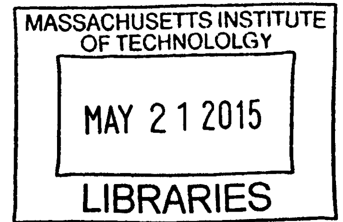
The Future of the Multifamily Industry Post-GSE Conservatorship



by

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Submitted to the Program in Real Estate Development in Conjunction with the Center for Real Estate in Partial Fulfillment of the Requirements for the Degree of Master of Science in Real Estate Development

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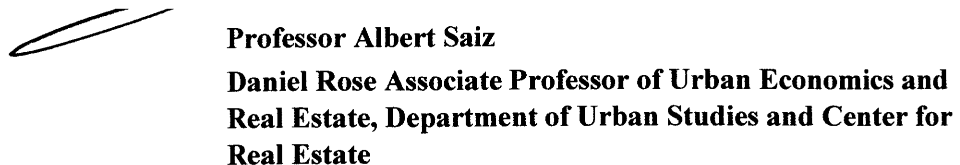

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ABSTRACT

On September 6, 2008, at the start of what would amount to the greatest financial crisis since the Great Depression, the U.S. Government took two publicly traded Government Sponsored Enterprises (GSEs), Fannie Mae and Freddie Mac, and placed them into conservatorship. Operating losses by these entities had created strong market concerns about their ability to function, threatening to adversely affect the US housing finance market. Over the last two decades, the GSEs have played a major role in the multifamily industry, routinely accounting for approximately 30% of annual multifamily financing; at the height of the financial crisis in 2009, GSEs accounted for 86% of all new multifamily loans. Although GSEs account for a substantial portion of multifamily financing, very little research has been conducted in order to examine the future of the multifamily industry post-GSE conservatorship. In part, the reason for minimal research and a lack of media attention on this issue is that GSEs play a far greater role in terms of total dollars in the single-family residential market. This thesis helps to fill this void by closely examining the GSEs role in the multifamily market and surmising the impact to the multifamily sector post-GSE conservatorship.

In order to examine this issue, this thesis focuses on the history and role of GSEs in the multifamily market; examines the guidelines, structure and securitization process of GSE multifamily loans; examines current multifamily market conditions and trends; provides a performance comparison of GSE securitized loans to other multifamily loans; and examines proposed GSE legislation. This thesis then synthesizes and prognosticates the current and potential future multifamily market conditions utilizing the 4-Quadrant model and the role the government should play in the multifamily finance market post-GSE conservatorship. This thesis concludes and surmises that reduced government involvement in the multifamily finance market will affect the multifamily industry, causing increased borrowing costs, decreased property values, and increased property value volatility. The extent to which the multifamily industry is affected depends upon the outcome of the GSE conservatorship, although it appears that increased multifamily demand due to favorable demographic trends may help to negate the impact of decreased GSE involvement in the multifamily industry for the foreseeable future.

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Chapter 1: Introduction

On September 6, 2008, at the start of what would amount to the greatest financial crisis since the Great Depression, the Federal Housing Finance Agency (FHFA), an independent regulatory agency of the U.S. Government, took two publicly traded Government Sponsored Enterprises (GSEs), Federal National Mortgage Association (Fannie Mae) and Federal Home Loan Mortgage Corporation (Freddie Mac), and placed them into conservatorship. Operating losses by these publically traded entities had created strong market concerns about their ability to function, threatening to adversely affect the overall U.S. housing finance market. In total these two GSEs would go on to realize $247 billion in losses between 2007 and 2011 (Jaffee and Quigley 2).

Since 1938, in the aftermath of the Great Depression, the U.S. Government has played a significant role in the residential financial market, primarily in single-family homes. Since 1984 and 1993, Fannie Mae and Freddie Mac, respectively, have played a significant role in the financing of multifamily properties through the purchase of multifamily loans in the secondary market. Over the past two decades, these GSEs have routinely accounted for approximately 30% of annual multifamily financing; at the height of the Financial Crisis in 2009, GSEs represented 86% of the financing of all multifamily loans originated (Shear 2). In essence, both GSEs' multifamily divisions primarily operate as investment banks – they buy and bundle newly originated loans from financial institutions, securitize them, either retain the resulting security or sell it on the secondary market, and profit as a result.

Throughout their history, securities issued by Fannie Mae and Freddie Mac, have been viewed by buyers as having special status: an implicit U.S. Government guarantee exists providing a full financial backstop. In 2008, this implicit guarantee became explicit when the U.S. Government became conservator of these institutions. The conservatorship of Fannie Mae and Freddie Mac entailed taking control of these enterprises, infusing $187.4 billion of capital via the U.S. Treasury, and a commitment to keep them operating and solvent (Prior). At the time this also meant backing over the GSE's $3.5 trillion in

mortgage guarantees outstanding in the marketplace and $1.7 trillion in unsecured GSE debt (Kopecki). As a result of this commitment, the government obtained a 79.9% ownership position in both GSEs and a complete cash flow sweeps of all future profits (Prior). As of 2014, Fannie Mae and Freddie Mac are still under conservatorship as Washington decides their future. Various proposals have been put forth that would do everything from restructuring and providing an explicit government guarantee backstop on the securities, to winding down and completely eliminating the GSEs. Given the continuous legal wrangling and political maneuvering in Washington, the ultimate outcome of any proposed legislation is unclear.

In conducting research for this thesis, it became abundantly clear that academia and the media have focused little on the multifamily asset class related to Fannie Mae and Freddie Mac. The overwhelming majority of research and published articles on the future of GSEs relate to single-family residential. This may not be completely surprising as the GSEs provided $1.17 trillion in single-family financing in 2013, substantially higher than $54.6 billion in multifamily financing they provided (*Federal Home Loan Mortgage Corporation 10-K for 2013* 77) (*Federal National Mortgage Association 10-K for 2013* 10) (Guggenmos et al. 7). As noted in a 2012 report from the U.S. Government Accountability Office to US House of Representatives Committee on Financial Services:

Most of the discussion about the future of the (GSE) enterprises has focused on their role in supporting financing for single-family homes, but they have played a larger role in providing financing for multifamily properties (those with five or more units) since the financial crisis of 2007 (Shear 1).

Given the substantial role GSEs play in an asset class valued at over $2 trillion, further study is warranted into the future of the multifamily industry post-GSE conservatorship (Obrinsky). This thesis will help to fill this void by closely examining the GSEs role in the multifamily market and surmising the impact to the multifamily sector post-GSE conservatorship. Research will be sourced primarily through publication reviews, government document reviews, market report reviews, and interviews. In order to examine this issue, this thesis focuses on the history and role of GSEs in the multifamily market; examines the

guidelines, structure and securitization process of GSE multifamily loans; examines current multifamily market conditions and trends; provides a performance comparison of GSE securitized loans to other multifamily loans; and examines proposed GSE legislation. This thesis then synthesizes and prognosticates the current and potential future multifamily market conditions utilizing the 4-Quadrant model and the role the government should play in the multifamily finance market post-GSE conservatorship. This thesis concludes, surmising the impacts to the multifamily asset class post-GSE conservatorship.

Chapter 2: What are GSEs? What is Their Purpose?

Federal National Mortgage Association or Fannie Mae and Federal Home Loan Mortgage Corporation or Freddie Mac are GSEs founded in 1968 and 1970, respectively. Created through acts of Congress, Freddie Mac and Fannie Mae were publicly traded corporations prior to conservatorship by the government. Given their public-private nature, the government both regulates and subsidizes the GSEs. The GSEs operate in the secondary mortgage market, where "they purchase mortgages that meet their underwriting standards from primary mortgage lenders, such as banks or thrifts, and either hold the mortgages in their portfolios or package them into MBS (mortgage-backed securities)" (Shear 6). The GSEs congressional approved "charters do not allow them to operate in the primary mortgage market by originating loans or lending money directly to consumers" (Shear 6).

The charters for Fannie Mae and Freddie Mac were established through the National Housing Act initially enacted in 1934. The Act and subsequent amendments defines the GSEs purpose and objectives to:

(1) provide stability in the secondary market for residential mortgages;

(2) respond appropriately to the private capital market;

(3) provide ongoing assistance to the secondary market for residential mortgages (including activities relating to mortgages on housing for low- and moderate-income families involving a reasonable economic return that may be less than the return earned on other activities) by increasing the liquidity of mortgage investments and improving the distribution of investment capital available for residential mortgage financing;

(4) promote access to mortgage credit throughout the Nation (including central cities, rural areas, and underserved areas) by increasing the liquidity of mortgage investments and improving the distribution of investment capital available for residential mortgage financing; and

(5) manage and liquidate federally owned mortgage portfolios in an orderly manner, with a minimum of adverse effect upon the residential mortgage market and minimum loss to the Federal Government. (*National Housing Act*).

Through the Federal Housing Enterprises Financial Safety and Soundness Act of 1992 Congress required that Fannie Mae and Freddie Mac to purchase mortgages that finance homes from historically underserved low-income households.

While the language of the GSE charters does not appear specific to multifamily, the Fannie Mae website states that an "apartment, whatever its size and amenities, is a home" (*Freddie Mac Multifamily Securitization* 4). Both GSEs define apartments or multifamily to include properties with 5 or more units that provide senior housing, cooperative apartments, manufactured housing parks, student housing, and rent restricted and subsidized housing. Given that Fannie Mae and Freddie Mac are GSEs founded upon the same charter, their mission and business objectives are nearly identical. Freddie Mac "helps to ensure an ample supply of affordable rental housing by purchasing mortgages secured by apartment buildings with five or more units" (*Freddie Mac Multifamily Securitization* 4). Similarly, "Fannie Mae's primary mission in the multifamily housing market is to provide financing for workforce housing – safe, sanitary,

quality housing to families with annual incomes at or below the median income of the areas where they live" (*An Overview of Fannie Mae's Multifamily Mortgage Business* 2). The multifamily asset class as a whole is an "inherently affordable" asset class when the "traditional standard that defines affordable housing as any rental unit with rent that does not exceed 30% of area median income" (*An Overview of Fannie Mae's Multifamily Mortgage Business* 2, 5). This definition translates to mean that nearly 92% or 14 million out of 15.2 million multifamily units nationally are considered affordable units (*An Overview of Fannie Mae's Multifamily Mortgage Business* 5).

Part of the GSEs mission in the multifamily sector is to always be in the market, regardless of market conditions. During the 1998 currency crisis to most recently the Financial Crisis, the GSEs played an integral role to ensure availability of multifamily loans when other credit markets tightened up. In essence, the GSEs provide a public service to assure that credit will always be available for individual, corporate and non-profit owners to maintain, upgrade, and develop a wide array of multifamily housing.

Chapter 3: History of the GSEs in Multifamily

The history of GSEs in the single-family residential context is well known and documented, given academia's and the media's focus on this segment of the market. This section of the thesis will instead focus on GSEs history in the multifamily context.

In the aftermath of the Great Depression and collapse of the US housing market, Congress approved the National Housing Act in 1934, which created the Federal Housing Administration (FHA). In 1938, the Federal National Mortgage Association or Fannie Mae was chartered by the FHA in order to buy and sell mortgages that were insured by the FHA. The government created Fannie Mae in order "to facilitate the construction and financing of rental and for sale housing by making direct loans insured by the Federal Housing Administration" (*An Overview of Fannie Mae's Multifamily Mortgage Business* 2). Fannie Mae

effectively help to create and stabilize a secondary market for mortgage assets. Over the next several decades Fannie Mae operated on a small scale, but did play a big role in helping to establish the secondary mortgage market and underwriting procedures, primarily for home loans.

In 1968, Fannie Mae became a shareholder owned, for profit corporation and was eventually listed on the NYSE in 1970. Due to budget pressures from the Vietnam War, in 1968 Fannie Mae was privatized by the Lyndon B. Johnson administration to remove its debt and explicit mortgage guarantees off the government's federal budget becoming a GSE (Guha, Scholtes, and Politi). The Federal Home Loan Mortgage Corporation or Freddie Mac was established by Congress as part of the Emergency Home Finance Act of 1970. The purpose of the Act was to improve access to mortgages for all Americans and "to address what was then a crisis of access to liquid, stable and affordable mortgage credit for middle-income and working families" ("Freddie Mac's Statutory Mission" Appendix I–1). Additionally, the Act was pushed through by lobbying efforts of thrift banks, who, unlike commercial banks, did not benefit from Fannie Mae's secondary mortgage market activity. In 1971, Freddie Mac issued its first mortgage backed security (MBS). During the 1970s and into the early 1980s, Freddie Mac and Fannie Mae pursued different strategies. Freddie Mac's strategy was to purchase mortgages and immediately securitize them, while Fannie Mae continued its traditional strategy of purchasing and holding loans in its portfolio. The high inflation of the late 1970s and early 1980s resulted in the Federal Reserve raising interest rates, which led to substantial financial losses for Fannie Mae. The government provided regulatory forbearance and tax breaks to allow Fannie Mae to recover. Freddie Mac on the other hand suffered minimal losses due to its securitization strategy. As a result of this, Fannie Mae was much more focused on a securitization strategy moving forward once it recovered.

In 1981, the Economic Recovery Act was passed by Congress in an effort to spur new commercial real estate development. The Act was successful in fueling new commercial construction through tax incentives and aggressive depreciation write offs, but ultimately caused overbuilding throughout the commercial real estate industry, which includes multifamily. Additionally in 1981, Fannie Mae issued its

first mortgage back security. In 1983, both Freddie Mac and Fannie Mae became explicitly involved in the multifamily asset class through purchases of multifamily loans (Goldberg and Capone 95). New players to the multifamily finance arena, both GSEs struggled to appropriately underwrite loans. Due to the commercial real estate overbuilding boom of the 1980s, relaxed underwriting standards, and the lack of knowledge of the subtleties of the multifamily asset class, the GSEs purchased loans based on overstated property values. In 1986, the Tax Reform Act was passed reducing depreciation deductions and tax advantages of commercial real estate, which led to a decrease in property values. The Act also allowed the formation of Real Estate Mortgage Investment Conduits (REMICs), a new financial vehicle which would ultimately benefit the multifamily sector as it eventually would become one the most popular mortgage backed securities tools in the financial markets.

The boom in commercial real estate from 1981 to 1986, ultimately led to faltering commercial real estate values from 1987 to 1993. In 1989, Congress passed the Financial Institutions Reform, Recovery and Enforcement Act (FIRREA) in order to address a problematic banking sector. This Act negatively impacted the multifamily sector by assigning a high risk bank rating for multifamily loans and limiting multifamily loans to a 70% loan-to-value ratio (Burnett and Fosburg 18). FIRREA implemented the Resolution Trust Corporation (RTC) to dispose of troubled assets owned by troubled banks. By law, the RTC was not permitted to sell loans directly to other institutions and investors, so in order to dispose of the assets the RTC turned to securitization. The RTC engaged investment bankers to develop a plan to securitize and dispose of the loans. The RTC's involvement to securitize over $20 billion assets from defunct depositories served as impetus for the investor appetite for commercial mortgage back securities (CMBS) in the early 1990s ultimately causing a rapid evolution CMBS with rating agencies and loan servicing specialization. (Burnett and Fosburg 20) In addition, in 1989 FIRREA reorganized and privatized Freddie Mac from government entity - the GSE became a publicly traded entity later that year when it was listed on the NYSE ("Freddie Mac's Statutory Mission" Appendix I–3).

By 1991, both Fannie Mae and Freddie Mac were experiencing substantial losses in their multifamily loan portfolios. In 1991, Fannie Mae's multifamily loans were 5.7% of all its purchased loans, but multifamily charge-offs were 30.2% of its total charge offs (Goldberg and Capone 96). In 1991, Freddie Mac's multifamily loans were 2.6% of all purchased loans, but multifamily charge-offs were 51.4% of its total charge offs that translated to a loss of 162 basis points for each multifamily loan in their portfolio (Goldberg and Capone 96). This eventually led Freddie Mac to exit the multifamily secondary loan market completely for three years. Fannie Mae's losses were not as substantial as Freddie Mac's because Fannie had tightened underwriting standards in 1988 with the implementation of Delegated Underwriting Standards (DUS), while Freddie Mac did all underwriting in-house (Goldberg and Capone 95).

In 1992, Congress passed the Federal Housing Enterprises Financial Safety and Soundness Act, which required the GSEs to meet numeric thresholds for mortgage purchases for low-income groups. The Act established a regulator within the U.S. Department of Housing and Urban Development (HUD) to ensure financial stability of the GSEs and gave the Secretary of HUD regulatory powers over the implementation of the GSE charters. The Act amended the GSEs charters, requiring them to have an "affirmative obligation to facilitate the financing of affordable housing for low-income and moderate-income families" (*A Brief History of the Housing Government Sponsored Enterprises* 5). Specifically, the Act initiated three separate objectives for GSE loan purchases: "housing for low- and moderate-income families; housing located in central cities, rural areas, and other underserved areas; and special affordable housing to meet the unaddressed needs of very low-income families and low-income families living in low-income areas" in addition to increasing HUD's reporting requirements relative to the Fair Housing Act (Shear xi). As a result, this substantially increased the GSEs involvement in the multifamily secondary loan market as multifamily is an "inherently affordable" asset class relative to single-family homes (*An Overview of Fannie Mae's Multifamily Mortgage Business* 5). For example, in 1999, 90% of Freddie Mac's and 94.8% of Fannie Mae's multifamily transactions met HUDs low- and moderate-income housing requirements compared to 38.5% of Freddie Mac's and 37.9% for Fannie Mae's for single-family

transactions (Burnett and Fosburg 9). In 1995, HUD implemented the Act via a final issuance of regulations for the GSEs. Among other rules and reporting requirements issued, the regulations set specific affordable housing goal objectives.

The multifamily sector experienced an expansionary phase from 1994 through the end of the decade. Improved underwriting of multifamily loans by the GSEs and the private sector helped to stabilize the asset class. In 1994, vacancy rates began to stabilize, rents began to increase, and loan delinquency rates began to fall. With the exception of the year 1994, GSE multifamily loan delinquency rates remained below 1% through the 1990s (Shear 31).

The affordable housing requirements and increased investor demand for securitized offerings ultimately led to a substantial expansion in multifamily loan purchases by the GSEs. In 1994, Fannie Mae purchased $6.4 billion and Freddie Mac purchased $885.5 million in multifamily loans; by the end of the decade, Fannie Mae was purchasing over $10 billion per year and Freddie Mac was purchasing over $6 billion per year (Burnett and Fosburg 6). In order deal with the 1998 currency crisis, the GSEs expanded their multifamily mortgage purchases from $8.8 billion in 1997 to $15.3 billion in 1998 in effort to maintain liquidity and keep the multifamily market properly functioning (*Meeting Multifamily Housing Finance Needs During and After the Credit Crisis - A Policy Brief* 11).

By 1999, "GSEs direct holdings and guarantees were $63.1 billion, representing 16.9 percent of $373 billion in outstanding multifamily mortgage debt" (Burnett and Fosburg xiii). The rapid development of the CMBS industry spurred by RTC securitized loan dispositions in 1992 and 1993 fueled growth in available capital for multifamily loans due to increased investor demand for CMBS-like assets throughout the market. By 1999, 58.8% of newly originated multifamily loans were securitized (Burnett and Fosburg 10). While securitization became more prevalent from the mid to late 1990s, Fannie Mae and Freddie Mac pursued different strategies regarding securitization and whole loan execution. From 1994 through the end of the decade, the majority of Fannie Mae's multifamily loans purchases were securitized,

reaching a peak of 86% in 1998. (Shear 11) On the other hand, Freddie Mac annually retained in the range of 65% to 90% of its multifamily loans within its own portfolio (Shear 12, 13).

Between 2000 and 2008, the GSEs had an unprecedented rise in their purchases of multifamily loans. Fannie Mae's purchases of multifamily loans ranged from $20 billion to a peak of $49.8 billion in 2007 (Shear 9, 10). Similarly during that time period, Freddie Mac's multifamily loans purchases ranged from $10 billion to a peak of $25.5 billion in 2008 (Shear 10). From 2000 to 2007, GSE multifamily loan purchases annually accounted for approximately 30% of all new loans originated in the market that year (Shear 2). From 2000 to 2003, Fannie Mae continued to securitize the majority of loan purchases. This trend reversed from 2004 to 2008 with the majority of Fannie Mae's multifamily loan purchases were held as whole loans in their portfolio, eventually reaching a height of 82% in 2007 (Shear 1). From 2000 to 2007, Freddie Mac continued to hold the majority of its loans reaching a peak of 93% in 2006 (Shear 13). In addition to the increased volumes of GSE multifamily loan purchases, serious delinquency rates for both GSEs remained very low from 2000 to 2007 ranging from less than 0.1% to approximately 0.3% (Shear 31). Both GSEs' multifamily units were in general profitable from 2002 to 2007 due to the increase in GSE lending volume and the low delinquency rates on the loans. Prior to 2002 for Fannie Mae and 2005 for Freddie Mac, the GSEs did not provide separate financial data for their multifamily business operations (Shear 34). From 2002 to 2007, Fannie Mae's multifamily net income ranged from $157 million to $536 million (*Fannie Mae Multifamily Mortgage Business Information - May 2014* 29). From 2005 to 2007, Freddie Mac's multifamily net income ranged from $371 million to $439 million (*Freddie Mac 2007 Annual Report* 54). From 2003 to 2007, HUD published affordable housing goals that set specific percentages for mortgage purchases relative to the GSEs collective single-family and multifamily mortgage purchases. Increases in single-family loan purchases in 2003 and 2007, led to a substantial spike in multifamily mortgage purchases in order to meet affordable housing goals those years.

The unprecedented rise in the GSEs' purchase and securitization of multifamily loans from 2000 to 2007 coincided with the dramatic rise of the CMBS industry. After gaining traction in the late 1990s as a competitive and reliable source for commercial mortgage debt, the CMBS industry began to take off in the early 2000s. From 2000 to 2002, there was approximately $50 billion annually in CMBS issuance, increasing to over $100 billion annually by 2004 (Wei). By 2006, CMBS issuance was over $200 billion per year and by 2007 the CMBS issuance reached a record high of $230 billion (Wei). Over the next year, the CMBS industry came to a virtual standstill with zero new CMBS issuances in the 3rd quarter of 2008 (*Meeting Multifamily Housing Finance Needs During and After the Credit Crisis - A Policy Brief* 9). The average CMBS spread went from 30 basis points over the 10-year U.S. Treasury during the 1st half of 2007 to 600 basis points in November 2008 (*Meeting Multifamily Housing Finance Needs During and After the Credit Crisis - A Policy Brief* 9). This upheaval in the CMBS industry would foreshadow the impending Financial Crisis that would dramatically affect the GSEs and the source of debt for the multifamily industry.

As a result of the Financial Crisis, in July 2008 Congress enacted the Housing and Economic Recovery Act (HERA), which established the Federal Housing Finance Agency (FHFA). The FHFA is an independent regulatory agency of the U.S. Government that was charged with the oversight and regulation of Fannie Mae, Freddie Mac and the Federal Home Loan Bank System. On September 6th, 2008, the FHFA took Fannie Mae and Freddie Mac and placed them into conservatorship. Operating losses had created strong market concerns about the GSEs ability to function, threatening to destabilize the entire financial system given the substantial role GSEs play in maintaining liquidity, access, and stability in the US housing finance market. HERA provided statutory mandates for the FHFA to act as conservator and regulator of Fannie Mae and Freddie Mac. Specifically, the FHFA's purpose as conservator of the GSEs "is to preserve and conserve the company's assets and to put the Company in a sound and solvent condition" (DeMarco 2). According to the FHFA, the conservatorship's immediate goals for the GSEs "were to help restore confidence in the companies, enhance their capacity to fulfill

their mission, and mitigate the systemic risk that contributed directly to instability in financial markets" (DeMarco, *A Strategic Plan for Enterprise Conservatorships: The Next Chapter in a Story That Needs an Ending* 8).

As part of their normal course of business Fannie Mae and Freddie Mac provide "guarantees" for a fee on the loans they purchase and securitize that principal and interest will be paid in full should the loan default. Investors have always assumed meant an implicit guarantee from the U.S. Government. When the GSEs went into conservatorship, this meant that the market assumed implicit U.S. Government guarantee on $3.5 trillion in GSE MBS outstanding in the marketplace and $1.7 trillion in unsecured GSE debt was now explicit (Kopecki).

The passage of HERA provided three funding facilities to allow the GSEs to maintain a positive net worth and remain active market participants. Two of the three funding facilities expired at the end of 2009 – a liquidity and MBS purchase facility (DeMarco, "FHFA Letter to Congress on February 2, 2010" 2). The third funding facility, a Senior Preferred Stock Purchase Agreements (PSPAs), permitted the U.S. Treasury to provide up to $100 billion to each GSE in order to ensure they continue to operate and meet their financial obligations. In 2009 this financial commitment was increased to $200 billion for each GSE as losses continued to mount. As part of the PSPAs, the U.S. Treasury received warrants to purchase senior preferred and common stock representing an ownership stake of 79.9% in the GSEs. In particular, the senior preferred stock provided that dividends of 10% were to be paid on any amounts drawn from the $200 billion, and the dividend increased to 12% if payments were unable to be made in cash (Carney).

By 2012, the GSEs owed $19 billion in dividends of which Fannie Mae owed $11.7 billion and Freddie Mac owed $7.3 billion (Carney). Fannie Mae had never made enough profit in a year to make its dividend payment, while Freddie Mac had only once in a year earned enough to make its dividend payment. In 2012, Fannie Mae stated publically that it was unlikely that the company would ever make enough money to pay its senior preferred share dividend (Carney). The U.S. Treasury and the FHFA

soon came to the conclusion that the GSEs would be unable to make their preferred share dividend payments in perpetuity given the amounts the GSEs had drawn from the U.S. Treasury. They concluded that this large preferred share dividend payment ultimately undermined the financial stability of the GSEs, and their outstanding guarantees on $4.7 trillion in GSE secured and unsecured debt. Thus, in August of 2012 the PSPAs were amended, terminating the 10% senior preferred dividend replacing it with a sweep of the GSEs' profits. Since the GSEs were unable to meet the 10% senior preferred dividend, elimination of the dividend meant that the GSEs could withdraw money from the U.S. Treasury to cover their actual loses and this withdrawal did not raise the dividend amount owed (Carney).

The conservatorship ultimately entailed infusing the GSEs with $187.4 billion of capital from the U.S. Treasury from 2008 to 2012, and a commitment to keep them operating and solvent via the PSPAs. (Prior) Fannie Mae took a total of $116.1 billion, with the majority of it, $60 billion, withdrawn in 2009 (*Fannie Mae Multifamily Mortgage Business Information - May 2014* 29). Freddie Mac received a total of $71.3 billion, with $44.6 billion withdrawn in 2008 (*Freddie Mac Multifamily Securitization* 3).

Coinciding with the Financial Crisis, in 2008 and 2009 other multifamily finance players, such as the CMBS industry, banks, and life insurance companies, significantly reduced their presence. With a majority multifamily finance market participants no longer as active or removed and as part of a government mandate to keep the multifamily finance market functioning, Fannie Mae and Freddie Mac dramatically stepped up their purchases. In 2008, GSEs purchased nearly $60 billion in multifamily loans compared to approximately $4 billion for the entire CMBS and life insurance industries (Shear 40). In 2008, GSEs purchased 62% of all multifamily loans originated up from 29% in 2007 (Shear 39). By 2009, this percentage had increased to an 86% market share with over $36 billion multifamily loans purchased by GSEs compared to $564 million originated by life insurance companies and no originations by the CMBS industry (Shear 2, 40). It was not until 2010 that life insurance companies and CMBS lenders made a significant return to the multifamily lending industry. In 2010 life insurance companies lending was over $4.6 billion and $11.1 billion in 2011, and the CMBS industry returned to the market,

lending $380 million in 2010 and $1.3 billion in 2011 (Shear 40). GSEs though continued to be the primary participant in multifamily lending arena, lending over $31 billion or 63% of the market share in 2010, $44 billion or 57% of the market share in 2011 (Shear 39, 40). As part of the conservatorship, the FHFA mandated that the GSEs reduce their retained portfolio of whole loans beginning in 2010. In 2011, 98.6% or $24.1 billion of multifamily loans purchased by Fannie Mae were securitized and sold. (Shear 11) Under the same directive, Freddie Mac total mortgage purchases with the intention to securitize went from 29% in 2009 to 86% in 2011 (*Freddie Mac Multifamily Securitization* 18).

Serious delinquency rates for the GSEs began to rise in 2008, although it did not reach the GSEs multifamily delinquency rates of the early 1990s. Fannie Mae's 2008 delinquency rate was 0.29% or $500.9 million, rising to 0.70% or $1.3 billion in 2010, and then falling to 0.58% or $1.1 billion in 2011 (Shear 30). Similarly, Freddie Mac's serious delinquency rate was 0.03% or $31.5 million in 2008, increasing to 0.26% or $293.9 million in 2010, and falling to 0.22% or $259.7 million in 2011 (Shear 30). In 2008 and 2009, Fannie Mae and Freddie Mac multifamily business unit reported substantial financial losses. Fannie Mae lost $2.2 billion in 2008 and $9 billion in 2009, while Freddie Mac lost $57 million and $3 billion in 2008 and 2009, respectively (Shear 33). The majority of these losses were primarily due to Low Income Housing Tax Credit (LITHC) write offs required by U.S. Treasury. LIHTC is federal tax credit to maintain and develop new affordable rental housing for low-income households throughout the US. Both GSEs owned LITHC loans that the FHFA determined would require consent to sell by the U.S. Treasury, given its ownership stake in both GSEs.

In 2010, due to mark to market accounting rules, the U.S. Treasury required that the LITHC to be written down to zero for the GSEs previously issued 2008 and 2009 financial statements. This accounting rule was later reversed in 2013, as it was realized that LITHC had not lost all value and could be utilized. Losses from charge offs or non-payment on loans and foreclosures, increased in 2008 and 2009 for both GSEs, but were not a primary source of GSEs losses during this time period. In 2010, annual multifamily loan charge offs peaked at $446 million and $103 million for Fannie Mae and Freddie Mac, respectively

(Shear 34). From 2002 to 2008, Fannie Mae typically had annual charge offs of $34 million, while Freddie Mac had $8 million (Shear 34). After the one time write offs in 2008 and 2009, both GSEs multifamily business units returned to profitability. Fannie Mae multifamily business unit recorded $216 million and $583 million in net income in 2010 and 2011, respectively (*Fannie Mae Multifamily Mortgage Business Information - May 2014* 29). Freddie Mac recorded a net income of $965 million and $1.3 billion in 2010 and 2011, respectively (*Federal National Mortgage Association 10-K for 2011* 106). On June 16, 2010, the FHFA announced that Fannie Mae and Freddie Mac would be delisted from the New York Stock Exchange due to Fannie Mae violating NYSE rules of trading below $1 per share for more than 30 days (Cho). FHFA decided to delist Freddie Mac at that time as well.

From 2009 to 2011, the FHFA made significant changes to GSEs multifamily affordable housing requirements. Prior to the passage of HERA in 2008, HUD set and regulated affordable housing requirements for the GSEs. The FHFA's main focus from 2009 to 2011 was to maintain and enable credit for a stable, liquid multifamily loan market, and was less focused on the GSEs meeting affordable housing requirements. From 1993 to 2007, the GSEs generally met their mandated affordable housing requirements, but failed to meet them in 2008 and 2009. In 2009, the FHFA revised the affordable housing goals downward, including the 2008 goals, taking into account the changes in the economy.

In 2010, the Acting Director of the FHFA, Edward DeMarco, sent a letter to Congress to provide an update the FHFA's conservatorship of the GSEs. The letter identified conservatorship goals which included minimizing credit losses, reducing its overall retained portfolio, and continuing to support affordable housing. In particular, the FHFA set separate affordable housing goals for multifamily and single-family mortgage purchases. In prior years, most notably in 2003 and 2007, GSEs would purchase a high number of multifamily loans in order to meet affordable housing goals. In 2010, the FHFA provided direction on the GSEs' future approach to affordable housing stating that the "FHFA does not intend for [GSEs] to undertake uneconomic or high risk activities in support of the [affordable housing] goals. However the fact that [GSEs are] in conservatorship should not be a justification for withdrawing

support from these [affordable] market segments" (*Federal National Mortgage Association 10-K for 2013* 34). Rules published in 2010 and 2011 by the FHFA set lower targets for affordable housing that the GSEs generally met and prohibited the GSEs from counting the purchase of private securities, such as CMBS, towards affordable housing goals. The FHFA found that from 2006 to 2008 Freddie Mac and Fannie Mae relied upon substantial CMBS purchases in order to meet various mandated affordable housing goals (Shear 51).

Since 2011, the total available debt capital in the multifamily market has continued to grow, reaching an all-time high of $171 billion in 2013, surpassing the previous market peak of $148 billion in 2007 (Guggenmos et al. 6). The GSEs continue to play an important role in the multifamily debt markets. Total GSE multifamily debt origination was $$44 billion in 2011 and $62 billion in 2012 (Guggenmos et al. 7). In 2013, while total market volume was $171 billion, GSE volume was down to $54.6 billion representing 33% of the market (Guggenmos et al. 6, 7). The increase in the total market volume of multifamily debt has been due in large part to increased lending by banks. Banks multifamily origination volumes increased from $54 billion in 2011 to $98 billion in 2013 (Guggenmos et al. 7). From 2011 to 2013, the CMBS market began to return, with multifamily origination volumes going from $1.3 billion in 2011 to $5.7 billion in 2013 (Guggenmos et al. 7).

Continuing to operate under the FHFA mandate limit whole loans, Fannie Mae continued to securitize over 98% of mortgage purchases, while Freddie Mac's intended to securitize 88% of mortgage purchases in 2012 and 95% in 2013 (*Freddie Mac Multifamily Securitization* 18). Through year end 2013, Fannie Mae owned approximately $4 billion of multifamily loans intended for securitization or sale, while Freddie Mac has approximately $29.3 billion (Raghavan and Haan 3, 4). Delinquency rates continued to fall for both GSEs. Fannie Mae's delinquency rate was 0.24% in 2012, falling to 0.10% in 2013, while Freddie Mac's delinquency rate was 0.19% in 2012 and 0.09% in 2013 (*Fannie Mae Multifamily Mortgage Business Information - May 2014* 27). Net profits for the GSEs multifamily business unit

continued to climb in 2012 and 2013. Fannie Mae's net profit was $1.5 billion in 2012 and $10.5 billion in 2013 (*Fannie Mae Multifamily Mortgage Business Information - May 2014* 29).

In 2013, Fannie Mae's net income was $10.5 billion which included a one-time $8.3 billion federal income tax benefit "represents the release of the substantial majority of our valuation allowance against the portion of our tax deferred assets that we attribute to our Multifamily segment based on the nature of the item" (*Federal National Mortgage Association 10-K for 2013* 92). Without the tax benefit Freddie Mac's net profit was $2.1 billion in 2012 and $2.4 billion in 2013 (*Federal Home Loan Mortgage Corporation 10-K for 2013* 82). Additionally, in 2012 and 2013, the GSEs generally met their FHFA affordable housing requirements, although the requirements that were not met was due to GSEs not compromising their underwriting standards. As noted in Freddie Mac's 2013 10-K, "we have at times relaxed some of our underwriting criteria to obtain goal-qualifying mortgage loans and made additional investments in higher risk mortgage loan products that we believed were more likely to serve the borrowers targeted by the goals, but have not done so to a significant extent since we entered into conservatorship" (*Federal Home Loan Mortgage Corporation 10-K for 2013* 28).

In February of 2012, the FHFA provided an updated strategic plan report to Congress for the conservatorship. FHFA's Acting Director Edward DeMarco wrote that "With the conservatorships operating for more than three years and no near-term resolution in sight, it is time to update and extend the goals and directions of the conservatorship" (DeMarco, *A Strategic Plan for Enterprise Conservatorships: The Next Chapter in a Story That Needs an Ending* 1). The three goals outlined in the strategic plan primarily focus on the single-family portion of the GSEs business. All three goals will be presented briefly in order to provide context to the GSEs outlook and if possible related to the multifamily portion of the business.

The first strategic goal is to build a new single-family securitization infrastructure in order to provide the market a platform is to improve efficiency over the current system and to provide an alternative market

infrastructure should the GSEs be shut down or cease to exist in their current form. Over the long term, the goal of a single-family market platform is to provide the opportunity for a market standard MBS.

The second strategic goal is to reduce the GSEs role in the marketplace by reducing the retained mortgage portfolio and shifting credit risk from the GSEs to private investors. The plan provided a 10% annual reduction in the retained mortgage portfolio. In August 2012, as part of the PSPAs announcement, the annual reduction was increased to 15% with a requirement for the GSEs retained portfolio of residential and multifamily MBS to be reduced to $250 billion by 2018 (*Treasury Department Announces Further Steps to Expedite Wind Down of Fannie Mae and Freddie Mac*). The strategic report praises the handling of multifamily credit risk by GSEs stating that "unlike the single-family credit guarantee business, each Enterprise's multifamily business has weathered the housing crisis and generated positive cash flow" (DeMarco, *A Strategic Plan for Enterprise Conservatorships: The Next Chapter in a Story That Needs an Ending* 15). The report states that given the operation and performance of the multifamily business unit, "generating potential value for taxpayers and contracting the Enterprises' multifamily market footprint should be approached differently from single-family, and it may be accomplished using a much different and more direct method" (DeMarco, *A Strategic Plan for Enterprise Conservatorships: The Next Chapter in a Story That Needs an Ending* 16). In order "to evaluate how to accomplish the second strategic goal in the multifamily business, each Enterprise will undertake a market analysis of the viability of its multifamily operations without government guarantees" (DeMarco, *A Strategic Plan for Enterprise Conservatorships: The Next Chapter in a Story That Needs an Ending* 16). The third strategic goal is maintain credit availability in a stable and liquid marketplace and foreclosure prevention efforts. Foreclosure prevention efforts are almost solely focused on single-family mortgages given the lack of delinquency in the GSEs multifamily portfolio.

In 2013, in testimony before Congress, the FHFA's Acting Director Edward DeMarco reaffirmed the FHFA's commitment to reduce multifamily loan purchases in 2013, stating that "given that the multifamily market's reliance on the enterprises has moved to a more normal range, to move forward with

the contract goal, we are setting a target of a 10% reduction in multifamily business new acquisitions from 2012 levels. We expect that this reduction will be achieved through some combination of increased pricing, more limited product offerings and tighter overall underwriting standards" (Drummer). Both GSEs met this goal in 2013.

Due to a rebounding economy and housing sector, in 2014 both GSEs made payments that fully repaid the U.S. Treasury the $187.4 billion owed. Fannie Mae began making payments to the U.S. Treasury in 2009, and through the 1st quarter of 2014 the U.S. Treasury received a total of $121.1 billion, $5 billion in excess of the $116.1 billion originally withdrawn (*Fannie Mae Multifamily Mortgage Business Information - May 2014* 29). Freddie Mac began payments to the U.S. Treasury in 2008 of $200 million (*Freddie Mac Multifamily Securitization* 3). The majority of the $71.1 billion withdrawn was paid back in 2013, with a payment of $47.6 billion (*Freddie Mac Multifamily Securitization* 3). As of the 1st quarter of 2014, $86.3 billion has been sent to the U.S. Treasury, which is $15 billion in excess of the amount originally received (*Freddie Mac Multifamily Securitization* 3). Per the amended 2012 PSPAs, the U.S. Treasury will continue to sweep all future profits as long as the GSEs are in conservatorship.

In May of 2014, the FHFA issued an updated strategic plan report on the GSEs conservatorship. The 2014 strategic plan further updates and refines the three goals outlined in the 2012 letter. The plan goes into greater detail and refines the scope of the first goal – to build a new single-family securitization infrastructure. In particular, it focuses on a Common Securitization Platform with a focus towards creating "a single common security, which should reduce the trading value disparities between Fannie Mae and Freddie Mac securities" (*The 2014 Strategic Plan for the Conservatorships of Fannie Mae and Freddie Mac* 16). The second strategic goal to "reduce taxpayer risk through increasing the role of private capital in the mortgage market" builds upon the original goal in the 2012 strategic plan (*The 2014 Strategic Plan for the Conservatorships of Fannie Mae and Freddie Mac* 12). For the single-family business, the FHFA intends to increase the credit risk transfer from the GSEs to the private sector and require that mortgage insurers strengthen their standards. The goal for the overall retained portfolio

remains the same – to reduce it to $250 billion by 2018. For the multifamily side, the report states that it will "continue credit risk transfers for multifamily credit guarantee business" (*The 2014 Strategic Plan for the Conservatorships of Fannie Mae and Freddie Mac* 13). Similar to the 2012 Strategic Report, it praises the performance of the multifamily portfolio through the Financial Crisis and states that "both approaches align interests between the Enterprises and lenders to manage complex credit decisions and limit losses" (*The 2014 Strategic Plan for the Conservatorships of Fannie Mae and Freddie Mac* 13). While the FHFA will not require the GSEs to change their credit risk transfer model or transaction structure, the FHFA will examine "whether private capital is willing to share additional credit risk for multifamily mortgages and at what cost" (*The 2014 Strategic Plan for the Conservatorships of Fannie Mae and Freddie Mac* 14).

The third strategic goal provides that credit availability and foreclosure prevention efforts are maintained. The FHFA will continue to support and play an ongoing role to maintain its multifamily presence in all markets. This goal caps GSEs loan purchases at 2013 levels, although the cap is not applicable to certain affordable housing objectives including apartments with less than 50 units and communities composed of rental manufactured homes. The FHFA acknowledges that the multifamily finance environment is healthier given that "current market trends suggest that actual production will not meet the current production caps due to private market competition" (*The 2014 Strategic Plan for the Conservatorships of Fannie Mae and Freddie Mac* 11).

Chapter 4: GSE Multifamily Loan Underwriting and Securitization Process

i). Fannie Mae

Since over 98% of multifamily loans purchased by Fannie Mae are securitized and over 90% are underwritten through Fannie Mae's Delegated Underwriting Service (DUS), this section will discuss

Fannie Mae's securitization process, the securities structure, and provide an overview of the DUS process (Shear 29). The section will also examine the standard features of a typical multifamily loan purchased by Fannie Mae.

While DUS securitization accounts for the vast majority of Fannie Mae's multifamily business, it is important to briefly point out other major execution types. A small portion of loans purchased by Fannie Mae are whole loans, where Fannie Mae purchases the loans with cash from a lender and holds the loan in its portfolio. In 2010, the U.S. Treasury began to restrict the amount of whole loans Fannie Mae could hold onto, therefore this has become less and less of Fannie Mae's business. Bond credit enhancement is another execution type. For a fee, Fannie Mae guarantees payment of tax exempt affordable rental housing bonds issued by state governments and local government agencies. Fannie Mae also acquires a small portion of non-DUS loans that do not meet Fannie Mae standards, which are typically small loans for affordable housing.

After initiating the DUS program in 1988, Fannie Mae began issuing DUS MBS in 1994. (Shear 7) The DUS mortgage backed securities process grants authority to pre-approved lenders to underwrite, originate, securitize, sell and service loans on Fannie Mae's behalf. As long as the loans meet Fannie Mae's typical guidelines, Fannie Mae's prior review and approval is not required. In order to ensure and that loans are underwritten to standard guidelines and that interests between Fannie Mae and the lender are aligned, DUS approved lenders are required to share in any losses on each MBS. Fannie Mae's purports the shared loss aspect of each DUS loan aligns the interest of Fannie Mae and the lender. During this initial process, Fannie Mae, for a fee, provides a guarantee that principal and interest will be paid in full to investors who ultimately purchase the security. This guarantee serves as a credit enhancement on the loan, making the asset much more desirable to a prospective purchaser and thus more liquid. Through this process the loan is turned into an MBS. A DUS MBS is typically composed of one multifamily loan, although they can be multiple loans (Shear 7). In 2010 and 2011, more than 90% DUS loans were one loan financing one property (Shear 28). A small portion of Fannie Mae's loans, typically less than 20%

annually, are cross-collateralized with one loan or multiple loans financing multiple properties, although particular years have seen a greater portion (Shear 28).

Through the first quarter of 2014, 86% of all Fannie Mae's multifamily loans, both DUS and non-DUS, incorporated a loss sharing structure (*Fannie Mae Multifamily Mortgage Business Information - May 2014* 25). It is paramount to Fannie Mae that lenders have "skin in the game" throughout the life of the loan, and thus most transactions involve a loss-sharing structure, which can vary depending upon the existing business relationship with the lender (Krhounek and Blakely 10). For DUS securitized loans, pari-passu and standard are the two most common loss sharing structures. With pari-passu, losses are typically shared, with 1/3 of total losses allocated to lender and the remaining 2/3 of total losses allocated to Fannie Mae on a pro-rata basis. With the standard model, losses are shared via tiered loss sharing formula based upon such metrics as loan-to-value or debt service coverage ratio, typically with a first loss position to the lender up to a maximum 20% loss on the loan to the lender (Krhounek and Blakely 9). With non-DUS MBS, the lender generally assumes either a top loss position or does not share in any loss to the MBS. With top loss, the lender bears a first loss position of a specific percentage or amount of the total MBS or pool of loans. The lender is responsible for all losses until the top loss position is met.

The main parties involved in the securitization process for a DUS MBS are the borrower, DUS-approved lender, Fannie Mae, investor, and in some cases a MBS dealer. The lender and Fannie Mae are the two key players in the securitization process and assume various roles throughout the process. In the case of the lender, the roles entail marketing the loan to the borrower, selling the loan, disclosing pertinent loan information, servicing the loan once purchased, and handling the asset management. The strategy behind incorporating and delegating numerous duties to the lender is it enables Fannie Mae to easily scale its business to respond to market conditions, as opposed to having the roles in-house. Incorporation of the private sector helps to improve efficiency to the securitization process and responsiveness to the borrower by the lender. There are currently over twenty DUS-approved lenders including CBRE, Citibank, HSBC,

JP Morgan Chase, Key Bank, Prudential and Wells Fargo (*Fannie Mae Multifamily Mortgage Business Information - May 2014* 24).

Given the long-term loss sharing structure and commitment of a DUS multifamily mortgage, a DUS-approved lender must meet certain criteria including strong financial stability, expertise in multifamily, and strong underwriting capabilities. Although Fannie Mae delegates substantial authorities to DUS-approved lenders, it is still involved throughout the securitization process. Fannie Mae roles include issuer, trustee, guarantor and master servicer. The following will describe the general sequence of events, parties involved and roles they play during the securitization of a Fannie Mae loan.

The first step in the creation of a DUS MBS is for the borrower to apply for a loan through a DUS-approved lender. The loan is then underwritten by the lender to ensure it generally meets Fannie Mae's multifamily loan standards and guidelines, and is registered with Fannie Mae. This is also known as the pre-commitment period. This is essentially an arrangement to sell the loan to Fannie Mae in exchange for a MBS that is backed by the original loan and Fannie Mae's credit enhancement to pay the loan in full if the borrower defaults. While this is going on, unless the lender intends to retain the MBS, a trade agreement is established between the lender and either Fannie Mae's Multifamily Desk or a third party MBS dealer. The trade agreement provides the mortgage terms on which the MBS will be sold by the lender once Fannie Mae has turned the loan into an MBS. Fannie Mae's Multifamily Desk creates a market by either selling the MBS directly to an investor, packaging the MBS into a structured security and selling it to an investor, or retaining the security. Third party MBS dealers will purchase numerous MBS that they will sell to investors or retain (McNamara 17, 18).

The next stage is the commitment period, whereby the loan rate is locked and the commitment data that pertains to the loan is submitted to Fannie Mae. Once Fannie Mae confirms the commitment data, delivery data, which includes wiring instructions for delivery of the MBS, is entered into Fannie Mae's system by the lender. During the next seven business days submitted data is reviewed for any

discrepancies, the data and MBS is certified, and disclosure documents of the MBS are published at minimum two business days prior to the date the MBS is registered to the owner. The next steps occur very quickly. Fannie Mae creates a trust that holds the actual loans that backs the MBS. The trust is held completely separate from Fannie Mae's own balance sheet, and is replenished with capital by Fannie Mae should principal, interest or the entire loan not be paid in full to investors. The MBS is issued by Fannie Mae and delivered to the MBS owner (McNamara 19–23).

Once the MBS is formed and owned by an entity, Fannie Mae relies heavily upon the lender as a servicer, including numerous asset management duties. The lender reports to Fannie Mae, the master servicer. The lender's servicing duties include ensuring that monthly loan payments are made and that the property is being maintained. The loss sharing structure of DUS MBS ensures that the lender has a large incentive, in addition to the servicing fee, to make sure that the property is being maintained. It should be noted that changes to the MBS and underlying loan are not allowed unless explicitly disclosed in the prospectus at the time of issuance.

A substantial portion of MBS, $10.2 billion of the $29 billion of multifamily loans purchased by Fannie Mae in 2013, were placed into large structured transactions called Fannie Mae Guaranteed Multifamily Structures or Fannie Mae GeMS (*Fannie Mae Multifamily Mortgage Business Information - May 2014* 6, 18). Fannie Mae's GeMS product was first introduced and marketed in 2011 in order to offer an expanded, diversified offering of structured multifamily security offerings. GeMS are structured as a REMICs or Megas. DUS REMICs and Megas do not commingle residential MBS in their multifamily MBS offerings.

A REMIC is a multiclass security whereby the principal and interest payments from an MBS are pooled together and then structured into classes to create separately traded securities with varying terms and interest rates. The REMIC structure can vary in order to meet investor demands and is issued by Fannie Mae. The REMIC is set up with sequential pay classes, such as an A, B and C class, whereby the

principal in each class is retired sequentially – class A principal is retired first before class B principal is paid, and then C (*Basics of REMICs*). Classes A, B and C continue to receive monthly interest payments at the coupon rate, while their principal is being paid down. The Fannie Mae REMIC also includes class Z, an accrual class. Unlike the other classes in the REMIC structure that pay monthly interest, the class Z accrues the monthly interest according to the outstanding principal balance, not just a stated coupon rate. Class Z's interest and principal are not paid until all other classes are paid and is thus at the bottom of the capital stack and therefore has a longer term and higher interest rate when than other classes higher in the capital stack. Each REMIC's structure can vary depending upon the underlying loans and the market demands for particular types of securities. In 2013, of the $10.2 billion issued via GeMS, $10.16 billion was REMICs (*Fannie Mae Multifamily Mortgage Business Information - May 2014* 18).

While only $40 million of the GeMS issued in 2013 were Megas structured securities, from 2010 to 2012 a range of $500 million to $2.0 billion was issued annually (*Fannie Mae Multifamily Mortgage Business Information - May 2014* 18). A DUS Mega is a pass through security that is a large pool of MBS whose interest rates all range within 100 basis points (McNamara 45). The entire cash flows from each MBS go into the Mega pool and the Mega pool cash flow is distributed to investors pro-rata. Megas are typically $35 million in average size, but range from $5 million to $100 million (McNamara 39). Megas are syndicated through MBS broker-dealers and their structure provides for lower overhead and administrative costs.

In addition to MBS, GeMS REMIC, and GeMS Megas, Fannie Mae offers other securitized products. Discounted MBS are short term securities offered by Fannie Mae that are backed by at least one multifamily loan and mature between 3 and 9 months. The securities are sold at a discount to par and do not pay interest. Multifamily Assured Scheduled Payment Trust (MAST) securities are multi-class prepayment protected securities that separates DUS MBS multifamily interest and principal payments into three distinct tranches. A MAST security has a 10-year bond that pays monthly interest throughout the term and the full principal at maturity, a 5-year bond that pays interest and principal throughout the term,

and a predetermined cash flow interest-only bond strip. Wisconsin Avenue Securities is a REMIC security offered by Fannie Mae whereby a whole loan underlies the security. Principal and interest payments are passed through the senior and subordinate portions of the security. Fannie Mae only provides a guarantee of full payment on the senior portion of the security leaving the subordinated portion as exposed to direct credit losses ("Fannie Mae - Basics of Multifamily MBS" 6–8).

In general, there are typical attributes and guidelines associated with multifamily loans that are purchased and securitized by Fannie Mae. Fannie Mae purchases multifamily loans for properties located in all 50 U.S. states with an average loan size of $5.7 million nationwide, as of March 2014 (*Fannie Mae Multifamily Mortgage Business Information - May 2014* 13). From 1994 to 2011, the vast majority of multifamily loans purchased were for properties with 50+ units at $292 billion, compared to $56.2 billion for properties with 5 to 50 units (Shear 14). A breakdown of the property types of the loans acquired by Fannie Mae from 1994 to 2011 is as follows: traditional rental housing at 87.7%, senior housing at 5.5%, cooperative housing at 3.5%, manufactured housing at 1.7%, and student housing at 1.6% (Shear 25).

Part of Fannie Mae's objective in creating a securitized product is to purchase loans that meet investor preferences for standardization. Standardization is important so "that investors understand what they are purchasing" (McNamara 14). A standard DUS mortgage typically provides first lien mortgage financing for the acquisition and refinancing of multifamily properties, defined as residential units with 5 or more dwelling units, typically with a stabilized occupancy of 90% or more. While Fannie Mae identifies a standard DUS mortgage as a term between 5 and 30 years, their core product has 7 or 10 year terms with a standard 30-year amortization and balloon payment of the outstanding loan balance at the end of the term ("Standard DUS Mortgage"). Investors typically require a debt service coverage ratio of at least 1.25 and a maximum loan-to-value of 80% with the loan amount based upon actual income, not projected cash flow ("Standard DUS Mortgage"). Equity contributed from the borrower is required, typically a minimum of 20% of the loan amount ("Standard DUS Mortgage"). Non-recourse loans, with a standard carve out for "bad boy acts", such bankruptcy and fraud, are typical for loans that are acquired above

$750,000 ("Standard DUS Mortgage"). Prepayment of loans is typically permitted, provided that yield maintenance is met for 6.5 and 9.5 years on a 7 and 10 year loans respectively ("Standard DUS Mortgage"). Declining premium, primarily associated with adjustable rate loans, and defeasance payments are also other permitted prepayment options. The loans are typically assumable, subject to Fannie Mae's approval.

The interest rate on the loan is typically fixed at a market competitive interest rate. The interest rate includes a fee for the loan to be serviced and a guarantee fee that provides that Fannie Mae will guarantee timely payment of principal and interest to the investor buying the MBS. The Fannie Mae guarantee serves as a credit enhancement to the loan, which makes the resulting security more desirable to investors. The property must be in suitable condition as it serves as the primary collateral for the loan. Fannie Mae closely examines each borrower's multifamily and real estate background and experience, and their financial wherewithal. Borrowers are typically for profit entities and include individual owners, limited liability companies and REITs. Fannie Mae has the expectation that even if the loan is non-recourse, a borrower should have the financial capability to continue to pay the mortgage.

While these are standard and general guidelines as to the typical purchased multifamily loan, the various types of mortgages purchased can vary. Fannie Mae will purchase and securitize standard DUS fixed rate and adjustable rate loans, MBS/DUS early rate lock loans, small loans, supplemental loans, structured adjustable rate mortgages, and a Fixed +1 loan which provides a defined initial interest rate term, plus an additional year with an adjustable rate where the loan can be paid off without penalty (McNamara 6). In addition, with special disclosure Fannie Mae will purchase and securitize other loans including fixed rate graduated pre-payment loans, cross-collateralized mortgage loans, cross-defaulted mortgage loans mezzanine financing, fixed rate credit facilities, and other type mortgages under various terms (McNamara 6).

ii). Freddie Mac

Since over 95% of all multifamily loans acquired by Freddie Mac in 2013 were bought with the intention to be securitized through Freddie Mac's K-Series Multifamily Mortgage Pass-Through Certificates (K-Deals), this section will provide an overview of Freddie Mac's securitization process and how K-Deal securities are structured (*Freddie Mac Multifamily Securitization* 18). The section will also examine the standard features of a typical multifamily loan purchased by Freddie Mac.

Freddie Mac participates in multifamily market primarily through its K-Deal securitization platform. The K-Deal program began in 2008 and is Freddie Mac's platform to securitize multifamily loans using a CMBS-like structure (Shear 13). The aim of the K-deal program is to securitize multifamily loans in order to sell portions of the credit risk associated with the underlying loans. To do this, Freddie Mac purchases and securitizes a pool of multifamily loans into tranches and provides a guarantee on full payment interest and principal on the senior bonds, but does not provide a guarantee on the subordinate bonds. The number of multifamily loans in a pool is typically between 50 and 100 (*Freddie Mac Multifamily Securitization* 25). According to David Brickman, who oversees Freddie Mac's multifamily division, a triple-A bond rating typically determines what portion of the securitized K-Deal offering is the senior guaranteed portion and the subordinate non-guaranteed portion (Brickman). The non-guaranteed, subordinate portion is typically the bottom 16% to 18% of the K-Deal offering (Brickman). A typical K-Deal offering is $1.2 billion, with approximately $1 billion in senior bonds guaranteed by Freddie Mac and $200 million subordinate non-guaranteed bonds (*A Closer Look: K-Deal Program Attracts Private Capital and Reduces Risk* 2, 4). Multifamily loans that make up a K-Deal security are purchased from Freddie Mac approved lenders. Freddie Mac independently underwrites every multifamily loan it purchases from the lender to its portfolio standards. From 2008 to 2011 loans held for sale under the K-deal program grew from an initial $497 million to $16.6 billion (Shear 13). Freddie Mac has had zero losses on K-Deal guarantees since the program began (*A Closer Look: K-Deal Program Attracts Private Capital and Reduces Risk* 1).

In 2008, Freddie Mac held 98% of its purchased loans in its own portfolio (*A Closer Look: K-Deal Program Attracts Private Capital and Reduces Risk* 1). Since 2009, the first year K-Deals were issued, Freddie Mac's loan purchases intended for securitization has grown from 29% to 95% in 2013 (*Freddie Mac Multifamily Securitization* 18). Since the start of the program over $75 billion in K-Deal securities have been issued (*Freddie Mac Multifamily Securitization* 17, 24). In 2013, Freddie Mac securitized $28 billion of multifamily loans which was a greater than Freddie Mac's 2013 new multifamily business volume of $25.9 billion (*Freddie Mac Multifamily Securitization* 6). This discrepancy is due to the fact that Freddie Mac purchases and holds multifamily loans for a period of time as part of K-Deal securitization process. The U.S. Treasury permits Freddie Mac to retain the loans for a period of time so long as the loans are marked as "for sale" in their portfolio with the intention to be securitized.

Freddie Mac currently buys multifamily loans from an approved list of over twenty multifamily lenders, including Berkadia Commercial Mortgage, LLC, CBRE Capital Markets, Citibank, HSBC, Jones Lang LaSalle Operations, Key Bank, M&T Realty Capital, Prudential and Wells Fargo (*Freddie Mac Multifamily Securitization* 14). Approved multifamily lenders are a part of Freddie Mac's Program Plus program. The lenders originating the loans serve as the primary servicer on the loan once it is securitized and report to the master servicer. Given the key role that the lender plays throughout the life of the loan from origination to maturity, the approved lenders must meet financial and operational thresholds including annual audits.

The first step in the creation of a K-Deal security is for the borrower to apply for a loan through a K-Deal approved lender, who is part of Freddie Mac's Program Plus program. The lender underwrites the loan and deal to ensure it generally meets Freddie Mac's multifamily loan standards including an examination of the particular property, the market, and the borrower's financial strength, experience, and equity in the deal. Shortly thereafter, the loan application and terms are submitted to Freddie Mac, so that Freddie Mac can initiate its separate underwriting process. Freddie Mac's in-house production team examines the

loan's deal terms, ensures it has proper structure and submits the loan for pricing to the Freddie Mac's underwriter to get approval to provide a quote on the loan.

Once the borrower fully completes and submits all the documentation related to the lender, the lender submits the completed loan package to Freddie Mac's underwriter. Freddie Mac's underwriter completes its own due diligence, which includes a visit to the property, and creates an investment report, which provides a recommendation either to approve or not to approve. Once approved, the rate is locked and the loan is funded by the lender. The Freddie Mac underwriting department then issues a letter of commitment to the lender. The letter of commitment provides that the Freddie Mac will purchase the loan as long as the loan meets the terms and conditions outlined in the letter. If the lender accepts the letter of commitment, then the loan's rate is locked (*Freddie Mac Multifamily Securitization* 16).

Next Freddie Mac acquires the loan from the lender. Freddie Mac will typically acquire between 50 and 100 multifamily loans meeting specified parameters in order to create a pool for a K-Deal securitized offering. The first step in a K-Deal issuance is Freddie Mac's internal preparation of the K-Deal pool, which typically takes 4 weeks. During this time period, Freddie Mac identifies and prepares reports for the loans and collateral that will go into the K-deal pool and engages a rating agency. During the next 2 weeks, the preliminary due diligence period occurs. During this time period, bond investors who are considering purchasing the subordinate K-Deal pieces perform preliminary due diligence and provide feedback to Freddie Mac. Shortly thereafter, Freddie Mac selects which bond investors will purchase the subordinate pieces. Freddie Mac also selects rating agencies to rate the K-Deal security based upon preliminary reports previously provided by rating agencies. Over the next 5 to 6 weeks, a full diligence period occurs. During this time period, Freddie Mac performs due diligence related to the K-Deals accounting and legal structure, finalizes the K-Deals warranties and representations, and selects the master servicer and trustee through bidding processes. The loan pool and bond ratings are finalized during this time frame. In addition, the subordinate bond investors complete their full due diligence and provide confirmation that their purchases of the subordinate portion of the K-Deal. During the next 2

weeks the K-Deal is marketed and priced. The K-Deal is announced publicly by a broker dealer, and the different tranches of the bond are priced. The closing period follows, which typically lasts 1 to 2 weeks. During this time period, the K-Deal offering documents are finalized and the K-Deal securities are sold to investors (*Freddie Mac Multifamily Securitization* 21).

The process to securitize the loan is a function of the structure of the K-Deal offering. A K-Deal offering is typically composed of the Freddie Mac guaranteed senior bond tranches A, the non-guaranteed class B and C mezzanine tranche, and the non-guaranteed subordinate class D bond tranche. In most cases, the senior tranche A is set at the triple-A rating by the bond agency and is typically 82% to 84% of the bond offering, while the non-guaranteed tranches B, C and D are the remaining 16% to 18%.

Tranche A's principal and interest are paid off in full before any of the subordinate tranches. The senior bond or tranche A includes a guarantee from Freddie Mac that if the borrower defaults on the underlying loan that Freddie Mac will cover interest and principal payments in full. Therefore, tranche A is the least risky offering the lowest yield and would be the last to absorb credit losses if it were not guaranteed. In order to provide the guarantee, Freddie Mac purchases the K-Deals tranche A from a third party trust and guarantees these bonds through a separate Freddie Mac trust. In order to obtain the Freddie Mac guarantee of interest and principal payments, tranche A pays a guarantee fee to Freddie Mac. According to a 2014 Freddie Mac Multifamily Securitization presentation, the guarantee fee paid by tranche A is .17% (*Freddie Mac Multifamily Securitization* 28). The resulting Freddie Mac guaranteed securities are publicly for sale through placement agents, typically a large financial institution.

The B and C tranches are not guaranteed by Freddie Mac. These tranches receive interest payments every month, but do not receive return of principal payments until tranche A has been paid off. Therefore, tranche B and C offers a higher return to investors because they bear higher repayment risk. Unguaranteed subordinate bonds compose tranche D. Tranche D receives interest payments and principal returned only after tranches A, B and C have been paid in full. When initially sold tranche D's principal

is most deeply discounted and therefore offers the highest yield given it has the first position to accrue any loan losses on the entire pool. Also offered are interest only strips called tranche X, whereby the investor receives only interest and no principal. The interest only strips are the difference between the interest rate on the pool of loans and these strips can be offered guaranteed or not guaranteed by Freddie Mac (*A Closer Look: K-Deal Program Attracts Private Capital and Reduces Risk* 3–5).

Given that the K-Deals underlying collateral are loans from multiple lenders, the master servicer on the K-Deal is selected via a bidding process during the K-Deal formation. The master servicer has the responsibility to service the mortgages on behalf of the trust including collecting loan payments, sending the funds to the trustee, monitoring the primary servicers on the loans, and financial reporting to investors. The primary servicer is the lender that originated the loan, and is under contract to service the property and report to the master servicer. The primary servicer duties include inspections of the property, financial reporting and loan administration. Should a loan require special servicing, the master servicer transfers the loan to the special servicer. The special servicer handles any loans that default to ensure an orderly workout or liquidation process. Given the first loss, non-guaranteed position of the subordinated B, C and D pieces, the subordinate bond investor selects the special servicer in consultation with Freddie Mac. The trustee, aside from issuing the securities, monitors and enforces the trust and trust documents, and transfers funds from the master servicer to the bond investors. Once the security is sold, Freddie Mac continues to that monitor the property (*Freddie Mac Multifamily Securitization* 33).

In general, there are typical attributes and guidelines associated with multifamily loans that are purchased and securitized by Freddie Mac. Freddie Mac purchases multifamily loans for properties located in all 50 U.S. states with an average loan size of $17 million nationwide (*Report to the Federal Housing Finance Agency: Housing Finance Reform in the Multifamily Mortgage Market* 9). From 1994 to 2011, the vast majority of multifamily loans purchased were for properties with 50+ units with over $199 billion acquired, compared to $15.4 billion for properties with 5 to 50 units (Shear 14). Types of multifamily loans acquired by Freddie Mac include traditional rental, senior, student, and cooperative housing. From

1994 to 2011, the vast majority of multifamily loans acquired were traditional rental housing at 91.6%, followed by senior housing at 4.9%, student housing at 2.3%, and cooperative housing at 1.2% (Shear 25).

A standard mortgage purchase under K-Deal guidelines focuses on first lien mortgage financing for operating and stabilized multifamily properties. Loans are typically offered with 5, 7 or 10 year terms, although most loans are 7 or 10 years (*Freddie Mac Multifamily Securitization* 22). Loans typically have a 30-year amortization with a balloon payment due at the end of the loan term. Typical loan characteristics include a debt service coverage ratio of at least 1.25, a maximum loan-to-value of 80%, and an equity contributed from the borrower (*Freddie Mac Multifamily Securitization* 20). From June 2009 to June 2014, the underwritten weighted average debt service coverage ratio for multifamily loans purchased by Freddie Mac was 1.49 and typically ranged from 1.30 to 1.91, and the weighted average loan-to-value was 69% with a range of 62.3% to 73.4% on loans underlying K-Deals (*Freddie Mac Multifamily Securitization* 24). The interest rate on a vast majority of loans is fixed and market competitive. Loans are typically non-recourse, with a standard carve out for "bad boy acts. Institutional borrowers with long established relationships may have more customized loan documents. The loans are typically assumable, subject to Freddie Mac's approval.

While these are standard and general guidelines as to the typical purchased multifamily loan, Freddie Mac does offer a wide array of products under different loan terms. Freddie Mac purchases fixed, adjustable rate and, under certain conditions, interest-only loans. Prepayment loan options are provided in many purchased loans. One year after first lien mortgage origination, properties with Freddie Mac loans are eligible for supplemental financing (*Freddie Mac Multifamily Securitization* 20). Freddie Mac purchases shorter term loans for moderate upgrades to properties, lease up loans for newly constructed properties that are not yet fully stabilized, and loan lock options that locks the loan into a U.S. Treasury index ("Freddie Mac Multifamily Website"). Freddie Mac offers a revolving credit facility which allows active multifamily sponsors to lock credit terms and spreads before a property is identified. Various affordable

housing loans are offered including 9% Low Income Housing Tax Credit loan, a 4% bond credit enhancement, loans for multifamily properties subject to regulated rent, direct purchase of tax exempt bonds, tax exempt bond securitization, affordable supplemental loans, affordable preservation loans, and variable liquidity pricing loans ("Freddie Mac Multifamily Website").

Chapter 5: Multifamily Market Overview

In order to provide context to the environment in which the GSEs multifamily divisions operate, this section will present the performance metrics of the overall multifamily sector and discuss the major factors and trends affecting the asset class. Since there is substantial amount of well-known published data on the multifamily sector, this section will provide general overview and not delve into great detail.

Vacancy Rate

Through the 4th quarter of 2013, the overall multifamily market vacancy rate reached a 12-year low of 4.0% from a high of 8.0% in 2009 (*Freddie Mac Update - September 2014* 45). The spike in the vacancy rate to 8.0% in 2009 was primarily due to job layoffs as result of the Financial Crisis. Those reduced from renter status were forced to find other living arrangements including living with roommates, living with their parents, or even homelessness. Since that time, the overall multifamily vacancy rate has continually declined to a current market low of 4.0%, which is substantially below the historical vacancy average of 5.4% (Guggenmos et al. 8). While there are a number of factors that have contributed to the steady decline in the multifamily vacancy rate since 2009, the primary initial reason was the number of homeowners reduced to renter status as a result of the Financial Crisis.

Rents

Through the 2nd quarter of 2014, the average U.S. multifamily rents stood at an all-time high of $1.25 per square foot (Gopal). Multifamily properties gross effective rent income has continually grown since 2009. In 2009, the average gross effective rent growth rate declined sharply to -4.0%, which mirrored the spike in the multifamily vacancy rate (Guggenmos et al. 8). Since 2009, the gross effective rent growth has been above the historical average of 2.8%, a reflection of the increasing multifamily demand and the declining vacancy rate (Guggenmos et al. 7). At year-end 2013, the gross effective rent growth was 3.6% (Guggenmos et al. 7).

Capitalization Rates

Since 2009, the national average multifamily capitalization rate or cap rate has decreased from over 7% to 6.2% (*US Capital Trends: Apartment Quarter in Review* 1). Strong investor demand for multifamily has continued to compress sector's average capitalization rate since 2009. Additionally, the sector's average per square foot net operating income is currently at an all-time high of nearly $10 per square foot (*US Capital Trends: Apartment Year in Review* 3). Capitalization rate compression, lower vacancy rates, and higher rents have pushed multifamily prices to all-time peak price levels. In 2013, overall multifamily asset prices increased 12%, while cap rates remained relatively unchanged (*US Capital Trends: Apartment Year in Review* 3). This occurred despite a 100 basis point increase in 10-year U.S. Treasury from all-time lows of 1.4% to 1.5% in 2012 to between 2.5% to 3.0% in 2013 (*US Capital Trends: Apartment Year in Review* 3). The increase in multifamily price appreciation in 2013 was primarily due to lower vacancy rates and higher rents. According to Freddie Mac, the long term average spread between the 10-year U.S. Treasury and cap rates has been 300 basis points (Guggenmos et al. 5). Through year-end 2013, this spread was in the range of 320 to 370 basis points. While there may be some room for cap rate compression, the primary driver to increase multifamily property value will likely be to improve property cash flows.

Supply

Since 1989, there have been nationally on average approximately 300,000 permits issued and 260,000 starts per year for the construction of new multifamily units (*Is the Bloom off the Multi-Housing Rose?* 2). From 1997 to 2008, the supply of multifamily housing remained relatively constant within a range of 250,000 to 350,000 multifamily unit starts (*Is the Bloom off the Multi-Housing Rose?* 2). From 2010 to 2012, starts were substantially below the long term average, reaching a low of approximately 75,000 in 2010 (*Is the Bloom off the Multi-Housing Rose?* 2). Like nearly every other product type in real estate, economic uncertainty and limited available financing paralyzed new development beginning in 2009 and caused a dramatic drop off in construction from 2010 to 2012. After three years substantially below their historical average, permits issued and construction starts returned to the range of their normal historical mean in 2013 (*Is the Bloom off the Multi-Housing Rose?* 2). When compared to their historical average of permits issued and starts, it does not appear there is currently an oversupply of multifamily given the substantial below average construction starts of multifamily from 2009 to 2012.

Employment

Over the past three years, multifamily demand has been primarily driven by employment growth and an expansion in the pool of renters. Since reaching a recession high 10% in 2009, the unemployment rate has continually dropped falling to 7.9% in 2012, 6.7% at the end of 2013, and 6.1% as of September 2014 (*Bureau of Labor Statistics: Labor Force Statistics from the Current Population Survey*). The unemployment rate is on the verge of the 5 to 6% range, which is generally associated with a strong economy.

Population Growth and Household Formation

The US population currently stands at approximately 315 million people and has grown 1.08% annually since 1960 (Brown, Bondarenko, and Edwards 6). New household formations have averaged 1.2 million

per year in the U.S. from 1965 to 2006 (Brown, Bondarenko, and Edwards 6). These new households tend to gravitate towards renting due to financial constraints as they are primarily composed of children moving out from their parent's home and immigrants (Brown, Bondarenko, and Edwards 6). New household formation reached a peak of 1.9 million in 2006, then dramatically fell to 400,000 in 2008 at the outset of the Financial Crisis (Brown, Bondarenko, and Edwards 6). While population growth continued at historical norms, there was a dramatic decline in the formation of new households from 2008 to 2011 relative to historical average of 1.2 million new households per year. In other words, there were nearly 3.5 million households that were not formed from 2008 even though population continued to grow (Brown, Bondarenko, and Edwards 6). This lack of new household formation was primarily a function of the economic realities where households would combined to live as roommates, or younger people did not move out or returned to their parent's home.

Homeownership Rate

The homeownership rate reached an all-time high of 69.2% in 2004 and stayed above 68% from 2nd quarter of 2002 to the 3rd quarter of 2007, due in part to lax underwriting standards and subprime loans for home purchasers that contributed to the "Housing Bubble" (Callis and Kresin 5). Since 2007, the homeownership rate has continually declined. At the end of 2013, the homeownership rate was 65.2%, which is in line with the average historical homeownership rate since 1965 of 65% (*HUD PD&R National Housing Market Summary* 6, 7).

Single-Family Rentals

While there has been a substantial 5 million increase in total renters since 2006, approximately 3.2 million or 62% chose to rent single-family homes (Guggenmos et al. 12). Since 2006, single-family home renters have increased from 33% to 37% of the total renter population, while multifamily renters (5+ units) and renters at complexes with 2 to 4 units have declined from 46% to 44%, and 21% to 19%, respectively

(Guggenmos et al. 12). It remains to be seen if these single-family homes will remain rentals over the long term or if they will eventually be sold to owner-occupants. From 1985 to 2003, single-family homes averaged 34% of all rentals (Guggenmos et al. 12). If the percentage of single-family rentals returns to this mean, then approximately 1 million households would need to exit the single-family rental market (Guggenmos et al. 12).

Demographics

Over the next 10 to 15 years, the multifamily asset class will be affected by the two largest generations in the U.S. – the "Baby Boomer" and "Millennial" generations. The Baby Boomer generation was born between 1946 and 1964 and is currently between the ages of 50 and 68 (Gordon 3). This cohort totals 76.2 million people as of the 2010 US Census (Gordon 3). Approximately 12 million of the "Baby Boomer" generation have already turned retirement age, generally defined as age 65, and over the next 15 years the remaining 64.2 million will hit this age threshold. The aging Baby Boomer generation is anticipated to move out from larger single-family residences where they raised their Millennial children to smaller residences. The multifamily sector is expected to benefit from this trend, as retiring Baby Boomers look to move towards a more carefree lifestyle, where they do not have the responsibility, whether by choice or physical capability, to maintain a home and yard. Millennials are the children of the Baby Boomer generation. The Millennial generation was born between 1978 and 1995 and is currently between the ages of 19 and 36 (Gordon 3). As of the 2010 census, this cohort totals 77.4 million or approximately 25% of the US population (Gordon 3). It is the largest generation in the US, recently surpassing the population of "Baby Boomer" generation in 2010 (Gordon 3). There are unique characteristics with the Millennial generation that will likely affect the multifamily sector for years to come. This is the first generation to have grown up with technology that plays a key role in the economy, such as computers, smart phones and the internet. Their habits are different from prior generations as they utilize technology for their day-to-day tasks and decisions such as shopping. They are better educated than any prior generation, and are getting marriage and starting a family much later than

previous generations. According to Census data, the median age for marriage has increased from 21 for women and 23 for men in 1950, to 27 for women and 29 for men in 2010 (Hoak). In addition, Millennials are more willing to relocate for a job compared to prior generations and are generally perceived to have an affinity to live in urban locations as opposed to the suburbs. Most notably, this generation has been strongly affected by the 2008 Financial Crisis having spent a good portion of their lives in a recessionary environment. The impact of this generation will likely be the most dominant trend in real estate in the coming years.

The recessionary environment caused by the Financial Crisis strongly affected Millennials and their housing options. The Millennial generation was one of the hardest hit by the recession with an unemployment rate of 9.1% for 18- to 29-year olds, substantially higher than 6.3% for the general population (Hoak). In 2013, this cohort accounted for approximately 40% of all those unemployed, the largest amongst all generations (Fottrell). A high unemployment rate has also meant a lower savings rate among Millennials contributing to the lowest credit scores relative to all other generations. Millennials average credit score is 628 compared to 700 for the Baby Boomers (Hoak). While Millennials are the most educated generation, they also have a substantial amount of student debt. The graduating class of 2014, had a record average debt load per student. Adjusted for inflation, the average student debt per graduating student has steadily risen from $15,000 in 1993, to $25,000 in 2007, to $33,000 in 2014 (Izzo).

These circumstances, in addition to the tightening of loan underwriting standards by banks, have limited the potential pool Millennials who have the financial wherewithal to purchase a home. This has contributed to the decline in the homeownership rate. Thus, renting is the primary housing option for many within Millennial generation. In 2013, Millennials accounted for the largest share of renters. Over 1 in 4 renters were Millennials ranging in age from 25 to 34 (Guggenmos et al. 14). In addition, the Financial Crisis also led to a substantial increase in Millennials moving back in with parents. The percentage of 18- to 34-year olds living at home increased from approximately 25% in 2005 to height of 29.5% in 2012 (Gordon 7). 2013 was the first year this metric declined since 2004-2005. (Gordon 7)

Chapter 6: Multifamily Finance Market Participants Loan Performance Comparison

Multifamily Market Participants

The GSEs compete with other market participants in the multifamily finance market. The primary competitors to GSEs are life insurance companies, who typically originate and retain multifamily loans in their own portfolio, commercial banks and thrifts, who originate loans to either retain or sell them, and CMBS lenders, who originate loans, pool, securitize and sell the resulting CMBS security. It is important to note that CMBS securities underlying pool of loans can include other commercial product types, such as office, retail and industrial. In addition, Government National Mortgage Association (Ginnie Mae) is a federal agency that is a significant player in the multifamily finance arena. Ginnie Mae provides an explicit government guarantee on payment of interest and principal for affordable housing loans from FHA-approved lenders. In addition, state and local multifamily housing agencies are significant market participants that typically sell tax exempt bonds to investors to help facilitate affordable multifamily housing locally.

In 2013, there was $917 billion in outstanding multifamily debt in the marketplace (*Fannie Mae Multifamily Mortgage Business Information - May 2014* 4). GSE guaranteed debt accounted for $309 billion or 34% of the total, with Fannie Mae accounting for $185 billion or 20% and Freddie Mac accounting for $124 billion or 14% (*Fannie Mae Multifamily Mortgage Business Information - May 2014* 4). Total outstanding GSE guaranteed multifamily debt has grown from $72 billion in 2000 to $199 billion in 2007 to $309 billion in 2013 (*Fannie Mae Multifamily Mortgage Business Information - May 2014* 4). In 2013 banks and thrifts accounted for $285 billion or 31% of outstanding multifamily debt in the marketplace, Ginnie Mae held $82 billion or 9%, state and local agencies held $75 billion or 8%, life insurance companies held $53 billion or 6%, and other market participants accounted for $38 billion or 4% (*Fannie Mae Multifamily Mortgage Business Information - May 2014* 4). CMBS accounted for $75

billion or 8% of all outstanding multifamily in 2013, down from a peak of $124 billion or 16% of total multifamily debt in 2007 (*Fannie Mae Multifamily Mortgage Business Information - May 2014* 4).

Multifamily Security Spreads

In order to understand investors' perceived risk of securitized multifamily loans, it is useful to examine the spread over the 10-year U.S. Treasury for the various multifamily securities. As of the 1st quarter of 2014, Freddie Mac K-Deal 10-year tranche A, Fannie Mae GeMS 10-year tranche A, Fannie Mae DUS 10-year MBS, and Ginnie Mae securities had the lowest spread over the 10-year U.S. Treasury of approximately 40 to 60 basis points (*Fannie Mae Multifamily Mortgage Business Information - May 2014* 19). New Issue AAA CMBS are currently in the range of 80 to 100 basis points over the 10-year U.S. Treasury, while Legacy AAA Super Senior CMBS, which were issued prior to January 1, 2009 are in the range of 120 to 140 basis points over the 10-year U.S. Treasury (*Fannie Mae Multifamily Mortgage Business Information - May 2014* 19). Given the underlying government guarantees provided by Fannie Mae, Freddie Mac and Ginnie Mae, it should come as little surprise that these securities have the lowest spread over the 10-year U.S. Treasury.

Delinquency Rate and Credit Losses

While it is difficult to directly compare delinquency rates between multifamily family market participants as they track delinquencies differently, an examination of the data still provides valuable feedback about how each market participant has fared over the past several years. Through the 4th quarter of 2013, life insurance companies, well-known for stringent underwriting standards, had a 0.00% delinquency rate on multifamily loans (*Fannie Mae Multifamily Mortgage Business Information - May 2014* 27). As of the 4th quarter of 2013, Freddie Mac and Fannie Mae had delinquency rates of 0.09% and 0.10%, respectively (*Fannie Mae Multifamily Mortgage Business Information - May 2014* 27). These low delinquency rates are a reflection of the stringent underwriting standards employed by insurance companies and GSEs. As

of the 4th quarter of 2013, banks and thrifts had a 0.83% delinquency rate (*Fannie Mae Multifamily Mortgage Business Information - May 2014* 27). On the other end of the spectrum, as of the 4th quarter of 2013 CMBS had a delinquency rate of 10.18% (*Fannie Mae Multifamily Mortgage Business Information - May 2014* 27). It is important to note this 10.18% includes properties that are going through the foreclosure process or that the lender has already taken back. The high delinquency rate for CMBS is primarily due to the loans that were originated during the CMBS boom years of 2005 to 2007. It is also interesting to note that at its peak, CMBS had a serious delinquency rate of over 14% in 2010, while Fannie Mae and Freddie Mac reached peaks of 0.70% and 0.26% respectively in 2010 (Shear 30).

Through the 4th quarter of 2013, credit losses booked among the multifamily finance market participants generally mirrored the serious delinquency rate. Insurance companies had no credit losses, while Freddie Mac and Fannie Mae had credit losses booked of .01% and .03%, respectively (*Fannie Mae Multifamily Mortgage Business Information - May 2014* 27). Banks and thrifts were next at .13%, followed by CMBS at 0.59% booked (*Fannie Mae Multifamily Mortgage Business Information - May 2014* 27).

Underwriting Standards

In the aftermath of the Financial Crisis, GSEs and insurance companies had relatively minimal losses when compared to CMBS, and banks and thrifts. One of the main reasons GSEs and life insurance companies fared better is they generally adhered to stringent and disciplined underwriting standards in the 2000s. The life insurance companies and GSEs learned the importance of quality underwriting when they underwrote loans with relaxed standards in the 1980s and 1990s, respectively. While banks and thrifts performed markedly worse than insurance companies and GSEs through the Financial Crisis, their delinquencies and credit losses were better than CMBS. New players to the multifamily finance market in the late 1990s, CMBS rose to account for a substantial portion of the multifamily market in the mid-2000s. At its height, CMBS accounted for $35 billion or 35% of the multifamily debt market in 2006,

and $35 billion or 30% of the multifamily debt market in 2007 (*Fannie Mae Multifamily Mortgage Business Information - May 2014* 6).

The rise of CMBS in 2006 and 2007 was due in large part to aggressive underwriting standards by the CMBS industry. Recently, Freddie Mac performed an analysis, which compared the underwriting standards between Freddie Mac and CMBS for the exact same properties. These were prospective multifamily loans that Freddie Mac had provided a loan quote on from the mid-2000s, but ultimately lost to CMBS. The study found that found that prior to 2008, the CMBS industry underwrote multifamily loans on average with an 8% higher net operating income and 10% higher market valuation than what Freddie Mac underwrote (Brickman, Guggenmos, and Li 3). This meant that "an 80% LTV (loan-to-value) CMBS loan would be nearly a 90% LTV GSE loan, but could be as high as 94%" (Brickman, Guggenmos, and Li 3). From 2005 to 2007, when the loan-to-value and debt service coverage ratios are examined, in general, the GSEs were not able to compete with the CMBS loan financing terms issued during this period.

A 2014 Barclays report, compared the underlying collateral for GSEs and CMBS in 2013. According to the report, cap rates for the underlying pool of properties within a Freddie Mac K-Deal were 80-100 basis points lower than the cap rates for the underlying pool of properties in a CMBS deal (Raghavan and Haan 11). CMBS multifamily collateral was appraised at an average of $100,000 per unit, which is substantially below the $130,000 to $140,000 average per unit appraised value for collateral underlying Freddie Mac K-Deals (Raghavan and Haan 11). According to the report, interest rates on multifamily GSE financing was approximately 50 basis points lower than multifamily CMBS loans (Raghavan and Haan 8). This higher exit cap rate and lower price per unit on CMBS loans is an indication that the GSEs are able to attract higher quality, multifamily properties by being able to offer better loan terms than CMBS. The report also notes that the FHFA's 2013 mandate that reduced multifamily acquisitions by 10% reduction in multifamily acquisitions resulted in the GSEs tightening their underwriting standards.

In 2013, the loan-to-value on an average Freddie Mac's K-Deal offering fell from 70% to 67% and average debt yields increased from 8.5% to 9.5% (Raghavan and Haan 9).

Chapter 7: Current Political Environment and Proposed Legislation

In order to discuss the future of the multifamily industry post-GSE conservatorship, it is important to understand the current political environment and legislation that has been proposed.

Since enactment of the Housing and Economic Recovery Act (HERA) in 2008, the GSEs have remained under conservatorship with the FHFA for over six years. Eventually, actions will need to be taken by the government in order to take the GSEs out of conservatorship and decide their future. Freddie Mac and Fannie Mae cannot exist in perpetuity in conservatorship and eventually these enterprises will need to be out of conservatorship – whether they exist in a new form, modified form or simply cease to exist. Although there little consensus in the legislative and executive branches on the ultimate outcome of the conservatorship of the GSEs, there is widespread consensus on some general principles. As noted in the FHFA's 2014 report to Congress "both the Administration and Congress have expressed discomfort with the level of government involvement in the mortgage market and desire for greater private sector participation and risk-taking" (*The 2014 Strategic Plan for the Conservatorships of Fannie Mae and Freddie Mac* 10). Given the general partisan divisions in Washington D.C. and the complexity of the issue, it appears unlikely that this will be resolved any time soon.

Four major proposals have been put for the in legislative branch to resolve the conservatorship and determine the future of the GSEs. A summary of the proposed bills, their current status and how they would apply to the multifamily sector are as follows:

The Housing Finance Reform and Tax Payer Protection Act of 2013 (Corker-Warner Bill) – S. 1217

The Housing Finance Reform and Taxpayer Protection Act, also known as the Corker-Warner bill, was put forth by Senators Bob Corker, a Republican from Tennessee, and Mark Warner, a Democrat from Virginia, on June 25, 2013. The introduction of the bill launched off a series of meetings and hearings within the Senate in order to refine the legislation. The Corker-Warner bill would create a new government agency called the Federal Mortgage Insurance Corporation (FMIC) and would wind down Fannie Mae and Freddie Mac over a 5-year period. The FMIC's would serve as the independent regulator of the mortgage market, and provide regulation and approval of the securities that would qualify for an explicit government backstop guarantee. The FMIC would be set up to provide support to mortgage market throughout all economic cycles. For residential mortgages, the FMIC would be charged with the regulation and oversight of a newly structured mortgage security, whereby private market holders have a 10% first loss position and the remainder of the security has an explicit U.S. Government guarantee on payment of principal and interest.

Securitization of mortgages would occur through a newly created common securitization platform that is regulated by the FMIC. Under this proposal, private financial institutions approved by the FMIC would originate mortgages, service mortgages, and securitize them utilizing the common securitization platform. The FMIC would be charged with oversight and regulation of the entire process and parties involved, as well as providing an explicit backstop guarantee. The mortgage interest rates on loans would include a fee to the FMIC for the backstop guarantee on the security and a 5 to 10 basis point fee for newly established affordable housing goals. The Corker-Warner bill provided that Freddie Mac and Fannie Mae's multifamily business would essentially operate in their current form and be transferred for the FMIC to operate. The FMIC would provide the guarantee on any multifamily loans purchased. As noted in a Moody Analytics report analyzing the Corker-Warner bill, "asking a regulator (FMIC) to run a business is a stretch, and appears to be a placeholder that policymakers will address" with future iterations

of the bill (Zandi and deRitis, *Evaluating Corker-Warner* 1). The Corker-Warner bill was utilized as the framework for the Johnson-Crapo bill introduced in 2014.

The Housing Finance Reform and Tax Payer Protection Act of 2014 (Johnson-Crapo Bill) – Amendment to S. 1217

The Housing Finance Reform and Taxpayer Protection Act of 2014, also known as the Johnson-Crapo bill, was put forth by Senators Tim Johnson, a Democrat from South Dakota, and Mike Crapo, a Republican from Idaho, as an amendment to the Corker-Warner bill on March 11, 2014. The bill passed the Senate Committee on Banking, Housing, and Urban Affairs by a vote of 13 to 9 on May 15, 2014, but has yet to be voted on by the Senate floor. The legislation retains the key elements from Corker-Warner bill with slight nuances and added detail, especially as it pertains to the multifamily business unit from the previous legislation.

The Johnson-Crapo bill maintains the majority of the framework of the Corker-Warner bill. It creates a new government agency called the Federal Mortgage Insurance Corporation (FMIC) and wind down Fannie Mae and Freddie Mac over a 5-year period. For residential mortgages, the Johnson-Crapo bill essentially maintains the system devised and outlined in the Corker-Warner bill.

The Johnson-Crapo bill provides much greater definition and detail into how Freddie Mac and Fannie Mae's multifamily business would operate post-conservatorship. The bill reforms various elements of the GSEs multifamily business including the how the business units would operate going forward, the securities structure, regulation, and affordability requirements.

Similar to residential mortgages, the FMIC would be charged regulation and oversight of multifamily securities, whereby private market holders have a 10% first loss position, and the remainder of the security has an explicit U.S. Government guarantee on payment of principal and interest. The FMIC would approve private financial institutions that would originate and service mortgages, securitize them,

and provide the first loss guarantor position in the security structure. The FMIC would provide an explicit backstop government guarantee. An Office of Multifamily Housing would be established as a separate office within the FMIC that will regulate the industry including loan criteria and securities standards.

Within one year of the bill's enactment, Fannie Mae and Freddie Mac's multifamily business units would be separated from the GSE's into two wholly-owned subsidiaries. Within a 10-year period of the bill's enactment, the business units would be recapitalized and eventually sold or transferred to an entity to continue to operate as a multifamily securities issuer and guarantor. The bill provides that Freddie Mac's multifamily Program Plus and K-Deal securitization platforms, and Fannie Mae's DUS risk sharing multifamily program be preserved as part of the GSEs multifamily business units disposition. These entities would have no government status or protection, but would be able utilize the existing business operations and relationships currently in place. These newly formed entities, under the FMIC's oversight, would issue securities with a backstop government guarantee.

While the Johnson-Crapo bill does away with the GSEs existing affordable housing requirements, it does require that 60% of the multifamily units within the issuers or guarantors aggregate portfolio be 80% area median income or below on an annual basis (*NMHC/NAA Multifamily Analysis: Bipartisan Johnson-Crapo Legislation* 3). The requirement also entails that issuers and guarantors focus on all markets throughout the US.

Protecting American Taxpayers and Homeowners (PATH) Act - H.R. 2767

The PATH Act was put forth by Representative Jeb Hensarling, a Republican from Texas, on July 11, 2013. The bill passed the House Financial Services Committee by a vote of 30 to 27 on July 24, 2013, but has yet to be voted on by the House of Representatives floor.

The PATH Act would move towards privatization of the multifamily and housing markets, through elimination of most taxpayer support. Fannie Mae and Freddie Mac would be wound down over a 5-year period and eventually put be put into receivership, with their assets sold off. The wind down of the GSEs over the 5-year period would occur via a continual reduction in conforming loan limits, increased guarantee fees, a continual reduction in the retained portfolio of loans, and increased risk sharing with the private market. The Act would establish a non-profit national securitization platform called National Mortgage Market Utility that would be open for use by all issuers of mortgage securities, and set mortgage standards from origination to securitization. The Act also puts forth the regulatory framework for covered bonds, which are a different financing mechanism for mortgages primarily used in Europe.

The Act would eliminate all of Fannie Mae and Freddie Mac's existing affordable housing goals and separate the Federal Housing Administration (FHA) from the Department of Housing and Urban Development (HUD). All governmental housing finance operations would be centralized and operate out of the FHA. The FHA's role would be limited to insuring mortgages for only first time home buyers and those with low- to moderate-income. Mortgage insurance risk would be shared with private investors and coverage would be reduced from the current 100% to 50% (Zandi and deRitis, *Evaluating PATH* 1). The FHA's involvement in the multifamily market would be limited to providing mortgage insurance for multifamily properties that house low- to moderate-income households, based upon defined occupancy and rent parameters. The bill would allow for the FHA to expand lending during a Financial Crisis (Zandi and deRitis, *Evaluating PATH* 4–5). Overall, Moody's Analytics estimates that "if the PATH becomes law, the FHA would account for no more than one-fifth of the mortgage market on average through the business cycle," which is substantially below the current governmental support and intervention in the mortgage markets (Zandi and deRitis, *Evaluating PATH*). Outside of the FHA support, the rest of the market would essentially receive no government support during normal economic times.

The Housing Opportunities Move the Economy (HOME) Forward Act

The HOME Forward Act was put forth by Representative Maxine Waters, a Democrat from California, on March 27, 2014. At the time the legislation was put forth it was unlikely to advance in the Republican controlled Congress, but does provide a counter to the Republican led bill and portions of the bill could be included in future housing finance reform legislation.

The HOME Forward Act would wind down Freddie Mac and Fannie Mae over a 5-year period and replace it with a lender owned and capitalized cooperative called the Mortgage Securities Cooperative (MSC). The MSC would be overseen by a new independent regulator, the National Mortgage Finance Administration, charged with regulation of the entire industry including oversight all parties involved and underwriting standards. The MSC would offer mortgage backed securities whereby private capital and the MSC share a 5% first loss capital position on the security with an explicit government guaranteed backstop (*Housing Opportunities Move the Economy (HOME) Forward Act of 2014 - Detailed Summary*). The market participants would pay a fee into a Mortgage Insurance Fund to support the explicit government guarantee backstop. The MSC would be the only issuer of MBS that are eligible to contain a government guarantee backstop from the Mortgage Insurance Fund.

The Mortgage Insurance Fund would be modeled after the FDIC insurance for banks and overseen by the NMFA, and the fund would only be utilized after the first loss private capital is exhausted. The act seeks to "maintain the multifamily housing market by largely transferring what has worked at Fannie Mae and Freddie Mac to a new Multifamily Platform at the MSC" and "the Act seeks to preserve both Fannie Mae and Freddie Mac's forms of risk sharing on securities backed by multifamily mortgages" (*Housing Opportunities Move the Economy (HOME) Forward Act of 2014* 2). In addition, new affordable housing goals are a large focus of the Home Forward Act assessing an annual 10 basis point fee on outstanding balances to ensure "robust funding for the Housing Trust and the Capital Magnet Funds created under the Housing and Economic Recovery Act of 2008, and creates a new Market Access Fund to support

innovation in housing and housing finance" (*Housing Opportunities Move the Economy (HOME) Forward Act of 2014* 2).

Chapter 8: Prognosticating the Future of the Multifamily Market

Based upon the background information presented in this thesis, this section will first present and discuss presumptions that can be made about the government's future involvement in multifamily finance post-GSE conservatorship and an assumption about future multifamily market cap rates. The section will then incorporate current market conditions and future supply, demand, and cap rate market pressures into an analytic framework put forth by DiPasquale and Wheaton. This analytical framework, also known as the 4-Quadrant Model, will be used to help surmise the impacts to the multifamily industry from these various pressures.

i). Presumptions About the Government's Future Involvement

Based upon the history of GSEs involvement in multifamily finance, the legislative proposals put forth, and actions the FHFA have already implemented or plans to implement, this section will focus upon presumptions that can be made about the government's future involvement in multifamily finance post-GSE conservatorship.

Continued Role for Government Involvement in Multifamily Finance

To date, all legislative proposals that have been put forth in Congress contemplate some government role in multifamily finance. The HOME Forward Act, put forth by Democrat Maxine Waters, seeks to continue the GSEs involvement in multifamily "by largely transferring what has worked at Fannie Mae and Freddie Mac to a new Multifamily Platform at the MSC" (*Housing Opportunities Move the Economy (HOME) Forward Act of 2014* 2). The bipartisan Johnson-Crapo bill limits government support in

multifamily by restructuring GSE multifamily loans. Under this bill, private market holders or guarantors have a 10% first loss position and the remainder of the security has an explicit U.S. Government guarantee on payment of principal and interest. Most notably, the bill requires that 60% of the multifamily units within the issuers or guarantors aggregate portfolio be 80% area median income or below on an annual basis. In other words, this requirement collectively limits government support to multifamily properties with lower income tenants. Under the Johnson-Crapo proposal, while the government's role is limited compared to its current involvement in multifamily financing, the government still plays a role in the industry. The PATH Act, a Republican proposal put forth by Representative Jeb Hensarling, severely limits the government's role in multifamily finance, so that government involvement would be limited to the FHA providing mortgage insurance for multifamily properties that house low- to moderate-income households, based upon defined occupancy and rent parameters. Most notably, while the government's role is severely limited under the PATH Act, the proposal still has the government to playing a role in the multifamily asset finance market.

Given that all legislative proposals put forth include some form of government intervention in the multifamily market, it is fairly safe to presume that the government will continue to play some role in the multifamily finance market post-GSE conservatorship. In addition, all the legislative proposals at a minimum contemplate providing some form of government intervention and support to ensure that housing is available to those with low incomes. As long as this legislative 'mandate' exists to ensure low-income housing availability, the government will continue to play some role in an asset class that is able to most efficiently accomplish this and is in general considered "inherently affordable" compared to other housing options (*An Overview of Fannie Mae's Multifamily Mortgage Business* 5).

Decreased Government Involvement, Increased Private Market Participation

Based upon published statements and actions already taken by the FHFA, it appears that post-GSE conservatorship the future multifamily finance market will have decreased government involvement and increased private market participation.

The FHFA has acted as conservator of Freddie Mac and Fannie Mae since 2008. Given that the conservatorship has lasted six years with no political resolution in sight, the FHFA has had to make strategic decisions regarding the GSEs future operations, which the FHFA provides in a report to Congress. In 2012, the FHFA's report presented to Congress stated that one of the primary goals was to reduce the GSEs role in the marketplace by shifting credit risk from the GSEs to private investors. In testimony before Congress, the FHFA's Acting Director Edward DeMarco reaffirmed the FHFA's commitment to reduce multifamily loan purchases in 2013, stating that "given that the multifamily market's reliance on the enterprises has moved to a more normal range, to move forward with the contract goal, we are setting a target of a 10% reduction in multifamily business new acquisitions from 2012 levels". (Drummer) Both Fannie Mae and Freddie Mac met this goal in 2013 as GSE multifamily purchase volume went from $62 billion in 2012 to $54.6 billion in 2013 (Guggenmos et al. 6, 7). The 2012 strategic plan also provided that "each Enterprise will undertake a market analysis of the viability of its multifamily operations without government guarantees" in an effort to consider how to shift credit risk away from the GSEs to private investors (DeMarco, *A Strategic Plan for Enterprise Conservatorships: The Next Chapter in a Story That Needs an Ending* 16).

In 2014, the FHFA issued an updated strategic plan report on the GSEs conservatorship that updates the goals outlined in the 2012 letter. The 2014 strategic goal to "reduce taxpayer risk through increasing the role of private capital in the mortgage market" builds upon the goals outlined in the 2012 Strategic Plan (*The 2014 Strategic Plan for the Conservatorships of Fannie Mae and Freddie Mac* 5). Similar to the 2012 Strategic Report, the 2014 report praises the performance of the multifamily portfolio through the

Financial Crisis and states that "both approaches align interests between the Enterprises and lenders to manage complex credit decisions and limit losses" (*The 2014 Strategic Plan for the Conservatorships of Fannie Mae and Freddie Mac* 13). While the FHFA will not require the GSEs to change their credit risk transfer model or transaction structure at this time, the FHFA will examine "whether private capital is willing to share additional credit risk for multifamily mortgages and at what cost" (*The 2014 Strategic Plan for the Conservatorships of Fannie Mae and Freddie Mac* 14). Most notably, the 2014 FHFA report states that there is general political consensus that "both the Administration and Congress have expressed discomfort with the level of government involvement in the mortgage market and desire for greater private sector participation and risk-taking" (*The 2014 Strategic Plan for the Conservatorships of Fannie Mae and Freddie Mac* 10). While the political proposals brought forth in Congress provide for a continued role for the government in multifamily finance, the proposals that have advanced out of committees in the House of Representatives and Senate, the PATH Act and Johnson-Crapo, respectively, appear to contemplate less government involvement in multifamily finance.

ii). Impact of Decreased GSE Involvement on Multifamily Asset Prices

Decreased GSE involvement multifamily finance market would affect multifamily asset prices. According to numerous published sources, the government guarantee on Freddie Mac and Fannie Mae's multifamily securities has led to lower mortgage rates for multifamily loans that are purchased by the GSEs. The U.S. Government Accountability Office 2009 report states that the GSEs have been responsible for "lowering interest rates on qualifying mortgages below what they otherwise would be" and "that the advantageous borrowing rates that the enterprises derived from the implied federal guarantee on their financial obligations were passed on to borrowers to some degree" (Dodaro 20). A report by Harvard's Joint Center for Housing Studies states that a move towards the privatization of the GSEs and thus reduction of available GSE multifamily financing would lead to "higher mortgage rates and less stability as capital moved in and out of markets in response to changing conditions" (Apgar and La Jeunesse 8). In addition, a Moody's Analytics report on the Johnson-Crapo legislation, which

contemplates a role for private capital and a government guarantee in multifamily securities, notes that "the principal cost of requiring a 10% capitalization (with private capital) is a higher mortgage rate for borrowers" (Zandi and deRitis, *Housing Finance Reform Steps Forward* 2).

Refinance risk is a major consideration for multifamily borrowers given that a multifamily loan is typically 7 to 10 years in length, but amortized over a 30-year period with a balloon payment of the loan balance due at the end of the loan term. Given this balloon payment loan structure, at the end of the loan term the debt is usually either refinanced or the property is sold. As outlined in Chapter 3 of this report, the GSEs play a major role in providing liquidity throughout all points of the multifamily real estate cycle. As noted in Freddie Mac's 2012 report to the FHFA regarding housing finance reform, "the presence of GSEs in the multifamily asset class reduces the investment risk of loan maturity failures, a unique stabilizing factor absent for the other commercial real estate classes" (*Report to the Federal Housing Finance Agency: Housing Finance Reform in the Multifamily Mortgage Market* Appendix II – 32).

The uncertainty of loan availability and terms of financing, especially as it pertains to future refinances, means greater risk for owners and purchasers of multifamily real estate. Fannie Mae's 2012 Response to FHFA Scorecard Directive confirms this stating that "higher base case funding costs and greater volatility in the cost and availability of financing would likely put a downward pressure on (multifamily) real estate prices" (*Analysis of the Viability of Fannie Mae's Multifamily Business Operating Without a Government Guarantee - Response to FHFA Scorecard Directive* 12). This perceived risk by multifamily investors along with other contributing factors could put pressure on cap rates to increase.

Research firm, Property and Portfolio Research (PPR), and Freddie Mac have issued reports that come to similar conclusions that reduced GSE involvement and an increased role of private capital in multifamily finance will result in higher cap rates. PPR's report entitled "Implications for the Multifamily Sector From Diminished GSEs" states that should the GSEs role be reduced to what is similarly proposed under

the Republican led PATH Act, cap rates would be anticipated to increase "less than 25 basis points for two-thirds of the current stock of apartments, and less than 45 basis points for a third of the apartments stock in less popular, higher-risk markets" (O'Callahan and Fitzgerald 15). PPR's report also found that "over the past 20 years, the correlation between change in cap rate spreads and change in borrowing rate spreads is 0.57", which is a fairly strong correlation (O'Callahan and Fitzgerald 13). Utilizing econometric and pro forma financial analyses, Freddie Mac estimated in a 2012 report that "overall, multifamily cap rates could rise by 70 to 120 bps" if GSEs were no longer able to provide a government guarantee for multifamily (*Report to the Federal Housing Finance Agency: Housing Finance Reform in the Multifamily Mortgage Market* 34).

iii). Utilizing the 4-Quadrant Model to Understand Impacts to the Multifamily Market

The analytical framework from Denise DiPasquale and William C. Wheaton's journal article entitled "The Markets for Real Estate Assets and Space: A Conceptual Framework" will be used to help surmise the impacts to the multifamily industry from current market conditions and future market pressures. This analytical framework is also known as the 4-Quadrant Model. It is important to note that no one can predict future multifamily market conditions, in particular, when the GSEs will be out of conservatorship, how the GSEs will be structured and operate, and how future market conditions and forces will ultimately affect multifamily. Utilization of the 4-Quadrant Model is not meant to provide a snapshot or calculation of what the multifamily industry will look like at a particular time in the future. Rather the simple analytical framework is being utilized to conceptually "trace out the impact on rents, asset prices, construction and the stock resulting from various exogenous forces" based upon market forces that are likely to impact multifamily in the future (DiPasquale and Wheaton 197).

Supply

From 1989 to 2008, there were on average approximately 260,000 new multifamily units constructed annually (*Is the Bloom off the Multi-Housing Rose?* 2). In particular, from 1997 to 2008 multifamily unit starts ranged from 250,000 to 350,000 units (*Is the Bloom off the Multi-Housing Rose?* 2). From 2010 to 2012, starts were substantially below the long term average reaching a low of approximately 75,000 in 2010, 100,000 in 2011, 200,000 in 2012, and returning above the long term average with approximately 300,000 in 2013 (*Is the Bloom off the Multihousing Rose?* 2). Like nearly every other product type in real estate, economic uncertainty and limited available financing paralyzed new development beginning in 2009 and caused a dramatic drop off in construction constraining new supply of multifamily housing from 2010 to 2012.

The 4-Quadrant Model can be utilized to conceptually understand the impacts an undersupply of new construction of multifamily housing had on the overall multifamily market. For the purposes of solely understanding how the undersupply of multifamily housing affected the market, we will assume that all other factors, including demand, remained constant during this time period. The lack of construction due to limited available financing during this time period, in addition loss of existing multifamily supply due to physical obsolescence or deterioration also known as the removal rate, caused multifamily supply to decrease. Given that demand is assumed to be constant, the lack of available supply caused rents to increase. This increase in rents caused asset prices of multifamily properties to increase because the value of properties is determined by in place rents. The higher asset prices will eventually spur new construction, which will add additional supply to the existing stock, and eventually put downwards pressure on rents. This cycle will continue until equilibrium is reached where the supply of space equals the demand for space.

Demand

There are a number of demographic and population trends that have contributed to new multifamily household formation over the last several years. These trends should continue to contribute to new household formation over the next several years. These trends are outlined in Chapter 5 of this thesis and include continued U.S. population growth, an improved economy, a lower homeownership rate, and demographic preference changes in the Baby Boomer and Millennial generations.

The 4-Quadrant Model can be utilized to conceptually understand the impacts an increase in demand due to new household formation in the multifamily housing market. For the purposes of solely understanding how an increase in demand will affect the multifamily housing market, we will assume that all other factors, including supply, remained constant during this time period. An increase in demand due to new household formations with a fixed supply of multifamily will cause an increase in rents. This increase in rents caused asset prices of multifamily properties to increase because the value of properties are determined from in place rents. The higher asset prices will eventually spur new construction, which will add additional supply to the existing stock, and eventually put downwards pressure on rents. This cycle will continue until equilibrium is reached where the supply of space equals the demand for space.

Increase in Capitalization Rates

As discussed in the previously, the uncertainty of loan availability and terms of financing, especially as it pertains to future refinances, means greater risk for owners and purchasers of multifamily real estate. This perceived risk by investors along with other factors could put pressure on capitalization rates to increase.

The 4-Quadrant Model can be utilized to conceptually understand the impacts an increase in capitalization rates would have in the multifamily housing market. A capitalization rate or cap rate "is the current yield that investors demand in order to hold real estate assets" calculated by "the ratio of rent to price"

(DiPasquale and Wheaton 187). For the purposes of solely understanding how an increase in cap rates would affect the multifamily housing market, we will assume that all other factors, including supply and demand, remained constant during this time period. Assuming a stable level of rent, an increase in the cap rate or current yield required by investors to own multifamily real estate, will lower the overall asset prices of multifamily real estate. Lower asset prices means a lower level of new construction, which causes a decrease in new supply to the existing stock. A lower level of available stock or supply with a constant level of demand means an increase in rents. The increases in rents will cause asset prices to increase and this cycle will continue until equilibrium is reached where the supply of space equals the demand for space.

Supply, Demand and Capitalization Rate Market Pressures

Given these supply and demand factors that have been in play over the last several years, it should come as little surprise that multifamily market is at or near an all-time high according to various measures. The vacancy rate is at a 12-year low of 4.0% in 2014 from a high of approximately 8.0% in 2009 (*Freddie Mac Update - September 2014* 45). Through the 2nd quarter of 2014, U.S. average multifamily rent stands at an all-time high of $1.25 per square foot. (Gopal) As of year-end 2013, multifamily's national average net operating income is currently at an all-time high of approximately $10 per square foot (*US Capital Trends: Apartment Year in Review*). The multifamily cap rate has compressed from over 7% in 2009 to 6.2% through year-end 2013 (*US Capital Trends: Apartment Quarter in Review* 1). After three years substantially below their historical average, in 2013 construction starts were above the long term average of 260,000 multifamily units with approximately 300,000 units (*Is the Bloom off the Multi-Housing Rose?* 2).

Conversely, under direction of the FHFA, the GSEs have already begun to implement steps to reduce the GSEs role and footprint in the multifamily market. The extent to which the GSEs role in the multifamily finance market will be reduced has yet to be fully determined, although it appears safe to presume that the

GSEs will not play as large of a role in the market as they did from 2009 to 2012. The movement by the FHFA towards a greater role of private capital in multifamily finance means less available debt that is backed with a government guarantee and therefore higher borrowing costs. The reduced role of the GSEs and the availability of a government guarantee on multifamily loans in the marketplace means greater risk for owners and purchasers of multifamily real estate. This perceived risk by multifamily investors along with other factors could put pressure on cap rates to increase, by some firms' estimates, 25 to 120 basis points. The extent to which the supply, demand, and capitalization rate pressures will affect the multifamily market over the next several years remains to be seen. A conceptual discussion of these market pressures is useful to provide context to the current and future multifamily market.

Chapter 9: The Government's Future Role in Multifamily

This section will synthesize and prognosticate the role the government should play in the multifamily finance market post-GSE conservatorship. The section will examine to what extent, if any, the government should intervene in the multifamily markets, how the conservatorship might be resolved, how best to transition out of conservatorship, and how the GSEs multifamily divisions might operate post-conservatorship.

i). Should the Government Intervene in the Multifamily Market?

Since the aftermath of the Great Depression in the 1930s, the government has intervened in the residential housing market. Over time, the government has played a greater role in the multifamily finance market becoming much more significantly involved in the financing of multifamily in the 1990s and 2000s. From the late 1990s through 2007, the GSE loan purchases routinely accounted for approximately 30% of the financing of new multifamily loans each year, reaching a height of 86% of all multifamily financing in 2009 (Shear 2). The role the GSEs have played, particularly through the economic down cycles, has had

a 'distortionary' effect on the multifamily finance market. The level of 'distortion' the government should have in the multifamily market depends upon one's viewpoint of the role the government should play in affordable housing and to keep the multifamily finance functioning and liquid.

In conducting research for this thesis, I interviewed Dr. Robert Van Order, to get thoughts and insights into the GSEs role in multifamily finance market and how the GSEs should operate post-conservatorship. Dr. Van Order is currently the Professor of Finance and Economics at George Washington University and served as Freddie Mac's chief economist from 1987 to 2002. Dr. Van Order suggested that a comparison of the parties involved in multifamily and single-family assets is a useful when considering the role the GSEs play and how it affects the overall market. On the single-family side, the typical owner of a home is an individual. If an individual or family is unable to sell their home in order to move for a job that is a problem not only for the owner of the home, but also for the overall economy to operate efficiently. There is a benefit to the overall economy to keep the single-family residential secondary mortgage market operating and functional, so that access to a mortgage is available. "When people can't make their mortgage payment and they can't get a mortgage very easily and a buyer can't pay for the house, that's pretty disruptive" (Robert Van Order).

GSE involvement on the single-family side provides support for the 30-year single-family residential mortgage to exist. A 2011 PPR report states that "unlike multifamily loans, traditional residential loans are not natural candidates for securitization, due to their 30-year terms and significant pre-payment risk without penalties" (O'Callahan and Fitzgerald 9). According to Dr. Van Order, "if that market crashes as the private label market did and goes away, it really is chaotic" for single-family residential owners (Robert Van Order).

On the other hand, multifamily owners are usually sophisticated, for-profit operating businesses that do not typically rely upon the multifamily building they own as their primary residence. The entities or investors that own these building typically have a high net worth and usually place non-recourse debt on

the property. Dr. Van Order states that "I don't think that on the multifamily side it (government support of the secondary mortgage market) is that important. If the landlord goes bankrupt or can't make the mortgage payments, the tenants are still paying rent, someone comes in and takes it over, it needn't be disruptive" (Robert Van Order). In other words, whether or not a tenant pays rent on a multifamily property is not contingent upon who the owner is. In general, even if there is substantial volatility in the multifamily market, and an owner is unable to make his mortgage payment and loses his property to the bank, the tenant is typically minimally impacted by this. The tenant will continue to pay their rent so long as a lease is in place and being enforced, and the property is being maintained. Dr. Van Order's concludes that "I don't see the public purpose (on the multifamily side). I see some sort of public purpose on the single-family side" (Robert Van Order).

One of the main reasons that the GSEs became involved in the multifamily market was due to the affordable housing mandate in GSEs charter. The National Housing Act states that the GSEs are to "provide ongoing assistance to the secondary market for residential mortgages (including activities relating to mortgages on housing for low- and moderate-income families involving a reasonable economic return that may be less than the return earned on other activities)" (*National Housing Act*). This affordable housing mandate has enabled the GSEs to become involved in multifamily finance, as it is an "inherently affordable" product type (*An Overview of Fannie Mae's Multifamily Mortgage Business* 5). The purchase and securitization of multifamily loans allows the GSEs to meet the charter and access the government guarantee for their securities. Legislation passed in 1992 that established numeric thresholds for mortgage purchases for low income groups helped to pave the way for the GSEs to play a significant role in multifamily finance. The conservatorship of the GSEs provides a key opportunity to reconsider how the government could more directly, effectively, and efficiently accomplish its affordable housing mission.

One of the key considerations for the GSEs post-conservatorship is the government's role and responsibility in affordable housing. A key decision for the GSEs post-conservatorship is whether the

GSEs affordable housing goals should be transferred to a federal agency, or remain the responsibility of the GSEs and private institutions. According to a 2010 Congressional Budget Office Report, "in the pre-crisis model, the GSEs affordable housing activities were effectively funded through the financial advantage generated by the government's implicit guarantee" (*Fannie Mae, Freddie Mac, and the Federal Role in the Secondary Mortgage Market* xiii). If the GSEs affordable housing responsibilities were transferred to a federal agency, it is likely there will be greater accountability for cost of the subsidies as "broad based taxes tend to be less distorting and hence preferable" (*Fannie Mae, Freddie Mac, and the Federal Role in the Secondary Mortgage Market* xiii). Critics' counter that the federal government is not as effective or efficient at operating in the multifamily finance market as the private sector. If affordable housing was subsidized through an explicit government guarantees, those subsidies would need to be accounted and paid for on the federal budget. The implicit guarantees issued by the GSEs have remained off the federal budget since 1968.

Dr. Van Order opines that "I think that most economists would argue that while there may be a case for doing something on the single-family side, the multifamily side, the problem is best solved by some combination of vouchers for low-income tenants and the FHA" (Robert Van Order). By providing rent vouchers for low-income tenants you address the affordable housing issue by offering a direct public subsidy that tenants will use to locate housing. The FHA's primary involvement in the multifamily market is to insure mortgages on the new construction and redevelopment of multifamily properties that house low- and moderate-income tenants. These loans are typically at higher loan-to-value ratios when compared to the private market. According to Dr. Van Order "The flagship ought to be FHA" as it "is a more efficient vehicle" (Robert Van Order). The FHA has been a disciplined federal agency as it "effectively sat out the subprime boom, allowing its overall market share to fall from a peak share of twenty-five percent in 1970 to under two percent by 2006" (Jaffee and Quigley 43).

On the other hand, the GSEs participate primarily through the purchase of loans on operating affordable and non-affordable multifamily properties. Given that the FHA is a federal agency and the GSEs are

under conservatorship by the federal government, it may make sense to streamline the government's involvement in multifamily housing into one federal agency to potentially reduce overhead, and increase accountability and efficiency. The FHA handling the GSEs affordable housing mandate would also bring clarity to the government guarantee. The FHA provides explicit government guarantees that must be accounted for on the federal budget. On the other hand, "the GSEs' affordable-housing activities were effectively funded through the financial advantage generated by the government's implicit guarantees - whose costs were not included initially in the federal budget, but have become apparent the last few years"(*Fannie Mae, Freddie Mac, and the Federal Role in the Secondary Mortgage Market* 35).

A key consideration that lawmakers will need to determine is at what level affordable housing should be supported. Freddie Mac's 2012 report on the impact to the multifamily market without GSE involvement concludes that "in general, smaller and older multifamily properties located in secondary or tertiary rental housing markets would be more negatively affected than larger and newer multifamily properties located in top tier rental housing markets" (*Report to the Federal Housing Finance Agency: Housing Finance Reform in the Multifamily Mortgage Market* 36). A Harvard study found that "as of 2011, (the number of) multifamily loans of less than $500,000 remained nearly 50% below their 2006 level, and loans in the $500,000-$1,000,000 range were still off by a third. It is these smaller loans that are critical to the preservation of older and smaller buildings – the multifamily properties where most low-income renters live" (Apgar and La Jeunesse 5). It is interesting to note that the FHFA's 2014 goals capped GSEs loan purchases at 2013 levels, although this cap is not applicable to certain affordable housing objectives, including apartments with less than 50 units and communities composed of rental manufactured homes.

The properties that are least likely to be impacted by less GSE support in the marketplace are the higher end, newer class A properties located in major metropolitan areas. These class A properties are also the properties that typically attract retiring Baby Boomers and white-collar Millennials. As noted in a 2012 Freddie Mac report, "to the extent that other market participants expand their businesses to partially offset a funding gap, Freddie Mac and our economic research consultants believe that much of this volume

would focus on higher-income households in class A properties along the coasts" (*Report to the Federal Housing Finance Agency: Housing Finance Reform in the Multifamily Mortgage Market* 7). Assuming an affordable housing mandate continues to exist, to be most impactful, affordable housing efforts should be focused on smaller and older properties located in secondary and tertiary markets. These properties are most likely to house lower income tenants and will be most impacted by a decline in GSE involvement in the multifamily finance markets.

There are numerous critics who feel that the current level of GSE involvement in the multifamily market is not necessary and that banks, insurance companies, and a reconstituted, disciplined CMBS market can finance the $171 billion multifamily finance market (Guggenmos et al. 6). According to PPR, "the multifamily portion of the GSEs' book of business is an attractive segment of the commercial real estate lending space. Exhibiting historically low volatility and very low delinquencies and losses, it has provided a good risk-reward proposition" (O'Callahan and Fitzgerald 5). During my interview with Dr. Van Order, he noted that "commercial real estate is a strong candidate for securitization" and that those involved in the securitization market are sophisticated and generally know the risks (Robert Van Order). A National Bureau of Economic Research report notes that "asset back securitization, for the securitization of credit card, auto, and commercial mortgage loans, and other loan classes as well, expanded rapidly starting in the early 1990s without any contribution from the GSEs" (Jaffee and Quigley 13).

For the CMBS to play a greater role in multifamily finance market, it will need to be source of financing that is much more disciplined and that does not repeat the same missteps that contributed the shutdown of the CMBS market in 2008. According to a Freddie Mac report, "because conduit's economics were based on origination and bond issue income, they had different incentives in evaluating risk relative to other market participants" prior to 2008 (Brickman, Guggenmos, and Li 26). This resulted in underwriting for CMBS that "was more aggressive in both underwritten NOI (net operating income) and value" compared to other multifamily lenders resulting in a higher delinquency rate for CMBS through the Financial Crisis

(Brickman, Guggenmos, and Li 26). The Freddie Mac report concludes that "to the extent that market participants are committed to good quality underwriting through the economic cycle, there are significant potential benefits, both to investors and to the stability of the multifamily housing market" (Brickman, Guggenmos, and Li 26).

The GSEs have served as a stable source of liquidity for the multifamily market throughout the real estate cycle. This liquidity throughout the real estate cycle ensures that financing is available to maintain the multifamily stock and helps prevent lower rent properties in need of repair from being removed from the housing supply due to physical deterioration. On the other hand, this liquidity has come at the expense and liability of taxpayers, and may unnecessarily help to maintain and inflate the value of multifamily properties. The FHFA has been fairly explicit about the need to increase the role of private capital. In the FHFA's 2014 report to Congress, one of the three goals outlined by the FHFA was to "reduce taxpayer risk through increasing the role of private capital in the mortgage market" (*The 2014 Strategic Plan for the Conservatorships of Fannie Mae and Freddie Mac* 12).

With limited or no access to government provided multifamily financing, there is little doubt that volatility would increase as the multifamily sector goes through all phases of the real estate cycle. Freddie Mac's 2012 report states "the resulting counter-cyclical stability of the multifamily finance market contributes to lower average volatility for the multifamily asset class compared to other commercial property types" (*Report to the Federal Housing Finance Agency: Housing Finance Reform in the Multifamily Mortgage Market* 30). The report further states "we expect that boom-and-bust cycles would become more frequent and severe" (*Report to the Federal Housing Finance Agency: Housing Finance Reform in the Multifamily Mortgage Market* 7).

A Moody's report analyzing the impact of a more privatized multifamily market agrees, stating that "Mortgage securities markets are prone to investor runs, much like the bank runs that occurred before FDIC deposit insurance. It is all too true that investors are willing buyers of securities and providers of

capital in good times, but will run for the door in bad times. Risk premiums and interest rates spike in a financial crisis, and lenders will make only the highest quality loans for their own portfolios" (Zandi and deRitis, *Evaluating PATH* 4). Without government involvement in the multifamily market, the market impact to the cost of financing depends upon how investors, banks, and institutions price risk throughout the real estate cycle. According to Moody's, "the principal advantage of a privatized system lies in its stronger incentives for prudent mortgage lending" (O'Callahan and Fitzgerald 13). The report further notes that "of course the incentive depends on how strongly investors believe that the government will not intervene even in bad times" (O'Callahan and Fitzgerald 13). In order for a fully privatized mortgage system to work well and accurately price risk, investors have to believe that they will fully suffer the consequences of their decisions and that the government will not step in.

The tapering of GSE financing to the multifamily sector should be done gradually in order to ensure the effect to the multifamily sector and financial market is minimal. Aside from the impact to those involved in the multifamily sector, it is "also in the government's own best interest to prevent a disruption to the capital markets that could impact the Fed's holdings of over $1 trillion of GSE-backed MBS" (O'Callahan and Fitzgerald 4). While much of the proposed legislation from Washington D.C. provides a 5-year time frame to wind down the GSEs, a PPR report opines that "a realistic seven to 10-year time frame associated with a gradual wind-down will allow markets to adjust" (O'Callahan and Fitzgerald 16). If a wind down of the GSEs single-family and multifamily businesses were to occur within an abrupt time frame, it is interesting to think about the potential consequences. According to the PPR report, "The more drastic options on the table will have a larger impact on the residential market and would actually favor multifamily demand" (O'Callahan and Fitzgerald 16).

Another consideration, especially if GSE support for multifamily is completely removed from the marketplace, is whether there is some mechanism in place for the government to buy multifamily securities in case severe economic turmoil warrants it. Under the Republican led PATH Act, government involvement in multifamily finance is limited to FHA insurance for low-income rental housing. The

proposal, though, does allow for the FHA to expand lending during a financial crisis (Zandi and deRitis, *Evaluating Corker-Warner* 4–5). Dr. Van Order opines that "I think you might want to have in the background some mechanism". "Maybe it could just be Ginnie Mae, but have some residual power that if things are going to hell, you step in and buy up the securities and guarantee them" (Robert Van Order). He goes on to state that the multifamily finance market is "not a particularly big market and you rather not do it because I don't think there is a long run reason to" (Robert Van Order). Another key consideration if a proposal similar to PATH Act were approved, is whether the Federal Reserve or any other federal agency would have the authority to buy the non-government mortgage securities. It would be wise to contemplate this in any proposed legislation.

ii). Resolution of the GSE Conservatorship: An Examination of Potential Options

The role the government ultimately plays in the multifamily finance will depend upon political decisions made in Washington D.C. The resolution of the conservatorship status of the GSEs' multifamily business could occur via either bills passed by the legislative branch or decisions made by the executive branch.

There are many reasons to believe that the six-year conservatorship of Freddie Mac and Fannie Mae will not end any time soon. In general, the partisan divisions between Democrats and Republicans does not bode well for any near term political resolution. Over the past two years, competing proposals have come out of the House of Representatives and a bipartisan proposal came out of the Senate that was never voted upon. The issue of GSE reform is not politically charged, and is a relatively complex issue to understand and resolve. The potential exists that multifamily GSE reform could occur through the executive branch. The executive branch, through the Secretary of the U.S. Treasury, could effectively rewrite the PSPA between the U.S. Treasury and the FHFA, the conservator of Freddie Mac and Fannie Mae. Restructuring the GSEs would be a very complicated task and would require a team of economists, finance experts, and attorneys to make it happen. In addition, the political will from the executive branch would need to exist

in order to make this happen. Through this process the GSEs and the multifamily businesses could be potentially be restructured without legislative approval.

Given that the potential exists for a legislative solution to resolve the GSEs status, it is a worthwhile exercise to critically examine the Johnson-Crapo bill, the only bipartisan piece of legislation that's been under consideration to address this issue. As a result of the Financial Crisis, a key concept that the general public essentially requires in any solution is to address the issue of moral hazard. Leading up to the Financial Crisis, the private sector took risks that the public sector ultimately had to pay for. Johnson-Crapo attempts to address this by offering a multifamily security structure whereby private market holders have a 10% first loss position, and the remainder of the security has an explicit U.S. Government guarantee. The FMIC, a government agency, would approve private financial institutions that would originate and service mortgages, securitize them, and/or provide the first loss guarantor position in the security structure. The FMIC would provide an explicit government guarantee backstop.

In order to transition to the security structure proposed under Johnson-Crapo, the GSEs will need to offer securities that provide a 10% first loss position for private market capital. In examining the multifamily securities offered by the GSEs, it appears that Freddie Mac's security offering may be much better suited to transition to the structure proposed under Johnson-Crapo than Fannie Mae. The primary multifamily security offered by Freddie Mac is a K-Deal. Over 95% of all multifamily loans acquired by Freddie Mac in 2013 were bought with the intention to be securitized as a K-Deal (*Freddie Mac Multifamily Securitization* 17). A K-Deal, which is typically a pool of 50 to 100 loans, is securitized into senior government guaranteed bonds and subordinate non-guaranteed bonds (*Freddie Mac Multifamily Securitization* 25). A triple-A bond rating typically determines what portion of the securitized K-Deal offering is the senior guaranteed portion and the subordinate non-guaranteed portion (Brickman). The subordinate, non-guaranteed portion is typically the bottom 16% to 18% of a K-Deal offering (Brickman).

On the other hand, through the first quarter of 2014, 86% of all Fannie Mae's multifamily loans, incorporated a loss sharing structure (*Fannie Mae Multifamily Mortgage Business Information - May 2014* 25). Fannie Mae's DUS process grants authority to pre-approved lenders to underwrite, originate, securitize, sell and service loans on Fannie Mae's behalf. Fannie Mae provides a government guarantee on the resulting security. In order to ensure that interests between Fannie Mae and the lender are aligned, DUS approved lenders typically share in any MBS losses with Fannie Mae. In many cases, 1/3 of total losses are allocated to the lender and the remaining 2/3 of total losses are allocated to Fannie Mae on a pro-rata basis. In other words, if there is a loss on Fannie Mae a loss sharing security, Fannie Mae shares in 2/3 of that loss immediately – there is no subordinate, non-guaranteed portion of the security. Since the security offered under Johnson-Crapo states that the bottom 10% of the pool of loans is not guaranteed, it appears that the structure of Freddie Mac's K-Deal is much better suited to transition to the proposed structure than Fannie Mae's shared loss security structure.

In examining the Johnson-Crapo, there are a number of reasons to believe that the legislation will be an improvement over the current system for multifamily finance. A Moody's report concludes that "Johnson-Crapo would allow for an explicit government backstop of the U.S. mortgage market, which would kick in only after a financial catastrophe much worse than the Great Recession" (Zandi and deRitis, *Housing Finance Reform Steps Forward* 1). The use of private capital for the 10% first loss position in the securitization structure helps to ensure that private market discipline is brought into the process when underwriting and analyzing the loans underlying the securities. It also allows the market to price the risk for 10% first loss position. An explicit government guarantee helps to bring clarity to the credit that underlies the senior guaranteed bonds. The market has always assumed there was an implicit guarantee on GSE guaranteed securities, and this implicit guarantee became an explicit guarantee when the government took the GSEs into conservatorship. An explicit guarantee helps to ensure that there is a more appropriate compensation for the risks the government assumes. The securitization structure

proposed under Johnson-Crapo, allows approved private institutions to handle the entire securitization process and issue securities with a government guarantee with FMIC regulation and oversight.

According to the U.S. Government Accountability Office diversifying these responsibilities to other institutions reduces risk because "rather than having the failure of two large GSEs threaten financial stability, the failure of a smaller GSE likely would have a more limited impact on the financial system" (Dodaro 32). In addition, the private market essentially handling the entire securitization process solves the problem of attracting and retaining talent to handle a relatively complex process. If the government were handling the securitization process, it is likely they would be unable to attract and retain qualified people due to pay limitations.

On the other hand, there are concerns over systemic risks private financial institutions pose if they have the ability to issue government guaranteed securities. A Moody's report states that under Johnson-Crapo "Financial institutions are permitted to originate loans, aggregate loans, securitize them, and also guarantee them. Not even Fannie Mae and Freddie Mac are permitted to originate loans in the current system, given the reasonable concern this would increase their dominance over the mortgage market and exacerbate the too-big-to-fail risk they pose" (Zandi and deRitis, *Housing Finance Reform Steps Forward* 5). The report concludes that "Johnson–Crapo should make a clear break between guarantors and originators: Financial institutions should be one or the other, not both" (Zandi and deRitis, *Housing Finance Reform Steps Forward* 5).

Dr. Van Order provided the insight that there may be more systemic risk with multiple private financial institutions issuing government guarantees than two GSEs. "My view always was at Freddie that we took less risk because we were big, because we had a franchise to protect" (Robert Van Order). He further states, "There were only two companies in the whole world that had charters like Fannie and Freddie and there were very strong incentives not to take risks to keep the charter" as "there was a real limit to how outsiders could compete" (Robert Van Order). Under Johnson-Crapo, numerous financial institutions

could have the ability to issue government guarantees. "If you have 10 or 20 (small GSEs), you have the danger of too much competition. Economists like competition, but it doesn't always help. Depends upon what problem you are trying to solve. If you're trying to solve the problem of providing service to borrowers, competition helps. If trying to solve the problem of excessive risk-taking and abusing the government guarantee, competition actually hurts" (Robert Van Order).

One of the most prevalent issues discussed relating to the future of the GSEs is whether or not to privatize them. In 2012, the FHFA asked the Fannie Mae and Freddie Mac to examine whether they could operate as a stand-alone private business without access to a government guarantee for its securities.

In the published report to the FHFA, Freddie Mac states that they believe they could operate as a stand-alone, private multifamily conduit. The company would be similar in size to other larger multifamily conduits, and therefore Freddie Mac would be a much smaller organization than it is today (*Report to the Federal Housing Finance Agency: Housing Finance Reform in the Multifamily Mortgage Market* 5). Without access to a government guarantee, the conduit would purchase and securitize loans at higher private market interest rates, and would do much less loan volume than it does today (*Report to the Federal Housing Finance Agency: Housing Finance Reform in the Multifamily Mortgage Market* 5). Without the mandate of the GSE charter, it would also not likely do any affordable or low-income housing. Based on review of Freddie Mac's report, it appears that the organization is prepared to operate independently if privatized. Since over 95% of all multifamily loans acquired by Freddie Mac in 2013 were bought with the intention to be securitized as a K-Deal, it appears that Freddie Mac has a securitized product and personnel in place that would enable a smoother transition to a stand-alone, private multifamily conduit (*Freddie Mac Multifamily Securitization* 17).

The published report Fannie Mae issued to the FHFA states that without access to a government guarantee, they could operate as a specialty finance company. The company would be a niche lender that would provide loans on higher risk deals with higher interest rates that banks typically do not finance,

primarily in markets outside of the major metropolitan areas (*Analysis of the Viability of Fannie Mae's Multifamily Business Operating Without a Government Guarantee - Response to FHFA Scorecard Directive* 1–13). The company would be much smaller than it is today and without the mandate of the GSE charter, it would also not likely do any affordable or low-income housing. Throughout Fannie Mae's report, there appears to be an abundance of caution regarding the ability of the new company, called Newco, to survive over the long term. The report states "To say Newco is viable does not mean we also believe it can remain viable over the long term." (*Analysis of the Viability of Fannie Mae's Multifamily Business Operating Without a Government Guarantee - Response to FHFA Scorecard Directive* 8) Further, the report states "Specialty finance companies often failed even prior to the recent financial crisis and a large number of them failed, or withdrew from the market, during the crisis." (*Analysis of the Viability of Fannie Mae's Multifamily Business Operating Without a Government Guarantee - Response to FHFA Scorecard Directive* 8)

Reasons why caution is noted throughout the report may be concerns related to the ability of the company to transition to operate as a specialty finance company. The report states that the new company "would be unable to offer customers the flexibility of the single-asset model, but instead would need to aggregate loans for ultimate sale in a REMIC style CMBS offering. Depending upon the exact nature of its capital requirements, NewCo might also need to change the loss sharing structure Multifamily currently employs with its DUS lender partners" (*Analysis of the Viability of Fannie Mae's Multifamily Business Operating Without a Government Guarantee - Response to FHFA Scorecard Directive* 8). Approximately one-third of the loans purchased by Fannie Mae were securitized utilizing REMIC structure in 2013, which means Fannie Mae may need to make substantial modifications to how it conducts its day-to-day business in order to transition to a specialty finance company (*Fannie Mae Multifamily Mortgage Business Information - May 2014* 6, 18).

Chapter 10: Conclusion

GSE reform and how it will affect the future of the multifamily industry is a very complex issue. It should be strongly noted that the purpose of this thesis is not to come to a definitive conclusion about what exactly the multifamily industry will look like in the future, but rather help bring to light the extent to which GSEs are involved in the multifamily industry and to explore how the multifamily industry might be affected by changes in the role of GSEs post-conservatorship given the current and anticipated multifamily market conditions. Given that though, this conclusion will attempt to surmise the impacts to the multifamily sector post-GSE conservatorship.

The future of the $2 trillion multifamily industry and one of its main financing sources, the GSEs, is important (Obrinsky). The GSEs have played a large role in the multifamily market since the late 1990s, especially from the onset of the Financial Crisis in 2008 to present day. It appears there are demographic and economic trends that will contribute to increased demand for multifamily housing in the coming years. It is anticipated that there will be decreased government involvement in multifamily finance market based upon FHFA directives that have already been implemented over the last several years, proposed legislation, and general political consensus. The government though, will likely remain involved in the multifamily market in some form, so long as an affordable housing mandate exists. In general, the GSEs have helped to lower multifamily borrowing costs via a government guarantee, and have served as a strong source of liquidity to the multifamily sector throughout the real estate cycle reducing volatility, especially during the Financial Crisis. Decreased GSE involvement in the multifamily finance market means there will be a greater role for private market capital in the financing of multifamily properties. The increased involvement of private capital in the multifamily finance market and less availability of GSE financing, likely means higher borrowing costs. Higher borrowing costs means greater perceived risk by multifamily investors especially for future property refinances, putting pressure on cap rates to increase and thus downward pressure on multifamily property prices. Decreased

government involvement also means increased property value volatility through all stages of the real estate cycle.

Resolution of the GSE conservatorship could occur through the legislative branch, although it could potentially be resolved through the executive branch. With any solution lawmakers should consider the likely increase in volatility to the multifamily markets throughout the real estate cycle should GSE participation in the multifamily market be decreased or eliminated. A gradual implementation of any reduction of GSE financing support should be considered in order to reduce any unanticipated shocks to the multifamily market. Lawmakers might also want to consider a mechanism to buy multifamily securities if an extreme economic crisis ever warranted the government providing liquidity to the multifamily finance market. Consideration should be given to the various viewpoints and critical analysis prognosticating the role the government should play in the multifamily market and how the GSEs multifamily divisions might best operate post-conservatorship. Overall, the reduced government involvement in the multifamily finance market will have an effect on the multifamily industry causing increased borrowing costs, decreased property values, and increased volatility. The extent to which the multifamily industry is affected depends upon the outcome of the GSE conservatorship, although it appears that increased multifamily demand due to favorable demographic trends may help to negate the impact of decreased GSE involvement in the multifamily industry for the foreseeable future.

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