholder network and to maximize the secondary market impact in the rural housing market.

During the Plan Term, Freddie Mac intends to increase purchase volume of loans on rural housing made by small financial institutions.

OBJECTIVE A: INCREASE LOAN PURCHASES FROM SMALL FINANCIAL INSTITUTIONS SERVING RURAL REGIONS

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Purchase	**1, 2, ~~and~~ 3 and 4**	**VLI, LI, MI**	**Not Applicable**

Freddie Mac intends to increase purchases of rural housing loans made by small financial institutions with assets of less than $304 million to generate liquidity and expand the distribution of capital. We plan to engage more deeply with small financial institutions that are already approved Freddie Mac seller/servicers to increase the purchase of both new and seasoned rural housing loans. We also intend to expand our outreach and support to increase the number of small financial institutions that can be approved as direct Freddie Mac seller/servicers or that sell to us through an aggregator. We believe that our incremental and strategic approach will increase the financing options for these institutions and our purchase share.

Baseline for 2018-2020

The table below reflects Freddie Mac's actual purchase volume of mortgages in rural areas from community development financial institutions, and federally insured banks and credit unions that we could identify as having an asset size of less than $304 million. The income-qualifying loan count represents only the population of loans that meet the Duty to Serve qualifying-income segment of very low-, low- and moderate-income volume.

The baseline for this objective is an average of the loans Freddie Mac purchased from small financial institutions that meet income-qualifying criteria for Duty to Serve in the last three years (2016 through 2018), which is 4,340 loans. The numbers represent purchase-money originations and refinances for owner-occupied properties of very low-, low-, and moderate-income borrowers.[66]

Freddie Mac Loan Purchase Volume – Small Financial Institutions[67]			
Year	**2016**	**2017**	**2018**

Income-Qualifying Loan Count **(A three-year average of this loan count was used to establish the baseline)**	4,872	4,269	3,880
Baseline	4,340		

Baseline for 2021

Freddie Mac followed the same methodology to create the baseline for our 2021 loan purchase target as we used to calculate our 2018-2020 targets. The following table shows our purchase volume in this market for 2017 through 2019 and the baseline that reflects the average annual volume.

Freddie Mac Loan Purchase Volume – Small Financial Institutions[68]			
Year	**2017**	**2018**	**2019**
Income-Qualifying Loan Count **(A three-year average of this loan count was used to establish the baseline)**	4,269	3,880	4,611
Baseline	4,253		

2018-2020 Targets

Freddie Mac's purchase share of mortgages in rural areas from small financial institutions has been decreasing since 2016. The loan purchase volume in 2016 was largely due to high refinance volume. We will aim to gradually increase the volume of mortgages used for home purchases to increase the overall volume of loans in rural regions over the Plan cycle. We intend to use a variety of tactics with small financial institutions, including leveraging various execution options for loan purchase including purchasing loans via our bulk execution path where feasible, conducting outreach, offering technical training and providing toolkits that enable these lenders to lend confidently to very low-, low-, and moderate-income homebuyers.

Freddie Mac will commit to achieving the following loan purchases in rural regions for very low-, low-, and moderate-income borrowers in the following years:

Purchase Targets – Small Financial Institutions		
Year 1 – 2018	**Year 2 – 2019**	**Year 3 – 2020**
4,550 – 4,700 loans	3,700 – 3,900 loans	3,600 – 3,900 loans

2021 Target

Our single-family purchase targets for the plan year 2021 are set forth in the following table. We intend to use tactics to increase loan purchases relative to our historical volume from small financial institutions, including leveraging various execution options where feasible, conducting outreach, and offering technical training to raise lenders' confidence in lending to very low-, low-, and moderate-income homebuyers and homeowners.

Projected volume for 2021 does not take into account potential market reactions to the historically low interest-rate environment or the coronavirus pandemic.

Purchase Targets – Small Financial Institutions
Year 4 – 2021
4,260 – 4,800 loans

Market Opportunity and Impact

This objective will provide liquidity of more than $420 million per year to small financial institutions that serve high-needs rural regions in years 1 through 3. Freddie Mac believes that deliberately increasing our engagement with small financial institutions to provide liquidity will notably improve access to credit in rural markets because we have heard that these lenders are limited in resources, available products and outreach capacity.

Freddie Mac's increased market share will benefit these markets by improving the availability of affordable financing, including Freddie Mac's Home Possible and Home Possible Advantage mortgages. We anticipate this objective will be very challenging due to the varied operational systems used by small financial institutions; different missions and levels of financing; distinct financial products offered; and the large number of geographic areas served. Furthermore, Freddie Mac anticipates that approximately 4% of the eligible lender population will stop reporting financial data due to continuous mergers and acquisitions in this segment. Developing relationships with small financial institutions not currently doing business with Freddie Mac will require a significant investment in resources to support and sustain the level of purchase growth targeted in the Plan cycle. Additionally, as we add new lenders to our customer base, it will take time before we realize loan purchases while lenders navigate through the onboarding process.

As we look ahead to Year 4 from our current vantage point in Year 3, Freddie Mac estimated that we could provide about $420 million in liquidity in the marketplace in 2021. We will continue to actively engage with small financial institutions to increase liquidity and access to credit in rural markets and expand lenders' ability to support affordable homeownership opportunities.

Activity 4 –Small Multifamily Rental Properties in Rural Areas: Regulatory Activity

Small multifamily rental properties are an important segment of the rural rental market. A sizable portion, particularly those most affordable, are encumbered by USDA debt and at risk of being lost to the market over time as USDA 515 loans mature and properties can exit the program. This is known as the maturing mortgage crisis.

Freddie Mac intends to focus its small rural properties support in the first Plan Term on addressing the maturing mortgage crisis and leveraging USDA programs by:

1. Developing a new offering to preserve properties with USDA section 515 debt
2. ~~Purchasing loans to preserve properties with USDA section 515 debt~~
2. Researching and developing a new offering to support USDA's 538 program.
3. Developing a tool to allow lenders to better identify small multifamily properties in need of preservation financing
3.4. Investing LIHTC equity in 5-50 unit properties

OBJECTIVE A: DEVELOP A NEW OFFERING TO PRESERVE PROPERTIES WITH USDA SECTION 515 DEBT

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Product	**1, 4**	**VLI, LI**	**Not applicable**

USDA's Section 515 program is vital for the preservation of highly affordable rural multifamily housing. It provides rental assistance to ensure that tenants pay no more than 30 percent of their income toward rent. According to an analysis by the Housing Assistance Council (HAC), the USDA has financed approximately 28,000 multifamily properties with over 533,000 units through the Section 515 program.[69] As of early 2016, there were approximately 13,830 properties with 416,000 units still in the program. HAC has determined that the following number of units will exit the 515 program by 2040 based on their loan maturity dates:[70]

Years	2017-2027	2028-2032	2033-2040
Annual Unit Loss	1,800 units	16,000 units	22,600 units
Cumulative Units Lost Per Period	18,000 units	64,000 units	158,200 units
Cumulative Units Lost	**18,000 units**	**82,000 units**	**240,200 units**

Per our analysis of the 515 portfolio on data.gov, we estimate that 75 percent of these units are in rural areas. And among rural 515 properties, 94 percent have between five and 50 units. When these units exit the program, affordable housing is lost in rural areas because owners will no longer be able to access the rental assistance that

enables them to preserve rents at affordable levels to residents making very low incomes for their area while maintaining the property. This is often referred to as the “maturing mortgage crisis.” We have repeatedly heard from advocacy groups that USDA’s annual budget is not sufficient to preserve this number of properties at the rate at which they would exit the program. Therefore, the introduction of private capital is necessary to recapitalize and preserve these properties to maintain this important housing stock for rural communities.

In response, Freddie Mac has developed a strategy that would address the maturing mortgage crisis by increasing product flexibility and partnering with the USDA to create a sustainable, effective loan product offering. Initially, Freddie Mac will perform a comprehensive review of our current product offerings to determine how we can best leverage our existing products with the market challenges faced by the rural rental housing market. Additionally, we will collaborate with borrowers and our seller/servicers to help design additional features that can be added to support this loan offering. Based on the results of our review and feedback from our collaboration, we intend to make improvements consistent with prudent underwriting standards to ensure safety and soundness. We also intend to leverage our market-leading risk-distribution methods that allow us to attract private capital to support these properties, offer competitive terms and flexibility to our borrowers, and transfer risk away from taxpayers. This capability is fundamental to providing persistent liquidity and stability to the market.

While somewhat premature, we expect that these enhancements will cumulatively have a significant impact on the borrowers of rural rental housing by providing a source of stable, efficient, long term private capital which will enable very low-, low-, and moderate-income tenants to remain in their homes without additional rent burden. We expect that, if successful, these improvements will result in increased purchase volume and additional liquidity to this market. Over the two-year period, Freddie Mac plans to build a strong offering foundation by publishing an initial term sheet and completing a pilot transaction to determine market acceptance and long term feasibility of the product offering. We also plan on providing training to our seller/servicers to ensure that they are equipped with the information needed to accurately promote and support the offering.

2021 Plan Update:

In 2021, Freddie Mac plans to complete negotiations with USDA, amend relevant loan product term sheets, and notify our seller/servicer network of our ability to purchase loans with USDA 515 subordinate debt.

Baseline

While we have originated Tax-Exempt Loan transactions, we lack the legal infrastructure, agreements with USDA, and stakeholder partnerships to leverage this execution for a successful loan offering for portfolios with USDA 515 debt. We last purchased a loan on a Section 515 property in 2010, so our baseline of recent experience is zero transactions. This is to be expected because the vast majority of transactions involving USDA’s Section 515 properties use other USDA programs, such as Section 538 or the preservation and rehabilitation (MPR) program.

Challenges, Actions and Market Impacts

Market Challenge	Freddie Mac Action
Limited financing sources ▪ Apart from USDA's Section 538 Guaranteed Rural Rental Housing Program, there are very few outside debt sources being used in conjunction with USDA's Section 515 program. This is due to the tightly integrated USDA requirements between USDA programs. **Property features** ▪ 515 properties, given their small size, cannot benefit from the same economies of scale as more typical multifamily urban or suburban properties due to the number of units. Across the 515 portfolio, the average property size in rural markets is 29 units, per our analysis of 515 properties from data.gov. ▪ Smaller rural properties are also distant from major employers and access to other resources that provide occupancy stability to a rental property. **Number of stakeholders** ▪ Through our research, we have learned that each transaction has multiple stakeholders, each with its own requirements that impact the loan parameters and some of which are conflicting, making it difficult to ensure ease of execution for each transaction. **Reliance on USDA 515 debt** ▪ USDA 515 debt ensures that the property maintains rental assistance. Therefore, it is important that any additional financing be compatible with USDA 515 debt. **Reliance on rental assistance** ▪ Many USDA 515 properties rely on the rental assistance provided by the Section 521 program. Without this rental assistance, very low- and low-income renters would be overburdened and unable to fulfill rent obligations. The USDA 521 program provides borrowers with a one-year contract to cover rent payments on behalf of tenants in a designated number or percentage of the units. The one-year contract is only renewed as many times as	**Year 1 – 2018** 1) Evaluate the barriers limiting private capital in conjunction with USDA's Section 515 program to identify product parameters and legal document requirements. 2) Engage with the following participants to assess and identify areas of opportunity for our product: three issuers from states with a high concentration of 515 properties, two borrowers from the Council for Affordable and Rural Housings top 20 borrowers list, two rural advocacy organizations, and two Freddie Mac Seller/Servicers. 3) Evaluate and assess alternative loan structures to determine offering parameters, as evidenced by the following term sheet. 4) Evaluate and assess appropriate underwriting parameters to mitigate risk of rental assistance termination. These underwriting parameters will be captured in our internal credit policy and summarized in the product term sheet. Results of this analysis will be included in our term sheet. 5) Publish an official product sheet on our website that defines the product and its purpose to enable borrowers and sellers to understand the new loan product. The term sheet will contain at least the following elements: a. Product overview and loan purpose b. Sponsor and property eligibility requirement c. Loan-to-Value Limits d. Debt coverage Limits e. Allowable lengths of loan term f. Allowable lengths of amortization 6) Initiate one sample transaction to test market acceptance of the new loan and legal structure introduced to the market. Given the time it takes to complete a transaction, we will not likely make a loan purchase until Year 2. 7) Provide one to three training sessions via webinar or in person for Freddie Mac sellers

funds are made available. **Product awareness** ▪ Borrowers are accustomed to working specifically with USDA lenders to originate rural rental housing loans. Likely, the Freddie Mac loan product will have a different loan and legal structure than the current financing option to this market. ▪ Freddie Mac sellers may not be motivated to market and originate this business due to its initial small scale, limited inventory, and amount of time it takes to originate a loan. From our current outreach, we have heard that it can take from two to five years to complete a rural rental housing transaction.	to provide loan offering details, benefits to the borrower, and origination procedures to ensure that sellers have the knowledge to market the product effectively. To address the sellers' concerns, information will be provided to the sellers regarding incentives and origination efficiencies to motivate them to originate transactions with USDA 515 debt. 8) Negotiate and implement subordination agreement with USDA to ensure USDA 515 debt will stay on the property with the senior Freddie Mac debt. The finalized agreement will be shared with FHFA on an informational basis. **Year 4 – 2021** **1)** Complete negotiations with USDA and implement a subordination agreement with USDA to ensure USDA 515 debt will stay on the property with the senior Freddie Mac debt. The finalized agreement will be shared with FHFA on an informational basis. **2)** Amend and publish our relevant loan product term sheets to include reference to our ability to purchase loans with USDA 515 subordinate debt. **3)** Notify our seller/servicer network of our ability to purchase loans on USDA 515 properties.
Resource Challenge	**Freddie Mac Action**
▪ Multiple resources from various teams within Freddie Mac will be essential to ensure success of the actions outlined above.	**Year 1 – 2018** 1) Implement an internal working group to ensure that all resources are allocated appropriately and alignment is maintained throughout the creation of the new loan product.

Market Impacts

Through 2020, we have devoted considerable time and effort in working with USDA to achieve a mutually agreeable subordination ~~While~~agreement. While the challenges are many, the benefit to the market is great, both in the near term, as we lay a strong product foundation and refine it through a pilot transaction, and in the long term, as we, along with the USDA, are able to provide long-term liquidity and stabilize the 515 preservation market while preserving the rental assistance (subject to continued federal support for these programs). By designing this offering to leverage our market-leading risk-distribution methods, we will be able to attract private capital to support five-to-50-unit 515 properties in rural markets and the tenants who live in them. In so doing, we will transfer risk away from taxpayers and promote safety and soundness.

Ultimately, though, the benefit of this offering is clear: Through this work, we will enable tenants of very-low and even extremely-low income, many of whom are senior citizens, to be able to continue to live in safe and decent housing that is affordable to them in their communities. Not only does this benefit the tenants themselves, but it also promotes stable communities across rural America.

~~OBJECTIVE B: MAKE PURCHASES TO PRESERVE PROPERTIES WITH USDA SECTION 515 DEBT~~

~~Evaluation Area~~	~~Year~~	~~Incomes Targeted~~	~~Extra Credit~~
~~Loan Purchase~~	~~3~~	~~VLI, LI~~	~~Not applicable~~

~~Purchases of loans on properties with USDA 515 debt are an integral part of our strategy of providing liquidity in support of five-to-50-unit properties in rural areas. Indeed, per analysis of the 515 portfolio on data.gov, 93 percent of the 515 properties in rural areas are between five and 50 units.~~

~~After establishing and piloting a loan product for properties with 4 percent tax credits and USDA 515 debt, Freddie Mac will focus on the purchase of loans on these properties. This will provide relief from the maturing mortgage crises and preserve affordability for rural properties. Maintaining long term affordability is key to providing rural areas with a stable source of housing. As a result of our outreach, we have determined that properties with USDA 515 debt are usually originated in portfolios of multiple properties and it could take as long as three years to originate one portfolio with USDA 515 debt.~~

~~Given the many challenges of providing financing for 515 properties, purchasing loans and promoting those purchases and their replicability through press releases or deal stories will be fundamental to growing this market over time.~~

~~Baseline~~

~~We have not made any purchases of loans on properties with Section 515 debt in several years; therefore, we do not have a representative baseline.~~

~~Target~~

~~In Year 3 (2020), we plan to purchase two portfolios of loans on properties with USDA 515 debt that include properties with five to 50 units in rural areas. This target is dependent upon us initiating these transactions in Year 2 (2019). If our loan product requires adjustments, we will likely adjust this target based on market feedback on our product offering.~~

~~Challenges~~

~~There are several challenges involved in purchasing loans on properties with USDA Section 515 debt. These challenges are present both externally in market conditions and internally through necessary underwriting and infrastructure changes.~~

~~First, there are the limited financing sources for these properties. Apart from USDA's Section 538 Guaranteed Rural Rental Housing Program, there are very few outside debt sources being used in conjunction with USDA's Section 515 program. This is due to the tightly integrated USDA requirements between USDA programs. Borrowers are accustomed to working specifically with USDA lenders to originate rural rental housing loans. Likely, the Freddie Mac loan product will have a different loan and legal structure than the current financing option to this market.~~

~~Second, many USDA 515 properties rely on the rental assistance provided by the Section 521 program. Without this rental assistance, very low and low-income renters would be overburdened and unable to fulfill rent obligations. The USDA 521 program is different from long-term HAP contracts, which Freddie Mac has a history of doing. The USDA 521 program provides borrowers with a one-year contract to cover rent payments on behalf of tenants in a designated number or percentage of the units. The one-year contract is only renewed as many times as funds are made available. Because the Section 521 rental assistance is only available if 515 debt is still on the property, it is important that any additional financing be compatible with USDA 515 debt.~~

~~Third, unlike most markets, where one could expect awareness and transactions to be initiated and closed in the same year, this is far less likely to be the case for properties with USDA 515 debt. These transactions are highly complex with multiple parties, multiple properties, and sometimes challenging market conditions. Even once initiated, a transaction can fall through due to many factors, such as disruptions in the LIHTC equity market, rising interest rates, or change in local market conditions.~~

~~Market Impacts~~

~~The immediate benefit of these transactions will be to rehabilitate and preserve safe, decent, and affordable rental homes for tenants who are at risk of becoming homeless if these properties exit the 515 program. This cannot be understated in the near term or in the long term. Indeed, these initial loan purchases lay the foundation for more third-party financing and enable long-term, stable liquidity, which is fundamental to providing long-term residence to thousands and thousands of people and families.~~

~~These transactions will also be precedent setting. Through these transactions we will demonstrate to rural developers that there is a new and replicable source of innovative financing for 515 properties that will enable the recapitalization and rehabilitation of these properties. Upon completion, we will issue press releases and/or publish news stories on our website that summarize the transactions and promote their replicability, which will lay a foundation for growth in purchases in future years.~~

~~In so doing, we will introduce new standards and efficiencies into the market. We will also look to attract private capital and promote safety and soundness by leveraging our capital markets infrastructure and risk-distribution capabilities.~~

~~We recognize that these innovations will likely take some time to catch on, as each transaction in the early years will likely be slow to develop, and new opportunities will likewise be slow to follow. However, with each transaction, we will preserve more affordable rental homes and build more momentum and market adoption so that by the time 515 properties start to mature at scale around 2028, the market has a well-functioning and well-tested execution in place to preserve a meaningful share of rental homes for tenants in need.~~

OBJECTIVE C: RESEARCH AND DEVELOP A NEW OFFERING TO SUPPORT THE USDA SECTION 538 PROGRAM

Evaluation Area	Year	Incomes Targeted	Extra Credit

Loan Product	2 ~~and 3~~	VLI, LI, MI	Not applicable

Freddie Mac recognizes that there is a large need to serve small properties in rural areas, which are often associated with USDA subsidies. Outside of the 515 program, the 538 program is the next most prevalent single source of financing for small, five-to-50-unit rural properties. This program has grown in scope and budget in recent years, and has been well adopted. Based on our preliminary discussions with rural mortgage lenders and borrowers, there is some market interest in Freddie Mac purchasing 538 guaranteed loans, whether or not these loans also support 515 properties.

The 538 program has unique parameters that may or may not be compatible with Freddie Mac's infrastructure and risk-distribution network. Moreover, there are nuances to the use of this program that need to be better understood before we can develop a product that will provide additive benefit to the market.

In Year 2 of our Plan, we intend to conduct a research effort to better understand the market for small rural multifamily properties, the role of the 538 program in supporting them, the geographic distribution of 538 loans relative to the need for financing, and the 538 program parameters that might influence where and how this program is used. While we intend to use this research to aid in our product development efforts, we believe it is important to make this research public as well to increase awareness of the financing needs and opportunities in rural markets and attract more private capital to support rural properties and communities. Therefore, we will publish a report on our findings in 2019.

Based on our research completed and published in Year 2, we plan to act upon our findings and develop a loan offering in Year 3 to support properties with USDA 538 debt if our research reveals that there is a role for Freddie Mac. At this time, it is difficult to determine the scope and parameters of the new offering without a better understanding of the market, but the following guiding principles will apply:

1. We will seek to provide additive benefit that extends the reach or scope of the 538 program.
2. We will maintain prudent credit standards to ensure long-term stability and safety and soundness.
3. We will seek to attract private capital to rural markets by leveraging our market-leading risk-distribution methods, such as our K-Deal and PC executions.

By staying true to these principles, we anticipate that our offering will provide the market with greater access to capital to preserve long term affordability of small multifamily properties in rural areas, and enable the further growth of the 538 program.

Baseline

To date, we have had preliminary conversations with rural mortgage lenders and the USDA to understand the 538 program and determine that there is potential for Freddie Mac to have a role supporting this program. We have not performed or published formal research on the 538 program, nor do we have experience purchasing 538 guaranteed loans.

Challenges, Actions and Market Impacts

Supporting small rural properties through the 538 program poses several challenges, from the disparate geographic locations, to borrower awareness, to challenging local economies that may affect the long-term occupancy of small properties. These challenges, as well as the actions we will take to address them, are summarized below:

Market Challenge	Freddie Mac Action
Limited scope and awareness of the 538 program ▪ The 538 program serves an important segment of rural markets, and is well known within the rural financing market. However, it is not so well known in the broader market due to its specialized nature and the closely tied network of lenders and Ginnie Mae investors. This lack of awareness will make it challenging to identify Freddie Mac investors who have an interest in supporting the 538 program. **Product awareness** ▪ Borrowers are accustomed to working specifically with a few lenders to originate 538 loans, only two of which are also Freddie Mac Multifamily seller/servicers. **Lender acceptance** ▪ The level of effort to finance a small property is just as much as to finance a large property, but typical lender compensation structures do not reward them equally for their efforts. This compensation structure creates a disincentive to pursue financing for small properties. Freddie Mac sellers may not be motivated to market and originate this business due to its initial small scale and limited inventory. **Borrower and property features** ▪ The borrower set for this offering may be different than the traditional Freddie Mac borrower. ▪ Rural rental properties cannot benefit from the same economies of scale as urban or suburban properties due to the number of units. Per our analysis of 2015 American Communities Survey data, 83 percent of rural multifamily properties have fewer than 50 units.	**Year 2 – 2019** Build broader market awareness of the 538 program by publishing research in a report on our website. 1) Report will evaluate the scope and potential of the 538 program based on data from sources such as: National Housing Preservation Database, data.gov, HUD, and Census Bureau. 2) In support of our report, we will take the following actions: a. Engage with at least two experienced 538 lenders to understand their use of the program. b. Reach out to at least one investor in securities backed by loans guaranteed by the 538 program to understand their needs. c. Engage with at least one leading researcher on rural markets and the 538 program to help inform our research. 3) Report will include the following: a. Market size estimate for current properties with the section 538 guarantee b. Geographic distribution of current 538 properties and the geographic scope of the program c. An overview of the program and its use in the multifamily rural market 4) Publish a report on our website, promote it with a press release and share on social media so that research organizations, advocacy organizations, and lenders have access to the work. ~~**Year 3 – 2020**~~ ~~Develop and release loan offering to support the 538 program. Product development and roll out will include the following:~~ ~~Implement internal working group to ensure~~

	~~all resources are allocated appropriately and alignment is maintained throughout the product development process.~~ ~~Develop and/or update Freddie Mac legal documents to support the section 538 guarantee.~~ ~~Establish credit parameters as evidenced by a product term sheet.~~ ~~Publish official product term sheet on our website that defines the product and its purpose to enable borrowers and sellers to understand the new loan product. The term sheet will contain at least the following elements:~~ ~~Product overview and loan purpose~~ ~~Sponsor and/or property eligibility requirement~~ ~~Loan-to-Value Limits~~ ~~Debt coverage Limits~~ ~~Allowable lengths of loan term~~ ~~Allowable lengths of amortization~~ ~~Provide one to three training sessions via webinar or in person for Freddie Mac sellers to provide loan offering details, benefits to the borrower, and origination procedures to ensure that Sellers have the knowledge to market the product effectively. To address the seller's concerns information will be provided regarding incentives and origination efficiencies to motivate sellers to originate transactions with USDA 538 debt.~~ ~~Initiate one pilot transaction to test market acceptance – depending on when the product is released and this transaction is initiated, we may not purchase the loan during this Plan Term.~~

Market Impact

USDA's 538 program has provided meaningful benefits to the rural market, particularly for five-to-fifty unit properties, and has increased in scope since its inception. At present, the primary market for 538 loans is generally comprised of four major lenders (though several other banks have originated the other portion of these loans), and the only secondary market for 538 loans is through Ginnie Mae. This concentration could limit the overall reach of the program and its ability to help more rural renters. By developing a broader market understanding of the 538 program and the benefits it provides, we can help attract broader market attention and understanding and additional investment capital to help support the needs of rural renters. We will use the results of this research and outreach to determine whether there is a viable and beneficial role for Freddie Mac to play in this market through the development of a Freddie Mac execution to support the 538 program. Through our potential loan offering and risk distribution methods, we may be able to attract

more private capital to rural markets. Over time, as demand for 538 loans increases, there is potential for the allowable federal authorization for the 538 program to increase, which would further help to attract more private capital to support rural markets and provide safe and decent affordable housing to tenants across rural America.

OBJECTIVE D: DEVELOP A TOOL TO IDENTIFY LIHTC PROPERTIES AND SECTION 8 PROPERTIES FOR PRESERVATION AROUND THE COUNTRY (INCLUDING DTS DESIGNATIONS)

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Product	3	VLI, LI, MI	Yes- HNRR

LIHTC and Section 8 are both broadly-defined programs designed to work anywhere and to be paired with specialized programs. Indeed, they are often used together in order to maximize the application of federal subsidies to support more affordable housing units than could have been supported by the programs when used individually. Additionally, the same purposes served by many of the other individual statutory programs identified in the Duty to Serve rule are also served through LIHTC and Section 8 independent of those more specific statutory programs, as many localities include requirements in the qualified allocation plans (QAP) used to award tax credits so they can direct tax-credit properties to meet locally-identified needs. Properties in rural regions and high needs rural regions are often subsidized by federal and state programs, particularly LIHTC and Section 8.

Rural regions and high needs rural regions are often particularly challenging to finance as a result of lack of resources, investment, and education. Preservation-minded borrowers can have a difficult time financing these properties because of lack of data on rural regions and the locations of existing subsidized properties.

We intend to build upon this foundation and provide further clarity. To define the scope of the market consistently and allow market participants and our network of seller/servicers to better support this market, Freddie Mac intends to create an accessible way for owners around the country to search for LIHTC and Section 8 units in rural and high needs rural regions. A key component of this effort is the development of a tool that will clearly identify these subsidized properties and their owners in these locations and categorize and label properties so owners, developers, and all participants in our seller/servicer network can better understand precedents, opportunities, and challenges in rural high needs areas. This tool will be inclusive of all rural areas and include filters to specify if a Section 8 or LIHTC property is located in a high-needs rural region.

Baseline

Freddie Mac created our Mission Map™ to identify several different geographic areas, such as Rural Regions and High Needs Rural Regions and properties with major public subsidies located there. We intend to expand upon the impact of our Mission Map™ and create a new tool designed specifically for our seller/servicers that includes analytical features and owner data to allow our seller/servicers to more efficiently pursue rural preservation opportunities. There are currently no equivalent offerings in the market.

Challenges, Actions and Market Impacts

Market Challenge	Freddie Mac Action
Lack of accessible data on LIHTC and Section 8 properties ▪ Within both LIHTC and Section 8 properties, there are some data elements that are difficult or nearly impossible to find. It is also very difficult to duplicate this data, therefore external vendors or databases would need to be utilized. **Lack of readily accessible rural data** ▪ Current rural data is unconsolidated due, in part, to a lack of institutional investment. As a result, the locations and characteristics of these properties are not clearly documented. **Market awareness** ▪ Lenders are often unaware of LIHTC and Section 8 preservation opportunities in rural markets. This tool will eliminate that problem. ▪ Private capital investment is lacking in rural areas.	**Year 3 – 2020** 1) Create a tool designed specifically for the preservation of LIHTC and Section 8 subsidized properties in rural regions. Initiate a technology project that will ultimately deliver an interactive analytical tool to identify LIHTC and Section 8 properties in rural areas and high-needs rural census tracts for preservation purposes. The tool will include: a. Duty to Serve Areas: Rural, Middle Appalachia, Lower Mississippi Delta, Persistent Poverty County, ACP, High Opportunity Area b. Program name or subsidy type associated with the property c. Use of LIHTC subsidy (new construction, acquisition and rehab, existing) or Section 8 d. Start year and end date of the subsidy e. The subsidy status of the property f. Type of ownership of the property g. Standard property geography, including specifically marked LIHTC and Section 8 properties within micropolitan rural regions h. Fully restricted properties i. Name of property owner(s) j. Number of units and subsidized units k. Any additional programs the property is subsidized with *Note that some filters in the tool are specific to only LIHTC or Section 8 properties.

Market Impact
Through creating a service that will outline which owners have LIHTC and Section 8 properties within rural and high needs rural regions, Freddie Mac is making it easier our seller/servicers to find and finance subsidized properties in need of preservation. By creating this tool designed specifically for our seller/servicer network, we are making financing these properties easier for our lenders. This is especially important for properties in high needs rural regions and for properties that are reaching the end of their LIHTC compliance period and may be eligible for sale and conversion to market rate. This tool will also be instrumental in providing lenders with the opportunity to work with owners in order to refinance and recapitalize on properties using Freddie Mac loans offerings and other programs to preserve affordability for the long term. This new tool will be particularly helpful to owners, as it allows for reasonably resourceful lenders to approach these properties with appropriate financing.

OBJECTIVE E : ENGAGE IN LIHTC EQUITY INVESTMENT IN ALL RURAL 5-50 UNITS

Evaluation Area	Year	Incomes Targeted	Extra Credit
Investment	**4**	**VLI, LI, MI**	**Not applicable**

5-50 unit LIHTC properties are an important subset of rural multifamily LIHTC properties, serving smaller markets where the population concentration does not support larger properties.

As previously noted, LIHTCs are the most commonly used subsidy to finance affordable rental housing. While we recognize the need for LIHTC investment in high-needs rural regions and populations, we believe there is an unmet need to be fulfilled across the 5-50 rural market that is consistent with the intention of the Duty to Serve regulation. For this reason, Freddie Mac is establishing an investment target for these properties in 2021.

Baseline for 2021

In setting our baseline, we counted distinct units and properties on which we invested through our syndicator network. In the prior two years, our 5-50 LIHTC investments have been as follows:

Year	2017	2018	2019	Two-Year Avg.
Total Rural Transactions	N/A	6	6	6
Total Rural Units	N/A	250	227	239

The two-year average baseline is 6 transactions supporting 239 units across 12 properties.

2021 Target

We have set a target of 7 transactions for 2021. This is an increase over our prior two years of investment activity in 5-50 unit properties, consistent with our increasing efforts to support rural markets.

Year	2021
Total Rural 5-50 Unit Transactions	7 Transactions

Challenges

There are several challenges that will be presented when making LIHTC investments in 5-50 unit properties in rural areas:

First, there is a lack of investors in rural areas. Properties in rural areas are frequently outside of most banks' CRA assessment areas; thus, there is typically far less competition. This lack of competition leads to lower LIHTC pricing, which makes the credits less effective. There is a meaningful difference between a LIHTC deal located in a rural county like Wetzel County, West Virginia, where there is not much CRA-motivated demand for investment, and one in Charlotte, North Carolina. Based on current market information from the Community Affordable Housing Equity Corporation (CAHEC), a Raleigh, North Carolina-based LIHTC syndicator with 25 years' experience and covering the Southeast, a deal in Wetzel County is expected to receive approximately 86 cents on the dollar, while a deal in Charlotte would receive up to 95 cents on the dollar. In a hypothetical transaction with $10 million of debt and a need for $6 million of equity, this difference in tax-credit pricing equates to a $540,000 funding gap, which would require additional tax credits, soft debt, or a deferral of developer fee (with payment from cash flow) to close. This gap financing is often more expensive than LIHTC equity.

Second, there is volatility of LIHTC allocation. Many state housing finance agencies do not have a set-aside for Indian housing or agricultural workers, making them virtually uncompetitive with urban and suburban properties that better meet the requirements of the state Qualified Allocation Plans (QAPs). QAPs change annually and rural areas may not be as competitive year in and year out for the limited number of deals that receive a LIHTC allocation.

Third, 5-50 unit properties are especially difficult to build and support. With less economy of scale, transaction economics tend to be more challenging. Property management is also more challenging and often has to be shared with other properties in the general area. This combination of factors can make 5-50 unit properties less attractive to develop.

Market Impacts

By continuing to invest in LIHTC market for rural locations, Freddie Mac will provide necessary continued stability to the equity market specifically for investments that are impacted as a result of credit adjustments.

Continuing to build our syndicator network will increase access to more rural deals. Our investments will not only provide a meaningful benefit to the people living in rural markets by providing them with safe, decent and affordable housing that is so hard to come by—we continue to add to the competition in a segment of the market that often lacks investor interest. By doing so, we could potentially influence the price per credit, which could make the development of properties viable where they were not previously or allow developers to create or preserve more units than they would otherwise.

Our presence in the market is especially important now. COVID-19 impacted us on a global scale and has changed the LIHTC investment landscape. It has weakened LIHTC investment demand due to uncertainty while available supply of tax credits has seen a 4% increase for a total of $9.5B per Novogradac. If investor demand continues to weaken, unused credits will be placed into a national pool, likely leading to a concentration of credits in easier to serve markets. Further, with less competition, investor yields typically increase, leading to an equity financing gap that requires additional subordinate financing from states and localities that are already short on funds. Our continued presence in supporting 5-50 unit properties will help to mitigate this risk and help to ensure that vital 5-50 unit LIHTC properties are placed in service.

Activity 5 – Single-Family Rental in Rural Markets: Additional Activity

Based on our research of the rural market, 66 percent of rural renters live in single-family rental (SFR) homes: 49 percent in one unit homes, and 17 percent in two-to-four-unit homes. This important segment of the rural rental market is not specifically defined in the Duty to Serve regulation. However, it is a significant source of housing for rural renters. The market for SFRs lacks standardization, and this lack of standardization leads to variances in tenant opportunities and the quality of SFRs in which they reside.

Under current financing models, SFR renters are generally not served by the GSEs. We believe it is our mission to serve all renters in all areas of the market, and we are well situated to provide financing for this market due to our expertise in managing credit risk and strict property and borrower requirements. Our involvement in the SFR market will lead to greater standardization and more decent affordable housing for its tenants. Our intent is to provide liquidity, stability, and affordability to properties that provide quality affordable housing to the rural rental market. Therefore, in order to more fully support the rural market and provide the benefits of GSE financing to the majority of rural renters, Freddie Mac is including single-family rentals in rural markets as an additional activity.

While the size of the single-family rental market has increased in the years after the economic downturn of the past decade, it has consistently been a large portion of the market. Pre-recession data, from 1985-2005, show that single-family rentals have consistently made up 10-12 million units, or 30-35 percent, of the renter market share. Since 2005, this sector has been the fastest growing segment of rental occupied households, adding an additional four million single-family rental units or up 35 percent in the 10 years ending 2015, per Freddie Mac's tabulations of the American Community Survey.[71]

As the SFR market continues to mature, several distinct stratifications of market participants have emerged. The most sophisticated of these participants are large institutional investors that have entered the SFR business and have established a new institutional asset class that does not replicate the apartment industry or flip houses. However, the institutional participants make up only a small percentage of the total SFR market. Based on discussions with market participants, including lenders and borrowers, and other research, we believe it is appropriate to tier SFR owners as follows:

- Institutional participants:
    - Typically own portfolios of 1,000 or more single-family rentals
    - Estimated total population of 25 investors
    - Estimated to hold approximately 200,000 properties
    - Estimated value of market share of SFR is $30 billion (1 to 2 percent of total market)
- Middle-tier participants:
    - Typically own portfolios of 11 to 1,000 single-family rentals
    - Estimated total population of 77,000 investors
    - Estimated to hold approximately 1.8 million SFR properties
    - Estimated value of market share is $300 billion (10 percent of total market)

- Smaller participants:
    - Typically own portfolios of one to 10 single-family rentals
    - Estimated total population of approximately eight million investors
    - Estimated to hold approximately 13 million SFR properties
    - Estimated value of market share is $2.5 trillion (85 to 90 percent of total market)

With respect to SFRs generally, we see the opportunity to provide standardization and liquidity to the market, and promote better quality standards and affordable housing opportunities for residents, particularly with sponsors who have between 50 and 2,000 properties and five years or more experience. We intend to do this in such a way that we can promote affordability relative to the broader market in which homes are located, as well as improve available rental options. While rural SFRs will be part of a diversified and national SFR business model, in order for a transaction to receive Duty to Serve credit, we will require that (1) a certain share of the units (described below) in a SFR transaction will be located in rural markets and affordable at 100 percent of AMI or below.

Our product development and lending activities will provide longer-term financing than is typically available, which will reduce costs to borrowers and promote greater stability via less-frequent refinancing. We will also place a high priority on establishing industry-leading standards and best practices and imposing those standards on our borrowers, sellers/servicers, and applicable properties. Those standards will be designed to ensure the preservation of the quality of the housing and the neighborhoods in which they are located and underscore our commitment to the highest standard of care in the promotion of safe, decent, high-quality housing. We will focus on property age and condition, borrower experience with SFR, borrower financial stability and covenants, capital reserves and other transaction specific features to ensure long-term stability and quality.

Additionally, Freddie Mac will make commitments to neighborhood stability by seeking to maintain the residential character of the homes and seeking to support, not disrupt, existing communities. If Freddie Mac were to become a key liquidity provider in the SFR market segment, more owners would strive to meet the standards we established. Just as “agency quality” has come to mean decent, well-managed conventional multifamily housing, we would lift the quality of SFR as well.

In years 1 through 3 of our Plan, we intend to explore how to serve rural areas through this activity, through outreach and product development, culminating in loan purchases.

The benefit to tenants is clear: better quality housing, more stable rents, and more affordable rental options across rural America.

OBJECTIVE A: RESEARCH RURAL SFR MARKET CHARACTERISTICS AND OPPORTUNITIES

Evaluation Area	Year	Incomes Targeted	Extra Credit
Outreach	**1**	**VLI, LI, MI**	**Not applicable**

While there is emerging research on the overall SFR market, there is much less work done on SFRs in rural areas. This lack of research makes it harder for us, or other financing providers, to support this market and attract private capital. Therefore, in Year 1 of our Plan, we intend to perform market research and outreach to better understand the nature of, and opportunity for, SFRs in rural areas, including high-needs rural regions. We will publish a report of our market analysis in 2018. Given that we are likely to do market research on the entire SFR market, the report on rural may be a subset of a broader market study. We will also leverage this research and report in our product development efforts.

Baseline

While Freddie Mac has performed research on the SFR market for the purposes of this Plan and for discussion with FHFA, this research has not had a focus on rural markets, the opportunities and challenges presented there, and the particular ways in which we can best support these markets. This study will likely be the first of its kind published for public use, and will provide an important foundation for product development and lending activites.

Challenges, Actions and Market Impacts

Market Challenge	Freddie Mac Action
▪ Market is in a stage of fragmentation and emerging standardization ▪ Large variations in financing, operating performance, and servicing standards ▪ Difficulty in developing new offerings to support this market ▪ The rural SFR market is not well understood, and there is no major capital distribution framework servicing it today ▪ Data sources on SFRs are limited. Throughout the course of our research there have been instances where data was temporarily unavailable or where combining sources proved to be more difficult than originally anticipated. Our SFR research will rely heavily on data, and completing the objective within a narrow timeframe will be very difficult if data issues are encountered. **Resource Challenge** ▪ Throughout the Duty to Serve Plan, we are taking on a considerable number of research efforts, all of which require extensive planning, as well as collaboration with key stakeholders, and analysis.	**Year 1 – 2018** 1) Identify and aggregate data on the SFR and rural markets from the Census Bureau and other sources we identify in our research. 2) Engage with at least three operators, three property managers, and three lenders to better understand their interest and activity in rural markets as well as credit standards they apply or operate under. 3) Engage with at least one leading researcher on rural markets or SFRs to better inform our approach and analysis. 4) Publish report on SFR market including a rural focus. The report will likely include the following, though these factors may change as we engage in our research: a. Analysis of market size and opportunities b. Analysis of property types c. Analysis of geographic concentrations d. Analysis of existing credit standards used by lenders in the market today

The design and research of all of these objectives will have many unique components, and will leverage the expertise and skills of our internal research organization, whose focus extends beyond the scope of the Duty to Serve Plan.	5) Publish the report on our website and promote it with a press release.
Market Impact	
In rural areas, multifamily properties are not necessarily the preferred rental option, as populations tend to be deconcentrated, and the housing stock leans heavily towards single-family homes. SFRs are an important source of rental housing, but the market is still in a stage of fragmentation and emerging standardization. In the mid-tier market across the country, there are approximately 77,000 different investors who have portfolios of more than 10 SFRS, for a total of 1.8 million properties. In rural markets, that is considerably smaller, though the share is not yet known. The lack of foundational understanding of this market, and the lack of clear financing options for these properties makes it difficult for investors and renters alike to sustain this market. By performing and publishing our foundational research, we will provide clarity of understanding necessary to attract private capital at scale, lend to support SFRs, and distribute risk away from taxpayers. This research will also be fundamental to our product development efforts, especially for rural areas, and will enable us to better set standards for this market that will benefit tenants over time.	

OBJECTIVE B: DEVELOP OFFERING FOR SFR TRANSACTIONS CONTAINING HOMES IN RURAL AREAS

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Product	**1 ~~and 2~~**	**VLI, LI, MI**	**Not applicable**

In Year 1 of our Plan we intend to develop offering terms for SFR transactions that include, but are not limited to, homes in rural areas, and in Year 2 we will look to execute a sample transaction that includes rural homes. In order to support rural SFRs in a safe and sound manner, it will be important to avoid concentration risk. Therefore, we will look for transactions to have geographic diversity, including beyond rural areas, which will also enable stronger standardization across this asset class, and consequently, enable better terms for rural borrowers and choices and conditions for rural renters. In order for an SFR transaction to receive Duty to Serve credit, however, we will set a minimum concentration of rural units in that transaction. To determine that threshold, we looked at the overall concentration of SFRs in rural markets, then adjusted based on several factors with a goal of being able to support more transactions, and therefore more rural properties over time.

From our tabulations of 2015 American Community Survey data, we understand that 21 percent of all one-to-four-unit SFRs are located in rural markets. Not all of these are likely to be financeable by Freddie Mac, however, for various reasons, such as the quality of individual homes, size and experience of the sponsor, and proximity to other homes. We suspect that many of these are owned by borrowers who do not have a sufficient portfolio size or experience to meet our lending criteria. Also, we suspect that there are very few borrowers or lenders who have a sizable concentration of rural-only or majority-rural portfolios.

Given this, we believe for Duty to Serve credit, it is appropriate to require that the lesser of 50 units or 10 percent of the units in a transaction be located in a Duty to Serve-designated rural area and be affordable at 100 percent of AMI or below as a starting point in our product development efforts. If, in our product development and market

research efforts, we find that these parameters need to be adjusted, either upward or downward, in order to better support the rural market, we will update them as necessary.

In developing this offering, we will work with lenders experienced in SFRs, as well as with sponsors who have 50 to 2,000 units of SFRs under management and at least a five-year history of operations. This history of operations is important in assessing the quality of the borrower and their experience both operating a sound business and servicing tenants. In cases where we are working with banks and smaller institutions, our offering will have substantial benefit, as we will enable these institutions to recycle capital for more lending. Today these institutions tend to hold their loans on their balance sheets, which limits new loan production and restricts liquidity. As a secondary participant, Freddie Mac can purchase these loans and create needed liquidity. With our involvement, these institutions will be able to make more loans and support more people and communities.

In Year 2 of our Plan, we will seek to engage in at least one SFR transaction with sufficient units in rural areas. This transaction will allow us to test and refine the offering parameters we develop in 2018, as well as provide valuable information to us and the market about these transactions.

Also in Year 2, with the goal of improving market standardization and sharing best practices, Freddie Mac will collect, analyze and disseminate data relative to the SFR business model for all markets, including a rural market breakout. For the SFR sector, this includes collecting, compiling, and publishing data and research to allow for a better understanding of the sector and its risks in order to facilitate increased investment. We anticipate collecting and evaluating information related to operating expenses, capital expenditures and appropriate replacement reserve levels, occupancy rates by market compared to standard multifamily, rental per square foot, best practices regarding insurance, asset inspections and legal documentation and financing structures. To the extent possible, we will also capture available data related to the impacts of SFR activities on homeownership within various market segments, including homeownership rates, preserving affordability and neighborhood stabilization. Ultimately, Freddie Mac will establish quantitative and qualitative criteria for the deals that we will support and promote those criteria to encourage investors to use them. These criteria will yield high-quality loans with Freddie Mac's investment-quality standards.

By performing this research at the same time as our sample transaction, we will have the ability to contemporaneously learn from analytical work and transaction experience.

Baseline

Freddie Mac does not currently offer a SFR product today. In 2017, we have been developing relationships within the SFR industry as part of expanding our understanding of the SFR market. To date, staff have attended the largest single-family rental conference and have held meetings with owners/operators, valuation and home inspection vendors, securitization agencies, and other industry groups. As a result, Freddie Mac has been able to inspect SFR homes in markets across the country, learn acquisition and exit strategies, explore valuation options and better understand the investment perspective of Middle-Market owners and the SFR securitization market. These relationships have allowed Freddie Mac to better understand the need for long-term financing priced effectively for sponsors with 50 to 2,000 properties.

Challenges, Actions and Market Impacts

Underwriting Challenge	Freddie Mac Action
▪ The SFR market has a unique set of underwriting requirements that are difficult to line up with multifamily approaches and systems. ▪ The property management capabilities of each	**Year 1 – 2018** Meet with at least three operators, three property managers, and three lenders to determine best practices for underwriting, property management, and financing parameters.

SFR sponsor can vary considerably, and need close attention on a case-by-case basis.	1) Attend at least two SFR conferences for education. 2) Establish underwriting parameters as evidenced by a term sheet for a SFR loan product that will contain at least the following elements: a. SFR collateral type b. Loan term c. DCR and LTV loan sizing criteria d. Amortization e. Minimum loan size f. Property release and substitution requirements g. Minimum number or percentage of units in rural areas to receive Duty to Serve credit 3) Establish legal infrastructure to support these transactions in a safe and sound manner.
Market Challenge	**Freddie Mac Action**
▪ There are many factors that place constraints on the market for SFRs: ▪ Current market lenders do not support properties with an appraised value of $50,000 or less. ▪ Current lenders do not have a viable and scalable secondary market. ▪ Limited understanding of the size and scope of SFRs in rural areas. ▪ There is not a cost-effective inspection and evaluation process given disparate locations. ▪ Appraisals can be challenging in areas where there are limited comparable properties. ▪ There is not a cost-effective legal, title, and insurance review process, given the disparate locations of properties and number of properties included in transactions. ▪ There is currently not an industry standard for risk distribution or connection to the capital markets except in select cases with large institutional investors.	**Year 1 – 2018** 1) Publish a term sheet on our website for a SFR loan product that will contain at least the following elements: a. SFR collateral type b. Loan term c. DCR and LTV loan-sizing criteria d. Amortization e. Minimum loan size 2) Directly engage with at least three lenders to promote this product. 3) This pilot will be available nationally, and will be required to include a portion of the units in rural markets, as described above.
Resource Challenge	**Freddie Mac Action**
▪ SFRs require a dedicated team of producers and underwriters, risk distribution, and servicing	**Year 1 – 2018** 1) Assemble a team of production, underwriting,

professionals with expertise in this market.	capital markets, and servicing professionals with expertise in the SFR market to ensure that our offering and operations are well considered and can be well executed. 2) Provide one to three training sessions covering product process and parameters, including underwriting and servicing responsibilities to internal staff via webinar or in person training sessions as appropriate for the audience. 3) Provide one to three training sessions covering product process and parameters, including underwriting and servicing responsibilities to seller/servicers via webinar or in person training sessions as appropriate for the audience.

Market Impact

Single-family rental housing is a large fragmented market in need of standardization. To ensure safe, decent, and affordable housing choices for renters across the country, and particularly in rural areas, this market needs liquidity and strong credit standards, the combined effect of which will lead to greater choice for renters and safer, better housing options.

Establishing a new loan product, legal infrastructure, and risk distribution framework will take a great deal of internal effort and deep commitment. To develop this offering, the following must occur: establish underwriting requirements in an unfamiliar market; establish legal, inspection, servicing, and risk distribution standards; create a specialized production, underwriting, and legal team; create a product term sheet, and continue outreach to SFR market participants. This product will be built from the ground up and will be a first of its kind.

This effort will establish an entirely new secondary market for SFRs in rural areas and beyond, providing substantial benefit to renters and communities alike, and promoting necessary underwriting and quality standards across the industry, which will broaden renter choices among safe, decent, and affordable housing options. This product will also allow us to leverage private capital to provide long-term liquidity and stability, while distributing risk away from the taxpayer.

Activity 6 – LIHTC Investment in All Rural Areas: Additional Activity

OBJECTIVE A: ENGAGE IN LIHTC EQUITY INVESTMENT IN ALL RURAL AREAS

Evaluation Area	Year	Incomes Targeted	Extra Credit
Investment	**1, 2, ~~and~~ 3 and 4**	**VLI, LI, MI**	**Not applicable**

LIHTCs are the most commonly used subsidy to finance affordable rental housing. While we recognize the need for LIHTC investment in high-needs rural regions and populations, we believe there is an unmet need to be fulfilled across the rural market that is consistent with the intention of the Duty to Serve regulation.

Fundamentally, properties that are not in CRA footprints receive less competition for tax credits, and therefore receive lower tax-credit pricing. Based on current market information from the Community Affordable Housing Equity Corporation (CAHEC), a deal based in Charlotte, North Carolina, would receive up to 95 cents on the dollar; while a deal based in Wetzel County, West Virginia, would only receive approximately 86 cents on the dollar. In a hypothetical transaction with $100 million of debt and a need of $6 million of equity, this difference in tax credit pricing equates to a $540,000 funding gap. In order to fill this gap, it would require additional tax credits, soft debt, or a deferral of developer fee.

Essentially, this lower price per credit makes it harder to create or preserve affordable rural housing and exacerbates housing affordability. Therefore, by focusing some of our investment capital in these areas, Freddie Mac will introduce more competition into the rural marketplace, which will improve LIHTC pricing. The higher the LIHTC pricing, the lower the need for a portion of the rent to pay for debt service; thus, increased LIHTC equity pricing makes properties more affordable.

Freddie Mac intends to make LIHTC equity investments in order to help meet the affordable rental housing needs of low-income families in all rural areas. Investing in LIHTC equity will bring many positive changes to the market including but not limited to the following:

- Stability by making long term and consistent investments regardless of market volatility.
- Liquidity particularly for investments that positively impact low-income renters in rural markets, as well as preservation deals and for any other investment type that may not receive consistent investment interest year after year.
- Affordability for investments that may not be as attractive to the largest investors such as preservation deals, Section 8 deals, and bond deals with high losses-to-LIHTC ratios.

While the high-needs rural regions need special and deliberate attention, affordable housing across all of rural America is hard to develop and preserve. Whether geographic areas are defined as high-needs, there are properties across the country that function specifically as a result of LIHTC equity. We believe it is our mission to support the needs of low- and moderate-income families across rural America. LIHTC equity is a key method of funding this mission.

We recognize in creating this LIHTC Equity Investment offering that the fundamentals described and established here are applicable across all LIHTC Equity Investments, with some specific terms tailored to the needs of these populations It will be important to make LIHTC investments that have sufficient geographic diversity to control for concentration risk, invest at a large enough scale to operate a viable and sustainable business that allows us to continually serve these markets, and do so in a safe and sound manner. We will be mindful to make these investments in markets and cases where there is not sufficient CRA-motivated investment already. Indeed, our role will be to support those parts of the market that are underserved by CRA-motived investment.

Freddie Mac will achieve this through a variety of actions that will allow for safe and sound investment. Building a LIHTC equity investment team will help to formalize the Freddie Mac infrastructure and ensure that each investment is well structured and underwritten. Engaging outside counsel will also allow Freddie Mac to establish a legal infrastructure leveraging the expertise of lawyers that are experienced in drafting partnership agreements.

For making investments, our strategy will be as follows

- Attend at least one conference focused on affordable rental rural housing to learn more about challenges and opportunities specific to this product type.
- Meet with at least two LIHTC developers to better understand their challenges and opportunities in this product type.
- Engage with at least three LIHTC syndicators and sign an investment agreement with at least one syndicator through which Freddie Mac will identify LIHTC investments in rural areas.

Baseline for 2018-2020

We have not made any LIHTC investments in the last 10 years, so our baseline of investments is 0.

Baseline for 2021

The baseline is the average of transactions from 2018 and 2019, averaging 12 transactions and 772 units.

Year	2017	2018	2019	Two-Year Avg.
Total Rural Transactions	N/A	10	13	12
Total Rural Units	N/A	791	752	772

2018-2020 Targets

The following targets are inclusive of transactions that will be completed in high -needs rural regions and for high-needs rural populations as described elsewhere in the Plan.

Year	2018	2019	2020
Total Rural Transactions	6	9	12

2021 Targets

We have built out our syndicator network and they have increased their focus on rural deals that will meet the Freddie Mac guidelines which is demonstrated by our increase in rural volume. As such, we are setting our target to 15 properties, representing a 25% increase from the average of the last two years. This target is especially significant because it is a substantially higher share of our LIHTC business devoted to rural areas compared to the industry overall.

Based on the total LIHTC properties placed in service since 2010, rural properties make up 15% (106,782 properties out of 699,744). We estimate 15 transactions will represent 35-40% of our total investment in terms of properties, which is higher than the national average.

Year	2021
Total All Rural Transactions	15 Transactions

Challenges

There are several challenges that will be presented when making LIHTC investments in rural markets.

The primary *market challenges* are seen in a lack of investment and volatility of LIHTC allocation.

In the LIHTC market generally, there have also been significant disruptions in the price of credits.

As 2017 has progressed, we saw more and more examples of large scale LIHTC market disruption, two of which particularly highlight the impact:

1. On March 15, 2017, the California Tax Credit Allocation Committee (TCAC) passed a resolution allowing developers to exchange their 2016 nine percent LIHTC allocation for 2017 LIHTCs. Given delays in finding equity investors, developers found it impossible to close in time to complete construction by the end of 2018 (LIHTC deals must be “placed in service”- meaning 100 percent construction completion and receipt of the certificate of occupancy- by the end of the second year after receiving a LIHTC allocation).

2. In the Midwest, the Ohio Housing Finance Agency (OHFA) had to increase the allocation of LIHTC to deals awarded in 2016 because developers were not getting sufficient equity pricing to allow the deals to be economically feasible. Unfortunately, the additional credits had to come from the 2017 allocation, thus reducing the 2017 pool by approximately 12 percent.

Both examples illustrate how, without increased stability, fewer LIHTC assisted units are likely to be built, ultimately hurting low- income families across the country.

Properties in the rural regions have an additional challenge, as they are frequently not in CRA areas that typically attract multiple bids from financial institutions. Lack of investor interest lowers LIHTC pricing, which makes the credits less effective. Additionally, state Qualified Allocation Plans (QAPs) change annually and rural areas may not be as competitive year in and year out for the limited number of deals that receive a LIHTC allocation.

There is a meaningful difference between a LIHTC deal located in a rural county like Wetzel County, West Virginia, where there is not much CRA-motivated demand for investment and one in Charlotte, North Carolina. Based on current market information from the Community Affordable Housing Equity Corporation (CAHEC), a Raleigh, NC-based LIHTC syndicator with 25 years' experience and covering the Southeast, a deal in Wetzel

County is expected to receive approximately 86 cents on the dollar while a deal in Charlotte would receive up to 95 cents on the dollar. In a hypothetical transaction with $10MM of debt and a need for $6MM of equity, this difference in tax credit pricing equates to a $540,000 funding gap, which would require additional tax credits, soft debt, or a deferral of developer fee (with payment from cash flow) to close. This gap financing is often more expensive than LIHTC equity.

There are also several underwriting challenges. Transactions in rural areas often require additional review and analysis. Deals in these areas are frequently in smaller markets, often with marketing and lease-up challenges compared to more urban/suburban properties.

Lastly, resource challenges will hinder our ability to make investments, at least in the early years. The first challenge is our need to develop expertise in these markets. Freddie Mac has not originated new LIHTC investments in close to 10 years. Therefore, we will develop expertise in-house or hire new talent to support this offering. Additionally, we will need to develop partnership agreements at both syndicator and individual deal levels. Freddie Mac has not entered a new partnership with a syndicator in close to 10 years and needs to hire expertise to understand the market for LIHTC investors.

Our presence in the market is especially important now. COVID-19 impacted us on a global scale and has changed the LIHTC investment landscape. It has weakened LIHTC investment demand due to uncertainty while available supply of tax credits has seen a 4% increase for a total of $9.5B per Novogradac. If investor demand continues to weaken, unused credits will be placed into a national pool, likely leading to a concentration of credits in easier to serve markets. Further, with less competition, investor yields typically increase, leading to an equity financing gap that requires additional subordinate financing from states and localities that are already short on funds.

Market Impacts

By initiating investments in the LIHTC market for rural locations, Freddie Mac will provide stability to the equity market specifically for investments that are directly impacted by the lack of investment due to investors' tax reform concerns and lack of CRA credit. This is as true for LIHTC properties in rural areas as it is for those in the even harder to serve high-needs rural regions and populations due to the volatility in allocation and lack of investors.

Building a LIHTC equity investment team will help to formalize the Freddie Mac infrastructure and ensure that each investment is well structured and underwritten. Engaging outside counsel also allows us to create a legal infrastructure leveraging the expertise of a lawyer that is experienced in drafting partnership agreements.

Our initial investments will not only provide a meaningful benefit to the people living in rural markets by providing them with safe, decent and affordable housing that is so hard to come by—we will also introduce competition into a segment of the market that lacks it, and often lacks investor interest at all. By doing so, we could potentially increase the price per credit, which could make the development of properties viable where they were not previously, or allow developers to create or preserve more units than they would otherwise.

These investments will also set an important precedent as we build out our market presence and lay the foundation for future investment by us and others.

Affordable Housing Preservation

Disclaimer: Implementation of the activities and objectives in Freddie Mac's Duty to Serve Underserved Markets Plan may be subject to change based on factors including FHFA review for compliance with the Charter Act, specific FHFA approval requirements and safety and soundness standards, and market or economic conditions, as applicable.

Strategic Priorities Statement

Freddie Mac is the nation's leading provider of financing for affordable rental housing. In 2016, we financed more than $6.3 billion in loans on multifamily properties with regulatory agreements or other features that preserve long term affordability, and we introduced several new offerings to provide greater liquidity in the affordable rental housing market. Freddie Mac also plays a critical role in financing affordable homeownership for America's families. In 2016, we financed $22.5 billion and $26.3 billion in single-family purchase and refinance loans, respectively, to low-income borrowers. Through our enhanced mortgage offerings, continued policy adjustments to keep up with evolving market needs and sustainable underwriting flexibilities, we have expanded access to credit for a significant number of borrowers.

Multifamily

We will look to support both subsidized and unsubsidized affordable housing and promote Residential Economic Diversity through the following strategic priorities:

1. Continue to provide stability through loan purchases on properties receiving federal subsidies, such as LIHTCs, Section 8 or the U.S. Department of Housing and Urban Development's Rental Assistance Demonstration (RAD),
2. Innovate new offerings to reduce financing costs and close capital gaps to at least partially offset the reduction in LIHTC equity and federal and local subsidy necessary for long-term affordable properties,
3. Provide liquidity to small financial institutions, which are a key source of financing for smaller, unsubsidized affordable housing properties,
4. Continue to promote energy and water efficiency to reduce tenant utility bills and promote affordability,
5. Identify ways to support USDA Section 515 program to preserve long-term affordability for rural renters, and
6. Conduct and publish research on Residential Economic Diversity (RED), create ~~a~~ mapping and analytical tools to enable deeper understanding of RED, and purchase loans on properties that support RED in high-opportunity areas.

Single-Family

We will leverage our experience and existing capabilities in designing activities to support energy efficiency and shared equity. Based on the input we have received from a wide range of industry participants, setting industry standards for these market segments is a key component for long-term growth. As such, our activities are grounded in the following strategic priorities:

1. Achieve long-term sustainable growth by standardizing market infrastructure and financing,
2. Provide the market with data and underwriting guidance that can be leveraged across market participants,
3. Enhance consumer awareness about financing options and lender awareness about Freddie Mac product flexibilities,
4. Minimize operational complexity and incorporate automation, where feasible,
5. Leverage pilots to test new product features and underwriting flexibilities, and
6. Inform product design through loan purchases.
7. ~~6.~~ Promote the preservation and rehabilitation of affordable housing units in Opportunity Zones in targeted areas.

Despite these successes, discussions with borrowers and other market participants, as well as our experience and observations, suggest that there will be headwinds in the near future, from rising interest rates to reduced Low-Income Housing Tax Credit (LIHTC) equity pricing. These upcoming challenges make our support even more important to this market. We see opportunities to continue our support and expand our capabilities for affordable housing preservation for both multifamily and single-family markets.

Market Context

Overview

By many accounts, the single-family and multifamily housing markets have been recovering over the past several years. The rental market has grown consistently, reaching record levels. Single-family home prices have stabilized since the precipitous decline that affected many homeowners in the last decade. Home prices in many of the most affected areas are back to pre-2008 levels and, in several high-cost areas, have increased to new highs. Though the improvement of home prices has helped the market recover, it also has introduced affordability challenges by pricing out potential eligible borrowers.

With the turnaround and growth in the single-family and multifamily markets, other factors have exacerbated affordability challenges. Although the unemployment rate has improved, incomes have not risen at the same rate as the cost of housing. This is especially true for low- and moderate- income households, many of which have not fully recovered from the crisis and are still dealing with high levels of debt and credit blemishes or hardships caused by the financial crisis.

Rent affordability is an issue affecting a growing number of households, and the new supply of affordable rental housing has not kept pace with the demand for units. According to the Joint Center for Housing Studies at Harvard University, 27 percent of all renters are severely "rent burdened," which means they are spending more than half of their incomes on rent. This compares to 20 percent of renters in 2000, and only 12 percent of renters in 1960.[72]

According to research from the National Housing Trust, "for every new affordable apartment created, two are lost due to deterioration, abandonment or conversion to more expensive housing."[73] Nationally, there are still only 7.3 million affordable rental units to serve 11.2 million households living on very low incomes.[74]

Affordable rental housing shortages disproportionately affect the lowest-income earners when looking at all households with incomes of less than the area median income (AMI). According to the National Low Income Housing Coalition (NLIHC), only 55 affordable units exist for every 100 households making up to 50 percent AMI, while 35 affordable units exist for every 100 households making up to 30 percent of AMI. The problem is even worse for people making up to 15 percent of AMI, where only 17 affordable units exist for every 100 households. The gap between demand and availability of project-based Section 8 housing has been exacerbated by the shrinking housing supply; in the past 10 years, more than 46,000 units have been lost to demolition or expired Section 8 contracts.[75]

Homeownership affordability is also an issue of growing concern. While there are programs available to address this issue, such as inclusionary zoning, as well as inclusionary housing offered by CDFIs, housing finance agencies or community land trust organizations, these programs have not been enough to close the homeownership gap due to limited funding, low secondary market participation and lack of standardization.

This affordability crisis is more pronounced in high-cost cities and in highly underserved populations or geographic areas.

Recent housing studies and market data show that housing cost burden — defined as housing costs that are higher than 30 percent of a family's income — is among the most significant barriers to homeownership.[76] HUD estimates that 12 million households pay more than 50 percent of their annual income for housing. Housing cost burden presents significant barriers to homeownership, including saving for the down payment and paying down other debt obligations or, for homeowners, building a financial safety net through savings.

Even though house prices are going up and the number of households suffering from housing cost burden has been on the rise, the demand for housing and the appeal of homeownership remains strong. The Redfin Housing Demand Index increased 15.1 percent to a seasonally-adjusted level of 124 in December 2016, the highest level recorded since Redfin started measuring demand in January 2013.[77]

Affordable housing stock, especially for first-time homebuyers, remains limited. In its latest “State of the Nation’s Housing” report, the Joint Center for Housing Studies reported that, “according to Zillow, inventories of metro area homes in both the bottom- and middle-value tiers shrank by more than 38 percent in 2010–2015, while those in the top tier fell by 31 percent. In 2014–2015 alone, bottom- and middle-tier inventories were each down nine percent, while top-tier inventories declined by three percent. As a result, less than 20 percent of existing homes for sale in some of the nation’s largest metros—including Dallas, Denver, Nashville, Phoenix, and Raleigh—were in the most affordable value tier for their areas.”[78]

Current Freddie Mac Support for Affordable Housing Preservation

Freddie Mac has long been active in affordable housing preservation, which the company views as fundamental to our mission, and we consistently have increased our support over the past several years.

For the multifamily market, Freddie Mac offers a broad suite of products that support subsidized and unsubsidized affordable housing in a manner that is consistent with and sometimes beyond the scope of Duty to Serve. Historically, nearly 85 to 90 percent of the rental units we finance overall are affordable to households making very low, low and moderate incomes in markets across the country. We are the market leader in multifamily financing overall in Targeted Affordable Housing (TAH) and in specific programs, such as RAD. Over the past decade we have invested heavily in the TAH platform, our product set, and our risk distribution methods. Even recently, we have doubled the size of our TAH platform and purchased a record number of loans in 2015 and 2016, supporting numerous federal and local programs. We have demonstrated further leadership in multifamily energy efficiency. We launched our Green Advantage suite of products in August 2016 and, have since purchased over $15 billion of loans supporting energy and water efficiency improvements across approximately 150,000 units through the 3rd quarter of 2017. We also have focused our attention since 2015 on providing liquidity to small financial institutions, testing methods to enable such institutions to increase their lending capacity.

In the single-family market, Freddie Mac currently has a range of products that are consistent with affordable housing preservation. Freddie Mac believes that reducing home utility costs places families in a better financial situation, and we are committed to supporting the energy efficiency market with the objective of helping to preserve affordability. Although not well-known among lenders, Freddie Mac currently provides flexibilities to support the financing of energy efficiency improvements through its existing products.[79] Freddie Mac also purchases mortgages secured by properties with resale restrictions. And, in June 2016, Freddie Mac updated its requirements to purchase mortgages secured by properties with income-based resale restrictions that survive foreclosure.[80] The updated requirements also provided additional flexibility as it relates to collateral valuation to help address existing market needs. In addition, Freddie Mac purchases mortgages originated under shared appreciation loan programs if specific requirements are met pursuant to the Single-Family Seller/Servicer Guide (Guide). Freddie Mac also has been working with select lenders to test features associated with inclusionary housing programs that offer flexibility, and we intend to use these results to inform future product design.

Under Duty to Serve, we look to leverage our infrastructure, resources and experience to provide further support for affordable housing preservation as we help address the affordable housing gap and cost burdens faced by so many renters and homeowners.

Challenges and Needs

Affordable Rental Housing Preservation

Affordable rental housing is difficult to build and operate based on rental income alone. Construction costs, land costs, and interest rates, as well as ongoing operations and maintenance drive the need for certain levels of regular rental income, which frequently cannot be supported by rents that would be affordable to very low- and low-income renters without some form of subsidy. This is especially true for tenants with very low- and extremely low-income, where unsubsidized rents affordable to those making 30 percent of AMI, for example, cannot support the operation of a safe and decent property. Therefore, new supply and long-term preservation are often dependent upon federal and/or local subsidies to keep rents at levels affordable to very low-income renters, particularly in high-opportunity areas.

In evaluating challenges to preserving affordable rental housing, it is useful to look at two broad categories:

1. Subsidized affordable housing: housing that is created or preserved as affordable through federal and/or local programs and regulatory agreements
2. Unsubsidized affordable housing: housing in which market conditions, design decisions, age of property and voluntary agreements or property management decisions lead to affordable rents

Generally speaking, the subsidized affordable housing market is overwhelmingly tied to two federal programs: LIHTC and Section 8. This is a function of both federal budget allocation and program definition. LIHTC and Section 8 are both broadly-defined programs designed to work anywhere and to be paired with specialized programs. Indeed, they are often used together in order to maximize the application of federal subsidies to support more affordable housing units than could have been supported by the programs when used individually. Additionally, the same purposes served by many of the other individual statutory programs identified in the Duty to Serve rule are also served through LIHTC and Section 8 independent of those more specific statutory programs, as many localities include requirements in the qualified allocation plans (QAP) used to award tax credits so they can direct tax-credit properties to meet locally-identified needs.

Despite the success of federal programs such as LIHTC, Section 8 and RAD, these programs have not kept pace with the growing need for affordable housing. In the near future, it appears that it will become more difficult to close this gap, particularly through federal and local subsidy programs, as the combination of the following factors has had a material impact on the viability of properties affiliated with the major federal housing programs:

1. Reduced LIHTC equity pricing has led to a smaller market.
2. Rising interest rates have increased the need for LIHTC equity and soft subordinate debt.

In 2017, tax-credit pricing has reduced from historic highs of about $1.03 per credit in mid-2016 to $0.95 in mid-2017, according to Affordable Housing Finance's survey of syndicators.[81] In a hypothetical transaction with $10 million of debt and a need for $6 million of equity, this reduction in tax credit pricing equates to a $480,000 funding gap, which would require additional tax credits or soft debt to close.

Increased interest rates have a direct effect on how much debt a property can support, and therefore how much LIHTC equity or soft debt is required. In 2016, interest rates were at historic lows. For example, per Freddie Mac analysis of historical treasury index rates, over the course of 2016, the 10-year Treasury index had an average high for the year of 187 bps and an average low of 180 bps. In 2017 through July, the 10-year Treasury index had an average high for the year of 237 bps and an average low of 232 bps. Using a 50 bps difference in rate we can see the effect on a hypothetical property: if a property qualified for a loan amount of $10 million, a 50bps increase in the 10-year Treasury would mean that property would only qualify for about $9.44 million at the higher interest rate. This means that property would require an additional $560,000 of equity or soft debt in order to receive financing. This gap would be in addition to the gap caused by reduced LIHTC pricing. The combined effect of higher interest rates and lower equity pricing would be a gap of over $1 million in funds to fill.

Where the gap in funds is growing, states have been required to focus their support on fewer transactions in order to help them succeed, which reduces the resources available for other properties. Indeed, as 2017 has progressed, we have seen more and more examples of large scale LIHTC market disruption, two of which highlight the impact:

- On March 15, 2017, the California Tax Credit Allocation Committee (TCAC) passed a resolution allowing developers to exchange their 2016 9 percent LIHTC allocation for 2017 LIHTCs. Given delays in finding equity investors, developers found it impossible to close in time to complete construction by the end of 2018 (LIHTC deals must be "placed in service"- meaning 100 percent construction completion and receipt of the certificate of occupancy- by the end of the second year after receiving a LIHTC allocation).
- In the Midwest, the Ohio Housing Finance Agency (OHFA) had to increase the allocation of LIHTC to deals awarded in 2016 because developers were not getting sufficient equity pricing to allow the deals to be economically feasible. Unfortunately, the additional credits had to come from the 2017 allocation, thus reducing the 2017 pool by approximately 12 percent.

As a result of this disruption, in the first half of 2017, Affordable Housing Finance found that there were 16 percent fewer new acquisitions compared to the first half of 2016.[82] We expect the market to remain smaller for some time unless interest rates experience a sustained reduction and either tax code changes or revisions to the LIHTC program are made, either of which could further affect the market.

Given these challenges, our activities to support affordable housing preservation through federal and local subsidy programs take on a more profound urgency, and the importance of the unsubsidized affordable rental housing market grows.

The unsubsidized affordable rental housing market, commonly known as naturally occurring affordable housing and workforce housing, is not formally or nationally defined at this time, though there have been various estimates of its size. It generally consists of B and C class (also known as one- and two-star) properties at risk of deterioration, demolition or conversion to market rents. The Urban Land Institute estimates there are three million units of unsubsidized housing available that are affordable nationwide to people making 60 to 100 percent of AMI,[83] while CoStar estimates there are 5.6 million units in one- and two-star properties.[84]

These properties can be found in virtually all markets nationwide, though it is important to recognize that a significant number fall outside Duty to Serve qualifying criteria. Moreover, a sizable portion of these properties do not carry debt anymore and will likely remain without debt.

Among those qualifying for Duty to Serve, five-to-50-unit properties financed by small financial institutions with an asset cap of $10 billion or less can help close the affordable housing gap over time. These lenders are constrained by regulatory requirements related to how much commercial real estate they can hold on their balance sheets. Currently, they do not have a reliable and standardized set of methods to increase their lending activities and sell loans in the secondary market to increase their liquidity. These institutions are also affected by rising interest rates. Their ability to sell loans from their portfolios can be limited if rates are higher at the time of sale than they were when the loans were made.

We see opportunities to address these challenges and meet the market's needs for both subsidized and unsubsidized affordable rental housing through both loan purchases and research and the development of new products.

Preserving Single-Family Affordable Housing

Energy Efficiency

New renewable energy technologies have created additional ways to reduce housing costs, primarily through utility savings, and through energy efficiency home improvements. According to the Department of Energy, heating and cooling costs are the largest utility expense for most U.S. homes. In fact, they account for more than half of energy use in a typical home.[85] Since utility expenses are a factor of overall housing costs, a reduction of energy expenses is a direct reduction of housing costs. However, utility expenses are typically not factored into traditional underwriting methods, and thus the value of energy efficiency home features has not been consistently accounted for in first lien financing.

The market for home energy efficiency has gained momentum, with several market participants pioneering new financing options, yet the residential energy efficiency market remains relatively small. During our outreach and research into this market, we learned that while there are a number of challenges and needs, the most significant challenge is the lack of standardization. Lack of standardization makes it difficult for lenders and investors to support the market in any scalable way. It also makes research challenging when it comes to assessing risks and/or the impact of property values of energy- efficient homes.[86]

The lack of standardization contributes to the challenges and needs related to energy efficiency in four categories:

1. **Products:** Transactional ease is a key factor for lenders to provide first lien energy efficiency products. The complexity of mortgage underwriting guidelines, coupled with paperwork and longer settlement timelines, puts first lien mortgage financing at a disadvantage in comparison to unsecured financing options where the underwriting, approval and funds disbursement timelines are simpler and shorter.
2. **Securitization:** Given the fragmented energy efficiency industry, financing programs vary significantly, which means securitization can be economically unfeasible. In 2014, a report issued by the Coalition of Green Capital says the "lack of standard documents, processes and program structures is one of the oft-cited barriers in the clean energy finance sector."[87]
3. **Data and research**: In general, the market needs more energy efficiency-specific performance data to properly assess risks, model performance of properties with energy efficiency features and design appropriate underwriting guidelines. On a longer-term basis, the data collected must be standardized to allow for more streamlined and broad-based modeling.
4. **Market education and outreach:** Through our research and market outreach, we learned that the average consumer has limited awareness of the benefits of incorporating energy efficient features into a home. We also found that consumers who are knowledgeable about the potential value of investing in energy efficiency home features may not have access to comprehensive information about financing options to facilitate such improvements.

Shared Equity

To bridge the gap between the current relatively high house prices and what very low-, low- and moderate-income borrowers can afford, states, local governments, housing finance agencies and other organizations offer shared equity programs. These programs preserve the affordability of properties upon resale through deed restrictions or they provide subsidies structured as secondary financing to borrowers; they may also employ a combination of these two options.

~~Over the past year,~~ Freddie Mac has been conducting outreach into shared equity programs to better understand this market and identify opportunities to facilitate a secondary market to preserve affordable housing under the rule. A key challenge Freddie Mac will need to overcome is the lack of standardization among existing shared equity programs. Each organization develops highly customized programs based on its unique geographic needs, existing partnerships, available budgets and funding mechanisms. This siloed development process creates loan products that, individually and in the aggregate, generate a small number of loans. The variety of program structures creates challenges when it comes to determining appropriate underwriting requirements and designing property valuation guidance. The need to scale production and increase funding available to program sponsors are additional growth barriers inhibiting this market.

In addition, shared equity homeownership programs are not widely understood by lenders and other market participants. Lenders that may be familiar with shared equity program structures have shied away from originating loans given their non-traditional structures. As a result, investors have shown little interest in purchasing these loans. All of these challenges, together, have contributed to a lack of a secondary market for shared equity mortgages.

Over time, we will look to help standardize shared equity structures while retaining appropriate levels of flexibility so that programs can meet the needs of their particular markets.

Opportunity Zones

Certain economically distressed communities across the country have been designated as Opportunity Zones under the Tax Cuts and Jobs Act of 2017 to attract investment in economic development and drive revitalization. Investors may receive federal tax advantages if they use capital gains to finance efforts that increase employment opportunities and rehabilitate housing stock within those communities. Some rural persistent-poverty counties have been designated as Opportunity Zones. However, because receiving the tax incentives for housing

development does not depend on increasing the supply of homes affordable at lower incomes, the investments may lead to current residents and other lower-income households being priced out of the local housing market. In other words, the community may be gentrified instead of revitalized and adequate, safe, affordable housing may remain out of reach for lower-income households in the area.

Freddie Mac's leadership enables us to act as a catalyst to drive collaboration across the housing ecosystem and the community that ultimately results in an increase in – and preservation of existing – affordable homes in targeted communities. We also will bring to bear our resources, financing solutions, and best practices developed in the first three years of our Plan, adding to existing efforts to attract investment to these communities in ways that benefit lower-income households and the local economies over time.

Activities and Objectives

Activity 1 – Low-Income Housing Tax Credits (Debt): Statutory Activity

LIHTCs comprise the number one subsidy currently available for new affordable rental housing units, and are tightly connected to many other federal and local subsidy programs. In our analysis of the National Housing Preservation Database (NHPD), which was assembled jointly by the Public and Affordable Housing Research Corporation (PAHRC) and the National Low Income Housing Coalition (NLIHC), we identified just under 33,000 properties with an active LIHTC subsidy and about 2.2 million total assisted units under this program. We compared these figures against data from HUD, which showed there are about 33,500 properties with nearly 2.28 million LIHTC assisted units.[88]

This table provides a summary of the overall LIHTC housing market in the U.S:

	Active Properties	Assisted Units
NHPD Estimate of LIHTC	**32,825**	**2,215,687**
HUD Estimate of LIHTC	33,513	2,276,843

Per analysis from NCSHA in the 2015 State HFA factbook, the overwhelming majority (89.5 percent) of units financed with LIHTCs in 2015 also were supported by other federal subsidies. The major overlapping subsidies in units financed that year were tax exempt bond financing (37.5 percent), HOME (18.5 percent), and Project Based Section 8 (15.8 percent). Only 10.5 percent of LIHTC units financed in 2015 were not also supported by another federal subsidy.

Freddie Mac currently supports the LIHTC program by providing debt financing on properties with tax credits. This market is largely driven by LIHTC equity investment, which ultimately informs market opportunity for debt financing.

We currently offer a comprehensive suite of debt financing products and flexible underwriting parameters that support LIHTC properties. This suite includes the following offerings:

1. Bridge to Resyndication
2. Immediate Cash Loan for LIHTC Preservation
3. Value-Add
4. Lease-Up
5. 9% new LIHTC Loan
6. Tax-Exempt Loan
7. Preservation Rehab Loan
8. Bond Credit Enhancement
9. Tax-Exempt Bond Securitization
10. Green Advantage®

Through our Tax-Exempt Loan product, we offer both forward commitments to take out construction loans, as well as immediate loans to support properties that are stabilized or have predictable and achievable rehab plans that do not disrupt economic performance of the property or materially affect tenants.

Given our comprehensive product offerings and our long history of growing our purchase volume, we are starting our Duty to Serve Plan from a position as market leader. The question becomes: How can we continue our strong support as the market experiences challenges from rising rates and decreasing tax credit pricing while at the same time find opportunities to expand the capability of borrowers to preserve more of the existing stock of affordable housing?

We see two methods by which we can best continue and grow our support for the LIHTC Debt market:[89]

1. Provide liquidity and stability through LIHTC loan purchases, leveraging our many debt offerings.
2. Develop a new mezzanine offering to close the capital gap for LIHTC preservation transactions and enable the properties to be preserved as affordable after the compliance period.

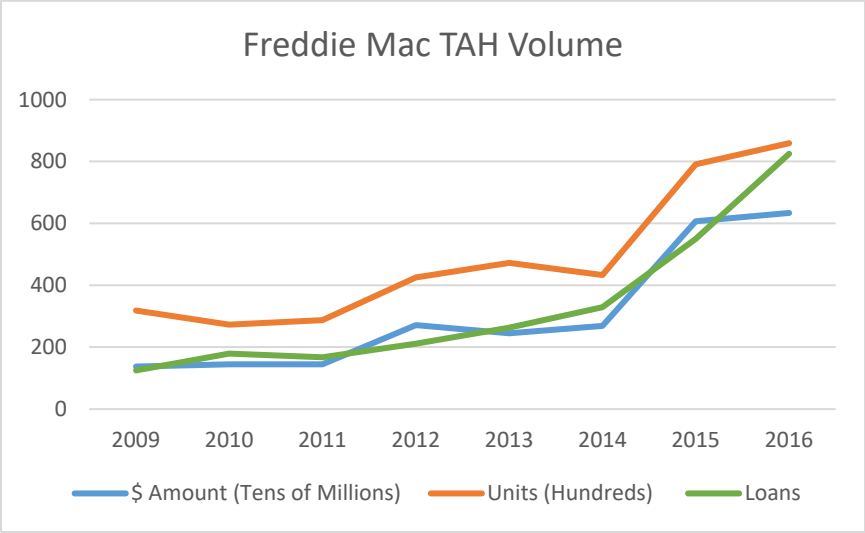
OBJECTIVE A: PROVIDE LIQUIDITY AND STABILITY THROUGH LIHTC LOAN PURCHASES

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Purchase	**1, 2, 3 and 4 ~~and 3~~**	**VLI, LI, MI**	**Not applicable**

We intend to continue our vital role in providing liquidity, stability and affordability in the LIHTC debt market through a focus on loan purchases. We have grown this business considerably over the past 10 years since Duty to Serve was first described in HERA, with a dramatic increase in the past few years, as a result of a mature suite of product offerings, and favorable market factors.

Across our total TAH business, including LIHTC debt support, from 2009 to 2016, we have increased

- the number of units we supported by 170 percent,
- the number of loans by 560 percent, and
- the annual loan amounts by 362 percent,



Since 2014, we have doubled our dedicated core TAH production and underwriting staff, and have also introduced five new loan offerings, including our Tax-Exempt Loan, Bridge to Resyndication, ~~Special Needs Single-Family Rental,~~ and Preservation Rehab, all of which play an important role in supporting the underserved and preserving affordable housing. This focus has made Freddie Mac the clear market leader. Analysis of the average of the prior three years of purchases from both Enterprises' draft Plans indicates that Freddie Mac has held over 70 percent of the GSE market share for LIHTC debt purchases from 2014 through 2016. We caution that there is not much room for further growth in real terms without growing market share and taking transactions from other market participants. Should other market participants seek to increase their loan purchases, they would likely need to take market share from Freddie Mac. Given the breadth and depth of our investment and experience and the consistency we provide, the only way for other participants to do this would be to loosen credit standards and/or reduce price significantly. Either or both of these measures have the potential to run contrary to safety and soundness and distort the mid- and long-term health of the affordable housing preservation market in favor of short term gains.

As a result of this growth, recent investments in our platform, product innovations, and our demonstrated market leadership, we believe that we are regularly providing meaningful liquidity to the market, and have sought to grow our business well in advance of the Duty to Serve regulation. Our sole objective is not to routinely grow our loan purchase activity. Rather, it is to provide consistent liquidity, certainty of execution, and stability to this market. This is important to note because at times of market turbulence, growing purchases is not in the best interest of the public or the best stewardship of taxpayer funds if it requires mispricing loans or sacrificing credit discipline to meet short-term goals.

Indeed, we are in the midst of just such a period of market turbulence, which is described below. At least in the near term, this turbulence has depressed the LIHTC debt market size, and therefore affects our annual purchase volume relative to recent record years.

This underscores, however, the importance of the stability we provide, as we offer flexibility on a transaction basis to get deals done and support the market in the near term, while maintaining strong credit terms and distributing risk to private investors that promote safety and soundness over the long term.

Baseline for 2018-2020

In setting our baseline, we counted distinct units and properties on which we purchased loans during the year in question through our retail Seller/Servicers networks or via TAH negotiated transactions on individual mortgages. In the prior three years, our LIHTC loan purchases have been as follows. We have more than doubled the number of units we supported, and increased the number of properties by 234 percent.

Year	2014	2015	2016	Three-Year Avg.
Total Loan Amount	$1.5B	$2.3B	$2.1B	$1.96B
LIHTC Units	12,002	21,887	25,432	19,773
Properties	82	152	196	143

This results in a three-year average baseline of $1.96 billion supporting 19,773 units and 143 properties.

Baseline for 2021

Freddie Mac followed the same methodology to create the baseline for our 2021 loan purchase target as we used to calculate our 2018-2020 baseline. The following table shows Freddie Mac's purchase volume in this market from 2017 through 2019 and the baseline that reflects the average annual volume.

Year	2017	2018	2019	Three-Year Avg.
Total Loan Amount	$2.4B	$3.8B	$4.8B	$3.7B
LIHTC Units	22,807	41,926	54,302	39,678
Properties	178	306	373	286

This results in a three-year average baseline of $3.7 billion supporting 39,678 units and 286 properties.

2018-2020 Targets

Due to market headwinds and challenges described below, we anticipate that the market for LIHTC debt will not be as strong going forward as it has been in 2015 and 2016, even if the total multifamily market grows, at least in terms of debt origination dollars. While LIHTC investors have returned to the market in the second half of 2017, they have done so at a lower price per credit, which means more tax credits—both federal and state—are required for each transaction, ultimately leading to fewer transactions. As the market for new tax credit properties has cooled, we have increased our focus on the preservation and refinance of properties with existing credits to support this market. While this emphasizes the stability, we provide, we do not anticipate exceeding our prior two years of LIHTC purchases in 2017. For example, our 2017 LIHTC debt originations in terms of units are down 26 percent through 3Q as compared to the first three quarters of 2016.

In 2018 through 2020, we are likely to continue to see a smaller market for LIHTC debt, particularly for properties with new credits, though we will likely see incremental growth as investors reenter the LIHTC market and settle on a corporate tax rate against which to set their models.

As a result of the above factors, updated analysis of the LIHTC market, and public input, we have set our purchase targets in excess of our baseline, and intend to increase purchases from there. In setting our targets, we will count distinct units and properties on which we purchase loans during the year in question through our retail seller/servicer network or via TAH negotiated transactions on individual mortgages. We did this to account for the reduced LIHTC equity market and rising interest rates, and therefore reduction in total LIHTC units available for financing in the market. We are also taking into account our position as market leader, with our support being two

to three times that of other financing providers for LIHTC debt in the market today.

Year	2018	2019	2020
Target	The Lesser of 20,500 LIHTC Units or 150 Properties	The Lesser of 21,500 LIHTC Units or 160 Properties	The Lesser of 23,000 LIHTC Units or 175 Properties

We anticipate that we will reach these goals by leveraging our seller/servicer network and core products, as well as innovating to reduce financing costs, increase efficiency and close capital gaps. These innovations are described in Objective B below as well as under Activity 1, Objective B, of the Section 8 activity, as this product will support both LIHTC and Section 8 properties. Purchases tied to these initiatives are included in the 2019 and 2020 targets above and account for the non-linear growth curve in targets, despite the many challenges facing this market, as these products will help mitigate the declining impact of lost or narrowly concentrated subsidies. Should these initiatives not reach the level of success we anticipate, we will adjust our targets accordingly. We may also adjust these targets upward or downward annually based on market conditions, such as market reactions to tax changes.

2021 Target

For year 4, we established a unit target higher than the average three years of performance. We view our role as liquidity providers as more important now as many debt providers are pausing due to market disruption. We are setting an appropriate target accordingly to continue to have a material impact. We are nearly doubling our unit count from the 2020 target, even though as of November 2020 the Mortgage Bankers Association forecasts the total 2021 Multifamily lending to be $305B, which is a decrease of 16% from 2019. We view this as a strong target in line with the forecasted market size and our role in it. To emphasize our impact in the multifamily market, we note that in 2018 the market size was $339B (which is $34B higher than the 2021 forecast), and we purchased loans on 41,926 units. We are setting our 2021 target higher than our 2018 volume in recognition of our countercyclical role.

Year	2021
Target	42,000 Units

Challenges

The LIHTC market has experienced two simultaneous challenges in late 2016 and 2017 that have shrunk the market in the near term over recent record-high market size and will likely have a sustained impact over time:

1. Reduced LIHTC equity pricing has led to a smaller market
2. Rising interest rates have increased the need for LIHTC equity and soft subordinate debt

In 2017, tax credit pricing has reduced from historic highs of about $1.03 per credit in mid-2016 to $0.95 in mid-2017 per *Affordable Housing Finance*'s survey of syndicators.[90] In a hypothetical transaction with $10 million of debt and a need for $6 million of equity, this reduction in tax credit pricing equates to a $480,000 funding gap, which would require additional tax credits or soft debt to close.

Increased interest rates have a direct effect on how much debt a property can support, and therefore how much LIHTC equity or soft debt is required. In 2016, interest rates were at historic lows. For example, over the course of 2016, the 10-year Treasury index had an average high for the year of 187 bps and an average low of 180 bps. In 2017 through July, the 10-year Treasury index had an average high for the year of 237 bps and an average low of 232 bps. Using a 50 bps difference in rate we can see the effect on a hypothetical property: if a property qualified for a loan amount of $10 million, a 50 bps increase in the 10-year Treasury index would mean that property would only qualify for about $9.44 million at the higher interest rate. This means that property would require an additional $560,000 of equity or soft debt in order to receive financing. This gap would be in addition to the gap caused by reduced LIHTC pricing. The combined effect of higher interest rates and lower equity pricing would be over a $1 million gap in funds to fill.

Where the gap in funds is growing, states have been required to focus their support on fewer transactions in order to help them succeed, which reduces the resources available for other properties. Indeed, as 2017 has progressed, we saw more and more examples of large scale LIHTC market disruption, two of which particularly highlight the impact:

1. On March 15, 2017, the California Tax Credit Allocation Committee (TCAC) passed a resolution allowing developers to exchange their 2016 9 percent LIHTC allocation for 2017 LIHTCs. Given delays in finding equity investors, developers found it impossible to close in time to complete construction by the end of 2018 (LIHTC deals must be “placed in service”- meaning 100 percent construction completion and receipt of the certificate of occupancy- by the end of the second year after receiving a LIHTC allocation).

2. In the Midwest, the Ohio Housing Finance Agency (OHFA) had to increase the allocation of LIHTC to deals awarded in 2016 because developers were not getting sufficient equity pricing to allow the deals to be economically feasible. Unfortunately, the additional credits had to come from the 2017 allocation, thus reducing the 2017 pool by approximately 12 percent.

As a result of this disruption, in the first half of 2017 there were 16 percent fewer new acquisitions compared to the first half of 2016 per *Affordable Housing Finance*’s survey of syndicators.[91] We expect the market to remain smaller for some time unless interest rates experience a sustained reduction and either tax code changes or revisions to the LIHTC program are made, either of which could further affect the market.

2021 Challenges

It is unclear how the market will recover from the COVID-19 pandemic. We are currently observing the headwinds it is creating for construction, rehabilitation, and lease-up, which could present delays for Freddie Mac financing. Borrowers will likely need extra time to get properties built and leased. It is also likely that the market will be slow to recover, at least initially. Our focus in 2021 is on being a stable source of liquidity as the market recovers.

Affordable housing is likely to remain in very high demand for existing renters, and that demand may increase if new renters enter the market due to negative financial impacts of COVID-19. Acquisitions might be slow to recover and state and local subsidy may decrease; however, we may see increases in refinances. Because of such a substantial market disruption, it is especially difficult to set targets and plan for business opportunities outside of providing continuous liquidity to meet market needs.

Market Impacts

Freddie Mac intends to continue our role as the leader in providing debt to LIHTC properties though our comprehensive suite of products and dedicated platform, providing support to more families through our debt financing than any other lender in the market by a wide margin—indeed, the continuation of this market leadership has, and will continue to have, a profound influence on the health of the market and availability of liquidity in the near-and long-term We will do this by expanding our product set (as described in Objective B below

as well as Objective B in the Section 8 activity) and competitive stance, in order to further improve liquidity and mitigate the market declines for viable transactions. Recognizing the critical role the GSEs may play in providing a source of stability during this period of market turmoil, we will be mindful of our status in conservatorship and ensure that our purchase volume and credit standard are consistent with safety and soundness. In furtherance of this goal, we are also able to distribute risk away from taxpayers with our market leading ML securitization execution, K series executions, and our PC execution, all of which can be used for LIHTC debt. These are the most comprehensive risk distribution methods in the market, and allow us to provide attractive financing and flexible terms to borrowers, channel private capital to support public good more efficiently and cost effectively than other market participants, all while protecting taxpayers and maintaining safety and soundness.

OBJECTIVE B: DEVELOP A NEW MEZZANINE FINANCING OFFERING TO CLOSE CAPITAL GAPS FOR LIHTC PRESERVATION TRANSACTIONS

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Product	**1**	**VLI, LI, MI**	**Not applicable**

As a LIHTC property reaches the end of its compliance period, the LIHTC equity partner typically seeks to exit the partnership and invest in new LIHTC properties. When this happens, the general partner must raise equity to buy out the limited partner, either by pursuing a new, often costly, equity partner or contributing more equity.

In Year 1 of our Plan, we intend to introduce a new offering to enable borrowers to better leverage their equity for affordable housing preservation by providing a one-stop-shop for efficient and comprehensive capital. This new offering will be in the form of mezzanine financing secured by a pledge of primary partnership interest, and will generally be of lower cost than equity options in the market. In exchange for our mezzanine financing, borrowers will be expected to preserve rents as affordable during the term of the loan, regardless of whether other restrictions remain in place.

We anticipate that this offering will have several effects over time:

1. Allow borrowers to acquire and preserve more properties and units for the same amount of equity contribution, as each property will require less equity.
2. Enable the general partner in a partnership to get additional debt to buy out the limited partner at the end of the compliance period and continue to operate the property as affordable for the remainder of the extended use period while performing necessary improvements to the property.
3. Allow LIHTC equity investors to exit partnerships after the tax credit compliance period so they can reinvest their equity in new LIHTC transactions, thereby promoting more affordable housing to support more renters.
4. Enable borrowers to recapitalize and preserve more properties as affordable at year 30 or beyond relative to the market, even without new tax credits.
5. Motivate and enable borrowers seeking an exemption from the extended use period affordability restrictions to keep rents affordable relative to the market.

Subject to FHFA approval, our intention in Year 1 of our Plan is to develop the product parameters, expertise, and legal, underwriting, and servicing infrastructure to offer mezzanine financing.

Details and challenges can be found below.

Baseline

Freddie Mac does not currently offer mezzanine financing. Over the course of 2017, we have been exploring the potential impact of and interest in mezzanine financing through conversations with borrowers and investors, as well as through discussions with FHFA.

Challenges, Actions and Market Impacts

Market Challenge	Freddie Mac Action
Cost and availability of equity limits borrowers' ability to acquire and preserve affordable housing ▪ Typically, the General Partner sponsor solicits equity partners to act as Limited Partner in a borrowing entity and provide most of the funds to acquire or develop a property. For LIHTC transactions, this is the LIHTC investor. In Year 15 once the LIHTC compliance period is over, the GP must find a new equity partner or source the equity themselves. ▪ Equity is generally more expensive than debt, and equity investor return expectations put pressure on a property to grow value and pay off the investor. Often the way to grow value and make payments is to raise rents to the maximum levels the market will bear. ▪ Without a cost-effective alternative, borrowers are under pressure to raise rents or put off rehab in order to pay off the equity investor. ▪ Without mezzanine debt, borrowers are limited in the number of properties they can support with their current sources of equity. **Rising interest rates limit the amount of senior debt a property can support** ▪ As interest rates rise, the properties will be able to support less senior debt, and will rely on other sources to close the capital gap.	**Year 1 – 2018** 1) If necessary, obtain FHFA approval to offer mezzanine financing. If FHFA approval is required and not received at all, or in the first six months of the year, subsequent timelines could be delayed. 2) Subject to FHFA approval, distribute term sheet (details below) to the TAH seller/servicer network.

Underwriting Challenge	Freddie Mac Action
Increased leverage requires careful setting of underwriting and refinance parameters ▪ The additional debt from the mezzanine loan must be serviceable during the life of the loan. ▪ The property must be able to be refinanced at mezzanine loan maturity. **Increased leverage increases the importance of risk distribution to ensure safety and soundness**	**Year 1 - 2018** 1) Develop underwriting parameters, as evidenced by an offering term sheet. 2) Include at least the following elements in the term sheet: a. Product overview and loan purpose b. Sponsor and/or property eligibility requirements c. Loan-to-Value limits d. Debt coverage limits e. Allowable lengths of loan term f. Allowable length of Amortization g. Affordability requirements 3) Develop a mezzanine finance refinance test for internal use to control for risks that the property will not be able to refinance at maturity of the senior and mezzanine loans.
Resource Challenge	**Freddie Mac Action**
Development of expertise ▪ Freddie Mac does not have experience as a mezzanine lender. Therefore, we will have to develop expertise in-house or hire new talent to support this offering. **Development of suite of legal documents** ▪ Mezzanine financing has its own unique suite of legal document infrastructure that needs to be created. At present, Freddie Mac does not have such an infrastructure, and will need to develop it from the ground up. **Development of affordability monitoring and enforcement capabilities** ▪ In cases where a property is no longer subject to a LURA, monitoring and enforcement of any affordability restrictions agreed to by the borrower with Freddie Mac will be required. At present, Freddie Mac does not enforce rent restrictions independent of a LURA.	**Year 1 – 2018** 1) Appoint or hire at least one mezzanine finance production lead for structuring transactions and at least one mezzanine finance underwriting lead for underwriting transactions. 2) Develop a cross-departmental internal mezzanine financing working group including production, underwriting, legal, asset management, and risk distribution representatives. 3) Engage outside counsel to draft legal documents, including the following: a. Loan and Security Agreement b. Note c. Pledge Agreement d. Guaranty e. Subordination of the Management Agreement f. Omnibus Assignment g. Inter-creditor Agreement

	h. UCC Financing Statement 4) Create and document affordability restrictions monitoring and enforcement terms and process. 5) Provide one to three training sessions covering product process and parameters, including underwriting and ongoing monitoring to internal staff via webinar or in person training sessions as appropriate for the audience. 6) Provide one to three training sessions covering product process and parameters, including underwriting and ongoing monitoring to Freddie Mac seller/servicers via webinar or in person training sessions as appropriate for the audience.

Market Impact

Providing cost-effective mezzanine financing will enable borrowers to acquire and preserve more affordable housing over time at different points in the LIHTC compliance and extended use cycles. This is of considerable importance and impact to the market. This mezzanine offering will empower mission focused borrowers to extend their equity investments and benefit more tenants over time, and enable LIHTC investors to exit partnerships and invest their equity into new LIHTC deals. Mezzanine financing can also be used to offset the decline or narrowing use of public subsidies to support affordable housing preservation. The result will be the preservation of more affordable housing for longer periods of time.

Additionally, providing mezzanine financing to enable the preservation of affordable housing is a new activity for Freddie Mac. As such, there is much to develop, from product parameters, legal infrastructure, and ongoing monitoring and enforcement in our first year, to an effective risk distribution method that attracts private capital and ensures safety and soundness in our second year. All of this is a substantial and concerted effort.

With this offering, we will set appropriate underwriting parameters and develop the comprehensive legal infrastructure that will allow us to provide all of the benefits to the borrowers and renters described above while protecting taxpayers from undue risk during the period we hold the loans and allowing us to effectively distribute risk on the mezzanine loans to private investors over time.

Activity 2 – Section 8: Statutory Activity

Project-based Section 8 is an important federal program connected to a substantial number of affordable housing units nationwide. In our analysis of the NHPD, we identified about 18,000 properties with an active project-based Section 8 subsidy supporting almost 1.27 million units. Figures on the total number of properties from other sources, most of which come from HUD's website, range from 14,700 to 17,000; total assisted unit figures typically range from 1.1 million to 1.28 million.

	Active Properties	Assisted Units
NHPD Estimate of Section 8	**18,031**[92]	**1,268,879**
Low estimate of outside sources	14,746	1,125,377
High estimate of outside sources	16,697	1,275,000

Section 8 HAP contracts are frequently combined with LIHTC equity to maximize the benefit of both programs. Per analysis from NCSHA in the 2015 State HFA factbook and provided to Freddie Mac, 15.8 percent of units financed with LIHTCs also have Project Based Section 8. As such, the market for Section 8 properties in a given year is tied to the market for tax credits. Where there is fluctuation in the LIHTC market, there will be fluctuation in the Section 8 market, particularly with respect to properties receiving new tax credits. As with LIHTC debt, it is vital that we continue to purchase loans in order to support this key federal program.

Given our history of growing our purchase volume, we are starting our Duty to Serve Plan from a position as clear market leader. Analysis of both Enterprise's draft Duty to Serve Plans reveals Freddie Mac held a 55 percent GSE market share from 2014-2016. As such, incrementally growing purchase volume is not our sole or primary objective. In fact, we caution that there is not much room for further growth in real terms (apart from that described by our new product offering in Objective B below) without growing market share and taking transactions from other market participants. Should other market participants seek to increase their loan purchases, they would likely need to take market share from Freddie Mac. Given the breadth and depth of our investment and experience and the consistency we provide, the only way for other participants to do this would be to loosen credit standards and/or reduce price significantly. Either or both of these measures have the potential to run contrary to safety and soundness and distort the mid- and long-term health of the market in favor of short term gains.

Therefore, the question becomes: How can we continue our strong support as the market experiences challenges from rising rates and decreasing tax credit pricing while at the same time find opportunities to expand the capability of borrowers to preserve more of the existing stock of affordable housing?

To meet these goals for Section 8 properties, we have the following objectives:[93]

A. Provide liquidity and stability through Section 8 loan purchases.

B. Develop a new offering with a more efficient origination path for Section 8 housing preservation.

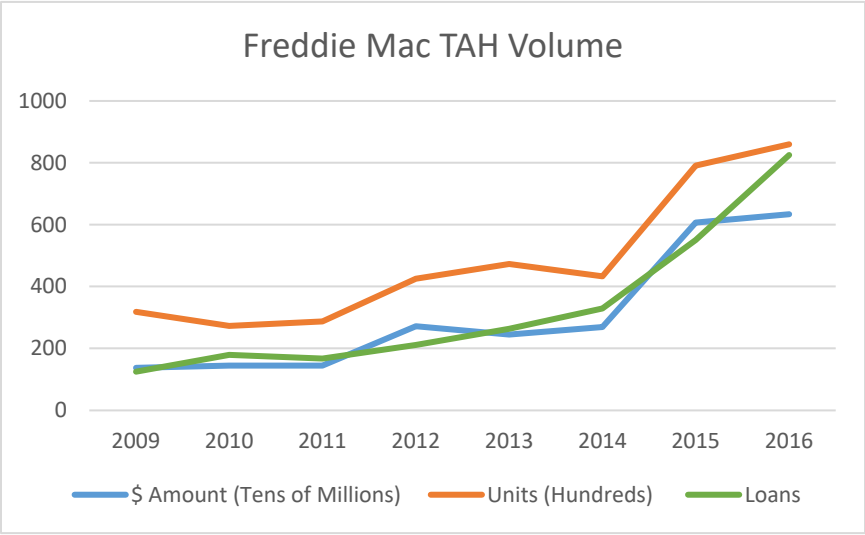
OBJECTIVE A: PROVIDE LIQUIDITY AND STABILITY THROUGH SECTION 8 LOAN PURCHASES

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Purchase	**1, 2, 3 and ~~3~~4**	**VLI, LI, MI**	**Not applicable**

Throughout the entire Plan term, we intend to play a key role in providing liquidity, stability and affordability in the Section 8 market through a focus on loan purchases. Over the past three years, we have more than doubled our support for Section 8 and are a clear market leader with approximately 55 percent of the GSE market share during that period, consistent with our leadership in the Affordable Housing Preservation market generally.

Across our total TAH business, including Section 8 debt support, from 2009 to 2016, we have increased

1. the number of units we supported by 170 percent,
2. The number of loans by 560 percent, and
3. The annual loan amounts by 362 percent.



We have deliberately grown the TAH business considerably over the past 10 years since Duty to Serve was first described in HERA with a dramatic increase in the past few years as a result of a mature suite of product offerings and favorable market factors. And since 2014, we have doubled our dedicated core TAH production and underwriting staff and introduced five new loan offerings, including our Tax-Exempt Loan, Bridge to Resyndication, ~~Special Needs Single-Family Rental,~~ and Preservation Rehab, all of which play an important role in supporting the underserved and preserving affordable housing.

In our underwriting of Section 8 properties, we offer much flexibility as well as the ability to distribute risk away from the taxpayer though our industry leading K series and ML series securitizations. [94]

Baseline for 2018-2020

In setting our baseline, we counted distinct units and properties on which we purchased loans during the year in question through our retail seller/servicer networks or via TAH negotiated transactions on individual mortgages. Between 2014 and 2016, we were very active in purchasing loans on properties with Section 8, with 2015 and 2016 being atypically record years in purchase volume. That was in part because LIHTC equity pricing was at an all-time high and interest rates were at historical lows, the combination of which stretched LIHTC equity further and allowed properties to support more debt. It was also the direct result of investments we have made in our TAH platform, doubling staff and enhancing our suite of products.

The table below shows Freddie Mac's support for Section 8 over the last three years, inclusive of loans that support properties with Section 8 and other subsidies, such as LIHTC and RAD.

Year	2014	2015	2016	Three-Year Avg.
Total Loan Amount	$774MM	$1.4B	$1.4B	$1.2B
Section 8 Units	11,421	20,862	17,881	16,721
Properties	64	135	119	106

The three-year average baseline is $1.2 billion supporting 16,721 units across 106 properties.

Baseline for 2021

In setting our baseline, we counted distinct units and properties on which we purchased loans during the year in question through our retail seller/servicer networks or via TAH negotiated transactions on individual mortgages. Between 2014 and 2016, we were very active in purchasing loans on properties with Section 8. Our momentum continued into the next several years, with 2018 and 2019 being atypical record years in purchase volume. This was due in part because LIHTC equity pricing was at an all-time high and interest rates were at historical lows, the combination of which stretched LIHTC equity further and allowed properties to support more debt. It was also the direct result of investments we have made in our TAH platform, doubling staff and enhancing our suite of products.

The table below shows Freddie Mac's support for Section 8 over the last three years, inclusive of loans that support properties with Section 8 and other subsidies, such as LIHTC and RAD.

Year	2017	2018	2019	Three-Year Avg.
Total Loan Amount	$2.0B	$3.3B	$4.2B	$3.2B
Section 8 Units	16,550	27,241	26,332	23,374
Properties	203	341	362	302

The three-year average baseline is $3.2 billion supporting 23,374 units across 302 properties.

2018-2020 Targets

Due to market headwinds and challenges described below, we anticipate that the market for debt on Section 8 properties will be smaller than in 2015 and 2016. While the overall multifamily market may grow, at least in terms of debt origination dollars, the Section 8 market, which is dependent on federal and local subsidies, as well as tax credits, is constrained by their availability and use, so will likely shrink relative to recent years, and remain smaller for some time. For example, our 2017 Section 8 loan purchases in terms of units are down 36 percent through 3Q as compared to the first three quarters of 2016.

As a result of these factors, updated analysis of the Section 8 market, and public input we have set our purchase targets in excess of our baseline, but below our peak purchase volume, and we intend to increase purchases from there. In setting our targets, we will count distinct units and properties on which we purchase loans during the year in question through our retail seller/servicer networks or via TAH negotiated transactions on individual mortgages. We did this to account for the reduced LIHTC equity market and rising interest rates, and the likely concentration of public subsidies on fewer projects. We are also taking into account our position as market leader, with our support being in excess of other financing providers. We intend to continue in our role as market leader, and our purchase targets reflect that goal, relative to the availability of properties and units to finance.

Year	2018	2019	2020
Target	The Lesser of 16,750 Section 8 Units or 110 Properties	The Lesser of 17,250 Section 8 Units or 120 Properties	The Lesser of 18,000 Section 8 Units or 135 Properties

These targets may be adjusted upward or downward annually based on market conditions, such as market reactions to tax changes. We anticipate reaching these goals by leveraging our seller/servicer network and core products as well as innovating to reduce financing costs, increase efficiency and bring in new investors and/or partners. These innovations are described in Objective B below and in Objective B of the LIHTC Debt activity above, and account for the non-linear growth curve through 2020 despite the many challenges facing this market.

2021 Target

For year 4, we have established a unit target slightly higher than our baseline and higher than our 2020 target. Our role as a liquidity provider is more important now in this time of economic uncertainty. Additionally, as of November 2020 the Mortgage Bankers Association forecasts the total 2021 Multifamily lending to be $305B which is a decrease of 16% from 2019.

As we prepare for 2021, our growth is unknown but we will continue to focus on preserving existing properties, looking for ways to combine major public subsidies such as Section 8 with state and local programs to close capital shortages, continue to refine our regulatory agreement analysis and standard subordination agreement to make it more accessible to a growing population of localities providing support.

Year	2021
Target	23,400 Units

Challenges

The LIHTC market has experienced two simultaneous challenges in late 2016 and 2017 that have shrunk the market in the near term over recent record high market size and will likely have a sustained impact over time:

1. Reduced LIHTC equity pricing has led to a smaller market.
2. Rising interest rates have increased the need for LIHTC equity and soft subordinate debt.

In 2017, tax-credit pricing has reduced from historic highs of about $1.03 per credit in mid-2016 to $0.95 in mid-2017 per Affordable Housing Finance's survey of syndicators.[95] In a hypothetical transaction with $10 million of debt and a need for $6 million of equity, this reduction in tax credit pricing equates to a $480,000 funding gap, which would require additional tax credits or soft debt to close.

Increased interest rates have a direct effect on how much debt a property can support, and therefore how much LIHTC equity or soft debt is required. In 2016, interest rates were at historic lows. For example, over the course of 2016, the 10-year Treasury index had an average high for the year of 187 bps and an average low of 180 bps. In 2017 through July, the 10-year Treasury index had an average high for the year of 237 bps and an average low of 232 bps. Using a 50 bps difference in rate we can see the effect on a hypothetical property: if a property qualified for a loan amount of $10 million, a 50 bps increase in the 10-year Treasury index would mean that property would only qualify for about $9.44 million at the higher interest rate. This means that property would require an additional $560,000 of equity or soft debt in order to receive financing. This gap would be in addition to the gap caused by reduced LIHTC pricing. The combined effect of higher interest rates and lower equity pricing would be over a $1 million gap in funds to fill.

Where the gap in funds is growing, states have been required to focus their support on fewer transactions in order to help them succeed, which reduces the resources available for other properties. Indeed, as 2017 has progressed, we saw more and more examples of large scale LIHTC market disruption, two of which particularly highlight the impact:

1. On March 15, 2017, the California Tax Credit Allocation Committee (TCAC) passed a resolution allowing developers to exchange their 2016 9 percent LIHTC allocation for 2017 LIHTCs. Given delays in finding equity investors, developers found it impossible to close in time to complete construction by the end of 2018 (LIHTC deals must be "placed in service"- meaning 100 percent construction completion and receipt of the certificate of occupancy- by the end of the second year after receiving a LIHTC allocation).
2. In the Midwest, the Ohio Housing Finance Agency (OHFA) had to increase the allocation of LIHTC to deals awarded in 2016 because developers were not getting sufficient equity pricing to allow the deals to be economically feasible. Unfortunately, the additional credits had to come from the 2017 allocation, thus reducing the 2017 pool by approximately 12 percent.

As a result of this disruption, in the first half of 2017, there were 16 percent fewer new acquisitions compared to the first half of 2016 per *Affordable Housing Finance*'s survey of syndicators.[96] We expect the market to remain smaller for some time unless interest rates experience a sustained reduction and either tax code changes or revisions to the LIHTC program are made, either of which could further affect the market.

2021 Challenges

It is unclear how the market will recover from the COVID-19 pandemic. We are currently observing the headwinds it is creating for construction, rehabilitation, and lease-up, which could present delays for Freddie Mac financing. Borrowers will likely need extra time to get properties built and leased. It is also likely that the market will be slow to recover, at least initially. Our focus in 2021 is on being a stable source of liquidity as the market recovers.

Affordable housing is likely to remain in very high demand for existing renters, and that demand may increase if new renters enter the market due to negative financial impacts of COVID-19. Acquisitions might be slow to recover and state and local subsidy may decrease; however, we may see increases in refinances. Because of such a substantial market disruption, it is especially difficult to set targets and plan for business opportunities outside of providing continuous liquidity to meet market needs.

Market Impacts

The combination of the above market challenges suggests that there will be downward pressure on Section 8 properties, as resources are concentrated more into properties with multiple subsidies as a result of LIHTC equity pricing and higher interest rates. This will make it more challenging to support Section 8 properties, as they require more funding than what we can typically provide. Still, we intend to continue in our role as market leader and provide material support to this market. We will do this by expanding our product set (as described below) and competitive stance. The result will be to further improve liquidity and mitigate the market declines for viable transactions.

Our continued market leadership will have a profound impact on the market as we will support more families than other lenders in the market and enable the continued improvement of properties while preserving affordable rents, leading to better quality affordable housing for residents over time.

Recognizing the critical role the GSEs may play in providing a source of stability during this period of market turmoil, we will be mindful of our status in conservatorship and ensure that our purchase volume and credit standard are consistent with safety and soundness. In furtherance of this goal, we are also able to distribute risk away from taxpayers with our market leading ML securitization execution, K series executions, and our PC execution, all of which can be used for LIHTC debt. These are the most comprehensive risk distribution methods in the market, and allow us to provide attractive financing and flexible terms to borrowers, channel private capital to support public good, all while protecting the taxpayer and maintaining safety and soundness.

OBJECTIVE B: DEVELOP A NEW OFFERING WITH A MORE EFFICIENT ORIGINATION PATH FOR SECTION 8 PRESERVATION

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Product	**1**	**VLI, LI, MI**	**Not applicable**

Project-based Section 8 continues to be a vital federal program that enables long term affordable housing nationwide. After LIHTC, it is the second most prevalent form of federally assisted housing, with 1.27 million units in the program Section 8 properties often include other sources of federal or local subsidy, such as LIHTC and subordinate debt that add further analysis to the transactions.

Freddie Mac has extensive experience supporting project based Section 8 and is the market leader in this segment of affordable housing preservation, with approximately 55 percent of the GSE market share. We will leverage this experience to provide even stronger support, particularly for smaller, simpler Section 8 preservation transactions, where we have learned that the due diligence requirements, product parameters, and legal infrastructure can be tailored towards greater efficiency and flexibility for borrowers in this segment of the market to enable them to more cost effectively finance and preserve Section 8 properties and devote more resources to the property rather than to financing costs. Overall, we anticipate reducing financing costs by up to approximately 30 percent from a standard transaction. Major improvements and the savings associated are outlined below:

Due Diligence Streamlining	Product Parameters	Legal Infrastructure
• Single Physical Risk Report • Zoning Report Removed • New Survey Removed	• Stepdown Prepayment • Subordinate Debt Permitted • Loan terms up to 15 years	• Streamlined Commitment • Joint Counsel • No Opinion Letter
Savings • Monetary savings of up to approximately 10% from the current affordable Freddie Mac cash transaction. • Time reduction of 1 week from the complete transaction timeline.	**Savings** • Monetary and time savings will vary on a deal by deal basis, however is the cost is intended to be lower than the current affordable Freddie Mac cash transaction.	**Savings** • Monetary savings of up to approximately 30% from the current affordable cash transaction. • Time reduction of 2 weeks from the complete transaction timeline.

During Year 1 of the Plan, we intend to provide the market with a competitive, streamlined offering for transactions under $10 million on properties with Long-Term Section 8 HAP Contracts or existing LIHTC in Year 11 or later, and will leverage our market-leading risk transfer methods—our K series executions, our SB series executions, and/or our PC executions—to attract private capital to support public good and dramatically reduce risk to Freddie Mac and the taxpayer. We intend to do this in such a way that does not affect our safety and soundness and is consistent with our current industry accepted credit standards.

As a result of this offering, we anticipate purchasing more loans on Section 8 properties than we would otherwise. This increase is factored into our Section 8 purchase targets in Objective A above.

Baseline

Freddie Mac is the current market leader in supporting Section 8, though we recognize that there are opportunities to better serve smaller properties in this market. We do not currently have a product that deliberately targets smaller Section 8 transactions that have their own unique needs.

Challenges, Actions and Market Impacts

Market Challenge	Freddie Mac Action
High transaction costs (monetary and time) ▪ Typical debt offerings tend to be costly and time consuming for these simpler, smaller transactions, because such offerings require the same level of due diligence as highly complex affordable housing transactions. The time and cost often make it harder to preserve these properties as affordable. **Acceptance by capital markets** ▪ Investors are accustomed to seeing the same due diligence for each transaction during	**Year 1 – 2018** 1) Develop specific offering parameters, such as third-party reports, legal processing, and loan terms to create a streamlined, market-relevant competitive offering while ensuring that impacts to investors are minimal, and include in term sheet (described below). 2) Generate cost savings and impacts for borrowers, seller/servicers, and Freddie Mac, and include in term sheet (described below) or associated marketing materials.

securitization. **Product parameters** ▪ Borrowers for smaller transactions prefer offering parameters that are typically specific to the small property market. **Lender acceptance** ▪ The level of effort to finance a small property is just as much as to finance a large property, but typical lender compensation structures do not reward them equally for their efforts. This compensation structure creates a disincentive to pursue financing for small properties. **Borrower and property features** ▪ The borrower set for this offering may be different than the traditional Freddie Mac affordable borrower. ▪ The properties originated through this offering will most likely be smaller and pose different challenges as it relates to economies of scale than larger properties.	3) Develop and/or update legal document infrastructure to allow for efficiency to the borrower and security for the investor. Legal documents will include at least the following: a. Commitment Letter b. Loan and Security Agreement c. Note d. Guaranty 4) Publish an official product term sheet on our website that identifies the product and the acceptable terms. Term sheet will contain at least the following elements: a. Product overview and loan purpose b. Sponsor and/or property eligibility requirements c. Loan-to-Value limits d. Debt coverage limits e. Allowable lengths of loan term f. Allowable lengths of amortization g. Areas of streamlined processing 5) Engage all TAH seller/servicers to offer this product with appropriate compensation structure to incentivize them to finance small Section 8 properties 6) Provide one to three training sessions via webinar or in person as appropriate to provide seller/servicers with clear guidance to originate transactions under the new offering.
Resource Challenge	**Freddie Mac Action**
▪ Multiple resources from various teams within Freddie Mac will be essential to ensure success of the actions outlined above. ▪ Legal document infrastructure needs to be created, requiring multiple resources including, but not limited to internal counsel, underwriting, production, and servicing teams	**Year 1 – 2018** 1) Implement an internal working group to ensure that all resources are allocated appropriately and alignment is maintained throughout the creation of the new loan product.

Market Impact
Creating a new offering that provides an innovative solution to originate small, simple, Section 8 transactions will enable borrowers to more cost-effectively preserve long term affordability. The relative time and cost involved in smaller transactions often make it harder to preserve these properties as affordable. We anticipate the reduction in financing costs could reduce the rents required to operate the property and, therefore, reduce the amount of subsidy required per property or enable borrowers to make more property improvements that enhance the living conditions of the tenants. This will thereby stretch federal funding further and preserve the long-term affordability of the property well into its extended use period. This offering, particularly in a rising rate environment where a reduction in financing costs can offset an increase in rates, will be significant to the market. This offering will provide borrowers a new standard in financing for these properties. The current available financing options from local and community banks provide shorter term loans (usually no more than five years, as opposed to our 10- or 15-year loans), which makes it difficult to preserve long term affordability. Repeated short-term loans also increase overall financing costs on the property—in order to get the same length of debt available with Freddie Mac, a borrower would have to seek financing with local banks two or three times—and give borrowers more opportunities to reexamine their financing and sell the property or convert it to market rate. Our offering will counter that. Although this offering will introduce unique efficiencies, we believe that this offering will still maintain the high credit quality and underwriting standards and preserve the safety and soundness of the market. Indeed, maintaining strong credit standards will better enable us to attract private capital investors to support this part of the market and allow us to leverage our industry leading risk distribution methods that protect taxpayers from undue risk and promote safety and soundness.

Activity 3 – HUD Rental Assistance Demonstration Program: Regulatory Activity

HUD's Rental Assistance Demonstration (RAD) was established in 2011 to help convert at-risk public housing properties into project-based vouchers or rental assistance contracts under the Section 8 program. The net effect is to convert public housing projects into privately financed, government-subsidized properties using the Section 8 program. The goal is to preserve long-term affordability and renovate and improve obsolete affordable rental housing stock. This voluntary conversion gives public housing authorities more flexibility to access private and public funding sources. The majority of RAD transactions require LIHTC equity and/or soft subordinate debt in order to support the property rehabilitation.

RAD has two components. Component 1 focuses on converting and rehabilitating public housing properties, as described above. Component 2 addresses a different set of properties through the conversion of Section 8 Moderate Rehabilitation, Rent Supplement and Rental Assistance Payment properties. Freddie Mac is active in both components of the RAD program, and is the leading provider of financing for RAD generally.

We support the RAD program with many of our loan products, the most relevant of which are these:

- Tax-Exempt Loan, particularly with our forward commitment feature
- Preservation Rehab Loan
- Bond Credit Enhancement
- 9 percent new LIHTC Loan

In addition to these particular debt products, we are able to leverage our industry leading risk distribution measures for tax exempt financing—the M and ML series securitizations—to attract private investment to support affordable housing and distribute risk away from the taxpayers.

RAD has a cap on the total number of units eligible for conversion. Congress initially authorized HUD to convert 60,000 units under RAD after a pilot of 12,000 units. In 2015, this cap was raised to 185,000 units for Component 1, which focuses on public housing properties. However, this cap has been fully subscribed and additional properties have been placed on a waitlist. Importantly, additional units cannot be converted under Component 1 without congressional authorization.

In 2017, this cap was raised by 40,000 units from 185,000 to 225,000.[97] While this increase may lead to a near-term increase in RAD conversions started, we do not expect to see a near term increase in permanent debt on RAD conversions. This is because, even for shovel-ready projects, there is a multi-year construction period where construction financing is required, not permanent debt.

Freddie Mac has the capacity to forward commit to provide permanent takeout financing on RAD conversions once the construction period ends and the property stabilizes. Construction and rehab periods tend to last up to three years, especially when substantial work is involved across many large buildings. Therefore, it is unlikely we will see a material change in the number of RAD properties ready for permanent debt during this first Duty to Serve Plan term.

Although Component 2 does not have a cap, conversions are constrained by the availability of Section 8 Tenant Protection Vouchers, which are partially tied to congressional authorization.[98] The vast majority of Rent Supplement and Rental Assistance properties have already been converted. Per HUD's RAD Winter 2017 Newsletter, since 2011, 80 percent of the Rent Supplement and Rental Assistance Program units have converted under RAD. This results in only 62 remaining properties.[99] Consequently, we do not foresee a sizeable market for future purchases.

Many of the major cities with interest in RAD have already taken advantage of Component 1 rehabs that can be done in a manner that is cost neutral to HUD. Generally, forthcoming conversions will need to rely on other subsidies, which are not consistently available. Therefore, future RAD transactions will be increasingly hard to put together and execute. Additionally, at least in the near term, reduced LIHTC equity pricing and increased interest rates have a dampening effect on RAD transactions.

Freddie Mac has been committed to supporting RAD since its inception and has become the top RAD lender in the market overall. Among the total of 28 GSE-supported RAD properties through 2016, we have purchased loans on 24 for a GSE market share of 96 percent. We welcome the increase of the cap on RAD conversions and look to continue our support through loan purchases over time, even as transactions become more challenging.[100]

OBJECTIVE A: PROVIDE LIQUIDITY AND STABILITY THROUGH RAD LOAN PURCHASES

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Purchase	**1, 2, 3 and ~~3~~4**	**VLI, LI, MI**	**Not applicable**

Freddie Mac has been an important source of debt financing for RAD transactions. Given our substantial GSE market share and the overall potential for market growth, we caution that there is not much room for further growth in real terms without growing market share and taking transactions from other market participants. In RAD, there is not a materially greater market share we can capture. Should other market participants seek to increase their loan purchases, they would likely need to take market share from Freddie Mac. Given the breadth and depth of our investment and experience and the consistency we provide, the only way for other participants to do this would be to loosen credit standards and/or reduce price significantly. Either or both of these measures have the potential to run contrary to safety and soundness and distort the mid- and long-term health of the market in favor of short-term gains.

Our support has included involvement in the largest, most innovative RAD portfolios, namely those in El Paso, Texas, and San Francisco, California. From 2014 through 2016, we purchased a total of nearly $270 million of RAD loans supporting nearly 3,200 units across 24 properties.

These major RAD portfolios have taken full advantage of the certainty of execution and liquidity our forward Tax-Exempt Loan offering provides. Without this forward commitment from Freddie Mac, there would likely be less construction financing and LIHTC equity available for RAD conversions because there would be fewer viable options for permanent debt, especially at the substantial scale of transactions such as those in San Francisco and El Paso.

Based on our outreach through conferences, discussions with developers, public housing authorities, state and local housing finance agencies, as well as our experience, we expect to see significantly fewer new RAD units converted going forward, especially over the next several years, as the pace for conversions slows for several reasons:

1. Major cities such as El Paso and San Francisco with cost-neutral rehabilitations have received their awards and Freddie Mac financing has been applied.
2. Property portfolios pursuing RAD will be smaller, with fewer units and a greater need for soft debt.
3. The majority of RAD transactions require tax credits and/or soft debt. Given reduced LIHTC pricing and higher interest rates, we anticipate RAD transactions will be harder to close because less debt will be supportable by the property at higher interest rates.

4. A significant portion of Component 2 properties has already been converted.
5. The cap for Component 1 was just raised by 40,000 units from 185,000 to 225,000 in mid-2017, so new construction is not likely to start until 2018 at the earliest as new projects are approved or moved from the waiting list. Consequently, permanent debt loan purchases would not occur on these properties until up to three years after construction is started.

Given the importance of RAD in improving the living conditions of so many people in public housing, combined with the challenges it will face in the coming years, it is important that Freddie Mac continue to provide liquidity and stability.

Consistent with safety and soundness concerns, our support will be relative to the likely size of the market.

Baseline for 2018-2020

In setting our baseline, we counted distinct units and properties on which we purchased loans during the year in question through our retail seller/servicer networks or via TAH negotiated transactions on individual mortgages. In the prior three years, our market leading support for RAD through permanent debt has been as follows.

	2014	2015	2016	Three-Year Avg.
Total Loan Amount	$0	$119.3MM	$149.4MM	$89.5MM
Units	0	1,590	1,648	1,079
Properties	0	14	10	8

This leads to a three-year average baseline of support for RAD of $89.5 million of loans supporting 1,079 units across eight properties.

Baseline for 2021

In setting our baseline, we counted distinct units and properties on which we purchased loans during the year in question through our retail seller/servicer networks or via TAH negotiated transactions on individual mortgages. In the prior three years, our market leading support for RAD through permanent debt has been as follows.

	2017	2018	2019	Three-Year Avg.
Total Loan Amount	$12MM	$86MM	$201MM	$100MM
Units	263	1,161	2,073	1,166
Properties	3	11	15	10

This leads to a three-year average baseline of support for RAD of $100 million of loans supporting 1,166 units across ten properties.

2018-2020 Targets

The nature of RAD conversions is such that permanent debt committed today would not be funded until the construction or major rehab is completed and the property has stabilized. This means that even though the cap has been raised, over the next three years, we would not expect to see many new permanent debt loans being made or purchased by us or any other lender. Rather, the industry is completing projects committed in prior years while the cap was in place. We do not expect to see much new permanent debt in place until 2020 at the earliest, though more is likely in 2021.

Based on construction starts in the preceding three years that are expected to convert to permanent debt in the coming years, as well as the market constraints described above and below, we can expect to see fewer units supported in 2018, then an increase in 2019 as previously approved projects receive permanent financing, followed by a decrease again in 2020, and then an increase again in 2021 and beyond. The cap having just been raised, there is potential for new RAD conversions to take place, with permanent debt as early as 2020, but we do not expect to see requests for forward commitments until 2018, at the earliest, leading to construction completion in late 2020 and 2021, or even later. Indeed, based on our own experience, it can take six months or more for a property and developer to get RAD approval and financing lined up, and construction can even take up to 42 months, which means that four years could elapse from approval date to construction completion before any permanent debt is placed on the property. Additionally, we expect these properties to be smaller and more heavily reliant on various forms of public subsidy, and therefore harder to finance.

Therefore, we believe providing financing for the lesser of 750 units or 10 properties in 2018, and the lesser of 2,000 units or 15 properties in 2019 followed by a decrease to the lesser of 500 units or five properties in 2020, constitutes an aggressive and meaningful target. In setting our targets, we will count distinct units and properties on which we purchase loans during the year in question through our retail seller/servicer networks or via TAH negotiated transactions on individual mortgages.

	2018	2019	2020
Target	The Lesser of 750 Units or 10 Properties	The Lesser of 2,000 Units or 15 Properties	The Lesser of 500 Units or 5 Properties

It is our intention to continue to play a leadership role in RAD, and our purchase targets reflect that goal, relative to the availability of properties and units to finance. Indeed, it is not our desire to do less RAD business in 2020. Rather, this reduced target is simply a reflection of the smaller available market size at that time. Our targets may be adjusted upward or downward annually based on market conditions, such as market reactions to tax changes or faster than anticipated project starts and forward commitments.

We anticipate reaching these goals by leveraging our seller/servicer network and core products, which have already proven to be successful in the RAD market.

2021 Target

Our 2021 target represents a significant increase over our 2020 target in a market that fluctuates annually based on the number of available transactions to provide permanent debt on. We expect that our efforts to build a strong RAD pipeline will enable us to meet this target, though COVID-19 has increased risk to deal timelines, as it has created delays in rehabilitations which could affect our ability to purchase loans in the 2021 calendar year.

	2021
Target	Lesser of 1,000 Units or 8 Properties

Challenges

RAD properties are some of the hardest to rehabilitate and finance effectively. This is due to several factors:

1. The RAD use agreement restricts lender remedies in the event of foreclosure.
2. Historically, HUD's budget for public housing has shrunk, leading to underinvestment in and deterioration of public housing properties.
3. Many properties in the RAD program have troubled history, including high vacancy rates, a history of public safety issues, and a tenant population that often needs various social services in addition to housing.
4. RAD transactions take a great deal of time to put together due to the approval process, layered financing, and individual program requirements.
5. Housing authorities often seek assistance from experienced developers and consultants, but there is a limited number of developers who have a demonstrated history of success.

In addition to these, many of the approved and economically viable RAD projects have already had financing applied or committed, often by Freddie Mac. As such, there is not likely to be significant growth in the RAD permanent debt market until new projects are approved and construction is completed.

Additionally, LIHTC equity pricing and interest rates are having an impact on the viability of new projects getting underway. In 2017 tax-credit pricing has reduced from historic highs of about $1.03 per credit in mid-2016 to $0.95 in mid-2017 per *Affordable Housing Finance*'s survey of syndicators.[101] In a hypothetical transaction with $10 million of debt and a need for $6 million of equity, this reduction in tax credit pricing equates to a $480,000 funding gap, which would require additional tax credits or soft debt to close.

Increased interest rates have a direct effect on how much debt a property can support, and therefore how much LIHTC equity or soft debt is required. In 2016, interest rates were at historic lows. For example, over the course of 2016, the 10-year Treasury index had an average high for the year of 187 bps and an average low of 180 bps. In 2017 through July, the 10-year Treasury index had an average high for the year of 237 bps and an average low of 232 bps. Using roughly a 50 bps difference in rate we can see the effect on a hypothetical property: if a property qualified for a loan amount of $10 million, a 50 bps increase in the 10-year Treasury index would mean that property would only qualify for about $9.44 million at the higher interest rate. This means that property would require an additional $560,000 of equity or soft debt in order to receive financing. This gap would be in addition to the gap caused by reduced LIHTC pricing. The combined effect of higher interest rates and lower equity pricing would be over a $1 million gap in funds to fill. As a result of gaps like this, states are channeling their own funds into these transactions as subordinate debt. Given the limited funds available to states, by providing more money for individual transactions, they are not able to support as many properties.

Indeed, as 2017 has progressed, we saw more and more examples of large scale LIHTC market disruption, two of which particularly highlight the impact:

1. On March 15, 2017, the California Tax Credit Allocation Committee (TCAC) passed a resolution allowing developers to exchange their 2016 9 percent LIHTC allocation for 2017 LIHTCs. Given delays in finding

equity investors, developers found it impossible to close in time to complete construction by the end of 2018 (LIHTC deals must be “placed in service”, meaning 100 percent construction completion and receipt of the certificate of occupancy, by the end of the second year after receiving a LIHTC allocation).

2. In the Midwest, the Ohio Housing Finance Agency (OHFA) had to increase the allocation of LIHTC to deals awarded in 2016 because developers were not getting sufficient equity pricing to allow the deals to be economically feasible. Unfortunately, the additional credits had to come from the 2017 allocation, thus reducing the 2017 pool by approximately 12 percent.

As a result of this disruption, in the first half of 2017, there were 16 percent fewer new acquisitions compared to the first half of 2016 per *Affordable Housing Finance*’s survey of syndicators.[102]. We expect the market to remain smaller for some time unless interest rates experienced a sustained reduction and either tax code changes or revisions to the LIHTC program are made, either of which could further affect the market.

2021 Challenges

It is unclear how the market will recover from the COVID-19 pandemic. We are currently observing the headwinds it is creating for construction, rehabilitation, and lease-up, which could present delays for Freddie Mac financing. Borrowers will likely need extra time to get properties built and leased. It is also likely that the market will be slow to recover, at least initially. Our focus in 2021 is on being a stable source of liquidity as the market recovers.

Affordable housing is likely to remain in very high demand for existing renters, and that demand may increase if new renters enter the market due to negative financial impacts of COVID-19. Acquisitions might be slow to recover and state and local subsidy may decrease; however, we may see increases in refinances. Because of such a substantial market disruption, it is especially difficult to set targets and plan for business opportunities outside of providing continuous liquidity to meet market needs.

Market Impact

The combination of the challenges described above creates a highly difficult market to support, and underscores the deep commitment and substantial impact Freddie Mac has already had in providing liquidity, stability, and certainty of execution to Public Housing Authorities around the country. In fact, when the RAD program was created, we recognized its importance and the role we could play in making this market work effectively. Our continued presence as permanent debt provider through our forward Tax-Exempt Loan (TEL) product emphasizes to construction lenders and housing authorities that there is a stable source of permanent takeout financing, ready to commit in advance. This gives certainty to the construction lender and provides liquidity to the market for construction and major rehab projects. In turn, the construction lenders are more willing to lend, and can lend at lower rates. While the market has been constrained by the federally mandated cap on units eligible for conversion, over time, the permanent debt market will grow again as more cap space is allotted and new projects reach stabilization. Without our continued support and market leadership, this market would likely not function nearly as efficiently as it does today, or as it will.

Additionally, TEL is the most efficient, cost effective, and predictable tax exempt execution in the market, and that combination of virtues is especially important for RAD. While there are many associated challenges and uncertainties with RAD, as described above, the availability of cost effective permanent debt, at least, need not be one of them. Through our TEL, we are also able to distribute risk away from taxpayers with our market leading ML securitization execution. This is the most comprehensive risk distribution method in the tax-exempt market. It enables us to provide attractive financing and flexible terms to borrowers, attract private capital to support public good, all while protecting the taxpayer and maintaining safety and soundness.

The result of this is a clear benefit to tenants—improved living conditions as units are rehabilitated, services

provided, and more safe, decent and affordable housing is preserved for those most in need.

Activity 4 – USDA Section 515: Statutory Activity

USDA's Section 515 program is vital for the preservation of highly affordable rural multifamily housing. It provides rental assistance to ensure that tenants pay no more than 30 percent of their income toward rent. According to an analysis by the Housing Assistance Council (HAC), the USDA has financed approximately 28,000 multifamily properties with over 533,000 units through the Section 515 program. [103] As of early 2016, there were approximately 13,830 properties with 416,000 units still in the program. HAC has determined that the following number of units will exit the 515 program by 2040 based on their loan maturity dates:[104]

Years	2017-2027	2028-2032	2033-2040
Annual Unit Loss	1,800 units	16,000 units	22,600 units
Cumulative Units Lost Per Period	18,000 units	64,000 units	158,200 units
Cumulative Units Lost	**18,000 units**	**82,000 units**	**240,200 units**

When these units exit the program, affordable housing is lost in rural areas because owners will no longer be able to access the rental assistance that enabled them to preserve rents at affordable levels to residents making very low incomes for their area while maintaining the property. This is often referred to as the "maturing mortgage crisis." We have repeatedly heard from advocacy groups that USDA's annual budget is not sufficient to preserve this number of properties at the rate at which they would exit the program. Therefore, the introduction of private capital is necessary to recapitalize and preserve these properties to maintain this important housing stock for rural communities.

Freddie Mac intends to address this in these ways:

1. Developing a new offering to preserve properties with USDA Section 515 debt
2. Make loan purchases to preserve properties with USDA Section 515 debt

OBJECTIVE A: DEVELOP A NEW OFFERING TO PRESERVE PROPERTIES WITH USDA SECTION 515 DEBT

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Product	**1, 4**	**VLI and LI**	**Not applicable**

Freddie Mac has developed a strategy that would address the maturing mortgage crisis by increasing product flexibility and partnering with the USDA to create a sustainable, effective loan product offering. Initially, Freddie Mac will perform a comprehensive review of our current product offerings to determine how we can best leverage our existing products with the market challenges faced by the rural rental housing market. Additionally, we will collaborate with borrowers and our seller/servicers to help design additional features that can be added to support this loan offering. Based on the results of our review and feedback from our collaboration, we intend to make improvements consistent with prudent underwriting standards to ensure safety and soundness. We also intend to

leverage our market-leading risk distribution methods that allow us to attract private capital to support these properties, offer competitive terms and flexibility to our borrowers, and transfer risk away from taxpayers. This capability is fundamental to providing persistent liquidity and stability to the market.

While somewhat premature, we expect that these enhancements will cumulatively have a significant impact on the borrowers of rural rental housing by providing a source of stable, efficient, long term private capital which will enable very low-, low-, and moderate-income tenants to remain in their homes without additional rent burden. We expect that, if successful, these improvements will result in increased purchase volume and additional liquidity to this market. Over the two-year period, Freddie Mac plans to build a strong offering foundation by publishing an initial term sheet and completing a pilot transaction to determine market acceptance and long term feasibility of the product offering. We also plan on providing training to our Multifamily seller/servicers to ensure that they are equipped with the information needed to accurately promote and support the offering.

2021 Plan Update:

In 2021, Freddie Mac plans to complete negotiations with USDA, amend relevant loan product term sheets, and notify our seller/servicer network of our ability to purchase loans with USDA 515 subordinate debt.

Baseline

While we have originated TEL transactions, we lack the legal infrastructure, agreements with USDA, and stakeholder partnerships to provide a USDA 515 preservation debt offering immediately. We last purchased a loan on a Section 515 property in 2010, so our baseline of recent experience is zero transactions. This is to be expected because the clear majority of transactions involving USDA's Section 515 properties use other USDA programs, such as Section 538 or the Multifamily Housing Preservation and Revitalization Demonstration Program (MPR). [105]

Challenges, Actions and Market Impacts

Market Challenge	Freddie Mac Action
Limited financing sources ▪ Apart from USDA's Section 538 Guaranteed Rural Rental Housing Program, there are very few outside debt sources being used in conjunction with USDA's Section 515 program. This is due to the tightly integrated USDA requirements between USDA programs. **Property features** ▪ 515 properties, given their small size, cannot benefit from the same economies of scale as more typical multifamily urban or suburban properties due to the number of units. Across the 515 portfolio, the average property size in rural markets is 29 units per our analysis of 515 properties from data.gov. ▪ Smaller rural properties are also distant from major employers and access to other resources that provide occupancy stability to a rental property.	**Year 1 – 2018** Evaluate the barriers limiting private capital in conjunction with USDA's Section 515 program to identify product parameters and legal document requirements. 1) Engage with the following participants to assess and identify areas of opportunity for our product. These participants include: 3 issuers from states with a high concentration of 515 properties, two borrowers from council for affordable and rural housings top 20 borrowers list, two rural advocacy organizations, and two Freddie Mac seller/servicers. 2) Evaluate and assess alternative loan structures to determine offering parameters, as evidenced by the following term sheet. 3) Evaluate and assess appropriate underwriting parameters to mitigate risk of rental assistance termination. These underwriting

Number of stakeholders

- Through our research, we have learned that each transaction has multiple stakeholders each with their own requirements that impact the loan parameters some of which are conflicting making it difficult to ensure ease of execution for each transaction.

Reliance on USDA 515 debt

- USDA 515 debt ensures that the property maintains rental assistance. Therefore, it is important that any additional financing be compatible with USDA 515 debt.

Reliance on rental assistance

- Many USDA 515 properties rely on the rental assistance provided by the Section 521 program. Without this rental assistance, very low and low income renters would be overburdened and unable to fulfill rent obligations. The USDA 521 program provides borrowers with a one-year contract to cover rent payments on behalf of tenants in a designated number or percentage of the units. The one-year contract is only renewed as many times as funds are made available.

Product awareness

- Borrowers are accustomed to working specifically with USDA lenders to originate rural rental housing loans. Likely, the Freddie Mac loan product will have a different loan and legal structure than the current financing option to this market.
- Freddie Mac sellers may not be motivated to market and originate this business due to its initial small scale, limited inventory, and amount of time it takes to originate a loan. From our current outreach, we have heard that it can take from two to five years to complete a rural rental housing transaction.

parameters will be captured in our internal credit policy and summarized in the product term sheet. Results of this analysis will be included in our term sheet.

4) Publish official product term sheet on our website that defines the product and its purpose to enable borrowers and sellers to understand the new loan product. The term sheet will contain at least the following elements:
   a. Product overview and loan purpose
   b. Sponsor and property eligibility requirement
   c. Loan-to-Value limits
   d. Debt coverage limits
   e. Allowable lengths of loan term
   f. Allowable lengths of amortization
5) Initiate one sample transaction to test market acceptance on the new loan and legal structure introduced to the market. Given the time it takes to complete a transaction, we will not likely make a loan purchase until Year 2.
6) Provide one to three training sessions via webinar or in person for Freddie Mac sellers to provide loan offering details, benefits to the borrower, and origination procedures to ensure that sellers have the knowledge to market the product effectively. To address the sellers' concerns, information will be provided to the sellers regarding incentives and origination efficiencies to motivate them to originate transactions with USDA 515 debt.
7) Negotiate and implement subordination agreement with USDA to ensure USDA 515 debt will stay on the property with the senior Freddie Mac debt. The finalized agreement will be shared with FHFA on an informational basis.

Year 4 – 2021

1) Complete negotiations with USDA and implement a subordination agreement with USDA to ensure USDA 515 debt will stay on the property with the senior Freddie Mac debt. The finalized agreement will be shared with FHFA on an informational basis.
2) Amend and publish our relevant loan product term sheets to include reference to our ability to purchase loans with USDA 515 subordinate debt.

	3) Notify our seller/servicer network of our ability to purchase loans on USDA 515 properties.
Resource Challenges	**Freddie Mac Action**
▪ Multiple resources from various teams within Freddie Mac will be essential to ensure success of the actions outlined above.	**Year 1 – 2018** 1) Implement an internal working group to ensure that all resources are allocated appropriately and alignment is maintained throughout the creation of the new loan product.

Market Impacts

Through 2020, we have devoted considerable time and effort in working with USDA to achieve a mutually agreeable subordination agreement. While there are many challenges to developing a product to preserve properties with USDA Section 515 debt, the benefit to the market is great. In the near term, we will lay a strong product foundation and refine it through a pilot transaction. In the long term, we, along with the USDA, will be able provide long-term liquidity and stabilize the 515 preservation market while preserving the rental assistance (subject to continued federal support for these programs). By designing this offering to leverage our market-leading risk distribution methods, we will be able to attract private capital to support 515 properties and the tenants who live in them. In so doing, we will transfer risk away from taxpayers and promote safety and soundness.

Ultimately, though, the benefit of this offering is clear: Through this work, we will enable tenants of very-low and even extremely-low income, many of whom are senior citizens, to be able to continue to live in safe and decent housing that is affordable to them in their communities. Not only does this benefit the tenants themselves, but it also promotes stable communities across rural America.

~~OBJECTIVE B: MAKE PURCHASES TO PRESERVE PROPERTIES WITH USDA SECTION 515 DEBT~~

~~Evaluation Area~~	~~Year~~	~~Incomes Targeted~~	~~Extra Credit~~
~~Loan Purchase~~	~~3~~	~~VLI, LI~~	~~Not applicable~~

~~Purchases of properties with USDA 515 debt are an integral part of our strategy of providing liquidity in support of the 515 program and the rural multifamily housing market. After establishing and piloting a loan product for properties with four percent tax credits and USDA 515 debt, Freddie Mac will focus on the purchase of loans on these properties. This will provide relief from the maturing mortgage crises and preserve affordability for rural properties. Maintaining long term affordability is key to providing rural areas with a stable source of housing. As a result of our outreach, we have determined that properties with USDA 515 debt are usually originated in portfolios of multiple properties and that it could take as long as three years to originate one portfolio with USDA 515 debt. While approximately 75 percent of USDA 515 properties fall within rural defined areas, there are a substantial amount of properties with 515 debt that exist across the country. To mitigate the risks involved with the maturing mortgage crisis, we will also support financing of properties outside of rural areas.~~

~~Given the many challenges of providing financing for 515 properties, purchasing loans and promoting those purchases and their replicability through press releases or news stories on our website will be fundamental to growing this market over time.~~

~~Baseline~~

~~We have not made any purchases of loans on properties with section 515 debt since 2010, therefore our three-year average baseline is 0.~~

~~Target~~

~~Prior to the creation of this third-party financing offering, there is no precedent to accurately determine the market for this product. Also, these transactions are highly complex and slow to develop. Therefore, in Year 3 (2020), we plan to purchase two portfolios of loans on properties with USDA 515 debt. This target is dependent upon us initiating these transactions in Year 2 (2019), as these transactions often take two years to complete. If our loan product requires adjustments, we will likely adjust this target based on market feedback on our product offering. As we gain experience in the Section 515 market and more borrowers accept our product, we will have a greater scope and be able to better predict where these purchases will take place. Any purchases in the early years will be precedent setting and will be used to attract developer interest in the products we offer.~~

~~Challenges~~

~~There are several challenges involved in purchasing properties with USDA section 515 debt. These challenges include both external market conditions as well as necessary internal underwriting and infrastructure changes.~~

~~First, there are the limited financing sources for these properties. Apart from USDA's Section 538 Guaranteed Rural Rental Housing Program, there are very few outside debt sources being used in conjunction with USDA's Section 515 program. This is due to the tightly integrated USDA requirements between USDA programs. Borrowers are accustomed to working specifically with USDA lenders to originate rural rental housing loans. The Freddie Mac loan product likely will have a different loan and legal structure than the current financing option to this market.~~

~~Second, many USDA 515 properties rely on the rental assistance provided by the Section 521 program. Without this rental assistance, very low- and low-income renters would be overburdened and unable to fulfill rent obligations. The USDA 521 program provides borrowers with a one-year contract to cover rent payments on behalf of tenants in a designated number or percentage of the units. The one-year contract is only renewed as many times as funds are made available. Because the section 521 rental assistance is only available if 515 debt is still on the property, it is important that any additional financing be compatible with USDA 515 debt.~~

~~Third, unlike most markets, where one could expect awareness and transactions to be initiated and closed in the same year, this is far less likely to be the case for properties with USDA 515 debt. These transactions are highly complex with multiple parties, multiple properties, and sometimes challenging market conditions. Even once initiated, a transaction can fall through due to many factors, such as disruptions in the LIHTC equity market, rising interest rates, or change in local market conditions.~~

~~Market Impacts~~

~~The immediate benefit of these transactions will be to rehabilitate and preserve safe, decent, and affordable rental homes for tenants who are at risk of becoming homeless if these properties exit the 515 program. This cannot be understated in the near term or in the long term. Indeed, these initial loan purchases lay the foundation for more third-party financing and enable long term, stable liquidity, which is fundamental to providing long-term residence to thousands and thousands of people and families.~~

~~These transactions will also be precedent setting. Through these transactions we will demonstrate to rural developers that there is a new and replicable source of innovative financing for 515 properties that will enable the recapitalization and rehabilitation of these properties. Upon completion, we will issue press releases and/or publish news stories on our website that summarize the transactions and promote their replicability, which will lead to a growth in purchases in future years.~~

~~In so doing, we will introduce new standards and efficiencies into the market. We will also look to attract private capital and promote safety and soundness by leveraging our capital markets infrastructure and risk distribution capabilities.~~

~~We recognize that these innovations will likely take some time to catch on, as each transaction in the early years will likely be slow to develop, and new opportunities will likewise be slow to follow. However, with each transaction, we will preserve more affordable rental homes and build more momentum and market adoption so that by the time 515 properties start to mature at scale around 2028 at 16,000 units per year, the market will have a well-functioning and well-tested execution in place to preserve a meaningful share of rental homes for tenants in need.~~

Activity 5 – Financing of Small Multifamily Rental Properties: Regulatory Activity

Small financial institutions, housing finance agencies, community banks and CDFIs serve an important role in supporting communities across the country, as well as providing financing for projects that are smaller or locally important. Many of the multifamily loans originated by these financial institutions are focused on these smaller projects. Buildings with five to fifty units account for more than one-third of the rental housing in the U.S[106] Generally, rents in these smaller multifamily projects tend to be lower than those in larger buildings, especially the new Class A properties constructed in recent years[107]

To enable small financial institutions to provide greater community benefit, particularly through five to fifty unit properties, we intend to increase access to liquidity through a full suite of multiple seasoned loan securitizations and guarantee offerings. Our objectives around products and purchases include the following:

- Develop a new offering for small balance loan (SBL) pool securitization.
- Develop a new offering for SBL pool credit enhancements.
- Develop a new offering for SBL Participation Certificate (PC) Securitization
- Purchase or guarantee seasoned SBLs from small financial institutions

Based on our outreach to small financial institutions, we understand that Freddie Mac can help this segment of the market by offering access to liquidity so these institutions can continue to grow and support affordable housing. Small financial institutions tend to hold their multifamily loans on their balance sheets, which limits new loan production, or to complete smaller, one-off loan portfolio sales, which is inefficient. As a result, these financial institutions are constrained in their lending abilities either by regulatory requirements or by access to balance sheet capital.

Regulators recommend that banks maintain commercial real estate ("CRE") loan levels on their balance sheets within certain metrics.[108] The two primary metrics that regulators focus on:

- Total reported loans for construction, land development and other land and if this population represents 100 percent or more of the bank's total capital
- Whether CRE levels remain below 300 percent of a bank's total risk-based capital

Banks with CRE concentrations above these levels may be targeted for more supervisory analysis and/or may be limited in their ability to underwrite new loans, thus decreasing the availability of capital for small multifamily properties. For example, our review of banks' CRE exposure indicated a correlation between these suggested thresholds and bank solvency.[109] A 2013 report from the Office of the Comptroller of the Currency and the Federal Reserve found that 23 percent of banks that exceeded supervisory levels for both CRE and construction and development loans failed during the three-year economic downturn, compared with less than one percent of banks that stayed below those levels.[110]

There are many challenges that limit the financing capabilities of small financial institutions. Freddie Mac is demonstrating its industry leadership by creating multiple solutions to these issues. With Freddie Mac participation, small financial institutions will have the capability to select products based on market conditions and their individual needs. With multiple options, institutions will be encouraged to originate and purchase more loans as a result of the increased stability and liquidity in the market.

OBJECTIVE A: DEVELOP A NEW OFFERING FOR SMALL BALANCE LOAN POOL SECURITIZATION

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Product	**1**	**VLI, LI, MI**	**Not applicable**

In Year 1 of the Plan, Freddie Mac will introduce a formal product for seasoned SBL pool purchases and securitizations for small financial institutions. This product will provide a standardized securitization mechanism for Freddie Mac to work with a larger group of small financial institutions seeking balance sheet relief. This will allow the small financial institutions to recycle capital back into new multifamily lending, thereby increasing liquidity for this market. Many of the multifamily loans originated by these financial institutions are focused on smaller projects. These properties account for one third of the rental housing market. Generally, rents in these smaller multifamily projects tend to be lower than those in larger buildings, especially the new Class A supply constructed in recent years[111]

Baseline

Through 2016 we have completed three seasoned SBL pilot securitization transactions with institutions that meet Duty to Serve criteria. Freddie Mac has generally worked within a deliberate set of underwriting parameters for loans in these pools that have not been broadly marketed. We will look to leverage these prior transactions and the parameters used for them to inform, develop, and market formal standards. As we develop this formal offering, we will continue to pursue transactions under the parameters we have been using to date.

Challenges, Actions, and Market Impacts

Market Challenge	Freddie Mac Action
Commercial real estate loan levels limit additional lending ▪ As a result of holding these loans on their balance sheet, banks with CRE concentrations above certain levels may be targeted for more supervisory analysis and/or may be limited in their ability to underwrite new loans, thus decreasing the availability of capital for small multifamily properties. **Limited secondary market opportunities for small financial institutions** ▪ Small financial institutions typically either hold loans on their balance sheet, which constrains their ability to lend, or they create small pools and sell to each other to free up balance sheet space as needs arise.	**Year 1 – 2018** Develop and implement internal credit policy for seasoned SBL pool purchase and securitization that will enable borrowers to sell loans, free space on their balance sheet, and lend more loans while promoting market safety and soundness. 1) Introduce a formal product for seasoned SBL pool purchases and securitizations for small financial institutions. 2) Publish a product term sheet on our website that will include the following elements: a. Product overview and loan purpose b. Sponsor and/or property eligibility requirements c. Loan-to-Value limits d. Debt coverage limits e. Allowable lengths of loan term f. Allowable lengths of amortization 3) Gather feedback from the small financial institutions, HFAs, CDFIs, and community banks from whom we purchase and securitize loans (or attempt to) under Objective D, to refine this offering over time as necessary.
Underwriting Challenge	**Freddie Mac Action**
Bank sophistication ▪ Financial institutions, community banks and CDFIs that serve the VLI, LI, and MI markets will be smaller lenders than Freddie Mac Multifamily has partnered with historically. Freddie Mac's understanding of a bank's origination and servicing platforms will be critical for Freddie Mac to execute effectively and efficiently from a time and cost perspective. **Unfamiliarity with Freddie Mac and process** • Small financial institutions, community banks and CDFIs will likely be first-time customers to Freddie Mac Multifamily. New customers will need to learn Freddie Mac's underwriting and credit approach and approval process.	**Year 1 – 2018** 1) Freddie Mac Underwriting and Asset Management representatives will visit each new lender and have kickoff meetings to go over the bank's lending and servicing standards to determine whether there are any material differences in their platforms from ours and work to resolve any differences where possible. 2) Create a high-level process flow detailing the steps of executing a securitization of a seasoned pool. The process flow will highlight Freddie Mac's credit criteria and approval process for seasoned pools. 3) Provide at least one training session to each institution with which we do business.
Resource Challenge	**Freddie Mac Action**

Staffing ▪ Execution of a securitization of a seasoned small balance loan pool takes time to train a new customer on the Freddie Mac process relating to underwriting, servicing, legal due diligence, and securitization. ▪ The Freddie Mac staff must learn and understand the bank's origination and servicing platform for each new transaction.	**Year 1 – 2018** Freddie Mac will implement an internal working group to ensure that all resources are allocated appropriately and alignment is maintained throughout the increased execution of securitization of seasoned loan pools with a focus on the VLI, LI, and MI market. 1) Provide one to three training sessions covering product process and parameters, including underwriting and ongoing monitoring to internal staff via webinar or in person training sessions as appropriate for the audience.

Market Impact
Small financial institutions often hold their multifamily loans on their balance sheet which limits their potential to do new business and support more renters and communities and concentrates risk within particular institutions. We understand from our discussions with small financial institutions that this offering will alleviate the Commercial Real Estate regulatory requirements that constrain these institutions' abilities to generate new small multifamily loans. In addition to this CRE loan concentration relief, this offering will allow banks to benefit from having loans converted into marketable securities which benefit from Freddie Mac's guarantee of the timely payment of interest and the ultimate repayment of principal. Additionally, outside of the single, whole-loan sales banks typically engage in, there is not another efficient mechanism available in the market for banks seeking to offset large unpaid principal balances of multifamily loans. Flexible structuring options for the securities will allow banks to sell or retain securities and realize sales proceeds at settlement or achieve improved Risk-Weighted Assets on their balance sheet. Finally, there is a potential for banks to be approved as a primary servicer of the underlying loans following settlement which enables the banks to remain in a customer-facing position on the underlying loans while also receiving a servicing compensation fee. As our product becomes increasingly available to our network of seller/servicers and borrowers, we will see a growth of purchase volumes which will create additional liquidity in the market and promote market safety and soundness as risk is distributed away from the small institution, and away from Freddie Mac and the taxpayer. With Freddie Mac able to provide liquidity to the market, these institutions will have the capital to make more loans and support more properties and people.

OBJECTIVE B: DEVELOP A NEW OFFERING FOR SMALL BALANCE LOAN POOL CREDIT ENHANCEMENTS

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Product	**1**	**VLI, LI, MI**	**Not applicable**

In some situations, such as in a rising interest rate environment, small financial institutions may prefer to rely on a Freddie Mac credit enhancement structure of the loans on its balance sheet instead of a securitization. We plan to introduce a non-securitized alternative offering that employs credit tranching whereby Freddie Mac would guarantee the underlying small multifamily loans while the bank continues to hold the loans on its balance sheet. This supports small financial institutions that are seeking relief from heavy commercial real estate exposure, but are operating in an environmental that does not favor loan sale and securitization.

Therefore, in Year 1 of our Plan, we will develop a credit enhancement product that enables Freddie Mac to guarantee small balance loans on banks' balance sheets. This product is expected to be well received by small financial institutions that lack the in-house capital markets expertise required for securitizations.

Baseline

While Freddie Mac has the capacity to offer credit enhancements, and has done so for tax exempt bonds, it has not done so in the context of small loans or with small financial institutions, which are a materially different market segment with unique needs and risks.

Market Challenges, Actions and Impacts

Market Challenges	Freddie Mac Action
Commercial real estate loan levels limit additional lending • Banks with CRE concentrations above certain levels may be targeted for more supervisory analysis and/or may be limited in their ability to underwrite new loans, thus decreasing the availability of capital to support small multifamily properties. **Limited non-security options for balance sheet relief** ▪ Outside of whole loan sales, small financial institutions do not have readily available outlets for multifamily loan concentrations on their balance sheets. ▪ A Freddie Mac credit enhancement may enable small financial institutions to achieve risk-based capital relief without the expenses and time requirements associated with a stand-alone securitization.	**Year 1 – 2018** Develop and implement internal credit policy for seasoned SBL pool credit enhancement that will enable lenders to lend more for small multifamily properties while promoting market safety and soundness. 1) Publish an official product term sheet on our website that identifies the product and the acceptable terms. 2) Include at least the following elements in the term sheet: a. Product overview and loan purpose b. Sponsor and/or property eligibility requirements c. Loan-to-Value limits d. Debt coverage limits e. Allowable lengths of loan term f. Allowable lengths of amortization 3) Gather feedback from the small financial institutions, HFAs, CDFIs, and community banks for whom we credit enhance loans (or attempt to) under Objective D, to refine this offering over time as necessary.

Market Impact

In a rising rate environment, banks will need a way to free balance sheet capital without selling loans to investors at a loss. We understand from our discussions with small financial institutions that providing a credit enhancement offering would accomplish this, by allowing small financial institutions to access the tools of the capital markets used by larger institutions, for the benefit of their local communities. The offering will be designed consistent with safety and soundness.

This offering is foundational for market growth and increases the ability of small financial institutions to support more people and communities in any rate environment. Since small financial institutions do not have readily available outlets for multifamily loan concentrations on their balance sheets, Freddie Mac's offering will provide them with additional sources of capital that were previously unavailable to small financial institutions. Our credit enhancement will allow small financial institutions to achieve capital relief without the associated burdens of securitization. In creating this product, we are providing much needed liquidity to this market. Creating this loan product along with the products in Objectives A and C will have a substantial impact on this market.

OBJECTIVE C: DEVELOP A NEW OFFERING FOR SMALL BALANCE LOAN PARTICIPATION CERTIFICATE ("PC") SECURITIZATION

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Product	**2**	**VLI, LI, MI**	**Not applicable**

Not all small financial institutions have the capital markets capacity or the volume of multifamily loans to engage in a securitization. They are, however, familiar with, and experienced in, PC securitizations. This is a third tool that can provide liquidity to small financial institutions.

Therefore, in Year 2 of our Plan, we will develop a new PC securitization product for small financial institutions. We anticipate that this offering will take a greater amount of time to develop than the securitization and credit enhancement offerings described above as there are two particular aspects of PCs we do not currently offer: (1) floating rate, and (2) rate reset periods, both of which are important to this segment of the market.

Baseline

Freddie Mac offers PCs for our conventional and Target Affordable loans, but has not issued them in this capacity with parameters in alignment with the seasoned SBL pool market.

Challenges, Actions and Market Impacts

Product Creation Challenge	Freddie Mac Action
Lack of scale to support securitization ▪ Many small financial institutions have the desire to securitize multifamily loans but lack the volume to justify the cost or support the economics of a stand-alone securitization. **Commercial real estate loan levels limit additional lending** ▪ Banks with CRE concentrations above certain levels may be targeted for more supervisory analysis and/or may be limited in their ability to underwrite new loans, thus decreasing the availability of capital for small multifamily properties.	**Year 2 – 2019** Develop and implement internal credit policy for small balance loan PC securitization that will enable lenders to lend more for small multifamily properties while promoting market safety and soundness. 1) The PC product should be offered in smaller sizes than what is typically required for the seasoned SBL product (more than $150 million). 2) Publish an official product term sheet on our website that identifies the product and the acceptable terms. 3) Include in the term sheet at least the following elements: a. Product overview and loan purpose b. Sponsor and/or property eligibility requirements c. Loan-to-Value limits d. Debt coverage limits

	e. Allowable lengths of loan term f. Allowable lengths of amortization 4) Gather feedback from the small financial institutions, HFAs, CDFIs, and community banks with whom we engage in PCs (or attempt to) under Objective D, to refine this offering over time as necessary.
Market Impact	
This product will have a profound effect on small institutions that want to engage in PC securitization. This offering will provide more liquidity to the SBL with small financial institutions market, allowing these small institutions to purchase more loans. Small institutions will have familiarity with a PC product which should make for quick execution once the product is in place. As with our other SBL products, this will create long-term stability and liquidity. A new SBL-specific PC offering will allow Freddie Mac to securitize SBL pools much more cost effectively and provide access to liquidity for more financial institutions. PC executions are familiar to many small financial institutions; thus we understand from our outreach that those that lack capital markets capacity will likely find it more adoptable than Freddie Mac's other securitization options. A PC offering will round out a comprehensive suite of executions to meet the needs of small financial institutions which will allow them to support more people and communities. This is foundational for market growth and long-term stability.	

OBJECTIVE D: PURCHASE/GUARANTEE SEASONED SMALL BALANCE LOANS FROM SMALL FINANCIAL INSTITUTIONS

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Purchase	**1, 2, ~~and~~ 3 and 4**	**VLI, LI, MI**	**Not applicable**

Freddie Mac's Structured Targeted Affordable Housing group has begun to develop the capacity to support a seasoned SBL pool business. As described above, we intend to leverage that capacity into formal product offerings available to small financial institutions that meet the Duty to Serve criteria.[112]

Assuming the successful adoption of our offerings described in Objectives A, B and C above, Freddie Mac intends to meet the following loan purchase/guarantee targets described below.

Baseline for 2018-2020

Through 2016, we have securitized three seasoned SBL pools of different sizes that could have met Duty to Serve requirements, leading to a three-year average of one transaction or $292 million. We do not anticipate this to be representative of future purchase volume because small financial institutions typically have portfolios that are much smaller than what we have previously worked with in this space. Therefore, we anticipate deal sizes to be much smaller (approximately $100 million) than the three pools we have completed.

Baseline for 2021

Freddie Mac followed the same methodology to create the baseline for our 2021 loan purchase target as we used to calculate our 2018-2020 baseline. The following table shows Freddie Mac's purchase volume in this market from 2017 through 2019 and the baseline that reflects the average annual volume.

Year	Volume
2017	2 Transactions, $803MM
2018	1 Transaction, $418MM
2019	4 Transactions, $835MM
Three-Year Average	2 Transactions, $685MM

The three-year average baseline is $685MM across 2 transactions.

2018-2020 Targets

At the time of writing, and in the coming years, there is likelihood of a rising rate environment, which would reduce the amount of seasoned SBL purchase or guarantee volume we can do. These transactions from our baseline were executed in a favorable interest rate environment. In a rising interest rate environment, such as today, we would expect to execute fewer and smaller pools for the reasons described below. Given the favorable conditions that previously allowed for large purchases in the SBL market, our targets will start below the baseline and grow to reach the baseline in the third year. Therefore, we are setting our targets as described below. Should the market and interest rate environment change, or should we receive larger than anticipated demand, we will adjust these targets accordingly.

This target is set to leverage any of the three product offerings described above, as each may be beneficial in different scenarios, and we cannot predict which will be best for which institution.

Our first-year target is likely to be met by leveraging our existing parameters prior to the formal development of the securitization or credit enhancement offerings. It is important to note that, unlike typical single loan multifamily transactions, this type of transaction contains hundreds of loans that need to be underwritten from both a credit and legal perspective and have regularly taken six months to a year to develop and execute. Furthermore, banks need to seek regulatory guidance on the treatment of these transactions and often need board approval to enter into a term sheet. As such, in these early stages of product development, securing and closing transactions within a specified timeframe is highly unpredictable. Therefore, our 2018 target is highly appropriate and meaningful. As the years progress and we release more offerings, we will be better able to increase our target.

Year	Target
2018	The lesser of one transaction or $100MM
2019	The lesser of two transactions or $200MM
2020	The lesser of three transactions or $300MM

2021 Target

The target established is a reduction from our previous three-year average due to a substantial shift in the market away from LIBOR loans to SOFR loans. As of September 2020, we effectively transitioned from LIBOR to SOFR and are now unable to purchase LIBOR loans[113]. To-date, the majority of the seasoned pool securitizations for SFIs have included hybrid loans with a 5- or 7-year fixed-rate period followed by a floating-rate period. The floating-rate period for these loans were tied to LIBOR. These hybrid loans make up 55.89% of our total seasoned pool securitization volume to-date of $4.43B with 70% of these hybrid loans being originated by SFIs over the past 4 years.

Due to the index transition, Freddie Mac cannot include hybrid loans with LIBOR in our seasoned pool securitizations for SFIs, which dramatically reduces our ability to provide liquidity to SFIs via seasoned pool securitization offerings going forward. At a minimum, there will be an extended period of time (12+ months) during which we cannot securitize these loans, until the SFI originates a sufficient pool of SOFR loans that have conforming floating-rate language that is acceptable to Freddie Mac.

Freddie Mac cannot require SFIs to change their form loan documentation and underlying floating-rate index to what is required for us to purchase loans going forward. Given the LIBOR to SOFR transition, the pending multifamily volume cap and final Capital Rule guidance, we will commit to $200MM to be executed with SFIs.

Year	Target
2021	$200MM

Market Challenges

There are a few challenges that are involved in purchasing or guaranteeing pools of these loans. The first issue is present in the interest rate environment. For this business model to operate effectively, interest rates at the time of securitization must be at or below interest rates at the time of loan origination. Because we would purchase, securitize, or guarantee loans 12 months after they were made, the buyer of the pool would be basing their return expectations on a spread over the Treasury or LIBOR index at the time of purchase. If the index is higher at the time of securitization than it was at the time the loan was made, then the bank would have to sell at a loss, we would have to buy it at a loss or the securitization investor would have to invest at a loss.

The second challenge is involved in the execution of the purchase. Securitizing seasoned SBL loans originated by other financial institutions can often take 6 or more months to complete, as each transaction normally has over 100 loans (in many cases, more than 200), each of which needs to be underwritten and reviewed from a legal perspective. Therefore, in order to complete a transaction in 2018, we will need to have received the agreement of the borrower in the first half of the year—the same year in which we are formally developing two of our three products. There will be a lead time with each product development before we can execute the first transaction under that product.

Third, with each new transaction we do, we must develop a new relationship with a financial institution. Conversely, the financial institution has its own fiduciary duties it needs to weigh as part of entering into a deal. This includes identifying and obligating resources on its side related to negotiating deal terms, analyzing the deal's impacts to its balance sheet, monitoring the deal, closing, and in many cases, servicing the loans post-closing. A financial institution's board typically needs to approve its entering into a term sheet and internal employees are assigned to work on a deal to assist in Freddie Mac's underwriting and legal review of the pool of loans. With each new relationship, we must ensure a financial institution is able to undertake this commitment. This combination of factors likely limits the institutions with which we could do business in a given year to a select few.

2021 Challenges

It is unclear how the market will recover from the COVID-19 pandemic. We are currently observing the headwinds it is creating for construction, rehabilitation, and lease-up, which could present delays for Freddie Mac financing. Borrowers will likely need extra time to get properties built and leased. It is also likely that the market will be slow to recover, at least initially. Our focus in 2021 is on being a stable source of liquidity as the market recovers.

Affordable housing is likely to remain in very high demand for existing renters, and that demand may increase if new renters enter the market due to negative financial impacts of COVID-19. Acquisitions might be slow to recover and state and local subsidy may decrease; however, we may see increases in refinances. Because of such a substantial market disruption, it is especially difficult to set targets and plan for business opportunities outside of providing continuous liquidity to meet market needs.

Market Impacts

The primary market impact will be found in the creation of liquidity for small financial institutions. The potential for new deals, coupled with past deal experience, is expected to further enhance Freddie Mac's expertise with this securitization structure. With the Freddie Mac guarantee, market investors will become more familiar with Q series certificates, which are an innovative securitization that comprehensively distribute risk away from tax payers and provide liquidity to the market. Small financial institutions will then be able to sell loans and create additional liquidity, or hold them for balance sheet management purposes. This offering will provide more liquidity to the SBL market, and therefore allowing these small institutions to purchase more loans. As with our other SBL products, this will create long-term stability and liquidity.

With each transaction of $100 million we execute, we enable a small institution to lend another $100 million to support small multifamily properties. If the average property is about $3MM and 30 units, then that institution can lend to an additional 33 properties, for nearly 1,000 units of naturally occurring affordable housing. As we build momentum, increase predictability, increase our purchases and guaranties, and enable more lenders to increase their lending, we will increase our impact by supporting thousands of families per year making very low, low, and moderate incomes, all without relying on scarce public subsidies.

OBJECTIVE E: DEVELOP A NEW OFFERING FOR SMALL BALANCE LOAN CREDIT ENHANCEMENT FOR SECONDARY MARKET TRANSACTIONS ("SMART Credit Enhancement")

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Product	**4**	**VLI, LI, MI**	**Not applicable**

Challenge

Not all small financial institutions (SFIs) have the capital markets capacity or the volume of multifamily loans to engage in a securitization. SFIs play an important role in supporting local communities across the country and providing sufficient capital to support local projects. Many multifamily loans originated by these institutions are focused on these smaller projects and more likely to be affordable. However, these institutions can be limited in their lending capacity by regulatory and balance sheet constraints. Small financial institutions often hold their

multifamily loans on their balance sheet, which limits their potential to do new business to support more renters and communities and concentrates risk within particular institutions. SFIs need to able to exchange less-liquid loans to more liquid securities. This would allow SFIs to recycle capital for more lending in their communities.

We understand from discussions with SFIs that identifying ways to alleviate the costs associated with meeting regulatory requirements that constrain these institutions' abilities to generate new small multifamily loans is critical. Banks with commercial real estate (CRE) concentrations above certain levels may be targeted for more supervisory analysis and/or may be limited in their ability to underwrite new loans, thus decreasing the availability of capital for small multifamily properties. While we have successfully executed transactions using existing offerings for SFIs, we recognize there is still more that can be done, particularly to enable SFIs with smaller balance sheets to access liquidity and recycle capital.

Baseline for 2021

Between 2017-2019, Freddie Mac introduced three offerings focused on providing liquidity to SFIs so they may find balance sheet relief:

- Small Balance Loan Participation ("PC") Securitization
- Small Balance Loan Pool Securitization
- Small Balance Pool Credit Enhancements

These offerings were designed based on deliberate set of underwriting parameters for seasoned pool transactions.

Action

Therefore, in Year 4 of our Plan, we will develop a credit enhancement offering for SFIs and CDFIs to address the need for these institutions to recycle balance sheet capital back into new financing sources. This offering is intended to support SFIs with minimum balance sheets of $50MM, in contrast to the other Freddie Mac securitizations that are cost effective at higher volumes of at least $150M.

This product offering will leverage existing securitization structures with a senior and subordinate structure, whereby a guaranteed piece is sold off and an unguaranteed piece is either retained by the sponsor for yield or sold to a third-party investor. This structure is more cost effective for smaller deals. One benefit to the sponsor is reduced deal expenses and the ability to covert less-liquid loans into more liquid receipts that are held by the sponsor or investors. Any loan(s) or bond(s) are still subject to a full Freddie Mac underwriting and credit approval and we will be utilizing existing credit enhancement capability.

We expect that this product can be used for both 9% LIHTC loans, tax-exempt housing bonds and naturally occurring affordable housing.

Year 4 – 2021

Freddie Mac intends to take the following actions in 2021 to enable lenders to lend more for small multifamily properties while promoting market safety and soundness. The SBL Credit Enhancement for Secondary Market Transactions will be available in smaller sizes than what is typically required for the seasoned SBL product (minimum of $50MM). To that end, Freddie Mac will:

1) Engage with and gather feedback from DTS qualifying SFIs on our suite of offerings as part of our~~t~~ development process
2) Publish an official product term sheet on our website that identifies the product and the acceptable terms.
3) Actively market the offering through conversations with smaller lenders and intermediaries.

Market Impact

Small financial institutions often hold their multifamily loans on their balance sheet which limits their potential to do new business and support more renters and communities and concentrates risk within institutions. We understand from discussions with small financial institutions that this offering will alleviate the Commercial Real Estate regulatory requirements that constrain these institutions' abilities to generate new small multifamily loans.

This offering will provide more liquidity options to hardest-to-serve SFIs with smaller balance sheets and concentration of multifamily loans, allowing these small institutions to purchase more loans. As with our small balance loan products, this offering will continue to promote financial stability with added efficiency.

This will round out a comprehensive suite of executions to meet the needs of SFIs which will allow them to support more people and communities.

Activity 6 – Energy or Water Efficiency Improvements on Multifamily Rental Properties: Regulatory Activity

In 2016, Freddie Mac released our Green Advantage suite of energy- and water-efficiency financing offerings, which are focused on helping borrowers improve properties and reduce energy ~~orwater~~or water consumption by at least 15 percent while investing at least $350 per unit. Prior to the suite's launch, we understood that general market interest in financing to support energy or water efficiency improvements existed, and the market saw opportunities for savings, particularly in older and more affordable properties. However, there were several challenges that limited market adoption:

1. Energy or water efficiency were not consistently top priorities for borrowers.
2. Timing for energy analysis did not align with deal timelines.
3. Energy usage data, particularly for tenants, was not readily available in the majority of markets.

In designing our Green Advantage program, we focused on ways we could reduce these challenges and develop broadly adoptable offerings.

To address questions of borrower priorities and timing, we took three actions:

1. Established simple criteria for properties that would be a good fit for Green Advantage so seller/servicers and borrowers would have a clear understanding of the properties that would be candidates for green improvements.
2. Worked with energy efficiency consultants to design our Green Assessment, which can be completed within two weeks and helps borrowers make decisions about improvements early on.
3. Decided to pay for the Green Assessment (up to $3,500) as long as the borrower obtains a Freddie Mac loan (whether or not it is a Green loan) so the borrower does not have to decide if it is worth considering green improvements.

As a result of these efforts and our collaboration with industry partners, we have purchased over $15 billion of loans across more than 150,000 units under Green Advantage in the first year of the program through 3Q2017, and we have an active pipeline of loans continually forthcoming. Clearly, the program has achieved broad market acceptance and we have created a market for energy efficiency improvements that did not previously exist.

We expect to see continued adoption of the program, and we intend to leverage the information we collect both through our Green Assessments and through our annual property energy and water consumption benchmarking requirements[114] for the benefit of the broader market by producing an annual study of energy and water efficiency through the Green Advantage program.

OBJECTIVE A: PUBLISH AN ANNUAL STUDY OF ENERGY AND WATER EFFICIENCY THROUGH THE GREEN ADVANTAGE PROGRAM

Evaluation Area	Year	Incomes Targeted	Extra Credit
Outreach	**1, 2, ~~and~~ 3 and 4**	**VLI, LI, MI**	**Not applicable**

In developing Green Advantage, and through subsequent conversations with lenders, borrowers, trade organizations, researchers and advocates, we have found strong interest in the property data we collect and the types and benefits of improvements borrowers are making. This data and analysis of efficiency measures on multifamily properties will likely strengthen the market for energy- and water-efficiency improvements and support efforts beyond the GSEs' specific programs.

Therefore, in all three years of the Plan term, we intend to publish a report on the Green Advantage program based on the loans we have purchased, the energy and/or water efficiency improvements planned and made, the estimated costs of those improvements, the projected savings and the savings realized thus far. We intend to work with market participants such as energy efficiency stakeholders, appraisers and property owners to inform our analysis and reporting. Our intention with this outreach is to continually work with program users (borrowers, seller/servicers, and energy consultants) to better understand the improvements selected, expected costs and savings, and the actual results collected from developers. Our findings will be posted annually on our website and marketed through a press release.

In the early years of this report, we will focus more on the measures selected by borrowers and the projected savings. By Year 3, we will begin to see actual savings based on our benchmarking data collection. In later years, our reports will analyze this information, which will provide valuable insights on the likely savings for different efficiency measures in the context of multifamily properties, which should serve as industry benchmarks.

Baseline

We do not have a database today that serves the functions decribed; however, we have instituted strong benchmarking requirements for all Green Advantage loans, for which we require 10 percent of tenants' utility data be collected for analysis for all loans post closing through two years after the completion of green improvements, and we have begun agreggating data and scoping reporting needs.

Challenges, Actions and Market Impacts

Market Challenge	Freddie Mac Action
Lack of market data ▪ Energy and water efficiency market data is limited or unavailable due to slow market adoption of green practices. ▪ Green improvement data was not available until the introduction of Green Advantage. ▪ Prior to third quarter 2017, borrowers were not required to track energy and water information until after they completed their green improvements. As a result, we do not have	**Year 1 – 2018** 1) Create a research database that will contain estimated and actual energy efficiency data collected from Green Assessment reports and Energy Star Portfolio Manager on properties with Freddie Mac Green Advantage loans as that data becomes available. In the first year of the Plan, most efficiency data will be estimated until green improvements are completed and post-improvement data is captured in Portfolio Manager. This data will at

immediate access to this data. ▪ Our initial research will be based on estimated green data until actual data is accessible in Year 2. ▪ We have since refined our program requirements, so borrowers are now required to track consumptions post-closing. ▪ Tenant data is not readily available because borrowers must receive consent from tenants to get access to this information.	least include the following: a. Basic property information b. Potential green improvements c. Improvements selected by borrowers d. Estimated costs of improvements e. Projected savings by efficiency measure and in aggregate 2) Publish a report on identifying and analyzing energy and water efficiency measures selected through Freddie Mac Green Advantage loans 3) Post the report on our website and promote it to the public through a press release. 4) Publish underlying property level data for public analysis including the following information: a. Property state b. Property county c. Year built d. Number of units e. Property type (for example, garden, high-rise, mid-rise) f. Type of savings pursued (energy/water/both) g. Green improvement measures pursued h. Projected savings of measures i. Estimated costs of measures **Year 2 - 2019** 1) Collect and analyze estimated and available actual energy efficiency data collected from Green Assessment reports and Energy Star Portfolio Manager on Freddie Mac Green Advantage loans to facilitate easier analysis as that data becomes available. In the second year of the Plan, we expect to receive actual efficiency data through Portfolio Manager, as more green improvements are completed and post-improvement data is captured in Portfolio Manager, as more green will have been completed and data captured. 2) Require collection of at least 10 percent of tenant data as a requirement of the program. 3) Publish a report identifying and analyzing

	energy- and water-efficiency measures selected through Freddie Mac Green Advantage loans. This data will at least include the following: a. Basic property information b. Geographic location of properties c. Type of property d. Potential green improvements, e. Improvements selected by borrowers f. Actual savings based on previous year 4) Post the report on our website and promote it to the public through a press release. 5) Publish underlying property level data for public analysis including the following information: a. Property state b. Property county c. Year built d. Number of units e. Property type (for example, garden, high-rise, mid-rise) f. Type of savings pursued (energy/water/both) g. Green improvement measures pursued h. Projected savings of measures i. Projected Savings overall based on selected measures j. Estimated costs of measures k. Post-improvement consumption metrics (as this data becomes available, recognizing that it will take up to two years or more until work is completed on the properties and post-improvement consumption can be tracked) **Year 3 – 2020** 1) Continue to collect and analyze estimated and available actual energy efficiency data from Green Assessment reports and Energy Star Portfolio Manager on Freddie Mac Green Advantage loans. 2) Publish a report identifying and analyzing energy and water efficiency measures selected through Freddie Mac Green

	Advantage loans. 3) Implement program improvements based on feedback from borrowers, sellers, localities, and research organizations. 4) Include analysis in the report based on at least the following: geography, types of efficiency measures, types of buildings. 5) Post the report on our website and promote it to the public through a press release. 6) Publish underlying property level data for public analysis including the following information: a. Property state b. Property county c. Year built d. Number of Units e. Property type (for example, garden, high-rise, mid-rise) f. Type of savings pursued (energy/water/both) g. Green improvement measures pursued h. Projected savings of measures i. Projected savings overall based on selected measures j. Estimated costs of measures k. Post-improvement consumption metrics (as this data becomes available, recognizing that it will take up to two years or more until work is completed on the properties and post-improvement consumption can be tracked) **Year 4 – 2021** 1) Continue to collect and analyze estimated and available actual energy efficiency data from Green Assessment reports and Energy Star Portfolio Manager on Freddie Mac Green Advantage loans. 2) Publish a report identifying and analyzing energy and water efficiency measures selected through Freddie Mac Green Advantage loans. 3) Implement program improvements based on feedback from borrowers, sellers, localities, and research organizations.

	4) Include analysis in the report based on at least the following: geography, types of efficiency measures, types of buildings. 5) Post the report on our website and promote it to the public through a press release. 6) Publish underlying property level data for public analysis including the following information: a. Property state b. Property county c. Year built d. Number of Units e. Property type (for example, garden, high-rise, mid-rise) f. Type of savings pursued (energy/water/both) g. Green improvement measures pursued h. Projected savings of measures i. Projected savings overall based on selected measures j. Estimated costs of measures k. Post-improvement consumption metrics (as this data becomes available, recognizing that it will take up to two years or more until work is completed on the properties and post-improvement consumption can be tracked)

Resource Challenge	Freddie Mac Action
▪ Workforce will need to be employed in order to create a database from the ground up. ▪ The database will require ongoing maintenance as necessary, updates will require ongoing work ▪ Throughout the Duty to Serve Plan, we are taking on a considerable number of research efforts, all of which require extensive planning, as well as collaboration with key stakeholders, and analysis. The design and research of all of these objectives will have many unique components, and will leverage the expertise and skills of our internal research organization, whose focus extends beyond the scope of the Duty to Serve Plan.	**Year 1 – 2018** 1) Assemble a design team to create the database. This team will be made up of individuals from IT, research, and business teams. 2) Identify the needs of stakeholders by engaging with at least the following: a. Two research and policy organizations b. Three appraisers c. Three borrowers d. Three sellers/servicers e. Three Green Assessment vendors 3) Produce an annual report. **Year 2 – 2019** Researchers should continue outreach to update the database based on needs of the market and new data coming in. 1) Receive actual data from borrowers on their energy and water consumption. 2) Review and revise our tracking mechanism as appropriate. 3) Produce annual report as described above. **Year 3 – 2020** Same as Year 2. **Year 4 – 2021** Same as Year 2.

Market Impact
Green Advantage has already facilitated large scale market adoption of green practices in multifamily properties by eliminating challenges tied to borrower priorities and timing and in so doing, we have unlocked liquidity for energy efficiency improvements at an extremely large scale (over $15 Billion and 150,000 units since program inception through 3Q2017). Prior to the program, only a limited number of property owners were making deliberate green investments in their multifamily properties, resulting in a dearth of energy and water efficiency related data, and many missed opportunities, particularly among workforce housing properties. The program's success will allow Freddie Mac to address the current lack of market data as we collect information both through our Green Assessments and through our annual property energy and water consumption benchmarking requirements. This data can help the industry move on to greater predictability about efficiency improvements and focus on work that will lead to even deeper savings than those described in Duty to Serve. Freddie Mac's analysis will result in an ongoing report that will provide an understanding of the pragmatic steps necessary to improve the efficiency of multifamily housing stock as well as the benefits of doing so. Industry groups, such as trade organizations, research organizations, and borrowers have consistently requested the ability to leverage this data. Our analysis of Green Advantage data will increase the market's understanding of energy efficiency improvements and help to inform borrowers' property improvement decisions related to their efforts to reduce expenses and preserve affordability. The data should also benefit appraisers as they develop valuations and other market participants as they seek to create more efficient, cost effective buildings. In so doing, we are laying the groundwork for future innovations in energy and water efficiency tied to applications on multifamily properties. Through the collection, analysis and reporting of this market data, Freddie Mac will help to establish industry benchmarks for energy and water efficiency improvements for multifamily properties, and lay a foundation for borrowers to make greater improvements to their properties. The release of an annual energy and water efficiency study will benefit the multifamily market and support efforts beyond the GSEs' specific programs. By conducting this analysis and sharing the analysis and detailed underlying data with the public that would not otherwise be available, we will have substantial impact on the development of further solutions to challenges in this market. We will also leverage the ongoing analysis to refine our Green Advantage program in an attempt to drive greater impact and greater value for the investments in the properties. Over time, we believe this work will also make green improvements on properties more cost efficient and cost effective as borrowers, equipped with greater knowledge, can make better decisions about improvements that can provide environmental benefit and cost savings to tenants.

Activity 7 – Financing of Energy or Water Efficiency Improvements on Single-Family Properties: Regulatory Activity

Freddie Mac is committed to supporting the energy efficiency market as part of our goal to preserve home affordability. We currently support this market through product features and underwriting flexibilities that can be applied to all Freddie Mac products meeting certain criteria. However, through market outreach, we have concluded that our products do not always align with this market's evolving needs and that lenders have limited awareness of Freddie Mac's offerings to finance energy efficiency improvements. Freddie Mac's current product features and underwriting flexibilities, which are our overall baseline for objectives under this activity, are summarized below:

- Freddie Mac will purchase mortgages on properties that are being retrofitted, refurbished or improved with energy efficiency features if an escrow account is established.
- On manually underwritten loans, lenders can use energy efficiency features as a compensating factor for higher debt-to-income ratios.
- Freddie Mac's cash-out refinance allows borrowers to obtain funds that can be used to make energy efficient improvements, pay off existing unsecured debt obligations related to energy efficiency improvements or pay off property assessed clean energy (PACE) loans.
- Freddie Mac also offers a no cash-out refinance option, which allows for higher LTV ratios than cash-out refinance transactions, that permits the payoff of PACE loans with the proceeds from the refinance transaction.
- Freddie Mac's Home Possible mortgages offer eligible borrowers a low-down payment option with flexible underwriting features, which can be combined with Freddie Mac provisions that support energy renovations and retrofits in purchase or refinance transactions.

We recognize that to help this emerging market grow further, our product offerings could better align with the market's evolving needs and be designed to promote standardization. Under this activity, Freddie Mac's objectives focus on building on existing offerings and developing standardized product features and underwriting flexibilities that address some of the most pressing market needs, such as property-level data collection mechanisms and collateral valuation guidance. We will specifically focus on promoting standardization of data collection by building on existing uniform mortgage data collection mechanisms to include energy efficiency property information. We believe focusing on these needs will lay the foundation for the future growth of first lien financing of energy efficiency improvements. We also plan to address the inadequate consumer awareness and limited data on performance of loans on energy-efficient properties, which have prevented this market from growing further. Specifically, Freddie Mac intends to engage in the following objectives during the Plan term:

- Conduct research on the impact of energy efficiency improvements on property values and mortgage performance and publish our findings to provide the market with information to be used in product design.
- Develop valuation guidance and data collection requirements that factor in energy efficient property features.
- Design new or improved product flexibilities to facilitate financing of energy efficiency improvements.

Freddie Mac acknowledges that loan purchases are important to increase liquidity in this market and expand the distribution of capital. Therefore, we will purchase loans to inform our product design efforts during ~~all three~~the first two years of the Plan. ~~During years 1 and 2, our~~Our focus will be on building the appropriate infrastructure, capabilities, and products to ensure sustainable market growth. Currently, there is limited market sales data to produce historically ~~-~~based market sales projections that would accurately reflect the size of the first~~-~~-lien market versus Freddie Mac's probable market share. Nevertheless, we are committing to purchase loan volumes based on likely purchase volume assumptions to indicate our strong commitment to this market.

OBJECTIVE A: RESEARCH THE RELATIONSHIP OF ENERGY-EFFICIENT HOMES TO PROPERTY VALUES AND MORTGAGE PERFORMANCE

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Product	**1, 2 and 3**	**LI, MI**	**Not applicable**

In 2016, Freddie Mac established its Energy Efficiency Task Force, a collaborative effort to learn about the energy efficiency market and the issues preventing its growth. Task force members consisted of executive level representatives of leading organizations in this market. During our meetings, we repeatedly heard about the lack of data to be used in product development. Several task force members encouraged us to take on research to help inform the market on the relationship of energy-efficient homes to property values and loan performance—two key factors that would inform future product design and policy decisions. Other than the product features and underwriting flexibilities described in the first section under this activity, Freddie Mac does not have a dedicated product or additional flexibilities to serve this market. Freddie Mac plans to conduct this research and use the findings to design energy efficiency product features and marketing campaigns about the value of energy efficiency.

Specifically, during the first year of the Plan, Freddie Mac will conduct research on of the relationship of energy-efficient homes to their property values and underlying loan performance. We plan to investigate the house price premium associated with energy efficiency improvements or better energy efficiency ratings. House price premiums are important to understand because many of our policy decisions are based on the value of properties that will serve as collateral for loans we purchase and eventually securitize. Further, we plan to compare the default risk for mortgages for energy improvements or on more energy-efficient homes to the default risk associated with other mortgages. This is important to understand because it will allow us to design appropriate requirements or flexibilites to more accurately manage the risk we take on when purchasing loans under this activity. Additionally, Freddie Mac plans to use the results of our research to adjust our product offerings in Year 2 under Objective B. We also intend to conduct periodic trending analysis after Year 3. Freddie Mac is uniquely situated to carry out this objective because we have a national presence, we can leverage larger data sets and we already have access to much of the foundational information needed.

In addition to using our research findings to inform our product design efforts, we also intend to use our findings to promote awareness about energy efficiency across the industry. Market participants told us that consumers have limited access to information about the value of energy efficient homes, and real estate professionals often do not have readily available property-level information. Both groups lack appropriate awareness about financing products available to pay for energy efficiency improvements. A 2012 study by Resource for the Future, a Washington, D.C.-based think tank, indicates that consumer behavior coupled with the absence of good information about the pay-offs from particular investments and the relatively low price of energy, have contributed to the lack of demand. Therefore, Freddie Mac intends to publish our research findings on our website during the second year and incorporate them into our customer training curriculums and industry event presentations during Year 3. In Year 3, we also plan to promote our findings to consumers to increase consumer access to education and information about the benefits of energy efficiency home improvements and first lien mortgage options available to finance them. For this, Freddie Mac will leverage its existing outreach capabilities, dedicated customer education teams and wide-ranging outreach and communications channels.

Baseline

Freddie Mac has never taken on this specific research. Existing studies have explored aspects of home price premiums and loan performance and suggest that the premiums associated with energy efficiency or green labels vary by geography and type.[115] However, existing studies have been conducted with limited scope or data and cannot be used empirically to design standardized requirements or scalable product flexibilities. Therefore, Freddie Mac sees an opportunity to expand house price research to a broader geographic area so we can apply

our findings to our product design and policy development efforts described under Objective B. Additionally, a 2013 research report by the University of North Carolina's Center for Community Capital and the Institute for Market Transformation found "default risks are on average 32 percent lower in energy efficient homes even when other loan characteristics are considered. Under this objective, we plan to use this study as a baseline and expand our research scope with more recent data, more complete geographic coverage and more considerations for income and other differences between borrowers with energy efficient homes and those with non-energy efficient homes.

Challenges, Actions and Market Impacts

Challenge	Freddie Mac Action
Limited transaction-level data ▪ There is limited aggregate data to properly assess risks and model performance of properties with energy efficiency features. ▪ There is limited research on the impact of energy efficiency improvements on single family loan performance, property values, and eventually securities comprised of energy efficiency debt. ▪ There is inadequate information about energy-efficient property features. **No standard valuation methodology** ▪ There is no consistent nor widely adopted approach to account for the impact of energy efficiency improvements to property value. ▪ The industry recognizes the sales comparison approach as widely adopted and the preferred approach to support the value of properties. However, there is limited empirical data about the premium associated with energy efficiency home features. **Limited awareness** ▪ There are financing options in the marketplace but consumer awareness about them has remained low even in geographies where renewable energy is largely popular. ▪ Consumers have limited understanding of the benefits of energy-efficient homes. ▪ Real estate professionals have limited access to information about financing products available for energy efficiency improvements.	**Year 1 – 2018** 1) Procure external data and leverage internal data on energy efficiency ratings, property values, and property attributes. Data to be procured includes the following: a. Energy efficiency rating data from various home energy rating entities b. Parcel data c. Property level information, including heating/cooling system types d. Appraisal data e. Home sales data f. Real estate datasets 2) Design new, or leverage existing, internal models and define control group and independent variables needed to complete data analysis. Freddie Mac will seek input from our Energy Efficiency Task Force as these are developed. 3) Construct final sample dataset of statistically appropriate significance. We plan to obtain feedback on the size and characteristics of our final sample from our Energy Efficiency Task Force. 4) Conduct research on how house prices respond to energy efficiency improvements or better energy efficiency ratings by comparing sales prices and property values for energy rated or more energy-efficient homes to less energy-efficient homes, with considerations for property characteristics. Freddie Mac will build upon existing studies done to-date. 5) Evaluate the default risk of mortgages for energy efficiency improvements or on more energy-efficient homes compared to other mortgages by analyzing the likelihood of delinquency or default, with considerations for

borrower, loan, and property characteristics. Freddie Mac will build upon existing studies done to-date.

Year 2 - 2019

1) Provide FHFA a report that describes product development decisions or actions to be taken that directly result from research findings.

2) Incorporate research findings into the development of data collection requirements described under Objective C.

3) Publish the results of our analysis of property values and loan performance for mortgages associated with energy efficiency improvements or better energy efficiency ratings in a white paper.

4) Present or disseminate research findings in at least four industry events, during Freddie Mac Customer Advisory Council meetings, and via email to all Single-Family News subscribers. We plan to post the results of our research on our website. We also plan to drive traffic and create awareness about it by publishing at least one news article in our News Center page, publishing at least two blogs in both our consumer and corporate blog sites, and sending emails to all our News Center subscribers

5) Partner with various organizations, lenders, or energy advocacy groups and work with them to create links in their respective webpages that direct individuals to Freddie Mac's pages where our white paper and corresponding news articles and blogs are posted.

Year 3 – 2020

To support our loan purchase targets described in Objective C, we will provide education or information, based on our research findings, about the value of energy efficiency and first lien mortgage options available to consumers:

~~1) Disseminate consumer education or information in at least four homebuyer events in partnership with entities supporting homeowners and homebuyers and work with our Borrower Help Centers to disseminate energy efficiency information to their respective borrowers and prospective borrower clients.~~

~~2)~~1) Publish a series of consumer-focused blogs on our blog site within FreddieMac.com that presents information derived from our

	research about the benefits of energy efficiency. ~~3)~~2) Incorporate information about energy efficiency product options into our ongoing real estate professional outreach efforts and partner with at least three real estate professional or trade organizations to coordinate outreach activities to their respective membership bases. ~~4)~~3) Conduct marketing campaigns about Freddie Mac product features (to be designed under Objective C) and the benefits of energy efficiency improvements. This is an activity that relates to Objective C but will be built upon the results of our research under this activity. Specifically, we will use the research findings related to loan performance to market our product flexibilities by providing information that will build lender confidence.

Market Impact

Performing this research will provide valuable information that is not currently available and therefore addresses a need that was repeatedly echoed during our outreach. The study's conclusions will help set the foundation for this market since, by publishing it and through our extensive outreach efforts, it could be used by the industry to design products, collateral valuation methodologies, and underwriting requirements, beyond Freddie Mac's efforts. Freddie Mac plans to use the research findings to inform our own product design efforts and in the design of our underwriting guidance, policies and product features under Objectives B and C. Although some studies of similar scope have been performed in the past, we plan to create larger datasets, use more recent data, and leverage our significant experience in collateral valuation and loan performance analytics to build upon existing studies. To meet this objective, we will need to obtain wide-ranging and comprehensive data to analyze which, given the lack of data standardization and absent of any single comprehensive data repository, will involve a high level of effort on Freddie Mac's part. For example, we anticipate a significant effort to consolidate, dissect, clean, and reformat the various datasets we will procure into a usable dataset. Additionally, we anticipate having to spend significant resources mapping data files from datasets we procure into new datasets we will develop. We will leverage our experience in collateral valuation, data analytics, expertise in loan performance assessment and established partnerships with a wide range of energy efficiency participants.

During years 2 and 3, Freddie Mac plans to publish its findings to inform the market, including consumers, through industry outreach and education campaigns, as described under the section above, that will be designed to reach large and small lenders, consumers, real estate professionals, and a broad spectrum of entities. While the white paper will be an academic paper, we plan to summarize our findings for non-academic audiences and write blogs and news articles in consumer and lender-friendlier language to maximize the impact of our outreach and marketing campaigns. We believe these campaigns will directly address the lack of consumer information and industry awareness described above. We also anticipate that our outreach efforts will increase awareness about the benefits of energy efficiency. Educating consumers and real estate professionals about available financing options may also help increase market demand and lender adoption since consumers may start asking more about financing of energy efficiency improvements, real estate professionals may be able to address their customer needs, and consumer interest may prompt more lender participation. We anticipate a significant level of effort during years 2 and 3 given the high level of coordination between carrying out this objective, Objective C and managing all the outreach and communication tactics as described above.

OBJECTIVE B: DEVELOP VALUATION GUIDELINES AND DATA COLLECTION REQUIREMENTS

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Product	**1, 2 and 3**	**LI and MI**	**Not applicable**

An important challenge we heard through our market outreach relates to property valuation. Members of our Energy Efficiency Task Force with expertise in property appraisals encouraged Freddie Mac to provide specific guidance on property valuations. They believe that the lack of guidance from the GSEs has contributed to the lack of valuation standards which is a key challenge for this market. Specifically, appraisal organizations and energy efficiency advocates and trade groups, want to ensure energy efficiency improvements or the utility savings from energy-efficient homes are capitalized in property appraisals and lenders want assurance that those appraisals will be accepted by Freddie Mac. To help the industry appropriately account for energy efficiency, during the first year of the Plan term, Freddie Mac intends to provide more specific property valuation guidance related to energy efficiency improvements and energy-efficient properties, which will be the precursor to more comprehensive requirements that will result from the completion of the property data standardization project described in this Objective.

Additionally, Freddie Mac does not currently have specific monitoring processes to track existing loans with energy efficiency improvements. This precludes us from analyzing loan performance trends, performing collateral valuation analysis of loans we have purchased and from tracking loan purchase volumes internally. Therefore, a key priority under this objective during Year 1 will be to define and improve our ability to track loans used to finance energy efficiency improvements. The scope will include tracking of loan deliveries under our products that are broadly available as well as loan deliveries under pilots.

Members of our task force also told us that the absence of property-level data adds complexity to current valuation practices. We learned that the market needs a central repository for energy efficiency information within the appraisal report. The Appraisal Institute introduced the Residential Green and Energy Efficient Addendum, a form that is meant to augment information within the appraisal report, standardize the energy efficiency information reported about a home and provide a basis for comparable sale selection. However, adoption of the addendum has been limited due to the operational burden it presents for lenders. In the past, Freddie Mac provided guidance with respect to appraisals and adopted a version of the Residential Green and Energy Efficient Addendum as part of its requirements. This guidance was later retired based on industry feedback related to complexities, lack of property data, and additional due diligence involved. Under our Plan, we look to design data collection and valuation requirements that minimize operational burdens on lenders, real estate professionals, and appraisers. Our task force members encouraged us to consider incorporating data collection methods into our appraisal requirements. Freddie Mac has considered this request and believes it to be important for market growth and that it addresses a key data gap in the market. Therefore, during the first two years of the Plan, in addition to designing valuation guidelines and developing tracking processes in Year 1, Freddie Mac intends to engage in conversations with FHFA and other stakeholders to identify additional data that should be collected through the Uniform Residential Appraisal Report. Provided alignment is reached among key stakeholders during the second year of the Plan term, we intend to take steps to incorporate energy efficiency data collection fields into the appraisal report during the third year of the Plan term.

Baseline

Currently, Freddie Mac provides general collateral valuation guidance and requires that the appraiser identify the energy efficient features and make appropriate adjustments if the features affect the property's value or marketability. However, identifying energy efficient features absent property-level data that includes this information is challenging. In the past, Freddie Mac has required the use of a variation of the Residential Green and Energy-Efficient Addendum. However, it retired this requirement based on customer feedback that it

presented operational complexity and added transaction costs. Outside of these efforts and existing valuation guidance, Freddie Mac has not focused on designing valuation guidance or data collection requirements specifically focused on energy efficiency as described above.

Challenges, Actions and Market Impacts

Challenge	Freddie Mac Action
No standard data collection mechanism ▪ There is no central repository for energy efficiency specific information within the appraisal report. ▪ Many energy efficiency improvements in a home are not apparent or highly visible to an appraiser without doing additional research or due diligence. Absent a standard property database, identifying energy-efficient features of properties is laborious and highly manual. **No tracking mechanism** ▪ Freddie Mac does not currently have a systematic mechanism to track energy efficiency loans.	**Year 1 – 2018** 1) Test the use of an upgraded version of the appraisal addendum to collect energy efficiency property information during the appraisal process with at least one lender through a pilot program to further inform operational execution and determine whether further appraisal guidance is needed. The pilot will allow us to calibrate the data that needs to be captured in the appraisal and allow us to identify data points that may be difficult to obtain so we can address such challenges accordingly as we develop the list of additional data points to be incorporated into a revised Uniform Residential Appraisal Report. For this pilot, we plan to partner with at least one appraisal organization. 2) Develop infrastructure and processes to better identify and track Freddie Mac loan purchases tied to financing of energy efficient homes or energy efficiency retrofits. 3) Establish governance process, project charter, and industry stakeholder group to engage in conversations to carry out this objective. 4) Lead ongoing stakeholder sessions, as per the governance process, to formally start the conversation about incorporating data collection and high efficiency property appraisal guidelines into collateral policy requirements; we plan to engage at least one representative organization from each of the following: national lenders, regional/community lenders, small lenders, appraisal trade organizations, real estate professional organizations and other market participants. **Year 2 – 2019** 1) Continue stakeholder discussions about incorporating energy efficiency property data collection requirements into property

	appraisal guidelines 2) Conduct internal impact assessments on the inclusion of additional data elements into the Uniform Residential Appraisal Report. 3) Coordinate GSE and stakeholder alignment on energy efficiency data fields to be incorporated into the Uniform Residential Appraisal Report. 4) Expand the use of an appraisal addendum to collect energy efficiency property information during the appraisal process to at least 5 more lenders through the same pilot started in Year 1. We plan to modify the pilot terms and data collection guidelines as we go based on feedback and information gathered through the execution of the pilot. **Year 3 – 2020** 1) Incorporate agreed upon energy efficiency data fields into the future redesign of the Uniform Residential Appraisal Report. (Actual completion of appraisal form redesign will be dependent on the project timeline for the Uniform Mortgage Data Program®.) 2) Provide updated appraisal guidance on properties with energy efficiency features through a Seller/Servicers Guide update. (Issuance of any guidance will be dependent on completion of appraisal form enhancement). 3) Work with lenders included in the appraisal addendum pilot to transition to the new appraisal guidance by providing technical support and dedicated assistance (This item assumes implementation of updated appraisal form happens as scheduled). 4) If there are implementation delays, expand and continue the use of interim appraisal addendums to collect energy efficiency property information during the appraisal process to additional lenders.

Market Impact
Once stakeholders agree on the energy efficiency data elements that should be collected through the Uniform Residential Appraisal Report, providing a data collection repository would directly address a challenge that market participants have repeatedly cited as a key market gap. Freddie Mac believes that incorporating energy efficiency data collection fields into the Uniform Residential Appraisal Report would also enable ongoing tracking, trending and analysis of high efficiency homes, which would be used for ongoing product design efforts, for assessing the risks and performance of loans on properties with energy efficiency features, and to design appropriate loan purchase metrics in subsequent years of Freddie Mac's Plan. The collected information, in aggregate, will also be used to inform the market about the value and benefits of energy efficiency as appropriate. Changing uniform mortgage forms is a big undertaking that requires a significant level of coordination. Freddie Mac plans to work with representatives from many areas within the industry including, but not limited to, appraisal organizations, lender trade organizations, real estate professional and trade organizations, energy efficiency advocates, home builder organizations, mortgage data collection companies or organizations and energy rating agencies. We plan to structure and coordinate ongoing stakeholder project meetings governed under a formal charter and governance structure. The charter will provide guidance to the stakeholder group on how decisions will be reached, frequency of meetings, stakeholder responsibilities, establishment of relationships and define the rules of engagement for the working group. Furthermore, designing appropriate standard valuation guidance and interim valuation collection guidance on energy efficient home improvement features will provide underwriting confidence to lenders. It will also address the need for providing more standard valuation guidance on energy efficient properties by building on the Appraisal Institute's work and capturing property-level data while we work to redesign the Uniform Residential Appraisal Report which we deem to be a more permanent and more impactful solution. We believe that carrying out this activity will have a significant impact on this market because it will remove many of the pressing barriers related to appraisal and property valuation of properties with energy efficiency improvements and provide the foundation for future growth of this market. This task will be difficult given the varied costs, value and benefits of each distinct energy efficiency feature and the need to reach alignment amongst multiple key stakeholders. However, this effort represents a significant attempt to lay the foundation for future impact. Given its scope and potentially widespread operational impacts, it will require a significant level of effort by Freddie Mac and its lender partners. Freddie Mac is well-positioned to lead these efforts given our data analytic experience, collateral valuation expertise, our role in the Uniform Mortgage Data Program (UMDP) and our ability to leverage and manage vast amounts of data.

OBJECTIVE C: FACILITATE FINANCING OF ENERGY EFFICIENCY IMPROVEMENTS AND ENERGY EFFICIENT HOMES

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Product	**1, 2 and 3**	**LI and MI**	**Not applicable**

During the first year, Freddie Mac plans to design improvements to our underwriting guidelines, based on market participants' recommendations, and then test them through pilots or issue updates through a Guide bulletin. Based on market feedback, we will initially focus on product features that are easy to adopt, provide economic incentives for lenders and appraisers and reduce paperwork through automation. Our Energy Efficiency Task Force also provided feedback that niche energy efficiency mortgage products, although helpful, may not be the best solution. Therefore, we will focus on requirements and guidelines that can be used in combination with other mortgage products. In addition, several parties cautioned us that any products or flexibilities we design would have to be competitive with existing financing mechanisms, such as PACE loans, unsecured financing and other financing options currently being used outside the first lien space, due to ease of process and speed.

One of the key challenges in this market is the limited data about how energy efficiency is capitalized into appraisals and sales prices. While we will address this challenge under Objective A, a key focus in Year 1 under this objective will be to provide preliminary collateral valuation guidelines to be used by lenders on transactions that involve the financing of energy efficiency improvements or energy-efficient homes while we design more comprehensive collateral valuation requirements under Objective B. We also plan to conduct lender training by leveraging our existing outreach capabilities and dedicated customer education teams to increase lender awareness about product features and flexibilities in support of this market and, specifically, about collateral valuation guidelines.

To identify product characteristics that have worked well and to obtain loan level data that can be used for product development, Freddie Mac will also focus on researching existing products and financing mechanisms already offered in the market. This will help us determine which features to incorporate in our product design efforts. To get this information, we will purchase loans used to finance energy efficiency retrofits or to buy energy-efficient homes, under targeted pilot programs or through at least one bulk portfolio sale transaction, so we can perform data and loan analysis on these loans. This approach will provide liquidity to lenders and financing institutions that are already supporting the market so they can, in turn, originate more loans while we acquire valuable information to develop product flexibilities to meet the needs of the market.

During the second year of the Plan term, we intend to leverage our research findings from Objective A, any results from pilots conducted under this objective and conclusions from the loan analysis from loan purchases to develop comprehensive product features and underwriting flexibilities to finance energy efficient homes or energy efficiency improvements. We intend to communicate any updated product features and flexibilities through a Freddie Mac Seller/Servicers Guide Bulletin update or test them through at least one pilot. The activities under this objective and Objective A, described above, set the foundation for Freddie Mac to get loan risk information and market data that would allows us to fine-tune purchase targets in future years of our Plan.

In the third year of the Plan term Freddie Mac will continue to focus on refining our product through loan purchases. We believe that our tactics to promote our product features, underwriting flexibilities, and collateral valuation guidance to be developed during the first two years of the Plan will set the foundation for future loan purchases and encourage lender participation by providing them with product guidelines and underwriting confidence. In addition, we believe that our tactics to promote information about the benefits of energy efficiency and financing options available will generate market demand, which will further encourage lenders to participate.

Baseline

Our existing product offerings are described at the beginning of this activity. We consider our offerings to be our starting point or baseline from a product development perspective. Additionally, Freddie Mac has not conducted targeted marketing efforts to drive adoption of energy efficiency product features in the past. As described in the beginning of this activity, Freddie Mac recognizes that many of our existing product features and underwriting flexibilities in support of energy efficiency are not well known and are not well aligned with how the market has evolved. Therefore, we believe that our existing flexibilities are not being widely used. We have been able to confirm this through outreach to lender partners. All product development activities described above will be new or build upon our existing offerings.

With respect to loan purchases which we will use to refine our products, our baseline is zero. Freddie Mac does not have purchase volume information from prior years because we have not tracked loans that use our existing energy efficiency offerings. Under Objective B we will develop a tracking mechanism which coupled with our loan purchases under this objective will help inform and set future baselines under this Plan. Additionally, given the limited market data available, we are not able to define market sales data to use as a basis for purchase forecasts. The Home Mortgage Disclosure Act (HMDA) data, publicly-available data typically used to track lending activity, does not include information to identify mortgages for energy efficiency improvements or energy-efficient homes. Under Objective A, we will acquire data to study the loan performance and house prices associated with mortgages for energy efficiency improvements or energy-efficient homes. This data could give us the ability to identify and better project market trends for mortgages to finance energy efficiency improvements.

We anticipate that our purchase activity is realistic given our plans to deploy a variety of tactics, including product development with a focus on underwriting confidence and valuation guidance, outreach, and providing technical training that would enable lenders to originate loans in this market confidently. Our intent to make loan purchases considers projections by the Joint Center for Housing Studies of Harvard University that annual increases in remodeling expenditures, a third of which are energy efficiency related, will soften somewhat moving forward[116]. Although we do not have market sales data, this activity represents a meaningful and realistic purchase commitment. We plan to review this target as we obtain new information from the research we plan to conduct under Objective A and loan purchases we plan to make in years 1 and 2.

Challenges, Actions and Market Impacts

Challenge	Freddie Mac Action
No standard collateral valuation approach ▪ There is no consistent nor widely adopted approach to account for energy efficiency improvements' impact to property value. ▪ There is no consistent nor widely adopted approach to capitalize the utility savings of an energy-efficient home in the appraisal value. **Limited awareness about financing products** ▪ There are several financing options in the marketplace but consumer awareness about them, absent broad marketing, has remained low even in geographies where renewable energy is largely an area of focus. **High upfront costs** ▪ The high upfront costs of energy efficiency improvements are usually not supported by an	**Year 1 – 2018** 1) Issue a Guide bulletin update to lenders focusing on updated guidance on collateral valuation and use of energy audits. 2) Purchase 25 to 75 loans to further inform product design: a. Design at least one pilot program to purchase loans used to finance energy efficiency improvements or the purchase of high efficiency homes. The pilot will focus on developing flexibilities to meet debt-to-income requirements, addressing high costs of energy audits, and flexible Loan-to-Value requirements. We will conduct this pilot in partnership with at least three lenders including but not limited to regional and community lenders. The pilot will test

appraisal. This makes some energy efficiency improvements difficult to finance through first lien mortgages due to LTV limitations.

- Energy audit costs are high.

Limited production

- Given this market's relatively small scale, Freddie Mac anticipates loan pools, held in portfolio, to be relatively small and therefore present pricing challenges for Freddie Mac as we define transaction parameters that are economically viable for Freddie Mac and economically attractive for lenders.

No standardized products

- Products in support of this market vary across geographic locations and/or from lender to lender. Existing energy efficiency loans are likely underwritten outside of Freddie Mac guidelines and may be outside our risk tolerance.

operational execution and market acceptance of product features we are considering to add to our Seller/Servicers Guide in future years. We will use the pilot to also fine tune product features under the pilot offering. Additionally, we plan to use the pilot to obtain information that can later be used to design loan purchase metrics.

b. Survey the market including lenders, state and local energy efficiency financial institutions and/or other financing organizations to identify seasoned loan pools that Freddie Mac could purchase, on a negotiated basis, through at least one bulk portfolio transaction.

3) Convene at least three working sessions with our Energy Efficiency Task Force to get their feedback on our product design efforts, discuss pilot results as we go, and obtain their feedback on lender training curriculum we will develop.

4) Conduct comprehensive lender training and marketing campaigns to:

a. increase lender awareness about Freddie Mac's product flexibilities to finance energy efficiency retrofits and high-efficiency homes. We plan to update our training curriculums as we develop new and updated product flexibilities, and

b. use training sessions as a vehicle to obtain product related feedback to be incorporated into future product enhancements.

Year 2 - 2019

1) Establish a standard methodology or guidelines to assess compliance with the required 15 percent reduction of energy consumption or that the utility savings generated over the life of the improvement will exceed the cost of installation. We plan to incorporate this additional guidance into the Seller/Servicers Guide update or the updated pilot described in item 2 below.

2) Issue a Seller/Servicers Guide update to implement product features tested under the pilot offering from Year 1 or expand the pilot to at least 5 additional lenders. If we have not collected enough information to issue a Seller/Servicers Guide update, Freddie Mac will also make updates to its pilot based on research findings from Objective A and purchase an additional 25 to 75 loans to

	continue to inform product design. 3) Promote newly designed Seller/Servicing Guide product flexibilities and drive attendance to lender trainings by participating in at least four industry events, convening at least one additional product-focused session of the Energy Efficiency Task Force, providing publications on Freddie Mac's News Center and blog, and sending emails to all Single-Family News subscribers. **Year 3 – 2020** 1) Issue a Seller/Servicer Guide update to implement product features tested under the pilot offering from years 1 and 2 or expand the pilot to at least five additional lenders. If we have not collected enough information to issue a Seller/Servicer Guide update, Freddie Mac will make updates to its pilot based on prior year's pilot performance and purchase an additional 100 to 300 loans to continue to inform product design. 2) Continue lender training efforts, building upon or continuing outreach started on Year 2, to help lenders understand Freddie Mac's product flexibilities and encourage adoption of them.

Market Impact

Freddie Mac recognizes that we have opportunities to start enhancing our existing product features while we carry out our research under Objective A. We also see an opportunity to encourage implementation of our existing and revised product features and flexibilities by increasing lender awareness. Doing so would help the market by driving up lender adoption. Lender outreach will also allow Freddie Mac to obtain additional product-related feedback, to be captured during our training sessions that can be incorporated into future product design or pilots. Conducting limited pilots to test product features and obtain data ahead of any new offerings is an important step for product design especially because adoption or performance data of first lien products is limited since first lien products are currently not prevalent in this market. We expect that the feedback received during our outreach efforts and the information we obtain from our pilot results will augment the results of the research and development described in Objective A and provide useful information to design operationally feasible product flexibilities that can compete with existing products outside of the first lien space. This comprehensive strategy will provide Freddie Mac with a wide-ranging view to make decisions, within safety and soundness standards, about which underwriting flexibilities and product features have the greatest impact and should therefore be adopted in future Seller/Servicers Guide offerings. We will primarily focus our pilots on testing product flexibilities that address the need for more guidance about collateral valuation, challenges presented with high upfront costs related to energy efficiency improvements, and the lack of information about financing options available.

Through the loan purchases under this objective, Freddie Mac expects to provide gradual liquidity to market participants that are already active in this market. Because counterparties who would sell loans to Freddie Mac are already active or have been active in this market, we anticipate the liquidity we provide may spur additional energy efficiency loan originations. Additionally, through our ongoing outreach efforts, we intend to work with these market participants so they adopt the new and revised flexibilities we intend to design into their new originations. Therefore, we would expect incremental loan purchase activity resulting from this objective. Since most of the energy efficiency financing demand is being met through unsecured lending

because of its transactional ease, first lien loan purchases in this market will be challenging. Based on our research into this market, we would still expect market penetration of first lien product flexibilities to be somewhat limited but, relative to the size of the market, meaningful. The data and information we plan to collect through loan purchases under this objective will assist Freddie Mac to perform analysis, inform product design and define loan purchase metrics in subsequent Plan periods or, if appropriate, in revisions of this Plan during the first three-year Plan period.

Freddie Mac will leverage its existing corporate training and education resources, website presence and advisory boards. We also plan to provide technical assistance through account management resources and customer support teams. Additionally, we have experience structuring pilots prior to rolling out new requirements broadly. Competing with unsecured financing, which is the most widely used option in this market, will be a challenging undertaking and require Freddie Mac to spend a significant level of effort in marketing and sourcing our offerings.

Activity 8 – Support for Shared Equity Programs for Affordable Housing Preservation: Regulatory Activity

Although shared equity programs have achieved limited scale thus far, our research confirms that they can be an effective means for providing income-eligible families with sustainable homeownership opportunities, enabling them to build wealth through the ownership cycle and ensuring that home prices remain affordable to subsequent buyers over the long term.

Freddie Mac covers some aspects of shared equity programs in its Seller/Servicers Guide but does not provide explicit guidance about underwriting the shared equity programs described in the Duty to Serve rule. Therefore, we are starting our product development efforts under this activity from the ground up. The general flexibilities we offer related to shared equity programs:

- We allow mortgages secured by properties with resale restrictions that terminate at foreclosure and those that survive foreclosure.
- Freddie Mac does not approve individual shared equity programs. Freddie Mac does, however, allow mortgages originated under such programs if all other Seller/Servicers Guide requirements are met. (Note: we acknowledge that our existing requirements conflict with or do not explicitly cover shared equity transactions as described in the Duty to Serve rule).

To help the shared equity market scale up, Freddie Mac intends to purchase loans originated under Duty to Serve eligible shared equity programs. However, in order to do so, Freddie Mac must first build both capabilities and infrastructure to facilitate purchases and enable a steady market growth trajectory. We plan to develop product enhancements and underwriting flexibilities that can drive operationally feasible standardization between all types of shared equity programs that are eligible for Duty to Serve credit. Additionally, we plan to intensify our lender education efforts.

It should also be noted that retained subsidies are what make these programs work and, therefore, the success of shared equity programs depends on significant upfront funding before they can eventually become self-sustaining through subsequent resales. Therefore, Freddie Mac's support in this market may be limited by the number of active programs, their housing stock and the amount of funding these programs have access to.

Nevertheless, in a concerted effort to increase liquidity in this market and expand the distribution of capital, Freddie Mac intends to fulfill the following objectives over the next three years:

- Develop product flexibilities and guidelines that facilitate new mortgage originations under shared equity programs,
- Purchase loans originated under shared equity programs to inform product design,
- Support standardization of data collection at the transaction level, and
- Promote market awareness of shared equity programs.

OBJECTIVE A: DEVELOP PRODUCT FLEXIBILITIES AND GUIDELINES THAT FACILITATE NEW MORTGAGE ORIGINATIONS UNDER SHARED EQUITY PROGRAMS

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Product	**1~~,~~ and 2 ~~and 3~~**	**VLI and LI**	**Not applicable**

Our Seller/Servicer Guide does not explicitly address many of the shared equity structures found in today's marketplace. Therefore, during the first year, Freddie Mac will focus on updating guidelines, terminology, and underwriting requirements–where appropriate–in alignment with current market practices. The emphasis during Year 1 is to develop product flexibilities that support the market as is (non-standardized) by adapting some of our guidelines to existing market practices and reorganizing some of the contents of our Guide to help lenders and program administrators find our requirements more easily. Although Seller/Servicers Guide updates are usually the broadest vehicle to introduce product flexibilities, we may start with pilots prior to issuing Seller/Servicers Guide updates since many of the new underwriting guidelines we will introduce need to support non-standardized programs and may require further fine-tuning as the market adopts them. Pilots provide us with the greatest flexibility to tailor guidelines to specific programs. They also give us the ability to adjust them as we go and provide us with loan data that we plan to use for further product development.

During Year 1, Freddie Mac will also partner with a leading shared equity trade organization to produce a white paper that will provide a recommended framework with clear distinctions on how shared appreciation structures have been or may be applied to preserve affordability over time. In the prior version of Freddie Mac's Plan, we included an objective to invest in the research and development of a shared appreciation loan fund that was designed to provide homeownership opportunities with lasting affordability to low- and moderate-income homeowners. Partially funded by Freddie Mac, the work to assess the feasibility of such fund started in 2016 and has been ongoing through 2017. During the third quarter of 2017, Freddie Mac was informed about the decision to stop the pursuit of the fund because the latest results of the feasibility study proved the concept, as designed, to be unfeasible in current market conditions. Therefore, Freddie Mac removed it as an objective in this revised Plan but believes the market can benefit from the lessons learned. The paper is intended to provide information to the market that can be used in program and product design based on the results of the research and feasibility assessment performed.

In Year 2, Freddie Mac intends to introduce more comprehensive and standardized product flexibilities that incorporate what we learn from pilots conducted in Year 1 and the analysis of loan pools we would purchase under Objective B. The emphasis during Year 2 is to support standardization and to build on the flexibilities designed in Year 1. For example, we intend to develop uniform legal instruments for the financing of properties under Community Land Trusts (CLTs) and design more explicit guidelines about collateral valuation of properties purchased under shared equity programs. In carrying out this objective, Freddie Mac's goal is to find the right balance between standardization and underwriting flexibility so program stewards have sufficient leeway to tailor programs based on their individual market needs while the loans originated–in aggregate–represent an operationally effective business opportunity for lenders; paving the way for the market to scale. Any guidelines or product flexibilities will be designed consistent with safety and soundness standards.

In addition, through public comments submitted to FHFA, market participants encouraged Freddie Mac to consider incentives to boost lender participation. We agree and believe that without incentives, the low production volumes in this market and the incremental operational burden for lenders to originate loans under eligible programs will continue to discourage lender participation. Freddie Mac acknowledges that niche programs and products are more expensive to implement than standardized ones and often present economically unfeasible value propositions for lenders.

Freddie Mac recognizes that product development along with our efforts to purchase loans, although important and impactful, may not be enough to improve the distribution of capital in this market. Lender participation is vital for shared equity programs to scale. Therefore, to increase lender participation Freddie Mac intends to identify

appropriate incentives to encourage adoption of the product flexibilities and underwriting guidelines we plan to design.

While we work on product design and development, Freddie Mac will concurrently work with lenders, Housing Finance Agencies, Community Development Financial Institutions and program stewards to design and test appropriate incentives. Our primary goal will be to design incentives that expand secondary market activity, reduce administrative burdens or increase the economic business opportunity for lenders and other mortgage financing providers.

~~In Year 3, Freddie Mac intends to focus on automation of many of the guidelines introduced in years 1 and 2. Not all the guidelines and product flexibilities we introduce will be automated. Instead, Freddie Mac plans to automate those underwriting flexibilities which would facilitate easier and faster adoption of our product flexibilities by lenders.~~

Baseline

Freddie Mac purchases mortgages secured by properties with resale restrictions, other than age-based restrictions, that terminate at foreclosure and that survive foreclosure when the following requirements are met:

- The mortgage must be either a purchase transaction mortgage or a “no cash-out” refinance mortgage.
- The mortgage must be secured by a one-unit primary residence (not a manufactured home).
- Eligible property types are attached or detached dwelling units located on an individual lot or in a condominium project or planned unit development (PUD).
- The mortgage meets all other Seller/Servicer Guide requirements.

Additionally, for all mortgages secured by properties subject to income-based resale restrictions we only require two comparable sales, instead of three, with similar resale restrictions. Seller/Servicers Guide Sections 4201.17 and 6302.37 and Guide Exhibit 34 contain all other applicable requirements. We also have servicer guidelines in the Seller/Servicers Guide specific to Mortgaged Premises with income-based resale restrictions for when a servicer evaluates a borrower for a short sale or bids at a foreclosure sale that ensure resale restrictions are preserved through these loss mitigation activities.

Lastly, we allow secondary financing providers or another entity to share in the appreciation of the mortgage premises when the secondary financing meets Freddie Mac’s Affordable Seconds requirements. The specific requirements are described in Guide Section 4204.1.

Challenges, Actions and Market Impacts

Underwriting Challenge	Freddie Mac Action
Limited or uncertain underwriting policies ▪ Freddie Mac does not explicitly provide guidelines to underwrite loans under shared equity programs. ▪ Freddie Mac allows loans with deed restrictions. However, this guideline when coupled with other traditional underwriting requirements does not enable many of the nuances of shared equity structures. ▪ Traditional collateral evaluation methods do not	**Year 1 – 2018** 1) Publish updated underwriting flexibilities in the Seller/Servicers Guide that reduce barriers to originating loans under Duty to Serve-eligible shared equity programs and address shared equity programs by type including guidance on which requirements apply to each program type. 2) Reorganize and consolidate applicable and updated shared equity requirements into one section of the Seller/Servicers Guide. This will

account for sale or resale price formulas used in shared equity programs.

- Without explicit guidance, lenders have concerns related to representations and warranties or repurchase risk.

Shared equity programs are not standard

- Shared equity programs are structured differently and based on individual market needs. Therefore, it is challenging to design "one-size fits all" guidelines.

Manual underwriting

- Given the lack of standardization, limited production volumes, and nuances of shared equity transactions, underwriting is generally done manually. This presents a resource burden for lenders and additional operational risk. Thus, many have opted out of participating in this market.

Lack of market data and information

- Given the lack of standardized data collection mechanisms, data and information to systematically assess risks vs. potential product flexibilities is limited.

Lack of understanding of structures and legal mechanisms

- Shared equity transactions are not widely understood by lenders. Given the non-traditional structure of shared equity loans and the deed covenants in place, many lenders have shied away from originating these loans.

Low production and high costs

- The limited sales and resales data we have reviewed point to relatively small production numbers on a yearly basis.
- Low production increases overall transactional costs for lenders. As such, many do not participate in the market.

Limited secondary market activity

- Investor demand to purchase shared equity loans is inadequate so many lenders end up keeping these loans in portfolio which often limits their participation unless they get balance sheet relief.
- Loans held in portfolio are likely to amount to small pools and therefore are not attractive to investors looking to purchase seasoned loans which generally look for more sizable pools to make the requirements easier to follow.

3) Commission and promote the publication of a white paper that will achieve the following:
   a. Provide thought leadership to the field on shared equity homeownership structures,
   b. Provide considerations to address when utilizing subsidy recapture strategies through shared appreciation loans,
   c. Identify factors that must be addressed in mortgage products to finance shared equity homes,
   d. Describe market conditions where shared appreciation loan funds are viable.
4) Initiate at least one pilot program with at least five lenders to test concept product features and underwriting guidelines where more data and/or performance information is needed prior to including them in the Seller/Servicers Guide. Specifically, we plan to test features that facilitate underwriting of loans under deed-restricted programs where secondary financing, using a subsidy vehicle, is currently outside of existing underwriting guidelines. We also plan to test lender acceptance and operational execution of uniform legal documents to support the origination of loans made under eligible community land trust programs. The pilot program will be deployed in partnership with shared equity programs serving geographic areas where home prices are least affordable and/or where lender participation has been limited. We will identify programs to partner with in consultation with industry trades and organizations.
5) Develop lender incentives to complement the pilot programs described above. The incentives will be designed to encourage loan originations. Some examples include providing tools that minimize operational burdens, or including economic incentives at the transactional level when appropriate and within safety and soundness standards.

Year 2 - 2019

1) Provide FHFA with a comprehensive operational execution and market acceptance assessment of underwriting requirements, product capabilities and uniform legal documents introduced via pilots in Year 1.
2) Issue new Seller/Servicers Guide underwriting requirements and collateral valuation

offset transactional costs.	guidelines, for loans made under Duty-to-Serve eligible deed-restricted programs. These guidelines will build upon our existing requirements the requirements developed and piloted in Year 1, the operational execution and market acceptance assessment described above and the results of our analysis of loans purchased under Objective B. While Freddie Mac will focus on supporting programs as they are currently designed in Year 1, during Year 2, Freddie Mac will also focus on advising a variety of programs on how to restructure their programs so they better align with the new product features and underwriting guidelines we plan to introduce. This effort will help program standardization which, in turn, should help encourage lender adoption. 3) Design uniform legal documents and make them available to lenders in the Seller/Servicers Guide. These will be focused on supporting the origination of loans under Duty-to-Serve eligible community land trust programs and developed based on the results of the pilot conducted in Year 1. ~~**Year 3 – 2020**~~ ~~Provide a report to FHFA that provides a comprehensive assessment of the impact of automating product flexibilities to determine which ones would facilitate more adoption of Freddie Mac's products and reduce operational burdens for lenders more efficiently.~~ ~~Implement and announce automation of the chosen product flexibilities via the Seller/Servicers Guide.~~ ~~Continue working with program administrations by providing technical expertise about secondary guidelines to promote standardization of this market in a way that lender adoption incrementally continues.~~
Market Impact	
Introducing underwriting requirements based on how shared equity programs are currently designed (non-standardized) in Year 1 will allow Freddie Mac to enter the market without disrupting the existing progress and market activity. Our research shows that shared equity programs are gaining popularity, albeit slowly. Based on our experience, we understand that introducing drastic changes in Year 1, such as attempting to standardize programs, may compromise market activity because program administrators would have to adapt to how lenders would be reviewing their programs under new underwriting requirements while revising their program parameters. Given the scarce resources and limited funding of these programs, this level of effort may not be feasible. However, we believe that pursuing this objective as described in Year 1,	

will provide lenders with more confidence and guidance to originate loans, which, coupled with lender incentives, should spur lender participation without disrupting the existing momentum in the market. Additionally, originating loans to Freddie Mac's product guidelines will offer lenders flexibility to sell those loans to Freddie Mac and, therefore, the market should start benefiting from the increased access to liquidity. Our research shows that lenders that are currently participating in this market may be holding loans in portfolio due to the mismatch between our existing product requirements and program structures.

The white paper on shared appreciation loan fund structures we have commissioned will be based on the work done in 2016 and the first half of 2017 which is the only initiative to-date that explored whether shared appreciation loans may be designed with public and private capital to provide homeownership with lasting affordability. Freddie Mac understands that the emerging space of shared appreciation lacks a framework to scale and that the lessons learned from the prior work described above will present valuable information on how shared appreciation has been or may be applied prospectively to preserve affordability over time. The white paper will provide a recommended framework that can be used by Freddie Mac, state and local agencies focused on affordable housing preservation, affordable housing advocates, lenders and experts within housing finance. The paper will also help prevent the market from unnecessarily "reinventing the wheel" when exploring shared equity funding mechanisms and provide useful information that can be built upon to advance shared appreciation loans for affordable housing and its preservation.

Through the design of appropriate incentives, Freddie Mac also hopes to offset some of the barriers lenders are currently faced with. Given the lack of standardization in the market and because of its limited size, we foresee a significant level of effort to find the right incentives, within safety and soundness standards, to improve lender adoption as described in this objective. Nevertheless, we deem this objective to be a key catalyst for market growth. Appropriate incentives coupled with our product development and purchase efforts are likely to jumpstart activity under this market and set it up for incremental growth. The market feedback on incentives is that without them the market will continue to be underserved by lenders or other mortgage finance providers. Therefore, Freddie Mac believes that, although challenging to pursue, this objective represents a meaningful impact in addressing this market's needs.

Our efforts will be substantially greater in Year 2 than in Year 1 since we will not only be designing comprehensive underwriting requirements but we will be working with program stewards and lenders to help standardize this market. This means that while we work with lenders to adopt our underwriting standards, we will also be working with program administrators to help influence changes to their program structures that are in alignment with our new product features. We expect that this level of coordination to standardize the market will help reduce lenders' operational costs, provide more origination confidence and may help alleviate lender repurchase concerns. Therefore, we also expect that lenders would incrementally increase their appetite to originate loans under eligible programs that leverage our underwriting flexibilities and increase deliveries to Freddie Mac. This would result in more liquidity for the market than in Year 1 and it would help inform our future loan purchase goals.

~~By Year 3, we expect to further minimize lenders' operational burdens by automating certain product flexibilities and requirements designed in years 1 and 2 Automation of underwriting flexibilities, given its anticipated system impacts, development costs and system integration needs, is always an arduous undertaking. As such, we intend to approach this effort strategically. Automation will be focused on facilitating adoption by lenders and reducing their operational costs while providing them with more confidence to originate loans.~~ Overall, ~~during the first three years of the Plan,~~ we expect to see gradual adoption of our flexibilities, increased lender interest, incremental loan purchases, and reasonable market growth. We expect all these objectives to lay the foundation to design loan purchase metrics in subsequent years of the Plan.

OBJECTIVE B: INFORM LOAN PRODUCT DESIGN THROUGH LOAN PURCHASES AND INCREASE SINGLE-FAMILY PURCHASES OF LOANS SECURED BY PROPERTIES UNDER SHARED EQUITY PROGRAMS

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Product	**1**	**VLI and LI**	**Not applicable**
Loan Purchase	**4**	**VLI, LI, MI**	**Not applicable**

During the public comment period on Freddie Mac's proposed Plan, market participants encouraged Freddie Mac to set loan purchase targets under this activity. Freddie Mac takes market feedback seriously and, as such, we took another look at designing a loan purchase goal for the first three years of the Plan. However, we were challenged with a lack of available market sales data to design an appropriate loan purchase baseline and historically-based loan purchase projections that would accurately reflect the size of the market versus Freddie Mac's probable market share. Nevertheless, Freddie Mac acknowledges the importance and urgency of providing liquidity into the market through loan purchases. Therefore, to inform our product design efforts, we intend to look for opportunities to purchase loans originated under shared equity programs, through specific and targeted portfolio loan purchases, so we can perform data and loan analysis on these loans. We plan to analyze the loans we purchase to identify product characteristics that have worked well and to obtain loan level data that can be used for our product development activities under Objective A.

By doing so we will be providing liquidity to lenders and financing institutions that are already supporting the market and may be holding shared equity loans in portfolio. This will allow them to originate more loans with valuable information that Freddie Mac can use to analyze and design product flexibilities to be introduced in Year 2.

In extending our Plan to a fourth year, we will continue our commitment to increasing liquidity in the shared equity homeownership market. The process for a lender to adopt a new offering or product enhancement has many facets and can take a year or more; it can take longer for niche products that will generate low origination volume. The speed to market varies and can depend on resources, enhancements to the loan origination system, internal prioritization based on a business case, the development of internal credit and product policies, and training. Lenders are gradually beginning to adopt the product flexibilities that we introduced in years 1 and 2 as well as to show interest in participating in this market. Based on this progress and program stewards' requests, we will commit to purchasing loans secured by properties under shared equity homeownership programs in Year 4.

Baseline for 2018

Freddie Mac has not specifically targeted shared equity loan purchases under bulk portfolio transactions to date. While we have experience purchasing seasoned loans through bulk portfolio transactions, we have not bought shared equity loan portfolios. This is a new activity for Freddie Mac.

Baseline for 2021

Having introduced product flexibilities and conducted extensive outreach, Freddie Mac will purchase loans secured by properties under shared equity programs to expand affordable homeownership opportunities and boost the flow of liquidity into this market.

Given how recently we introduced the eligibility requirements, we do not have a three-year historical purchase cycle to establish a reliable baseline. Therefore, we based our 2021 loan purchase target on our 2019 volume, which was 41 loans.

2021 Target

Our Single-Family purchase targets for Plan Year 2021 are set forth in the following table. We will continue to deploy various tactics to increase lender adoption of the product flexibilities previously introduced under Duty to Serve to help create more homeownership opportunities for very low-, low-, and moderate-income households. Given how recently we rolled out the flexibilities, lenders' current priorities, and the shared equity homeownership market's small size, we expect to purchase around the same number of loans as in 2020.

Projected volume for 2021 does not take into account potential market reactions to the historically low interest-rate environment or the coronavirus pandemic.

Single-Family Loan Purchase Targets – Loans Secured by Properties under Shared Equity Programs
Year 4 – 2021
40 – 50 loans

Challenges, Actions and Market Impacts

Market Challenge	Freddie Mac Action
Lack of market data and information ▪ Given the lack of uniform data collection mechanisms and information to systematically assess the overall size of the market, it is challenging to estimate yearly loan production numbers without speculation. ▪ Information about which financial institutions are holding or have originated loans under shared equity programs is not readily available. **Limited production** ▪ Given this market's relatively small scale, Freddie Mac anticipates loan pools held in portfolio to be relatively small. Therefore, these loan pools will present pricing challenges for Freddie Mac. ▪ Low production increases overall transactional costs for lenders. As such, many do not participate in the market. **Limited secondary market activity** ▪ Investor demand to purchase shared equity loans is inadequate so many lenders end up	**Year 1 – 2018** While we test product features and underwriting flexibilities in Year 1 under Objective A, Freddie Mac will take the following actions: 1) Leverage loan purchases to inform product design: a) Survey the market in partnership with program stewards, inclusionary housing programs, Freddie Mac lenders, housing finance agencies, community development financial institutions and/or other financing organization to identify seasoned loan pools that Freddie Mac could purchase on a negotiated basis. b) Perform analysis on loans we purchase at the transaction and loan level to be used in the product development activities described under Objective A. Findings will be submitted to FHFA. 2) Bid on loan pools identified through our market survey. If unsuccessful, Freddie Mac will provide a report to FHFA which will include

keeping these loans in portfolio which often limits their participation unless they get balance sheet relief.

- Loans held in portfolio are likely to amount to small pools and therefore are not attractive to investors who generally look for more sizable pools to offset transactional costs.

No standardized products

- Products in support of this market vary across geographic locations and/or from lender to lender.
- Existing loans originated under eligible programs are most likely underwritten outside of GSE guidelines.
- Supporting non-standardized programs requires more lender resources which coupled with low production volumes make the cost benefit of lender participation a non-viable economic business opportunity.

lessons learned from this targeted activity.

Year 4 - 2021

Freddie Mac will purchase loans secured by properties under shared equity programs, leveraging the product flexibilities introduced in Plan years 1 and 2.

1) Purchase 40-50 loans to increase liquidity in the shared equity market.

Market Impact

Although it will be challenging to source loans under this objective without a fully developed product, if successful, Freddie Mac expects to provide gradual liquidity to lenders that are already active in this market. We anticipate our seasoned loans purchase activity will spur partial market growth while providing Freddie Mac with access to data on loans and programs to help us further develop policy guardrails and product features. Additionally, through our ongoing outreach efforts to source bulk portfolio loans, we intend to work with lenders and program stewards to facilitate adoption of the new and revised underwriting flexibilities we intend to issue under Objective A.

We expect purchases of portfolio loans may spurt small but incremental loan origination activity as those counterparties we purchase seasoned loans from may have balance sheet relief. Additionally, as we discuss potential portfolio loan sales, we plan to obtain information that we plan to use in the design of our product offerings during the Plan Cycle. With the data and information we collect through our market outreach to carry out this objective, Freddie Mac intends to perform analysis to define loan purchase metrics in subsequent Plan periods or, if appropriate, in revisions of this Plan during the first three-year Plan period.

Given the lack of market information, sourcing loans and loan pools under this objective will require significant effort on Freddie Mac's part. We are relatively new to this market and have not systematically engaged in loan purchases of this loan type in the past. Therefore, we will need to build relationships with program stewards and lenders who can provide volume. Many of the organizations who are likely to be active in this market may not have an existing business relationship with Freddie Mac or may not have the expertise and resources to effectuate loan pool sales. Therefore, the extent of our efforts may also include dedicated resources to work with lenders on these transactions and to provide transactional assistance. During the entire Plan Cycle, our efforts to roll out a comprehensive product offering, supported by automated underwriting, will require a significant amount of resources including Freddie Mac's Single Family teams responsible for affordable lending, Seller/Servicers relationships, non-profit relationships, credit decisions, modeling, pricing and product development. If this objective proves to be successful in Year 1, Freddie Mac is prepared to continue this activity in year two while we design product features and underwriting flexibilities under all other objectives. However, if this activity does not yield any bulk portfolio purchases or if it only yields a small number of loans that does not provide liquidity to the market nor information to Freddie Mac, Freddie Mac will not continue this objective beyond Year 1 and will focus our

resources on all other objectives under this activity.

We are adding a purchase target in 2021 to increase liquidity in this market. During the first three years of Duty to Serve, we saw gradual adoption of our product flexibilities that promote shared equity homeownership, greater lender interest in the market, incremental loan purchases, and reasonable market growth. This progress laid the foundation on which we set our loan purchase target. We estimate that meeting our loan purchase target could provide more than $7 million in liquidity in 2021 to financial institutions that support shared equity homeownership programs.

We will pursue loan purchases by increasing our engagement with lenders already active in this market as well as expanding our efforts to lenders that currently do not participate. Meeting this objective would be difficult under any circumstances, but more so because of lenders' focus on responding to the coronavirus pandemic and high refinance volumes. We cannot predict the impact of the coronavirus pandemic on the housing market.

OBJECTIVE C: SUPPORT STANDARDIZATION OF DATA COLLECTION AT THE TRANSACTION LEVEL

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Product	**1, 2 and 3**	**VLI and LI**	**Not applicable**

Freddie Mac understands that the lack of uniformity across shared equity programs has kept the market fragmented. While all shared equity programs are designed with the same objective to maintain affordability—they frequently have unique characteristics and employ a variety of data collection methods and operational processes. This presents a challenge for investors and lenders when trying to evaluate the market because aggregate data and market trends cannot be produced. Additionally, the lack of uniformity across programs makes assessing each program for Duty to Serve eligibility challenging and labor intensive.

Therefore, during the Plan cycle, Freddie Mac plans to partner with a leading shared equity trade organization and various shared equity programs to support the expansion, development and adoption of a web-based application already in use by many shared equity programs. This web-based application will be developed to provide system capabilities to help lenders and Freddie Mac evaluate program and transaction eligibility and allow lenders to access Freddie Mac's future shared equity product flexibilities and guidelines. Shared equity programs who adopt this web-based application will also be able to more easily keep inventory of affordable housing units over time, monitor the units to ensure affordability is preserved over resales, and support the homeowners to promote successful homeownership. Additionally, the application would help programs track borrowers' income levels and monitor refinance activities or lines of credit over time. Freddie Mac intends to use all the data captured through this system to inform its product design efforts under Objective A and over time.

Baseline

This is a new activity for Freddie Mac.

Challenges, Actions and Market Impacts

Market Challenge	Freddie Mac Action
Slow shared equity application adoption ▪ Although the application we plan to support is the most widely adopted application, adoption has been slow. The majority of shared equity programs have yet to adopt it. **Laborious assessment of program eligibility** ▪ Currently there is no systematic way to evaluate program eligibility at the transaction level. Lenders would have to manually evaluate each program to originate loans under it. **Limited transaction-level data** ▪ Since programs are not uniform across the market, there is currently no aggregate dataset available to analyze market trends and mortgage or buyer information at the macro-market level. ▪ There is also no widely-adopted standardized method to collect transaction-level data. **No systematic approach to documenting program features** ▪ Each program has a unique way to document its program characteristics and features. As a result, no aggregate dataset that compiles an inventory of all programs and documents exists. **Lack of standardization** ▪ Shared equity programs are not standard across the market. ▪ Supporting non-standardized programs requires more lender resources, which, coupled with low production volumes, make the cost benefit of lender participation a non-viable economic business opportunity.	**Year 1 – 2018** 1) Partner with a leading shared equity trade organization and targeted shared equity programs to develop system capabilities to: a) document program features that would provide lenders and Freddie Mac with confidence that programs meet the definition of shared equity as set forth in the Duty to Serve regulation, and b) document that individual homebuyers and transactions meet eligibility criteria. 2) Test newly developed system capabilities through a pilot with at least 10 shared equity program administrators and provide adoption incentives to off-set system integration and adoption costs. The pilot will focus on testing operational execution and market acceptance of using a third-party system to track program eligibility and activity. It will also test lender capabilities to leverage system outputs to assess program eligibility with Duty-to-Serve requirements. We will look to align this pilot's targeted geographic markets with the pilots developed under Objective A. However, we may also conduct this pilot in additional markets. **Year 2 – 2019** 1) Prepare a report to be submitted to FHFA summarizing aggregate data and trends for shared equity programs, including mortgage and buyer financial information based on existing closing disclosure data submitted to the web-based application by participating organizations. 2) Use the report to inform the design of comprehensive product features described under Objective A **Year 3 – 2020** 1) Expand the number of program participants in the pilot ~~from 10 to 15~~ to nine to test newly developed system capabilities.

Market Impact
Carrying out this objective is a meaningful attempt to standardize the market and lay the foundation for future market growth, increased lender participation and increased adoption of the web-based application. For Freddie Mac, the execution of this objective will provide essential information and data to inform our product development efforts. It will also allow us to systematically and effectively verify that programs meet the Duty to Serve requirements. For lenders, it will remove barriers related to the manual or laborious assessment of program features or eligibility when originating loans under shared equity programs. And, it will provide incentives for lenders to adopt the application knowing that both they and Freddie Mac would rely on it to understand and document program eligibility at the transaction level. The application we plan to build upon for this objective is already in use by approximately 70 shared equity program administrators. However, its adoption has been limited given the operational costs of system integration and limited program funding. Freddie Mac's engagement and endorsement of this application will impact the market by spurring adoption of this application which will systematically improve standardization of data collection for product design and future market growth. Additionally, the application as currently designed provides a utility to shared equity program administrators only. Under this objective, Freddie Mac plans to partner with a leading shared equity trade organization to build system capabilities, so the utility of the system also serves lenders by providing assurance that programs meet Duty to Serve requirements, which will be a purchase-eligibility requirement under the product features and underwriting flexibilities we plan to design under Objective A.

OBJECTIVE D: PROMOTE MARKET AWARENESS OF SHARED EQUITY PROGRAMS

Evaluation Area	Year	Incomes Targeted	Extra Credit
Outreach	**1 and 2**	**VLI and LI**	**Not applicable**

During our outreach and discussions with shared equity program sponsors, we continually heard that shared equity structures are not widely understood by lenders or other market participants. Freddie Mac conducted outreach to lenders who have shown strong interest in this market and confirmed their limited awareness. Those who were familiar with these programs said they had shied away from originating these loans because they did not understand the different kinds of non-traditional structures and resale restrictions in place.

To encourage lender participation, Freddie Mac intends to incrementally increase market awareness of shared equity programs year over year during the Plan Period starting in Year 1. Our education campaigns will also focus on increasing the awareness of the underwriting flexibilities we plan to design during years 1 and 2 as part of Objective

A under this activity. We plan to carry out this objective by leveraging our existing marketing, communications, lender education and market outreach capabilities. To better measure awareness levels, understand specific areas of education we should focus on, and track progress of our outreach campaigns, Freddie Mac plans to survey the market, including lenders and other mortgage financing providers, during the first year of the Plan Term and immediately after lender trainings.

This is a new activity for us. Freddie Mac also understands that program stewards have limited information regarding how lenders view their programs and about secondary market practices. We believe that increasing the

program stewards' level of awareness on these topics could inform their program design efforts and enable better alignment between programs and lending practices. Therefore, under this objective, we also intend to conduct outreach and education campaigns for shared equity program stewards to improve their awareness of conventional mortgage underwriting, including Freddie Mac's product flexibilities to be developed under Objective A, lender or mortgage provider challenges and secondary market practices.

Baseline

Freddie Mac has not actively promoted market awareness of shared equity programs.

Challenges, Actions and Market Impacts

Market Challenge	Freddie Mac Action
Limited awareness ▪ On average, lenders are not familiar with how shared equity programs are structured and therefore they cannot assess the risks of loans originated under these programs. ▪ Program stewards have limited understanding of conventional underwriting and secondary market practices. Therefore, often, programs are not designed in alignment with how they would be evaluated by lenders. **Imprecise perceptions of risk** ▪ Because shared equity programs predominantly cater to very low-, low- and moderate-income borrowers, lenders perceive the loans originated under these programs to have inherently higher risk profiles than they may actually have.	**Year 1 – 2018** 1) Survey at least 50 market participants, including lenders and other mortgage finance providers, to understand specific areas they are interested in learning about to get comfortable with assessing risks of loans originated under shared equity programs. **Year 2 – 2019** 1) Use the information gathered to develop a comprehensive lender education plan inclusive of available Freddie Mac product features and design the best approach to increase program stewards' awareness about how lenders evaluate shared equity programs. The education curriculum will be provided and accessed through Freddie Mac's Learning Center on Freddie Mac's website. 2) Initiate education campaigns to create awareness of the availability of a shared equity curriculum, in concurrence with the marketing of any product flexibilities developed under Objective A.

Market Impact
Freddie Mac conducts lender education campaigns today and finds them to be a key element for lender adoption of products and guidelines. We also understand that market participants have conducted education sessions and training for lenders in the past and that those efforts proved to be minimally impactful. However, we deem our effort different than what we understand has been done to date. First, our campaigns will be much more tailored than typical lender education campaigns by basing them on our market survey and including content on what the market cares the most about and has the least information on. Second, lender education sessions generally focus on educating lenders on process, guidelines and/or product flexibilities. As we develop our strategy to carry out this objective, Freddie Mac plans to focus on designing curriculums or tactics that not only provide the information that typical lender education campaigns entail, but also offer Freddie Mac's view of risk for these loans and what we are comfortable purchasing. We will also provide information to lenders on how and why Freddie Mac is comfortable with certain shared equity structures and the rationale, from a risk perspective, on why we chose to provide certain product flexibilities over others. Lastly, Freddie Mac plans to track progress of this objective on an on-going basis and adjust our strategy accordingly. We believe our comprehensive approach to carry out this objective represents a meaningful impact in addressing the lack of awareness and inaccurate risk perceptions described above. Given the non-standard education campaign we plan to design, we expect our level of effort to carry out this objective will be highest in Year 1. As we continue with this objective in years 2 and 3, we expect our level of effort to normalize but the impact to the market to incrementally increase.

Activity 9 - Support Residential Economic Diversity: Additional Activity

The Duty to Serve regulation defines Residential Economic Diversity (RED) as: affordable housing in a high-opportunity area or mixed-income housing in an area of concentrated poverty. The regulation defines "high opportunity area" to mean a HUD-designated "Difficult Development Area," with a specified poverty rate cap, or an area designated in a state or local Qualified Allocation Plan (QAP), as determined by FHFA. FHFA has specified the state definitions of high opportunity areas in QAPs that qualify as high opportunity areas for Duty to Serve purposes. The regulation defines "area of concentrated poverty" as a HUD-designated Qualified Census Tract (QCT) or Racially or Ethnically Concentrated Area of Poverty (R/ECAP).Most QCTs and R/ECAPs overlap. A QCT is defined as census tracts where 50 percent of households have incomes below 60 percent of the area median income or that have a poverty rate of 25 percent or more. Given this definition, it is evident that these areas need support; we can offer our services to promote affordable housing development and preservation. Promoting economic diversity in housing is consistent with Freddie Mac's charter mission to provide liquidity, stability and affordability to the US housing market, and our community mission to enable social and economic mobility and promote sustainable communities.

There has been a great deal of academic research conducted to better understand the role of economic diversity in community development. Per research from Harvard's Equality of Opportunity Project, the zip code where one grows up has a significant, and perhaps disproportionate, impact on a person's life outcome, and the outcomes of that person's descendants.[117] Therefore, with our mission to increase the supply of affordable housing and preserve existing affordable housing, we also need to consider how we can promote diverse, vibrant, and healthy communities, using housing as the anchor. In so doing, we will seek to create or reinforce opportunities that will encourage economic and social mobility through Residential Economic Diversity.

Additionally, many states and localities have made deliberate efforts to promote RED through LIHTC QAPs and inclusionary zoning. Various laws, regulations, and federal programs have sought to address RED and economic mobility in different ways, from The Fair Housing Act of 1968, Community Reinvestment Act (CRA) to HUD programs including Housing Choice Voucher Program Section 8, HOPE VI, and the recent Affirmatively Furthering Fair Housing regulation.

Although we are hopeful and excited to further this mission, there are a few challenges that we foresee may extend beyond the capacities of a financial institution to solve. With respect to affordable housing development and Residential Economic Diversity, the following five challenges are especially important:

1. High property development costs
2. Limited land availability
3. The availability of state and local efforts to prioritize Residential Economic Diversity, particularly in high cost locations
4. Public willingness to accept initiatives
5. Lingering effects of prior public policy and redevelopment decisions

While these are significant challenges, the Urban Institute suggests many interconnected ways to further Residential Economic Diversity. These include: enforcement to combat discrimination, education on diverse neighborhoods, affordable housing development, and new incentives to encourage stability and long-term growth.[118] To this point, we intend to focus on four housing related efforts that will both create more opportunities for renters over time, and complement research, public policy, and federal and local efforts:

1. Purchase loans on properties that support Residential Economic Diversity
2. Create a mapping tool to enable deeper understanding of the various aspects of RED

3. Conduct and publish research on housing in high opportunity areas
4. Conduct and publish research on housing in areas of concentrated poverty (QCTs and R/ECAPs)
5. Work with states that prioritize RED in QAPs to identify commonalities and best practices and publish reports

Freddie Mac believes we can contribute to the progression towards diverse, vibrant, and sustainable neighborhoods through these RED initiatives, each of which has a distinct value to offer to the market. This value is magnified when all activities are considered together with each other and the important work they will enable.

In our loan purchases, Freddie Mac can and will continue to provide liquidity to affordable housing in high opportunity areas and support localities in their efforts to promote sustainable communities.

In our research, we will lay a foundation for broader understanding of the role of affordable housing in areas of high opportunity, as well as the role of ~~mixedincome~~mixed income housing in areas of concentrated poverty. Much research has, and will continue to be conducted on this subject beyond our own, but our focus, using housing as the anchor and leveraging our unique position in the market as a housing finance provider with a national scope and extensive expertise, will provide a beneficial complement.

Our mapping tool will provide the first-ever national view of these high opportunity areas and areas of concentrated poverty and the housing opportunities in them, and allow our seller/servicer network to deliberately target properties in these areas in need of financing. Our national analysis of various definitions of opportunity and market size in these areas will demonstrate for the first time the opportunities for scaled investment in real estate that promotes RED and enable FHFA to refine the Duty to Serve definition of RED over time. Our case studies that focus on replicable community approaches to RED and replicable financing methods and lender-locality partnerships will allow us to showcase and leverage emerging standards to furthermore development, preservation, and financing opportunities over time and increase liquidity for the promotion of Residential Economic Diversity.

OBJECTIVE A: PURCHASE LOANS ON PROPERTIES THAT SUPPORT RESIDENTIAL ECONOMIC DIVERSITY

Evaluation Area	Year	Incomes Targeted	Extra Credit
Purchase	**1, 2, 3 and ~~3~~4**	**VLI, LI, MI**	**Yes**

Freddie Mac has previously, and currently, provides financing for affordable housing properties in high opportunity areas. The opportunities to purchase loans vary annually depending upon local priority, interest rates, and the LIHTC market. Although the market is consistently changing, we have maintained a constant presence in supporting Residential Economic Diversity. We currently offer a comprehensive suite of debt financing products and flexible underwriting parameters that support LIHTC properties. This suite includes the following offerings:

1. Bridge to Resyndication
2. Immediate Cash Loan for LIHTC Preservation
3. Value-Add
4. Lease-Up

5. 9 percent new LIHTC Loan
6. Tax-Exempt Loan
7. Preservation Rehab Loan
8. Bond Credit Enhancement
9. Tax-Exempt Bond Securitization
10. Green Advantage

Through our array of products, we have offered both forward commitments to support new construction, and immediate loans to support properties that desire refinancing. Our thorough underwriting procedures enable the continuance of affordable housing even where the costs of construction remain high. In addition to these particular debt products, we are able to leverage our industry leading risk distribution measures--our K-series, M-series, and PC executions—to attract private investment to support affordable housing and distribute risk away from the taxpayers. Localities, developers, and lenders will have access to additional liquidity while leveraging our capabilities. We intend to continue our strong support for RED in high opportunity areas by purchasing loans.

Baseline for 2018-2020

In setting our baseline, we counted distinct restricted units and properties with restricted units on which we purchased loans during the year in question through our retail seller/servicer networks or via TAH negotiated transactions on individual mortgages. Over the past three years our loan purchases in high opportunity areas have been as follows:

Year	2014	2015	2016	Three-Year Avg.
Total Loan Amount	$503.8 Million	$856.2 Million	$622.6 Million	$660.9 Million
Restricted Units	1,471	4,425	1,603	2,500
Properties	14	32	24	23

These purchases are inclusive of LIHTC Debt and Section 8 purchases. This results in a three-year average baseline of the lesser of 2,500 restricted units or 23 properties.

Baseline for 2021

In setting our baseline, we counted distinct restricted units and properties with restricted units on which we purchased loans during the year in question through our retail seller/servicer networks or via TAH negotiated transactions on individual mortgages. Over the past three years our loan purchases in high opportunity areas have been as follows:

Year	2017	2018	2019	Three-Year Avg.
Total Loan Amount	$1.6B	$1.1B	$1.3B	$1.3B
Restricted Units	2,978	3,647	4,733	3,786
Properties	44	39	49	44

The three-year average baseline is $1.3 billion supporting 3,786 restricted units across 44 properties.

2018-2020 Target

The market for affordable housing in high-opportunity areas is heavily dependent on the LIHTC market and interest rates.

In prior years, especially 2015 and 2016, the LIHTC debt market was highly favorable with historically low interest rates and historically high LIHTC pricing. These market conditions allowed Freddie Mac to provide financing for more units than we would be able to support in a challenging market environment. Even with these favorable market conditions, and even as our LIHTC debt business grew, we did not support as many properties or units in FHFA designated high opportunity areas in 2016 as in 2015. This suggests that there are various local variables that affect the market, such as state and locally administered LIHTC awards, and the availability of qualifying projects in these geographic areas. Additionally, anomalous large transactions can skew purchase volume in a given year. In fact, in 2015, the top five properties in terms of restricted units accounted for 1,663, or 38 percent, of the restricted units in that year, while the bottom five accounted for only 70 restricted units, or 2 percent of the total. As such, past success is not a reliable indicator of future performance, especially in geographically specific submarkets.

Given these variabilities, and the challenges laid out below, we are setting an aggressive target at the lesser of 25 properties or 2,600 restricted units in 2018, and will seek to deliberately increase the target subject to market conditions and states and localities continuing to prioritize affordable housing in high opportunity areas. We may also change these targets based on interest rates, tax rates and LIHTC market implications, or the results of our research described below. In setting our targets, we will also count distinct restricted units and properties with restricted units on which we purchase loans during the year in question through our retail seller/servicer networks or via TAH negotiated transactions on individual mortgages. Our targets for each year will be the lesser of the number of restricted units or properties as follows:

Year	2018	2019	2020
Target	The Lesser of 2,600 Restricted Units or 25 Properties	The Lesser of 2,700 Restricted Units or 27 Properties	The Lesser of 2,800 Restricted Units of 29 Properties

These targets will be inclusive of LIHTC debt and Section 8 purchases.

2021 Target

We have set our 2021 target slightly above our baseline and nearly 36% over our 2020 unit target. This represents continued support to the market, particularly in light of COVID-19's effects on the market. Additionally, we are increasing unit count from the 2020 target even though as of November 2020 the Mortgage Bankers Association forecasts the total 2021 Multifamily lending to be $305B which is a decrease of 16% from 2019. We view this as a strong target in line with the forecasted market size and our role in it. To emphasize our impact in the multifamily market, we note that in 2018 the market size was $339B (which is $34B higher than the 2021 forecast), and we purchased loans on 3,647 units. We are setting our 2021 target higher than our 2018 volume in recognition of our countercyclical role.

Year	2021
Target	3,800 Restricted Units

Market Challenges

There are several challenges associated with making purchases on properties in high opportunity areas. In these areas, there are often market complications that will hinder development. These include: high costs of development, limited land availability, and public willingness to accept housing diversity efforts. Additionally, our ability to support affordable housing in high opportunity areas is heavily dependent on state and local priorities and allocations of funds, as affordable housing in high opportunity areas relies upon subsidy in order to operate even a portion of the units at rents that are affordable to residents of very low- and low- income in a market where such rents alone could not generate sufficient cash flow to cover debt service payments.

The most important method states can use to subsidize affordable housing in high opportunity areas is the LIHTC, which can have an even greater impact in a low interest rate environment, such as in 2015 and for most of 2016. In late 2016 and in 2017, the LIHTC market has experienced two simultaneous challenges that have shrunk the market in the near term over recent record high market size and will likely have a sustained impact over time:

1. Reduced LIHTC equity pricing has led to a smaller market.
2. Rising interest rates have increased the need for LIHTC equity and soft subordinate debt.

In 2017, tax-credit pricing has reduced from historic highs of about $1.03 per credit in mid-2016 to $0.95 in mid-2017 per *Affordable Housing Finance*'s survey of syndicators.[119] In a hypothetical transaction with $10 million of debt and a need for $6 million of equity, this reduction in tax credit pricing equates to a $480,000 funding gap, which would require additional tax credits or soft debt to close.

Increased interest rates have a direct effect on how much debt a property can support, and therefore how much LIHTC equity or soft debt is required. In 2016, interest rates were at historic lows. For example, over the course of 2016, the 10-year Treasury index had an average high for the year of 187 bps and an average low of 180 bps. In 2017 through July, the 10-year Treasury index had an average high for the year of 237 bps and an average low of 232 bps. Using a 50 bps difference in rate we can see the effect on a hypothetical property: if a property qualified for a loan amount of $10 million, a 50 bps increase in the 10-year treasury index would mean that property would only qualify for about $9.44 million at the higher interest rate. This means that property would require an additional $560,000 of equity or soft debt in order to receive financing. This gap would be in addition to the gap caused by reduced LIHTC pricing. The combined effect of higher interest rates and lower equity pricing would be over a $1 million gap in funds to fill.

Additionally, states and localities can apply various subordinate debt programs, but in the current market, they have been required to focus their support on fewer transactions in order to help them succeed, which reduces the resources available for other properties. Indeed, as 2017 progressed, we saw more and more examples of large scale LIHTC market disruption, two of which particularly highlight the impact:

1. On March 15, 2017, the California Tax Credit Allocation Committee (TCAC) passed a resolution allowing developers to exchange their 2016 nine percent LIHTC allocation for 2017 LIHTCs. Given delays in finding equity investors, developers found it impossible to close in time to complete construction by the end of 2018 (LIHTC deals must be "placed in service"- meaning 100 percent construction completion and receipt of the certificate of occupancy- by the end of the second year after receiving a LIHTC allocation.)

2. In the Midwest, the Ohio Housing Finance Agency (OHFA) had to increase the allocation of LIHTC to deals awarded in 2016 because developers were not getting sufficient equity pricing to allow the deals to be economically feasible. Unfortunately, the additional credits had to come from the 2017 allocation, thus reducing the 2017 pool by approximately 12 percent.

As a result of this disruption, in the first half of 2017, there were 16 percent fewer new acquisitions compared to the first half of 2016 according to *Affordable Housing Finance*'s survey of syndicators.[120] We expect the market to remain smaller for some time unless interest rates experience a sustained reduction and either tax code changes or revisions to the LIHTC program are made, either of which could further affect the market.

2021 Challenges

It is unclear how the market will recover from the COVID-19 pandemic. We are currently observing the headwinds it is creating for construction, rehabilitation, and lease-up, which could present delays for Freddie Mac financing. Borrowers will likely need extra time to get properties built and leased. It is also likely that the market will be slow to recover, at least initially. Our focus in 2021 is on being a stable source of liquidity as the market recovers.

Affordable housing is likely to remain in very high demand for existing renters, and that demand may increase if new renters enter the market due to negative financial impacts of COVID-19. Acquisitions might be slow to recover and state and local subsidy may decrease; however, we may see increases in refinances. Because of such a substantial market disruption, it is especially difficult to set targets and plan for business opportunities outside of providing continuous liquidity to meet market needs.

Market Impacts

Creating and preserving affordable housing in high opportunity areas is difficult, as older properties are often attractive candidates for conversion to market rate housing, and the cost of new construction is prohibitively expensive to allow for 100 percent affordable properties. By providing financing for affordable housing in high opportunity areas with the competitive advantage given by our product set and our risk distribution methods, we are enabling developers and localities to further Residential Economic Diversity and promote affordability in some of the areas where it is hardest to do so.

Given the numerous obstacles that currently limit the deveopment of affordable housing in high-opportunity areas, our success in making loan purchases will not only have a significant impact on the communities we support and the market generally. These purchases will also provide case studies for states and localities to leverage as they prioritize furture development needs and determine how best to apply LIHTCs and their various subsidies to maximum benefit. In support of this, we will publish at least one news story on our website or press release each year about an exemplary or precedent setting transaction. Successful developments and successful loan purchases will also demonstrate to states and localities that do not currently prioritize RED that doing so can be both economically and socially beneficial, and that there are replicable models for achieving these benefits.

OBJECTIVE B: CREATE A MAPPING TOOL TO ENABLE DEEPER UNDERSTANDING OF THE VARIOUS ASPECTS OF RED

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Product	**1 and 3**	**VLI, LI, MI**	**Yes**

FHFA defines Residential Economic Diversity as either affordable housing in a high opportunity area or mixed income housing in an area of concentrated poverty. FHFA has gone to great lengths to identify specific regions in need of support, and we intend to build upon this foundation to bring greater transparency and understanding to the housing market in high-opportunity areas and areas of concentrated poverty. A key component of this effort is the development of a mapping service that will clearly identify these locations, and categorize and label properties in these locations so we, researchers, policy makers, localities, and developers can better understand precedents, opportunities, and challenges to promoting Residential Economic Diversity.

In the final year of our plan, we intend to expand this mapping tool by adding additional data to incorporate the indicators of opportunity that are most commonly found in LIHTC QAPs based on our analysis in year one of our plan and that have readily available data with national reach. These indicators include: proximity to transit, educational attainment, access to employment, and income.

Baseline

Freddie Mac does not currently offer such a mapping tool. There are various mapping services in the market, but none of them have the foundation for housing and Residential Economic Diversity and national scope that we intend to build.

Challenges, Actions and Market Impacts

Market Challenge	Freddie Mac Action
Lack of accessible data on Residential Economic Diversity and housing ▪ Current data on housing and RED is unconsolidated due, in part, to a lack of institutional investment and to the vast scope of this concept. As a result, the locations and characteristics of properties supporting RED are not clearly documented in a consolidated, accessible manner. **Market awareness** ▪ Not all states and localities actively promote Residential Economic Diversity ▪ The public is often unaware of the benefits and methods of achieving Residential Economic	**Year 1 – 2018** 1) Initiate a technology project that will ultimately deliver an interactive mapping tool to identify FHFA-defined areas of interest for RED, affordable and mixed-income properties in those areas as well as: a. If the property meets regulatory agreements for housing subsidies or is market rate (note that we can only perform this service where the data exists, so we cannot likely capture and provide this information in all cases) b. Contact information for a Freddie Mac representative 2) How the tool will be used:

Diversity.	a. The tool will be available to our network of seller/servicers who will be able to target localities that support RED b. Localities will more easily recognize locations that count as FHFA-identified high opportunity areas where Freddie Mac is seeking to provide financing, and can adjust their focus as appropriate. c. Freddie Mac will likely use the tool to locate properties that meet RED requirements and seek to provide financing for them. d. Tool will allow users to query by address or other geographic markers to be determined during development. 3) Take the following steps to achieve this : a. Identify/Develop appropriate software for the tool b. Aggregate and align data for use in mapping tool from a selection of the following sources as well as others we may discover in our work: The National Housing Preservation Database, data.gov, HUD, Harvard's Equality of Opportunity Project, and Census Bureau information. c. Test the mapping tool in beta form prior to formal release. 4) Solicit market feedback (from research and policy organizations, localities, borrowers, seller/servicers) and release official product to the public 5) While this is a one year objective, we plan to make this tool available to the public in Year 2. We will also make changes as necessary based on feedback from seller/servicers, developers, and borrowers. These updates may also include data changes from FHFA, HUD, or external vendors. **Year 3 – 2020** 1) Enhance the mapping tool to include indicators of opportunity: proximity to transit, educational attainment, access to employment, and income. 2) Promote the mapping tool online through email marketing channels.
Resource Challenge	**Freddie Mac Action**
Deficiency of consolidated data	**Year 1 – 2018**

▪ Gathering the necessary data to create the mapping system will be labor intensive. ▪ We will need to purchase data from external vendors which can be costly. **Software development** ▪ Creating internal software can be a time-consuming process. ▪ Development cycle will require multiple tests to ensure the products' practicality, ▪ There will need to be multiple teams of developers, testers, researchers, and business planners to implement this product	1) Assemble a design team. Bring together the necessary individuals from IT, Research, and Business teams who will design and implement the product. 2) Reach out to external vendors to acquire or purchase the necessary data to build the platform. Note: With any mapping and searching of data, there will be a margin of error in trying to identify exact locations of properties—address mismatches and latitude/longitude imprecisions may create some ambiguity or false positives in a small minority of cases. 3) Identify the needs of stakeholders, including, but not limited to: a. Research and policy organizations b. Localities c. Borrowers d. Seller/Servicers

Market Impact

Residential Economic Diversity is ultimately a method of promoting opportunity and social and economic mobility.

This mapping tool will act as a foundation of research that will broaden the markets' knowledge of economic diversity in housing. Much academic research has been conducted that suggests that promoting economic diversity in neighborhoods leads to healthy and sustainable communities. In creating a mapping service that will outline what properties support and promote RED, Freddie Mac is making it easier for other lenders and developers to engage in RED activities.

We expect that this mapping tool will have multiple uses and therefore benefit various parties, including: researchers, policy makers, localities, developers, and ultimately people and communities around the country. Given the breadth of RED as a concept, it is challenging to focus disparate information and fields of study into tools that will enable concrete actions. We believe this mapping service will establish an important foundation to decrease barriers to public policy decision making and financing decisions and allow for the better focusing of private capital for the purpose of promoting RED. We anticipate that this tool will have a great deal of impact on the market by (1) enabling investors to understand what properties meet the requirements for RED, whether the Duty to Serve definitions of high opportunity area and area of concentrated poverty unintentionally exclude areas that promote economic diversity, (2) enabling researchers to better study the distribution of properties and investment in these areas, and (3) enabling policy makers and localities to learn from each other's efforts and make well-considered decisions about how to best promote RED, (4) enabling our seller/servicer network to deliberately target for financing properties that support RED in these areas, and (5) enabling states who value RED in their QAP but do not have their high opportunity areas mapped to leverage our mapping service— over time we can envision using this tool to map all high opportunity areas prioritized by states in their QAP.

Through these factors, and likely more as the tool is released to the public and gains market adoption, we will enable greater liquidity in the market for properties supporting RED.

Year 3 – 2020.

Through adding opportunity indicators to our mapping tool, we expect that this tool will have multiple uses and therefore benefit various parties, including: investors, researchers, policy makers, localities, developers, and ultimately people and communities around the country. We believe this addition to our mapping tool will be an essential service for impact-minded investors looking to better focus private capital for the purpose of achieving growth in areas of high opportunity and meet social impact goals for their portfolios. This can enable more cost-effective lending over time based on capital markets demand. We are also providing localities and policy makers with a more granular view of opportunity, not just through areas that have already been determined by FHFA as high opportunity. This will allow policy makers to leverage our tool, develop their own larger, programmatic definitions of opportunity, and focus their efforts more clearly. We will continue to work with localities and leverage new programs along with our loan offerings to support more affordable housing in high opportunity areas and to help more areas become areas of opportunity.

OBJECTIVE C: CONDUCT AND PUBLISH THREE RESEARCH PROJECTS ON HOUSING IN HIGH OPPORTUNITY AREAS

Evaluation Area	Year	Incomes Targeted	Extra Credit
Outreach	**1~~, 2 and 3~~ and 2**	**VLI, LI, MI**	**Yes**

In defining high-opportunity areas, FHFA has leveraged public input, established geographical criteria—HUD's "Difficult Development Area (DDA)"—and taken local programs into account by identifying states or localities whose LIHTC QAPs recognize or reward efforts to further Residential Economic Diversity. FHFA has also included in its definition a "maximum poverty rate threshold for HUD-designated metropolitan DDAs at 10 percent and for non-metropolitan DDAs at 15 percent" for areas to qualify as high opportunity. However, FHFA has made it clear that DDAs are not a perfect proxy for high opportunity areas and thus there is room to better understand and refine this definition over time.

Through a series of distinct research efforts and publications, we intend to explore several aspects of the high-opportunity areas definition as it relates to economic diversity.

- The extent to which HUD's DDAs do or do not provide the foundation for economic mobility
- The opportunities and barriers for developing or preserving affordable housing in high opportunity areas, potentially based on various measures of opportunity
- Factors, both including and beyond housing, that are necessary to further economic diversity and opportunity

We intend for our research to leverage and complement leading academic and policy work, explore anomalies in various definitions, as well as to explore case studies that can lead to better public understanding and well-considered public policy, and help FHFA to refine or reinforce the definition of high opportunity areas. With a refined or reinforced definition, we will look to create and enable the emergence of standards that will increase liquidity and investment in support of RED.

Given the level of detail and effort that this work requires, we plan to complete distinct individual projects and publications on an annual basis that build upon our findings from each year but have their own unique value. These efforts will begin with a broad market study in 2018, followed by in depth case studies in 2019 and 2020. We view case studies—focused and detailed analysis of particular communities and/or properties—as the best approach for our research in years 2 and 3 because they will allow us to focus on the unique and nuanced challenges of supporting RED in different communities, and take those lessons and apply them more broadly. In order to delve into these studies with appropriate depth and care, it is important to take sufficient time in our outreach, analysis, and writing to ensure that our work is well considered and meaningful to the market. Indeed, each of these efforts will involve a great deal of time, effort, and focus in each year from our internal research team, and will involve outreach to leading researchers in the field to better inform our work and help it to be maximally beneficial to the market and communities across the country.

Our work is summarized as follows:

Year 1 – 2018. The first year of our research will involve gathering necessary data to better define high-opportunity areas, which includes estimating market size and opportunity, as well as comparing different definitions of high-opportunity areas. After consolidating and refining this analysis, we will publish a research report on our findings. This analysis will also be foundational for our efforts in 2019 and 2020.

Year 2 – 2019. The second year of our research will involve conducting case studies on three communities that have undergone deliberate efforts to promote Residential Economic Diversity. We will use the definition of high

opportunity area to pinpoint our research to these areas. Our goal will be to explore how residential economic diversity has other economic and social impacts on communities beyond individual properties, and how states, localities, communities, and developers have effectively furthered these benefits. We will anchor these case studies on three properties financed by Freddie Mac. In analyzing the properties we will explore how these properties supported RED and opportunity in their communities, and how federal, state, and/or local programs and flexibilities were effectively leveraged to support these transactions. We will publish this research in 2019. We expect that this will be useful for states and localities, as well as developers who will look to support economic diversity. We will look to identify replicable models or financing programs for other communities to follow in their holistic approach to RED. By enabling more communities to deliberately promote RED, we will likely also promote future loan purchase opportunities and increased liquidity in the market.

~~**Year 3 – 2020.** Since high opportunity neighborhoods are found across the country, in the final year of our Plan, we will conduct three additional case studies on properties in communities not covered in 2019. This will allow for a deeper understanding of the different ways that RED can be furthered nationwide.~~

By completing each of these studies and publishing our analyses, we will provide a foundation for the federal, state, and local policy makers, researchers, developers, and financing providers to coalesce around concepts and objectives that will promote economic diversity and opportunity over time.

Baseline

Freddie Mac has not engaged in or published formal research on housing in high opportunity areas. Moreover, no organization has performed or published such research on using this definition of high opportunity areas. This research will be the first of its kind.

Challenges, Actions and Market Impacts

Challenges	Freddie Mac Action
Lack of easily accessible data on high opportunity areas and housing ▪ Gathering information that relates to high opportunity areas will be difficult, as there are many disparate sources of data, not all of which are publicly available. Throughout the course of our research there have been instances where data was temporarily unavailable or where combining sources proved to be more difficult than originally anticipated. The wide range of topics that we intend to cover for our high opportunity research will rely heavily on data, and completing the objective within a narrow timeframe will be very difficult if data issues are encountered. **Public is often unaware of the benefits of Residential Economic Diversity** ▪ Public misconceptions regarding economic diversity and housing may play a role in creating preconceived notions that deter the creation and preservation of affordable housing in high opportunity areas	**Year 1 – 2018** Leverage data aggregated and aligned in conjunction with the mapping tool described in Objective B above from a selection of the following and other sources we discover in our research to better understand housing in high opportunity areas: The National Housing Preservation Database, data.gov, HUD, Harvard's Equality of Opportunity Project, and Census Bureau, 1) Compare and contrast various definitions of high opportunity areas 2) Publish report on housing in high opportunity areas 3) This report will include at least the following: a. Comparison of definitions of high opportunity areas b. Analysis of the geographic distribution in high opportunity areas of LIHTC, Section 8, and other programs we may identify in our research, leveraging the data sources

Definitional challenge

- Insufficient industry consensus on what is considered high opportunity
- Understanding the opportunities that exist to expand this market

Resource challenge

- Throughout the Duty to Serve Plan, we are taking on a considerable number of research efforts, all of which require extensive planning, as well as collaboration with key stakeholders, and analysis. The design and research for all of these objectives will have many unique components, and will leverage the expertise and skills of our internal research organization, whose focus extends beyond the scope of the Duty to Serve Plan.

identified above

c. Estimation of market size in high opportunity areas of LIHTC debt, Section 8, and other programs we may identify in our research, leveraging the data sources identified above

4) Report will be published on our website, distributed to research organizations, advocacy organizations, and the seller/servicer network, and will be promoted with a press release.

5) Engage with at least two leading researchers on Residential Economic Diversity to help inform and structure our research and identify communities we should focus on in our case studies.

Year 2 – 2019

1) Identify and analyze three properties financed by Freddie Mac in high opportunity areas that are approaching economic diversity in different ways and conduct individual case studies for each community and property, comparing their approaches and their use of housing as a tool to further economic opportunity.

2) Draft a report on these three case studies. Report will include analysis of the approaches taken by each property in each community, the role of housing and housing programs used to promote Residential Economic Diversity, and the relationship between the specific housing and a selection of measures of opportunity identified in different definitions of high opportunity areas. This report will identify factors that successfully enabled affordable housing to be developed and financed so that these factors may be replicated elsewhere. We will also identify factors that inhibit or make more difficult the promotion of Residential Economic Diversity and pathways to avoid or mitigate these challenges.

3) Report will be published on our website, promoted with a press release, and shared on social media so that research organizations, advocacy organizations, and lenders have access to the work.

4) Engage with at least two leading researchers on Residential Economic Diversity to review or discuss our research.

~~**Year 3 – 2020**~~

~~Our research in Year 3 will build off our findings in 2019 regarding steps communities can take to promote RED, by selecting three~~

	~~additional properties financed by Freddie Mac that have successfully promoted Residential Economic Diversity and evaluating how their approaches to economic diversity may be different in various parts of the country.~~ ~~To do this we will identify and analyze three high opportunity areas in which Freddie Mac has provided financing for affordable housing, and draft a report on these three case studies. Report will include analysis in different high opportunity areas for which Freddie Mac has provided financing, how these properties supported RED and opportunity in their communities, and how federal, state, and/or local programs and flexibilities were effectively leveraged in conjunction with Freddie Mac financing to support these properties. Through these case studies we will identify replicable development models, financing models, and approaches and tools states and localities can use to facilitate development and financing of affordable housing in high opportunity areas. Report will be published on our website, promoted with a press release, and shared on social media so that research organizations advocacy organizations, and lenders have access to the work.~~ ~~Engage with at least two leading researchers on Residential Economic Diversity to review or discuss our reseah.~~

Market Impact

Over time, many programs and studies have focused on Residential Economic Diversity and its role in promoting social and economic mobility. Likewise, there have been many ways of understanding what constitutes the fundamentals of opportunity. Our research will build upon the information collected by numerous academic studies, and look beyond this work as it relates to housing and housing finance as an important aspect of furthering Residential Economic Diversity. The results of each of our research efforts will have several market impacts across all three years of our Plan.

Year 1 – 2018. Our research will build upon the information collected by numerous academic studies, and look beyond this work as it relates to housing and housing finance, an important aspect of furthering Residential Economic Diversity. Better understanding of high opportunity areas, and what can be done to create them, will also ensure that loan purchases we make in these areas have a high level of beneficial impact on communities. The housing market needs access to a consolidated set of research that clearly outlines the benefits of economic diversity in residential communities, and ways in which these may be achieved. This published research will act as a reference for all market particpiants. By working with academic teams and the FHFA, we will be able to refine the definition for high opportunity areas for the use of the housing industry, and, more importantly, for the benefit of the residents in these communities

Year 2 – 2019. Promoting Residential Economic Diversity in high opportunity areas has been a long-term challenge. Identifying and analyzing communities that have succeeded, and the reasons for their success and the challenges they have faced, is fundamental to enabling more communities to follow suit. We will focus specifically on how Freddie Mac financing and other sources have been leveraged to promote Residential Economic Diversity, and the challenges faced in doing so. In evaluating communities that have made a deliberate effort to further Residential Economic Diversity, we will be able to identify and analyze replicable models of community development rooted in affordable housing and economic diversity. Publishing research on this will provide greater attention to these efforts, and will demonstrate models for other communities to follow. This will in turn help to attract more development and investment supporting Residential Economic Diversity.

~~**Year 3 – 2020.** Our publication in Year 3 will build upon our findings in Year 2 as we seek to take the lessons of community development identified in Year 2 and apply them to three additional affordable properties that promote RED. Our focus on replicability, not just of our debt, but also of steps communities can take to further development and make transactions work, will provide a clear signal to the market of how to facilitate more development in support of Residential Economic Diversity, and how to promote greater opportunity for residents in strong, sustainable communities. This will lead to greater liquidity in this market as more developers, lenders, and localities leverage the tools and new standards identified in our analysis.~~

OBJECTIVE D: CONDUCT AND PUBLISH THREE RESEARCH PROJECTS ON HOUSING IN AREAS OF CONCENTRATED POVERTY (QCTs and R/ECAPs)

Evaluation Area	Year	Incomes Targeted	Extra Credit
Outreach	**1, 2 and 3**	**VLI, LI, MI**	**Yes**

Developing mixed income housing in areas of concentrated poverty is an important objective, but one that comes with many challenges. Increasing opportunity in these areas is something that extends beyond housing. Freddie Mac is committed to healthy neighborhoods for all through our role in supporting affordable housing. Enabling growth in persistent-poverty areas is consistent with our charter and community missions.

As we look to provide financing for mixed-income housing in poverty areas over time and perform research into the role of housing and economic development in these areas, it will be important to look at how we can enable Residential Economic Diversity and attract new capital to these neighborhoods without creating negative secondary outcomes. In promoting development in such areas today, it will be important that it is done with the community, while preserving safe and decent housing opportunities for residents living there today, something that has historically been a casualty of redevelopment efforts. For example, as a result of urban renewal efforts in the 20th century, hundreds of thousands of affordable units were lost, a legacy that has left lingering impacts on communities today. Per analysis from Marc Weis in "The Origins and Legacy of Urban Renewal," "As of June 30, 1967, 400,000 residential units had been demolished in urban renewal areas while only 10,760 low-rent public housing units had been built on these sites"[121].

While researching opportunities to promote Residential Economic Diversity in these areas, we expect many of the necessary efforts to further economic diversity will extend beyond housing. It will take the collaboration of residents, local leaders, governmental entities, planners, developers, and financing providers, among others, to enable job development and infrastructure improvement. Freddie Mac's products, purchases, and outreach will be a basis for the revitalization of these areas, but cannot and will not be the only factor. Through our research, we will look beyond housing to help lay a foundation for collaboration of various institutions that can aid in promoting economic diversity in areas of concentrated poverty.

Given the level of detail and effort that this work requires, we plan to complete distinct individual research projects and publications on an annual basis that build upon our findings from each year but have their own unique value. These efforts will begin with a broad market study in 2018, followed by in depth case studies in 2019 and 2020. We view case studies—focused and detailed analysis of particular communities and/or properties—as the best approach for our research in years 2 and 3 because they will allow us to focus on the unique and nuanced challenges of supporting RED in different communities, and take those lessons and apply them more broadly. In order to delve into these studies with appropriate depth and care, it is important to take sufficient time in our outreach, analysis, and writing to ensure that our work is well considered and meaningful to the market. Indeed, each of these efforts will involve a great deal of time, effort, and focus in each year from our internal research team, and will involve outreach to leading researchers in the field to better inform our work and help it to be maximally beneficial to the market and communities across the country.

Our work is summarized as follows:

- **Year 1 – 2018.** The first year of our research will involve gathering necessary data to better define areas of concentrated poverty, which includes estimating market size and opportunity, as well as comparing different definitions of "areas of concentrated poverty." After consolidating and refining this analysis, we will publish a research report on our findings. This analysis will also be foundational for our efforts in 2019 and 2020.

- **Year 2 – 2019.** The second year of our research on areas of concentrated poverty will be focused on

conducting case studies on the challenges and opportunities for financing mixed-income housing in areas of concentrated poverty. We will use the definition of areas of concentrated poverty to pinpoint our research to these areas and select three properties for which Freddie Mac has provided financing. Our goal will be to explore how Residential Economic Diversity has other economic and social impacts on communities outside of housing, and how states, localities, communities, and developers have attempted to provide these benefits in areas of concentrated poverty. We will publish this research in 2019. We expect that this will be useful for states and localities, as well as developers who will look to support economic diversity. We will look to identify replicable models for other communities to follow in their holistic approach to RED. By enabling more communities to deliberately promote RED, we will likely also promote future loan purchase opportunities and increased liquidity in the market.

- **Year 3 – 2020.** In the final year of our plan, we will conduct research on the landscape of development activity in ACPs. We intend to leverage Yardi Matrix data to identify the prevalence of mixed-income properties across the country, with a special emphasis on ACPs, and further identify the challenges and opportunities for financing mixed-income housing in ACPs. We anticipate that this will lead to more liquidity in the market as other communities and developers learn from successes throughout the country. ~~we will conduct three additional case studies on three more properties to identify the challenges and opportunities for financing mixed-income housing in areas of concentrated poverty. We will examine three additional properties for which Freddie Mac has provided financing, though perhaps in different range of income-mixing than FHFA has defined depending on availability in our recently-financed loan portfolio, explore how these properties supported RED and opportunity in their communities, and how federal, state, and/or local programs and flexibilities were (or were not) leveraged to support these transactions. Through this research, and its publication in 2020, we will identify replicable transaction structures and tools that Freddie Mac and localities can use to further RED and opportunity through mixed-income housing in areas of concentrated poverty. We anticipate that this will lead to more liquidity in the market as other communities and developers avail themselves of these standards and transaction models.~~

- By completing each of these studies and publishing our analyses, we will provide a foundation for federal, state, and local policy makers, researchers, developers, and financing providers to coalesce around concepts and objectives that will promote economic diversity and opportunity in areas of concentrated poverty over time.

Baseline

Freddie Mac has not engaged in or published formal research on Residential Economic Diversity as it relates to areas of concentrated poverty. Moreover, while various organizations have analyzed housing opportunities in these areas, FHFA's work in formalizing a definition of Residential Economic Diversity as it relates to areas of concentrated poverty sets a foundation for us to perform research that will be the first of its kind.

Challenges, Actions and Market Impacts

Challenges	Freddie Mac Action
Promoting economic growth without the displacement of current neighborhood residents ▪ Many community rehabilitation programs have resulted in the displacement of residents that have been living there **Public perception and preference** ▪ Public misconceptions regarding economic diversity and housing may play a role in creating	**Year 1 – 2018** Leverage data aggregated and aligned in conjunction with the mapping tool described in Objective B above from a selection of the following and other sources we discover in our research to better understand housing in areas of concentrated poverty: National Housing Preservation Database, data.gov, HUD, Harvard's Equality of Opportunity Project, and Census Bureau.

preconceived notions ▪ Higher income residents may be unwilling to live in areas of concentrated poverty without demonstrable local incentives **Definitional Challenge** ▪ Insufficient industry consensus on what is considered an area of concentrated poverty and methods to provide support ▪ Throughout the course of our research there have been instances where data was temporarily unavailable or where combining sources proved to be more difficult than originally anticipated. The wide range of topics that we intend to cover for our areas of concentrated poverty research will rely heavily on data, and completing the objective within a narrow timeframe will be very difficult if data issues are encountered. **Resource Challenge** ▪ Throughout the Duty to Serve plan, we are taking on a considerable number of research efforts, all of which require extensive planning, as well as collaboration with key stakeholders, and analysis. The design and research of all of these objectives will have many unique components, and will leverage the expertise and skills of our internal research organization, whose focus extends beyond the scope of the Duty to Serve plan.	1) Compare and contrast various definitions of areas of concentrated poverty. 2) Publish a report on housing in areas of concentrated poverty. This report will include at least the following: a. Comparison of definitions of areas of concentrated poverty b. Analysis of the geographic distribution in areas of concentrated poverty of LIHTC, Section 8, and other programs we may identify in our research, leveraging the data sources identified above c. Estimation of market size in areas of concentrated poverty for LIHTC debt, Section 8, and other programs we may identify in our research, leveraging the data sources identified above 3) Report will be published on our website, distributed to research organizations, advocacy organizations, and the Seller/Servicer network, and will be promoted with a press release. 4) Engage with at least two leading researchers on areas of concentrated poverty to help inform and structure our research and identify communities we should focus on in our case studies. **Year 2 – 2019** 1) Identify and analyze three properties in three different areas of concentrated poverty for which Freddie Mac has provided financing, that are approaching economic diversity, comparing their approaches and their use of housing as a tool to further economic opportunity. 2) Draft a report on these three case studies. Report will include analysis of the approaches taken by each community, the role of housing and housing programs used to promote Residential Economic Diversity, the methods of financing used, and the relationship between the specific housing and a selection of measures of opportunity identified in different definitions of areas of concentrated poverty. This report will also identify factors that successfully enabled mixed-income housing to be developed and financed so that these factors may be replicated elsewhere. 3) Publish a report on our website, promote it with a press release, and share on social media so that research organizations, advocacy organizations, and lenders have access to the

	work. 4) Engage with at least two leading researchers on areas of concentrated poverty to review or discuss our research. **Year 3 – 2020** Identify market factors present in areas of concentrated poverty where there is development with a focus on ~~and analyze three additional areas of concentrated poverty in which Freddie Mac has provided financing for~~ mixed-income housing. 1) Leverage data from Yardi Matrix to determine the pipeline of partially affordable properties in areas of concentrated poverty. We will analyze this aggregate data across the country in order to estimate the prevalence of mixed-income properties in ACPs.~~Draft a report on these three case studies. Report will include analysis of three properties in different areas of concentrated poverty for which Freddie Mac has provided financing, how these properties supported RED and opportunity in their communities, and how federal, state, and/or local programs and flexibilities were or were not leveraged in conjunction with Freddie Mac financing to support these properties. Through these case studies we will identify replicable development models, financing models, and approaches and tools states and localities can use to facilitate development and financing of affordable housing in areas of concentrated poverty. This report will also consider different levels of income-mixing on properties~~. ~~1)~~2) Draft a report on ACPs with analysis including but not limited to: population statistics, market factors, concentration of mixed income and ACPs, and commonalities of successful development. This report will evaluate different areas of economic strength in the market and consider different levels of income-mixing on properties. ~~2)~~3) Publish a report on our website, promote it with a press release, and share on social media so that research organizations, advocacy organizations, and lenders have access to the work. ~~3)~~4) Engage with at least two leading researchers on affordable housing to review and discuss our research. ~~areas of concentrated poverty to review or discuss our research.~~

Market Impact

Economic diversity where affordable housing is preserved for the community is essential to transforming areas of concentrated poverty into areas of economic prosperity and opportunity. Our outreach and research will be fundamental to examining how we, and other institutions, can make an impact in this market. Our research will build upon the information collected by numerous academic studies, and look beyond this work as it relates to housing and housing finance, an important aspect of furthering Residential Economic Diversity. The results of each of our research efforts will have several market impacts across all three years of our plan.

Year 1 – 2018. Our research will act as a foundation for policy makers, federal and local government agencies, lenders, housing finance agencies, and developers that want to support Residential Economic Diversity. Better understanding of the definition of areas of concentrated poverty will ensure that loan purchases we make in these areas have a high level of beneficial impact on communities. The housing market needs access to a consolidated set of research that clearly outlines the benefits of economic diversity in residential communities, and ways in which these may be achieved. This published research will act as a reference for all market participants. By working with academic teams and the FHFA, we will be able to reinforce and/or refine the definition of areas of concentrated poverty to be used by the housing industry to benefit the residents in these communities.

Year 2 – 2019. Promoting Residential Economic Diversity and bringing economic prosperity to areas of concentrated poverty to benefit, and not displace, the residents living there today is a long term and difficult challenge. We will focus specifically on how Freddie Mac financing, and perhaps other sources, have been leveraged to promote Residential Economic Diversity. Identifying and analyzing communities that have succeeded, and the reasons for their success and the challenges they have faced, is fundamental to enabling more communities to follow suit. In evaluating communities that have made a deliberate effort to further Residential Economic Diversity, we will be able to identify and analyze replicable models of community development rooted in affordable housing and economic diversity. Publishing research on this will provide greater attention to these efforts, and will demonstrate models for other communities to follow. This will in turn help to attract more development and investment supporting Residential Economic Diversity.

Year 3 – 2020. Our publication in Year 3 will build upon our findings in Year 2 as we seek to take the lessons learned of community development identified in Year 2 and apply them to an additional analysis on broad market factors of development in ACPs. This will help the market better understand how to facilitate more development in support of Residential Economic Diversity. This analysis will allow for greater investment and financing efforts to occur in ACPs as a result of a more thorough understanding of factors and commonalities of development within ACPs and the concentration of existing mixed-income properties in ACPs.~~Our publication in Year 3 will build upon our findings in Year 2 as we seek to take the lessons learned of community development identified in Year 2 and apply them to an additional three properties that promote RED. . Our focus on replicability, not just of our debt, but also of steps communities can take to further development and make transactions work, will provide a clear signal to the market of how to facilitate more development in support of Residential Economic Diversity, and how to promote greater opportunity for residents, and promote strong, sustainable communities.~~ We expect that the lessons we learn from this research will also enable us to better tailor our financing offerings for the benefit of RED as it relates to areas of concentrated poverty. This will lead to greater liquidity in this market as more developers, lenders, and localities leverage the tools and new standards identified in our analysis.

OBJECTIVE E: CONDUCT AND PUBLISH THREE RESEARCH PROJECTS ON STATES THAT PRIORITIZE, OR COULD PRIORITIZE, RED IN QAPS

Evaluation Area	Year	Incomes Targeted	Extra Credit
Outreach	**1, 2 and 3**	**VLI, LI, MI**	**Yes**

There have been many states and localities that have made it their policy to support Residential Economic Diversity, some in ways that meet FHFA's qualifications, some in ways that do not, while others have not overtly stressed RED at all. The extent to which states support this idea is not widely known or researched. Over the next three years, we will conduct and publish three research projects to better understand the following:

- Year 1 - 2018: What states are emphasizing in their furtherance of RED through QAPs, what are the leading factors in their furtherance of RED, and what is the market size and opportunity;
- Year 2 - 2019: How Freddie Mac financing can be leveraged into replicable programs with these states; and
- Year 3 - 2020: In states that are not emphasizing RED to the degree FHFA views as qualifying for Duty to Serve credit, how might they do so, and how might Freddie Mac financing be aligned with their efforts for the furtherance of RED?

Given the level of detail, outreach, and effort that this work requires, we plan to complete these distinct individual projects and publications on an annual basis that build upon our findings from each year but have their own unique value. These efforts will begin with a broad market study in 2018, followed by in depth case studies in 2019 and 2020. We view case studies—focused and detailed analysis of particular communities and/or properties—as the best approach for our research in years 2 and 3 because they will allow us to focus on the unique and nuanced challenges and methods of supporting RED in different communities, and take those lessons and apply them more broadly. In order to delve into these studies with appropriate depth and care, it is important to take sufficient time in our outreach, analysis, and writing to ensure that our work is well considered and meaningful to the market. Indeed, each of these efforts will involve a great deal of time, effort, and focus in each year from our internal research team, and will involve outreach to leading researchers in the field to better inform our work and help it to be maximally beneficial to the market and communities across the country.

Through these efforts individually and in the aggregate, we anticipate that we will enable more states to prioritize RED, be able to better tailor our loan offerings to support them (and how they might tailor theirs to work better with us), and provide more liquidity to support RED.

Baseline

Freddie Mac has not explicitly worked with the identified states with the goal of studying and furthering RED in this context.

Challenges, Actions and Market Impacts

Market Challenge	Freddie Mac Action
Deficiency of research on the involvement of states and localities in RED ▪ It is unclear how states and localities support RED **External factors outside of housing** ▪ How public policy has contributed to concentrations of unsustainable neighborhoods ▪ Our ability to affect conditions outside of housing is very limited ▪ Development of jobs, highways, and other infrastructure is not in our control but is essential for community growth **Resource Challenge** ▪ Throughout the Duty to Serve Plan, we are taking on a considerable number of research efforts, all of which require extensive planning, as well as collaboration with key stakeholders, and analysis. The design and research of all of these objectives will have many unique components, and will leverage the expertise and skills of our internal research organization, whose focus extends beyond the scope of the Duty to Serve Plan.	**Year 1 – 2018** Create and/or assign an internal team to contact and meet with states and localities regarding their involvement in Residential Economic Diversity. 1) Conduct outreach to states and localities that are involved in promoting RED to determine how we can provide financing to complement their efforts. 2) Aggregate and align data from a selection of the following and other sources we discover in our research as it relates to states identified by FHFA as having QAPs that emphasize RED: The National Housing Preservation Database, data.gov, HUD, Harvard's Equality of Opportunity Project, and Census Bureau information 3) Publish a report of our findings that will include at least the following: a. Leading factors that states prioritize in promoting RED b. Analysis of the distribution of LIHTC, Section 8, and others we may identify in our research, leveraging the data sources identified above in states identified by FHFA as having QAPs that emphasize RED 4) Publish report on our website, distribute to research organizations, advocacy organizations, and the seller/servicer network, and promote with a press release. 5) Engage with at least two leading researchers on state QAPs to help inform and structure our research and identify communities we should focus on in our case studies. **Year 2 – 2019** 1) Identify and analyze three states in which Freddie Mac has provided financing for affordable housing that supports RED. 2) Draft a report on these three case studies. Report will include analysis of three properties in states for which Freddie Mac has provided financing, how these properties supported RED and opportunity in their communities, and how they have done so in the context of state QAPs and other state or local efforts. Through these case studies we will identify replicable

	development models, financing models, and approaches and tools states and localities can use to facilitate development and financing of affordable housing in high-opportunity areas. 3) Publish the report on our website, and share on social media so that research organizations, advocacy organizations, and lenders have access to the work. 4) Engage with at least two leading researchers on RED to review or discuss our research. **Year 3 – 2020** 1) Identify and analyze three states that either do not currently prioritize RED or do not meet FHFA's definition for a qualifying QAP. 2) Draft a report on these three case studies. Report will include analysis of these state's QAPs and how they differ from FHFA's standard and how they could meet that standard, as well as analysis of properties that may be considered as supporting RED for which Freddie Mac has provided financing in these states, the financing used along with state or local programs, and the replicability of the model. 3) Publish the report on our website, and share on social media so that research organizations, advocacy organizations, and lenders have access to the work. 4) Engage with at least two leading researchers on RED to review or discuss our research.

Market Impact
With respect to Residential Economic Diversity, it is important to examine how states and localities have been involved in supporting economic and social mobility. Freddie Mac is committed to outreach with these entities—both those whose QAPs meet FHFA's standard for promoting RED, and those whose QAPs do not, to thoroughly understand their role in this market, and to identify and support emerging standards. Our three research projects will have distinct benefits independently, and their combined effect will likely be even greater. 1. In 2018, our work will not only reveal the property makeup and distribution in states with qualifying QAPs, it will also identify emerging standards and illustrate how other states may follow suit. 2. In 2019, our report will identify replicable financing models that pair Freddie Mac debt with state and local programs, including LIHTC, to further RED and bring more private capital into this space. 3. In 2020, our work will enable more states to meet FHFA's standard for QAPs that prioritize RED, which will lead to more deliberate financing opportunities and more liquidity across a broader RED-focused market. From our findings and our outreach, we can demonstrate to other states and localities how they can promote RED. Additionally, in the aggregate, consistent outreach to states and localities will enable us to further understand their financing needs, which will allow us to tailor our products (and them to tailor theirs) to support RED in a manner befitting the needs and objectives of their communities while channeling private capital at a growing scale through our risk-distribution methods.

OBJECTIVE F: DEVELOP A TOOL TO IDENTIFY LIHTC PROPERTIES AND SECTION 8 PROPERTIES IN AREAS OF RESIDENTIAL ECONOMIC DIVERSITY FOR PRESERVATION AROUND THE COUNTRY

Evaluation Area	Year	Incomes Targeted	Extra Credit
Loan Product	3	VLI, LI, MI	Yes

LIHTC and Section 8 are the two most prominent public subsidy programs that support affordable housing and both are vital to supporting affordable housing in high opportunity areas. However, there is not a simple or direct way for lenders to target loans to properties in these areas because there is not a straightforward way for lenders to access and analyze data about the geographies, properties, and their owners of record.

We intend to support the preservation and recapitalization of these subsidized properties by creating a tool that will help our seller/servicers identify these properties and their owners of record and leverage analytical capabilities to help focus their efforts.

Baseline

Freddie Mac created our Mission Map™ to identify several different-geographic areas, such as High Opportunity Indicators and properties with major public subsidies located there. We intend to expand upon the impact of our Mission Map™ and create a new tool designed specifically for our seller/servicers that includes analytical features and owner data to allow our seller/servicers to more efficiently pursue rural preservation opportunities. There are currently no equivalent offerings in the market.

Challenges, Actions and Market Impacts

Market Challenge	Freddie Mac Action
Lack of accessible data on LIHTC and Section 8 properties ▪ Within both LIHTC and Section 8 properties, there are some data elements that are difficult or nearly impossible to find. It is also very difficult to duplicate this data, therefore external vendors or databases would need to be utilized. **Market awareness** ▪ Lenders are often unaware of LIHTC and Section 8 preservation opportunities in areas of residential economic diversity. This tool will eliminate that problem. ▪ Private capital investment is lacking in rural areas.	**Year 3 – 2020** 1) Create a tool designed specifically for the preservation of LIHTC and Section 8 subsidized properties. Initiate a technology project that will ultimately deliver an interactive analytical tool to identify LIHTC and Section 8 properties in areas of residential economic diversity. The tool will include: a. Duty to Serve Areas: Rural, Middle Appalachia, Lower Mississippi Delta, Persistent Poverty County, ACP, High Opportunity Area b. Program name or subsidy type associated with the property c. Use of LIHTC subsidy (new construction, acquisition and rehab, existing) or Section 8 d. Start year and end date of the subsidy e. The subsidy status of the property f. Type of ownership of the property g. Standard property geography, including metropolitan and micropolitan areas h. Fully restricted properties i. Name of property owner(s) j. Number of units and subsidized k. Any additional programs the property is subsidized with *Note that some filters in the tool are specific to only LIHTC or Section 8 properties.

Market Impact
Through creating a service that will outline which owners have LIHTC and Section 8 properties that can further residential economic diversity, Freddie Mac is making it easier our seller/servicers to find and finance subsidized properties in need of preservation. This is especially important for properties in high opportunity areas and for properties that are reaching the end of their LIHTC compliance period and may be eligible for sale and conversion to market rate. This tool will also be instrumental in providing lenders with the opportunity to work with owners in order to refinance and recapitalize on properties using Freddie Mac loans offerings and other programs to preserve affordability for the long term. Our lenders will be able to search for properties based on specialized high opportunity areas definitions and will be able to search for properties based on specific features such as subsidy type, subsidy status and subsidy use. This will allow lenders interested in refinancing properties in need of preservation to target their search in order to best fit their needs. This new tool will also be particularly helpful to owners, as it allows for reasonably resourceful lenders to approach these properties with appropriate financing.

OBJECTIVE G: CONDUCT AND PUBLISH RESEARCH ON ZONING PRACTICES THAT FURTHER RESIDENTIAL ECONOMIC DIVERSITY

Evaluation Area	Year	Incomes Targeted	Extra Credit
Outreach	4	VLI, LI, MI	Yes

Income segregation in the United States has increased substantially over the last 50 years and there has been various research published on why the gap continues to widen[122]. Zoning practices have been recognized as an significant factor in furthering—and persisting—income and racial segregation throughout the United States. Restrictive zoning practices make it difficult for those with lower incomes to live in communities that further economic opportunity. Restrictive zoning can also limit the housing supply and potentially raise housing costs for both renters and homeowners across the country[123].

In recent years, certain zoning and housing policies have emerged that can address income segregation and further residential economic diversity. We intend to study a selection of these policies and publish a report on our findings.

Baseline

We have published research on various aspects of Residential Economic Diversity, focusing past research efforts on Areas of Concentrated Poverty, Residential Economic Diversity in QAPs and ways to further other aspects of the market like job opportunities or quality education through affordable multifamily housing.

Market Challenges

There are market challenges associated with public perception and preference as there are public misconceptions regarding economic diversity, housing and zoning restrictions that exist and may play a role in creating preconceived notions. There is also a resource challenge associated with the limited research on zoning and obtaining data that is not widely available. There is no publicly available, comprehensive source with data on zoning practices or changes throughout metropolitan areas in the United States. It also may be challenging to see clear, long-term effects of zoning practices that have been implemented recently as there has been little time to observe the impact zoning has had on these areas.

Action Items

Year 4 – 2021

Explore and identify zoning practices that have enabled more economically diverse communities to expand and increase affordability in the multifamily housing market in metropolitan areas.

1) Research zoning practices that have furthered Residential Economic Diversity in metropolitan areas
   a) Identify similar characteristics and factors of these metropolitan areas, such as population size, growth rates and density.
2) Identify opportunities, best practices or replicable models we can explore in greater depth that allow for development in areas of Residential Economic Diversity
3) Publish a report on zoning practices in metropolitan areas that have had an impact on economically diversifying metropolitan communities around the country
4) Engage with at least two leading researchers on zoning and housing policy to review or discuss our research.
5) Report will be published on our website, promoted with a press release, and shared on social media so that research organizations, advocacy organizations, and lenders have access to the work.

Market Impacts

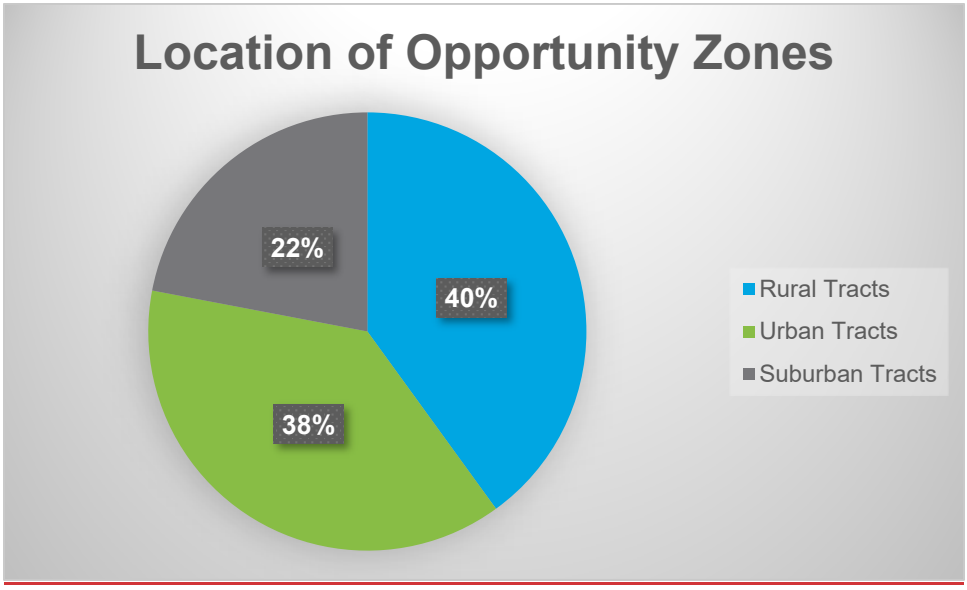
Our research in Year 4 on how zoning can help promote Residential Economic Diversity will help policymakers recognize the benefits of modifying zoning practices in relation to increasing affordable housing in metropolitan areas, decreasing the income segregation gap, and furthering opportunities for those with lower incomes. Policymakers will then have the opportunity to adopt certain zoning practices or trends at a federal, state and local level in support of furthering Residential Economic Diversity. Identifying zoning practices that further Residential Economic Diversity and publishing a report may allow for localities and municipalities across the country to adopt certain practices that can promote social and economic mobility as well.

Activity 10 – Financing of Single-Family Properties in Opportunity Zones: Additional Activity

Fifty-two million U.S. households live in economically distressed communities plagued by high levels of poverty and unemployment and a lack of investment capital. The Tax Cuts and Jobs Act of 2017 defined Opportunity Zones, where tax incentives are intended to spur economic development in low-income communities nationwide. Opportunity Zones comprise economically distressed communities in urban, rural, suburban, and tribal areas.[124]

According to the White House Opportunity and Revitalization Council, the Opportunity Zone designation encourages investment by granting investors extensive federal tax advantages for using their capital gains to finance new projects and enterprises (or to substantially improve existing projects and enterprises) within Qualified Opportunity Zones.

Defined at the census-tract level, more than 8,700 Qualified Opportunity Zones are designated across all 50 states, the District of Columbia, and five U.S. territories; 294 of the zones contain Native American lands. State and territory governors as well as the District of Columbia's mayor submitted nominations to the U.S. Department of the Treasury, which then certified the tracts as Opportunity Zones. More than three-quarters of certified tracts lie within metropolitan areas, but Opportunity Zones are nearly evenly split between urban and rural areas, with 22 percent in suburban communities.[125]



Source: The White House Opportunity and Revitalization Council, April 2019

Though the goal is to improve the economics of distressed communities by creating jobs, increasing employment opportunities, and rehabilitating housing stock, the tax break may not necessarily result in more development of affordable housing units. The construct of the tax break allows for the improvement of real estate but does not require the property to be affordable.[126]

To preserve affordability in these areas, Freddie Mac will further promote the resources and financing mechanisms that we developed over the past several years to expand access to credit for very low-, low-, and moderate-income individuals within defined Qualified Opportunity Zones. We also are positioned to serve as the catalyst in targeted communities to facilitate dialogue and establish partnerships that lead to a greater number of affordable housing units. Additionally, our active participation in Opportunity Zones will support our current efforts to increase the financing of affordable housing in high-needs rural regions, manufactured housing, and properties under shared equity programs on a broader scale. In fact, certain qualified tracts overlap with Duty to Serve persistent-poverty areas in defined high-needs rural regions and federally declared tribal areas.

We see an opportunity to demonstrate leadership and serve as a catalyst in helping to solve the challenge of preserving affordable housing in these communities over time. Financing solutions and best practices that we developed in the first three years of our Duty to Serve Plan can be extended and disseminated in targeted areas of economic distress to supplement existing efforts to attract private capital to these communities.

During 2020, we will research activity in Opportunity Zones. We will examine where investment is taking place, identify organizations seeking to develop single-family housing, and assess the availability of units for rehabilitation or replacement or vacant land that can be developed for single-family affordable housing. In certain Opportunity Zones, land banks may be created as public entities by a local ordinance that focus on converting vacant, abandoned, and tax-delinquent residential properties and returning those properties into productive use. As opportunities arise to create affordable units, Freddie Mac can bring together stewards of shared equity programs, land banks, developers, real estate professionals, and lenders to consider solutions that foster long-term affordability of the homes. Additionally, manufactured housing, which is typically affordable, can be leveraged as part of a replacement strategy for dilapidated homes that must be razed or a solution for development on vacant lots zoned as residential.

Furthermore, national and regional depositories engaging in collaborative activities with minority-owned depository institutions in Opportunity Zones may be eligible to be considered for Community Reinvestment Act (CRA) credit. There are 32 minority depository institutions with 467 branches located in Opportunity Zones.[127] Freddie Mac can be strategic in efforts to increase liquidity to depositories – including minority-owned depository institutions – and community development financial institutions (CDFIs) that currently serve communities within qualified Opportunity Zones by pursuing direct selling relationships with them or connecting them with national aggregators that can offer access to financing products and resources that facilitate mortgage originations.

OBJECTIVE A: FACILITATE THE CREATION AND PRESERVATION OF LONG-TERM AFFORDABLE HOUSING UNITS IN OPPORTUNITY ZONES

Evaluation Area	Year	Incomes Targeted	Extra Credit
Outreach	3 and 4	VLI, LI, MI	Innovation Credit

Freddie Mac will establish partnerships and offer financing solutions to jump-start the creation and preservation of affordable housing to help ensure long-term affordability in selected Opportunity Zones. Our efforts will supplement current activities in certain communities aimed at helping to eliminate blight and stabilize neighborhoods; we intend to work with local organizations who are expert in those areas. Because community plans may not require the improved homes in Opportunity Zones to be affordable to households with very low, low, and moderate incomes, we will promote financing solutions that support long-term affordability, including mortgages on income-based deed-restricted properties and Community Land Trust Mortgages, as we facilitate partnerships with developers, land banks, and stewards of inclusionary housing (such as shared equity homeownership program providers). The goal is to increase awareness of such solutions, share best practices and resources, and host forums for exchanging ideas, thereby assisting with increasing the supply of homes that offer long-term affordability.

Given the wide scope and geographic coverage of Opportunity Zones, Freddie Mac will research which communities are positioned to benefit most from our varied resources and offerings, including those with large minority homeownership gaps. Our focus will center on communities with the following features:

- Planned activities driven by state and local programs that support the development of affordable housing units
- Enough available land or housing units for residential redevelopment

- Established networks of organizations that are interested in and willing to support local redevelopment efforts to increase affordable housing supply

We also will seek opportunities to find communities within a designated Opportunity Zone that intersect with geographies designated as high-needs rural regions under the Duty to Serve rule.

Once we have identified communities on which to focus our efforts, Freddie Mac will proceed to take the following actions:

- Convene active or influential local industry stakeholders for a series of discussions on how to leverage subsidies offered by the state and/or local municipalities to preserve the long-term affordability of single-family housing. We also will share best practices on property disposition and redevelopment strategies that align with local affordable housing objectives in economically distressed communities.
- Facilitate partnerships between land banks and shared equity program stewards to covert vacant, abandoned, or foreclosed properties to long-term affordable units and to incorporate shared equity homeownership programs into land banks' property disposition strategies.
- Engage manufacturers of manufactured housing, manufactured housing retailers in the targeted communities, and lenders that can originate loans on manufactured homes to determine opportunities for infill where permitted.
- Engage minority-owned depositories or CDFIs that can originate mortgages in an Opportunity Zone.

The actions under this objective can advance the preservation and rehabilitation of affordable housing.

Baseline

Freddie Mac has not previously pursued redevelopment activities for single-family properties in areas with a concentration of vacant land or units needing renovation or replacement in an Opportunity Zone. The actions listed below, once completed, will serve to create the baseline for future efforts in Opportunity Zones.

Challenges, Actions and Market Impacts

Challenges	Freddie Mac Action
Insufficient long-term affordable units ▪ Community plans may not require improvement of residential units in Opportunity Zones to be affordable. As communities are revitalized and attract new residents, housing demand could result in families with lower incomes being priced out. ▪ Affordable units being developed in Opportunity Zones may not be affordable in the long term and affordable subsidies can be lost over time as properties transfer ownership.	**Year 3 – 2020** 1) Identify properties within land bank inventories or similar property sources in designated Opportunity Zone census tracts where Freddie Mac can provide strategic thought leadership and consultative support to update disposition strategies to better address local affordable housing preservation issues. 2) Collaborate with organizations that support affordable housing development or rehabilitation initiatives to start a long-term revitalization initiative in select Opportunity Zones. **Year 4 - 2021** 1) Publish an article on FreddieMac.com featuring the results of our research into the selected communities to provide thought

	leadership in addressing long-term affordable housing preservation issues. 2) Facilitate the creation of at least one partnership between a land bank and a steward of affordable housing preservation that use shared equity homeownership and renovation to convert vacant, abandoned, or tax-delinquent properties into owner-occupied affordable housing units with long-term affordability. To accomplish this, Freddie Mac will host a series of discussions with key stakeholders on the redevelopment or creation of affordable residential units and promote mechanisms (community land trusts and income-based deed restrictions) as solutions that support long-term affordability. 3) Engage at least one depository or CDFI that can lend in an Opportunity Zone, with the aim of purchasing mortgages, by establishing a direct or indirect selling relationship.
Market Impact	
Freddie Mac can serve as the catalyst in certain Opportunity Zones to broker partnerships, promote financing solutions and disseminate best practices on financing the rehabilitation of distressed properties, and effective property disposition strategies (for example, transferring properties to inclusionary housing programs) that preserve home affordability over the long term. If we are successful, communities will benefit in several ways: ▪ Help close the homeownership gap for minority residents. ▪ Encourage investment in quality affordable homes where households with very low, low, and moderate incomes can thrive, raise families, and secure their retirement. ▪ Increase the supply and preservation of affordable housing for the long term in revitalized communities to help ensure that housing remains in reach over time for lower-income residents. ▪ Further encourage private investment to promote job creation; preserving affordable housing supply also helps create a diverse workforce who can work where they live. ▪ Reduce neighborhood blight and increase safety. Homeowners not only invest in their homes, but also their communities. ▪ Provide liquidity to minority-owned depositories that support the revitalization of communities. These depositories play a vital role in advancing the economic viability of minority and underserved communities.	

Activity 11- Sustainability and Resiliency: Additional Activity

Affordable multifamily housing is increasingly vulnerable to natural disasters, extreme weather conditions and environmental hazards. Cost-burdened renters in low-income communities (i) are disproportionately affected by, and less resilient to, unprecedented natural disasters and extreme climate events, (ii) are more exposed to environmental hazards and (iii) have a more difficult time recovering from catastrophic weather events. Lower-income people living in high-income regions, minority groups, and those living in poorly planned communities typically have less access to resources, information and institutions to help prepare for and avoid the risks of climate health[128]. Natural disasters and other environmental catastrophes can also impose disparate health risks to low-income renters, especially to those in properties that lack secure infrastructure and resiliency[129]. Additionally, low-income families, particularly in urban and rural areas, may face economic hardship as a result of greater exposure to climate and extreme weather events,[130] though fewer than 40% of Americans have enough savings to cover a $1,000 emergency expense[131].

One way to mitigate the risks associated with natural disasters is to improve resiliency in multifamily housing. In recent years, there has been an increase in research, outreach, and investment from groups focused on increasing resiliency, including those in commercial real estate, finance companies and insurance industries. Though resiliency research is increasing in the multifamily housing market, there is little research published on how to improve resiliency for low- and moderate-income renters specifically.

Much of the current research available in the market is targeted towards coastal regions and often does not differentiate between resiliency efforts in low- and moderate-income renters and efforts in conventional markets. Each region of the country is uniquely impacted by climate risks; the current age, condition, design of existing housing stock, and the amount of existing investment within each community vary as well.

Conversations with other market and industry leaders have led us to understand the critical need for more research, innovative strategy, and investment needed in order to mitigate resiliency challenges multifamily properties across the country are currently facing. A gap exists between the ease, cost and strategic solutions of increasing resiliency efforts in single-family housing versus multifamily housing[132], and there is a significant need in the multifamily housing market for cost-effective and replicable solutions in order to mitigate resiliency challenges.

OBJECTIVE A: CONDUCT AND PUBLISH A REPORT ON RESILIENCY EFFORTS WITHIN MULTIFAMILY HOUSING

Evaluation Area	Year	Incomes Targeted	Extra Credit
Outreach	4	VLI, LI, MI	Yes

As the leader in affordable housing, Freddie Mac has the opportunity to present a broad view on resiliency efforts in the affordable multifamily housing space. We see a need to bridge the gap between the study of these opportunities and the implementation at scale in multifamily housing. Conversations with other industry leaders have led us to believe that significantly more research is needed on resiliency in the multifamily housing space. Through our thought leadership and mission-based focus on promoting safe and energy efficient affordable housing, Freddie Mac is committed to providing the market with a comprehensive view on resiliency efforts within multifamily housing.

This objective will focus on cost effective ways to improve resiliency at the property level and reduce the environmental impact for tenants. Energy and water efficiency improvements—in addition to benefiting the environment—have strong tenant benefits in terms of increased affordability, particularly for low- and moderate-income renters. We will examine the disparate effects minorities and low- and moderate-income renters face in regards to resiliency challenges and natural disasters. Through our Green Advantage program we have had a

significant market impact on efficiency. As such, it is appropriate to turn our attention to opportunities to further benefit tenants—not just through savings, but through identifying opportunities to mitigate environmental impacts on low- and moderate-income renters who are often most affected.

Baseline for 2021

Our Green Advantage program and Multifamily green bond framework outlines eligible projects for energy and water efficiency that provide important and necessary steps towards emissions reductions and climate resilience in the U.S. multifamily rental housing market. However, Freddie Mac has never published research on resiliency efforts in relation to multifamily housing.

Market Challenges

There are several challenges associated with increasing resiliency efforts in multifamily housing. While there have been significant advances in improving resiliency in new construction, it is much more difficult to do in existing multifamily rental stock. There are also concerns that the cost of improving resiliency in existing multifamily housing will threaten a building's affordability and that the expenses will be passed on to tenants. Additionally, there are challenges associated with transparency and distribution of data from HUD and other federal and state inter-agency partners regarding unmet needs, natural hazard risk, and social vulnerability[133].

Action Items

Year 4—2021

1. Conduct research and publish a report that examines what resiliency means in the context of multifamily housing and how to implement cost-effective solutions to minimize current and future environmental risk. Freddie Mac will provide a detailed explanation of why resiliency is critically important to the rehabilitation and preservation of older and existing multifamily properties and why increasing resiliency efforts is crucial to improving the lives and cost-savings to tenants. The paper will contain information on the following:
    a. Existing resiliency efforts and strategies available to multifamily housing, specifically focusing on resiliency efforts benefitting low- to moderate- income renters
        i. Disparities that minorities and low- to moderate-income renters experience as a result of natural disasters and aging housing stock
    b. Case study(ies) of cities and specific properties that highlight effective resiliency efforts to existing affordable multifamily housing stock, including multifamily housing subject to programs or regulatory agreements that preserve affordability. These case studies will examine properties in different regions throughout the country and will focus on different resiliency-related challenges based on region, climate events and existing housing stock
    c. Building and infrastructure resilient materials and effective investment strategies aimed at increasing resiliency in the affordable multifamily housing market
    d. State and local energy policies and codes that further resiliency efforts specifically for low- to moderate-income renters
    e. Considerations on strategies, methods and concepts on how to improve resiliency in multifamily properties that will benefit low- and moderate-income renters
2. This report will be published on our website, distributed to research organizations, advocacy organizations, and the Seller/Servicer network, and will be promoted with a press release.

Impact

Freddie Mac will be able to increase awareness on ways to improve resiliency in affordable multifamily housing and the benefits to tenants associated with increasing resiliency efforts. Although there has been some published research with a focus on improving resiliency in multifamily housing, as the leader in affordable housing, Freddie Mac has the opportunity to specifically focus on ways to increase resiliency efforts in the affordable multifamily space. There is a need in the market for a comprehensive report on ways to improve and increase resiliency

efforts specifically for low-income and moderately low-income renters. By exhausting the most effective ways to increase resiliency in affordable housing, positively impacting tenants and minimizing environmental risk, this report will allow Freddie Mac to present a broad viewpoint and impact future resiliency efforts in the affordable multifamily housing market. We will also be able to provide the market with information on cost-effective measures that can be applied to different asset types. These measures can be included in our offerings to reduce environmental impact on underserved communities and reduce cost to the tenants.

As a result of our efforts, Freddie Mac will be able to better understand how we can help finance resilient design and resiliency improvements in the future and what the potential impact will be on borrowers, tenants and the environment.

References

[1] http://www.freddiemac.com/investors/er/pdf/2016er-4q16_release.pdf

[2] Ryan, Doug. "Restoring Neighborhoods Task Force National Housing Conference." November 2016. Presentation.

[3] 2004-2010 Survey of Consumer Finances. Surveys indicated households in manufactured homes had an average total net worth of $26,000 and a median annual income of $34,700, with more than 22 percent of residents at or below the federal poverty level. *See* Bureau of Consumer Fin. Prot., Manufactured-Housing Consumer Finance in the United States 10 (2014), *available at* http://files.consumerfinance.gov/f/201409_cfpb_report_manufactured-housing.pdf. p17.

[4] *See* Bureau of Consumer Fin. Prot., Manufactured-Housing Consumer Finance in the United States 10 (2014), *available at* http://files.consumerfinance.gov/f/201409_cfpb_report_manufactured-housing.pdf. In 112 counties located primarily in southeastern and southwestern states, manufactured housing accounts for over one third of the total housing stock. *Id.* at p. 5.

[5] Robin LaBaron, Fair Mortgage Collaborative, Real Homes, Real Value: Challenges, Issues and Recommendations Concerning Real Property Appraisals of Manufactured Homes 12 (2012), *available at* https://prosperitynow.org/files/resources/Appraising_Manufacture_Housing.pdf

[6] Ryan, *supra* note 2, slide 8.

[7] LeBaron, *supra* note 4 at p. 11.

[8] Chattel financing provided lower closing costs and faster settlement times, but provided fewer borrower protections and interest rates that could be 50-500 basis points higher. Bureau of Consumer Fin. Prot., *supra* note 3, at p. 6.

[9] U.S. Census Bureau, Cost & Size Comparisons: New Manufactured Homes and New Single-Family Site-Built Homes (2007-2015), available at https://www.census.gov/data/tables/2015/econ/mhs/2015-annual-data.html, (2007-2015).

[10] Datacomp/JLT estimates that there may be as many as 40,000 total communities, but those outside of their dataset are likely privately held, not marketed, not financed, and are outside the universe of properties requiring financing. Therefore, we assume that the current market of MHCs is no more than 37,897 communities, per data we have received directly from Datacomp/JLT.

[11] These 10 states are: Florida, California, Michigan, Texas, Arizona, Ohio, Pennsylvania, Indiana, New York, and Illinois.

[12] LeBaron, *supra* note 4, at p. 23.

[13] Virginia Center for Housing Research. "Mobile and Manufactured Homes In Central Appalachia and Alabama: Age, Condition and Need for Replacement." September 2016. Presentation.

[14] *See* Bureau of Consumer Fin. Prot., 2 note 74 at p37.

[15] Data includes loan purchases for both conventional and government loan types for very low-, low-, and moderate-income borrowers.

[16] Data is Freddie Mac purchases of owner occupied manufactured housing loans.

[17] Data is Freddie Mac purchases of owner occupied manufactured housing loans.

[18] Reflation & the Housing Market. Forecast for the decrease in loan origination volume is reflected in Freddie Mac's Economic and Housing Research Outlook, http://www.freddiemac.com/research/outlook/20170228_reflation_and_housing_market.html p. 9

[19] Prosperity Now, State Data Table for "2017 Prosperity Now Scorecard State Outcomes Resident Ownership, Titling and Zoning of Manufactured Homes (State Data Table)", *available at* http://scorecard.assetsandopportunity.org/latest/measure/resident-ownership-titling-and-zoning-of-manufactured-homes.

[20] The 11 states with the top tenant protections are Arizona, California, Colorado, Florida, Illinois, Michigan, Ohio, Oregon, Pennsylvania, Tennessee and Washington.

[21] Housing Assistance Council (HAC), Taking Stock-Rural People, Poverty and Housing in the 21st Century; http://www.ruralhome.org/storage/documents/ts2010/ts_full_report.pdf p.2.

[22] Population growth is also below the national average, growing just 3.5 million (5.6%) from 2000 to 2010 according to the 2010 U.S. Census. The overall national growth rate from 2000-2010 grew at 9.7%. http://www.ruralhome.org/storage/documents/ts2010/ts_full_report.pdf p.11&12.

[23] HAC, http://www.ruralhome.org/storage/documents/ts2010/ts_full_report.pdf p. 4.

[24] Manufactured homes are more frequently cited in rural areas and are more likely than stick built homes to be owned outright.

[25] HAC, www.ruralhome.org, Rural Research Note, (October 2014). http://www.ruralhome.org/storage/documents/publications/rrnotes/rrn-rural-mortgages.pdf p. 3

[26] HAC, http://www.ruralhome.org/storage/documents/ts2010/ts_full_report.pdf p. 36.

[27] HAC, http://www.ruralhome.org/storage/documents/ts2010/ts_full_report.pdf HAC Tabulations of the American Community Survey 2005-2009 Five Year Estimates, p. 57, 67, 87, and 95.

[28] HAC, http://www.ruralhome.org/storage/documents/ts2010/ts_full_report.pdf p.68.

[29] Today, mineral extraction employs only three percent of the Middle Appalachian population. HAC, http://www.ruralhome.org/storage/documents/ts2010/ts_full_report.pdf p.68 & 69.

[30] HAC, http://www.ruralhome.org/storage/documents/ts2010/ts_full_report.pdf p.71.

[31] West Virginia has the highest number and percentage of pre-1976 mobile homes in this area with approximately 36,000 units. According to the working paper, approximately 7,351 mobile and manufactured homes in the study area (Middle Appalachia and Alabama) had one or more items considered to be in substandard condition. Mel Jones, Ted Koebel, Andrew McCoy, Spencer Shanholtz and Julia Moeller; *Analysis by the Virginia Center for Housing Research (VCHR) at Virginia Tech; Mobile and Manufactured Homes in Central Appalachia and Alabama: Age, Condition and Need for Replacement (September 2016).* https://prosperitynow.org/files/resources/VCHR_Study_Final.pdf*, p. 15 & 23* .

[32] HAC, http://www.ruralhome.org/storage/documents/ts2010/ts_full_report.pdf p. 67.

[33] HAC, http://www.ruralhome.org/storage/documents/ts2010/ts_full_report.pdf p. 71.

[34] HAC, http://www.ruralhome.org/storage/documents/ts2010/ts_full_report.pdf p. 87.

[35] https://www.dallasfed.org/assets/documents/cd/pubs/lascolonias.pdf

[36] Significant progress has been made in providing the basic infrastructure needed in certain Texas colonias. According to the Federal Reserve Bank of Dallas, in 2006 there were 636 colonias labeled green for their access to water and sewer infrastructure, with another 286 additional communities added for their access by 2014. The green-labeled communities have drinkable water, adequate drainage, wastewater disposal, solid waste disposal, paved roads and legal plats. In 2006, 396 colonias were labeled yellow with access only to drinkable water, wastewater disposal and legal plats; however, by 2014, 555 colonias were classified as yellow. There were 442 colonias having none of the most basic infrastructure (labeled red) in 2006, but by 2014 this number had dropped to 337. *Federal Reserve Bank of Dallas; Las Colonias in the 21st Century – Progress along the Texas-Mexico Border; (April 2015*) https://www.dallasfed.org/~/media/documents/cd/pubs/lascolonias.pdf p. 4.

[37] *Federal Reserve Bank of Dallas; Las Colonias in the 21st Century – Progress along the Texas-Mexico Border; (April 2015*) https://www.dallasfed.org/~/media/documents/cd/pubs/lascolonias.pdf p. 2.

[38] *Federal Reserve Bank of Dallas; Las Colonias in the 21st Century – Progress along the Texas-Mexico Border; (April 2015*) https://www.dallasfed.org/~/media/documents/cd/pubs/lascolonias.pdf p. 2.

[39] *Federal Reserve Bank of Dallas; Las Colonias in the 21st Century – Progress along the Texas-Mexico Border; (April 2015*) https://www.dallasfed.org/~/media/documents/cd/pubs/lascolonias.pdf p. 3.

[40] *Federal Reserve Bank of Dallas; Las Colonias in the 21st Century – Progress along the Texas-Mexico Border; (April 2015*) https://www.dallasfed.org/~/media/documents/cd/pubs/lascolonias.pdf p. 7.

[41] HAC, http://www.ruralhome.org/storage/documents/ts2010/ts_full_report.pdf p. 94.

[42] HAC, http://www.ruralhome.org/storage/documents/ts2010/ts_full_report.pdf p. 96.

[43] Office of the Comptroller of the Currency, U.S. Department of Treasury – Community Developments Investments; *Housing Financing in Indian Country Spotlight on HUD's Title VI Program,* Barry Wides, Deputy Comptroller (September 2016). p. 3

[44] HAC, http://www.ruralhome.org/storage/documents/ts2010/ts_full_report.pdf p. 76

[45] HAC, http://www.ruralhome.org/storage/documents/ts2010/ts_full_report.pdf p. 79.

[46] HAC, http://www.ruralhome.org/storage/documents/ts2010/ts_full_report.pdf p. 83.

[47] This support is representative of multifamily activity in all rural areas; it is not limited to the rural Duty to Serve activities.

[48] https://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_planning/affordablehousing

[49] HAC, http://www.ruralhome.org/storage/documents/ts2010/ts_full_report.pdf p. 3.

[50] Persistent Poverty and Rural Inequality: Where Does Rural Housing Fit in? http://www.ruralhome.org/storage/documents/training_materials/2016-conference/PersistentPoverty.pdf, (2016), p. 1.

[51] HAC, http://www.ruralhome.org/storage/documents/ts2010/ts_full_report.pdf p. 3.

[52] HAC, http://www.ruralhome.org/storage/documents/ts2010/ts_full_report.pdf p. 25.

[53] HAC, http://www.ruralhome.org/storage/documents/ts2010/ts_full_report.pdf p. 61.

[54] U.S. Department of Treasury, The Report of the Native American Lending Study, November 2001, https://www.cdfifund.gov/Documents/2001_nacta_lending_study.pdf p. 39.

[55] There are more than 2,294 Texas colonias, located primarily along the state's 1,248-mile border with Mexico. Texas Secretary of State, http://www.sos.state.tx.us/

[56] Given the limited size of this market and the lack of repeat borrowers, we intend to engage with experienced participants who have an extensive track record in Middle Appalachia. Should we learn of additional participants through our outreach, we will expand the scope of our outreach.

[57] Given the limited size of this market and the lack of repeat borrowers, we intend to work with experienced participants who have an extensive track record in the Lower Mississippi Delta. Should we learn of additional participants through our outreach, we will expand the scope of our outreach.

[58] Given the limited size of this market and the lack of repeat borrowers, we intend to work with experienced participants who have an extensive track record in Persistent Poverty Counties. Should we learn of additional participants through our outreach, we will expand the scope of our outreach..

[61] http://nni.arizona.edu/application/files/6514/8642/4513/Accessing_Capital_and_Credit_in_Native_Communities__A_Data_Review.pdf

[62] https://www.huduser.gov/portal/sites/default/files/pdf/HNAIHousingNeeds.pdf.

[63] Office of Comptroller of the Currency – Community Developments Investments, (September 2016)

[64] Native Nations Institute, Access to Capital and Credit in Native Communities, https://nni.arizona.edu/application/files/8914/6386/8578/Accessing_Capital_and_Credit_in_Native_Communities.pdf (2016)

[65] Housing Needs of American Indians and Alaska Natives in Tribal Areas: A Report From the Assessment of American Indian, Alaska Native, and Native Hawaiian Housing Needs: Executive *available at https*://www.huduser.gov/portal/sites/default/files/pdf/HousingNeedsAmerIndians-ExecSumm.pdf.

[66] Data includes loan purchases for both conventional and government loan types for very low-, low-, and moderate-income borrowers.

[67] Data is Freddie Mac owner occupied purchase volume of small financial institutions (banks and credit unions only) with asset sizes of less than $304 million.

[68] Data is Freddie Mac owner occupied purchase volume of small financial institutions (banks and credit unions only) with asset sizes of less than $304 million.

[69] HAC, http://hac.maps.arcgis.com/home/item.html?id=362d12b9a06b41b1a7d76260ddd9fb00

[70] HAC, http://hac.maps.arcgis.com/home/item.html?id=362d12b9a06b41b1a7d76260ddd9fb00

[71] https://www.census.gov/programs-surveys/acs/

[72] The Joint Center for Housing Studies, “The State of the Nation’s Housing 2016,” (2016): p10. http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/ahr2013_05-affordability.pdf

[73] http://www.nhtinc.org/preservation_faq.php.

[74] *See*, supra n. 10.

[75] http://nlihc.org/sites/default/files/Gap-Report_2016.pdf.

[76] https://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_planning/affordablehousing/.

[77] A level of 100 represents the historical average for the three-year period from January 2013-December 2015. Source: https://www.redfin.com/blog/2017/01/the-redfin-housing-demand-index-reached-a-new-high-in-december.html

[78] The Joint Center for Housing Studies, "The State of the Nation's Housing 2016," (2016): p10.

[79] http://www.freddiemac.com/singlefamily/factsheets/sell/energy_efficient_properties.html

[80] http://www.freddiemac.com/singlefamily/guide/bulletins/pdf/bll1611.pdf

[81] Affordable Housing Finance, http://www.housingfinance.com/finance/lihtc-market-settles-down_o

[82] Affordable Housing Finance, http://www.housingfinance.com/finance/lihtc-market-settles-down_o

[83] http://uli.org/wp-content/uploads/ULI-Documents/Preserving-Multifamily-Workforce-and-Affordable-Housing.pdf.

[84] http://uli.org/wp-content/uploads/ULI-Documents/ULI_NAAHL_Presentation.pdf.

[85] https://energy.gov/public-services/homes/heating-cooling

[86] In 2013, the University of North Carolina published a study that presents a conclusion about improved performance of energy efficiency mortgages. *available at* http://www.imt.org/uploads/resources/files/IMT_UNC_HomeEEMortgageRisksfinal.pdf. It also highlights the study's limitations with regard to the endogeneity issue that borrowers who own energy efficient homes may be more financially able than those who don't. The study identifies a specific market need for future studies: Panel data that track the borrower's income and market conditions, which was not available for the study researchers.

[87] Coalition for Green Capital, "Report: Green Bank Academy," (February 2014): p4.

[88] The lack of comprehensive and up-to-date data on affordable housing preservation presents a challenge to fully understanding this market. The National Housing Preservation Database (NHPD), which was assembled in a joint effort by the Public and Affordable Housing Research Corporation (PAHRC) and the National Low Income Housing Coalition (NLIHC), appears to contain the most complete and extensive data for this market segment, although there are ongoing efforts to improve this data. Private data providers have recently turned their attention to the affordable housing preservation market. REIS, Axiometrics, and Yardi Matrix have recently released initial versions of their affordable housing data services.

[89] The LIHTC market, our baseline, and our activities would be impacted by any changes to the tax code. We would need to reevaluate this activity based on any such changes.

[90] Affordable Housing Finance, http://www.housingfinance.com/finance/lihtc-market-settles-down_o

[91] Affordable Housing Finance, http://www.housingfinance.com/finance/lihtc-market-settles-down_o

[92] The NHPD includes more programs than outside sources which helps explain why there are more properties and assisted units in this database. When only focusing on programs found in other sources, our analysis of the NHPD shows there are 15,700 active project-based Section 8 subsidies with about 1.17 million units.

[93] Section 8 properties are impacted by the LIHTC market. As such, our baseline and our activities would be impacted by any changes to the tax code; therefore, we will need to reevaluate this activity based on any such changes.

[94] For information on all Freddie Mac Securitizations, see the following: http://www.freddiemac.com/multifamily/investors/

[95] http://www.housingfinance.com/finance/lihtc-market-settles-down_o

[96] http://www.housingfinance.com/finance/lihtc-market-settles-down_o

[97] https://www.gpo.gov/fdsys/pkg/FR-2017-08-23/pdf/2017-17857.pdf

[98] http://www.cbpp.org/research/housing/policy-basics-the-housing-choice-voucher-program

[99] https://www.hud.gov/sites/documents/RAD_NEWSLTR_WINTER2017.PDF

[100] The RAD program is impacted by the LIHTC market. As such, our baseline and our activities would be impacted by any changes to the tax code; therefore, we will need to reevaluate this activity based on any such changes.

[101] http://www.housingfinance.com/finance/lihtc-market-settles-down_o

[102] http://www.housingfinance.com/finance/lihtc-market-settles-down_o

[103] http://www.ruralhome.org/storage/documents/policy-notes/rpn_maturing-mortgages-usda-2016.pdf

[104] http://nlihc.org/article/hac-examines-maturing-mortgages-usda-s-section-515-rural-rental-housing-loan-program and

http://www.ruralhome.org/storage/documents/policy-notes/rpn_maturing-mortgages-usda-2016.pdf

[105] As a point of comparison, USDA's MPR, which was designed specifically to support 515 properties, produced 133 loans across 4,115 units. 2016 was the first year that the entire allocated budget was used.

[106] 2012 American Community Survey, (5-Year Estimates) Tenure by Units in Structure, 2008–2012, Data Element B25032; Institute for Housing Studies at DePaul University.

[107] *Markowski.* "*Surprise! Most Affordable Rentals Are in Small Buildings*", OCC's Community Developments Investments (May 2015) at https://www.occ.gov/publications/publications-by-type/other-publications-reports/cdi-newsletter/small-multifamily-rental-spring-2015/small-multifamily-rental-ezine-article-2-affordable.html.

[108] Office of the Comptroller of the Currency (OCC); *Concentrations of Credit Handbook*. December 2011 at https://www.occ.treas.gov/publications/publications-by-type/comptrollers-handbook/Concentration-HB-Final.pdf

[109] National Mortgage News; *"CRE Could Significantly Shape Bankers Strategies in 2017."* January 23, 2017 http://www.nationalmortgagenews.com/news/compliance-regulation/cre-could-significantly-shape-bankers-strategies-in-2017-1093508-1.html

[110] National Mortgage News; *"CRE Could Significantly Shape Bankers Strategies in 2017."* January 23, 2017 at http://www.nationalmortgagenews.com/news/compliance-regulation/cre-could-significantly-shape-bankers-strategies-in-2017-1093508-1.html.

[111] *Markowski.* "*Surprise! Most Affordable Rentals Are in Small Buildings*", OCC's Community Developments Investments (May 2015) at https://www.occ.gov/publications/publications-by-type/other-publications-reports/cdi-newsletter/small-multifamily-rental-spring-2015/small-multifamily-rental-ezine-article-2-affordable.html.

[112] 5-50 unit properties with institutions of an asset cap of $10 billion.

[113] http://www.freddiemac.com/about/libor-transition.html

[114] As part of Green Advantage, borrowers must record their annual energy and water consumption information in EPA's portfolio manager tool.

[115] Walls, Margaret, Todd Gerarden, Karen Palmer and Xian Fang Bak. 2017. "Is energy efficiency capitalized into home prices? Evidence from three U.S. cities." *Journal of Environmental Economics and Management* 82: 104-24.

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[117] Raj Chetty, Nathaniel Hendren, Patrick Kline, Emmanuel Saez, Where is the Land of Opportunity? The Geography of Intergenerational Mobility in the United States, NBER Working Paper No. 19843 Issued in January 2014, available at http://www.nber.org/papers/w19843

[118] Margery Austin Turner and Lynette Rawlings, Promoting Neighborhood Diversity: Benefits, Barriers, Strategies. Issued August 2009.

[119] http://www.housingfinance.com/finance/lihtc-market-settles-down_o

[120] http://www.housingfinance.com/finance/lihtc-market-settles-down_o

[121] Weiss, Marc A. "The Origins and Legacy of Urban Renewal". *In Federal Housing Policy and Programs*: *Past and Present,* edited by J.P. Mitchell. New Brunswick: NJ: Rutgers University Press, 1985.

[122] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5800413/
[123] https://housingmatters.urban.org/articles/how-zoning-shapes-our-lives
[124] https://opportunityzones.hud.gov/sites/opportunityzones.hud.gov/files/documents/OZ_One_Year_Report.pdf
[125] https://opportunityzones.hud.gov/sites/opportunityzones.hud.gov/files/documents/OZ_One_Year_Report.pdf
[126] https://kinder.rice.edu/urbanedge/2019/02/20/opportunity-zones-gentrification-steroids
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