Nareit Mortgage REITs

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Executive Summary

Mortgage REITs (mREITs) are companies that finance residential and commercial real estate. mREITs allow investors to access the $14 trillion market of home and commercial mortgage investments through a liquid, transparent, exchange-traded company. The sector has undergone considerable changes over the past decade and a half. In the mid-2000s, prior to the Great Financial Crisis (GFC), many mREITs took on large positions in mortgage-backed securities (MBS) products that exposed them to credit risks, including subprime mortgage loans, while others focused on Agency MBS that do not present credit risks. mREITs with heavy exposures to credit risk experienced losses during the GFC, and many went out of business. Those without such credit exposures, in contrast, have fared much better.

The mREIT sector has grown rapidly in the aftermath of the GFC.[i] mREIT investments in Agency MBS rose from $88 billion at the end of 2008 to $380 billion in 2012, which helped stabilize the home mortgage sector at a time when the GSEs and commercial banks were limiting their exposures to mortgage investments. mREITs also bought legacy non-Agency MBS, often at a deep discount to face value. These MBS hold mortgages with credit issues, including subprime mortgages, and which have been restructured and may be reperforming. By purchasing these mortgage investments, mREITs helped recapitalize the non-Agency mortgage market, and also facilitated banks' efforts to remove troubled loans from their balance sheets. mREITs raised a total of $76 billion in equity capital to fund this growth, strengthening their financial positions as well.

The growth of these two business models—Agency MBS and legacy, restructured/reperforming non-Agency MBS—have transformed the mREIT sector, and currently constitute the entire market cap of the residential mREIT subsector. Residential mREITs, in turn, at year-end 2017 represented 72 percent of the market cap of mREITs, while commercial mREITs account for the remaining 28 percent. The standard measures of total mREIT long-run performance, however, are heavily influenced by the mREITs that had taken on large credit exposures in the years prior to the GFC. In order to measure the historical performance of the business models that currently constitute the mREIT sector, we develop a measure of long-run total return of the mREITs that focused on Agency MBS both prior to the GFC and through the current time. The long run total return of these mREITs is markedly better than for the historical residential mREIT subsector and the overall mREIT sector.

Introduction

Mortgage Real Estate Investment Trusts, or mREITs, are companies that finance residential and commercial real estate. mREITs engage in a variety of financial activities in order to facilitate home ownership and the ownership and use of commercial buildings like office buildings, apartments and shopping malls. In addition to providing long-term funding for the homeowner or commercial property owner, mREITs may originate and service loans, perform capital markets activities like securitizations, and restructure or recapitalize troubled credits. mREITs generally focus on funding either residential real estate or commercial real estate.

mREITs fund their activities in global capital markets. mREITs raised $76 billion in equity capital from 2009 through 2017, which has helped recapitalize the mortgage market following Great Financial Crisis (GFC), and also strengthen mREITs' financial position. mREITs also use leverage, borrowing in the repo market, bond market and from banks and other financial institutions to help fund their balance sheets. mREITs have well-developed systems for hedging and controlling the risks that are inherent in their business. Most mREITs today have lower leverage and use less debt on their balance sheets than had been prevalent prior to the financial crisis. The greater reliance on

[i] This analysis focuses on mREITs that are registered with the SEC and listed on U.S. stock exchanges, and are constituents of the FTSE Nareit Mortgage REIT Index.

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equity capital provides a larger cushion to absorb losses and improves the mREITs' ability to weather future financial shocks.

Most public mREITs are listed on stock exchanges like the NYSE or Nasdaq. mREITs allow investors to access the $14 trillion market of home and commercial mortgage investments through a liquid, transparent, exchange-traded company (chart). Both individual and institutional investors can make investments in the common stock of mREITs, which have offered attractive returns. In particular, many mREITs pay a high dividend yield, which provides current income to retirees or other investors who desire income rather than capital gains. One reason for the high dividend yield is that the rules governing REITs require them to pay out at least 90 percent of their taxable income to investors in the form of dividends.

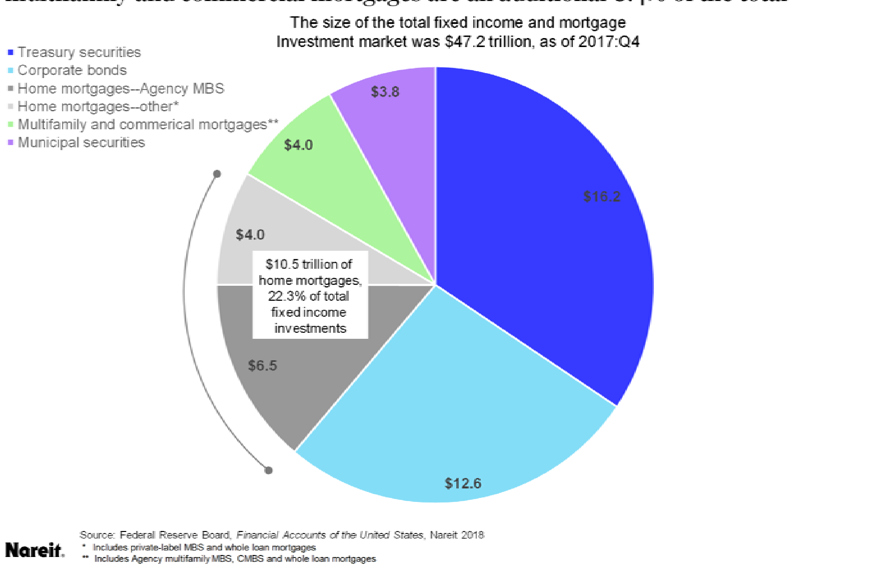
Research by Wilshire Associates has found that mREITs help improve portfolio performance for investors, including those in or near retirement, who are interested in generating current income. The high dividend yield offered by mREITs results in a significant allocation to this sector in a portfolio optimization exercise aimed at maximizing returns of portfolios that are selected in order to generate a given level of income.

In addition to funding residential and commercial mortgages, some mREITs provide other types of financial activities that support the mortgage sector, including servicing mortgages and related activities.

Several mREITs encountered financial difficulty during the Great Financial Crisis. Two common factors among these mREITs (and, indeed, among many firms in other sectors during the GFC) were high leverage and credit risks. Others mREITs, however, weathered the crisis and were able to continue funding their portfolios of mortgages and MBS. Moreover, in contrast to many of the commercial banks and investment banks that held MBS prior to the GFC, these mREITs maintained funding of their portfolio without being the recipients of government support.

Fixed income and mortgage investment universe

Home mortgages represent 22.3% of total fixed income and mortgage investments; multifamily and commercial mortgages are an additional 8.4% of the total



mREITs Today

The mREIT sector today includes many companies that were formed in the aftermath of the GFC (chart). The sector as a whole has much lower leverage and exposures to credit risk than were prevalent prior to the GFC. Indeed, several of these mREITs have developed business models that buy distressed mortgage assets (both residential and commercial) from banks and other lenders, helping recapitalize the banking sector, and restructure and service these debts. By purchasing and recapitalizing tens of billions of dollars' worth of these legacy MBS backed by troubled mortgages, mREITs have helped the banking sector reduce risks, clean up its balance sheets and return to financial health. By doing so, mREITs have played an important

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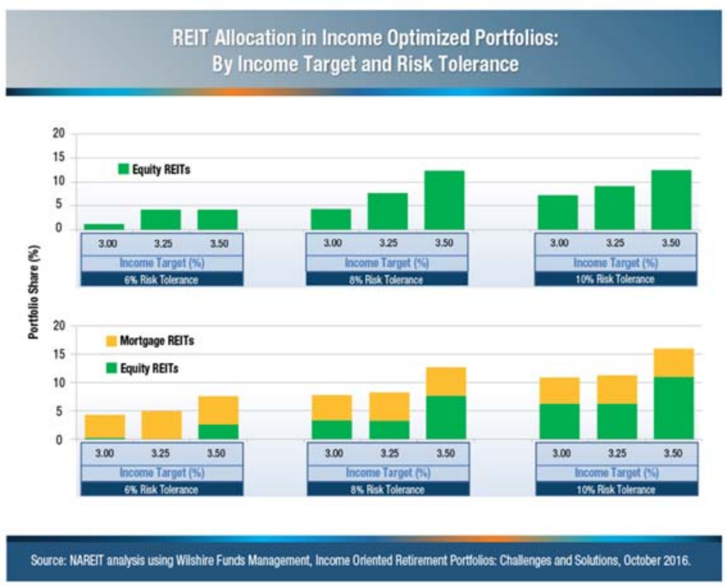
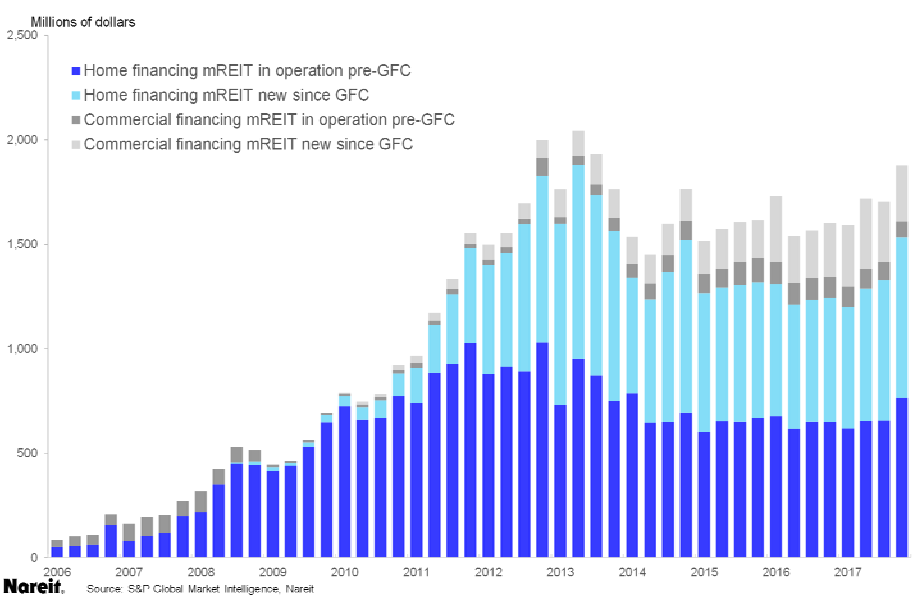
Wilshire Associates find that mREITs provide income in a balanced portfolio



Dividends paid by mREITs

mREITs that formed since the crisis account for over half of all dividends paid



role in helping the financial sector recover from the GFC and improve the ability to finance future growth of the U.S. economy. They have also delivered an attractive return to investors.

Size and Composition of the mREIT Sector

There were 41 mREIT constituents in the FTSE Nareit Mortgage REITs Index as of Dec. 31, 2017, including 24 that provide financing for residential real estate and 17 that fund commercial real estate. The equity market capitalization of the residential mREITs was $48.8 billion, and market cap of commercial mREITs was $18.9 billion, resulting in a total market cap of $67.7 billion for the overall mREIT sector.

Most residential mREITs today focus their investments on MBS issued by Fannie Mae, Freddie Mac and Ginnie Mae. These mREITs are often called Agency mREITs, in reference to the status of Fannie Mae, Freddie Mac and Ginnie Mae as government Agencies or Government Sponsored Enterprises (GSEs). Some of the largest mREITs are Agency mREITs.

Prior to the GFC, several mREITs focused on non-agency MBS, including those backed by subprime mortgages, as well as residential whole loans, mortgage servicing rights and commercial real estate debt, in addition to

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holding Agency MBS. These firms were often referred to as non-Agency mREITs.

Assets and Other Activities

Agency mREITs focus on funding the mortgages of American homeowners by investing in the MBS issued by Fannie Mae, Freddie Mac and Ginnie Mae. Most Agency MBS do not bear credit risk, as the GSEs guarantee the timely repayment of principal. Fannie and Freddie have recently begun issuing some credit-linked bonds to pass credit risk to on to the investors. Total amounts outstanding of these credit risk-sharing securities, however, are small relative to the total size of the Agency MBS market.

mREITs and other investors in Agency MBS are subject to other risks, however. Homeowners generally have the right to prepay their mortgage without penalty, either to refinance at a lower interest rate or in case they have sold the home and moved. Investors in Agency MBS are thus subject to the risk of unpredictable cash flows, including the need to reinvest prepayments at a time when market yields may have declined. These risks associated with changes in interest rates and the tools that mREITs use to mitigate them are discussed below.

Non-Agency mREITs invest in non-agency MBS issued by banks and other financial institutions other than Fannie Mae and Freddie Mac, also referred to as Private Label Securities (PLS). They also may hold Agency MBS, whole-loan mortgages and other investments. Non-Agency MBS and whole-loan mortgages face similar prepayment risks as do Agency MBS, but are also subject to credit risk in case borrowers default on their obligations. Whole-loan mortgages are less liquid than MBS.

These non-Agency mREITs constituted over 70 percent of the market capitalization of the residential mREIT subsector prior to the GFC. Most experienced losses due to defaults by homeowners during the GFC, and subsequently went out of business. The performance of these mREITs through the GFC impacts the long run reported total return of the overall mREIT sector and of the residential mREIT subsector.

Several mREITs invest in mortgage servicing rights (MSR), which entails collecting monthly mortgage payments from homeowners and forwarding the payments to the investors who hold MBS backed by these mortgages. Mortgage servicing is an essential service in the mortgage business, and provides fee income to the entity that performs the servicing. There are financial risks to investing in MSR, however, as the need to service a mortgage (and the stream of fee income for doing so) vanishes if the mortgage is prepaid or refinanced. mREITs that invest in MSR often hedge these risks using similar techniques to those applied to prepayment and interest rate risks on the MBS themselves, which are discussed in the following section.

In addition to investing in residential mortgages and MBS and MSR, some residential mREITs also invest in commercial mortgages and MBS.

Most residential mREITs (both Agency and non-Agency) do not originate mortgages (the primary mortgage market), but are investors in MBS holding mortgages originated by other institutions (the secondary mortgage market).

Commercial mREITs engage in a wide range of activities related to originating, funding, servicing and restructuring loans secured by commercial real estate. Some commercial mREITs specialize in one or two of the following activities, while others enter into a large number of these activities:

Commercial mortgage-backed securities (CMBS). CMBS are similar to the residential mortgage securities that are issued by Fannie Mae and Freddie Mac or private-label issuers, but contain loans secured by commercial and multifamily properties. CMBS are liquid, traded investments that can be bought or sold easily. The collateral backing the CMBS includes a large number of loans. This helps diversify exposures across many borrowers, geographic regions and types of property.

Whole-loan commercial mortgages. Whole loans are the old-fashioned way of investing, where the entity that originated the loan also keeps it

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on its own balance sheet, funding and servicing the mortgage. Whole loans are less liquid than CMBS and retain higher concentrations to specific borrowers or properties or regions.

Originating and underwriting commercial mortgages. Commercial mREITs, in contrast to their residential counterparts, may originate and underwrite loans.

Servicing. Many commercial mREITs service loans and CMBS. Several are involved in special servicing of CMBS that have gone into default.

Restructuring and workouts. Some commercial mREITs work with borrowers to restructure loans that have fallen delinquent. They are often able to improve cash flows from the mortgage by avoiding some of the costs that may arise in the event of a default.

Securitizations. Some commercial mREITs carry out the process of securitization, which entails assembling a large number of commercial mortgages into a pool structure, creating CMBS backed by this pool, and selling/distributing the CMBS to investors.

Real estate. Some commercial mREITs hold commercial properties as investments.

Funding Sources

mREITs, like most investors in mortgages and MBS, use both equity and debt to fund their portfolios. Higher amounts of debt, or greater leverage, increase the size of a portfolio that a given equity investment can acquire. Leverage can boost returns to equity investors, but can also raise risks as the use of leverage can magnify losses during a downturn.

Sources of capital include: Common equity; preferred shares; long-term debt; repurchase agreements (short-term debt financing); bank loans; and advances from the Federal Home Loan Bank System.[1]

Risks and Risk Management

mREITs, like any financial business, face certain risks. Most employ techniques to mitigate these risks. No risk management strategy, however, can eliminate 100 percent of the risks, and indeed, during the GFC, several mREITs came under severe pressure and some failed. Since the crisis, most mREITs have chosen more conservative business models that are less vulnerable to the types of risk that caused difficulties during the GFC.

The main types of risks faced by mREITs include:

Interest rate risk. Managing the effects of changes in short- and long-term interest rates is an essential element of mREITs' business operations. Changes in interest rates can affect the net interest margin, which is mREITs' fundamental source of earnings, but also may affect the value of their mortgage assets, which affects corporate net worth.

mREITs typically manage and mitigate risk associated with their short-term borrowings through conventional, widely-used hedging strategies, including interest rate swaps, swaptions, interest rate collars, caps or floors and other financial futures contracts. mREITs also manage risk in other ways, such as selecting specific MBS investments based on the likely prepayments of mortgages in the pool under alternative interest rate environments, adjusting the average maturities on their assets as well as their borrowings, and selling assets during periods of interest rate volatility to raise cash or reduce borrowings.

Credit risk. The bulk of mortgage securities purchased by residential mREITs are agency securities backed by the federal government, which present limited credit risk. Commercial mREITs may be exposed to credit risk through

[1]Several mREITs formed captive insurance subsidiaries that joined the Federal Home Loan Bank System (FHLB), and were then able to borrow through the FHLB. The FHLB in 2016 issued a rule, however, that excluded captive insurance subsidiaries from membership. A limited number of mREITs that had been members prior to the initial issuance of the propose ruling were allowed five years to terminate their membership and repay any borrowings, and those that had joined subsequent to the proposed ruling were allowed one year to terminate their membership. As a result, most mREITs are no longer able to obtain additional financing through the FHLB System at this time.

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their private-label residential MBS and CMBS. The degree of credit risk for a particular security depends on the credit performance of the underlying loans, the structure of the security (that is, which classes of security are paid first, and which are paid later), and by the degree of over-collateralization (in which the face amount of the mortgage loans held as collateral exceeds the face amount of the residential MBS or CMBS issued).

Prepayment risk. Changes in interest rates or borrower home sales affect the probability that some borrowers will refinance or repay their mortgages. When such a refinancing or repayment occurs, the investor holding the mortgage or MBS must reinvest the proceeds into the prevailing interest rate environment, which may be lower or higher. Investors also lose the investment premiums of MBS that prepay at par. mREITs seek to hedge prepayment risk using similar tools and techniques as those they use to hedge against interest rate risks.

Funding or liquidity risk. mREIT assets are mainly longer-term MBS and mortgages, while their liabilities may include a significant amount of short-term debt, especially among residential mREITs. This term mismatch requires that they roll over their short-term debt before the maturity of their assets. Their ability to do so depends on the liquidity and smooth functioning of the short-term debt markets, including the repo market. The repo market is extremely liquid, with an estimated $2 trillion in outstanding instruments and several hundred billion dollars in daily trading volume. Banks and dealers also use the repo market as an important source of market liquidity. In the financing markets, the liquidity of the agency MBS and TBA (To Be Announced)[2] markets is comparable to the market for Treasuries. Commercial mREITs tend to match the duration of their assets and liabilities and face little rollover risk.

mREITs and the Great Financial Crisis

mREITs grew rapidly during the housing boom that preceded the GFC. Total mortgage and MBS holdings of mREITs increased from less than $20 billion in 2000, to greater than $100 billion in mid-2007. Much of this growth resulted from increased holdings of non-Agency MBS. These securities included not only MBS backed by "jumbo" mortgages that exceed the upper size limit on mortgages that the GSEs are authorized to securitize ("conforming mortgages" and "conforming loan limit"), but also MBS backed by subprime and Alt-A mortgages. These securities are also referred to as private label securities (PLS) to distinguish from those MBS guaranteed by the GSEs. Holdings of non-Agency MBS were $7 billion, less than 20 percent of the total MBS position of mREITs in 2002; by 2006, however, the non-Agency share had risen to $45 billion, and were roughly half of total MBS holdings. (Chart)

These non-Agency MBS, as noted above, were subject to credit risk in the event the borrower defaults on the mortgage and the value of the home is insufficient to repay the liability, whereas Agency MBS do not present credit risk, as the GSEs guarantee the timely payment of both interest and principal. Moreover, the credit underwriting of the (subprime and Alt-A) mortgages backing these non-Agency MBS was often lax, and many of the homeowners who borrowed in the subprime mortgage market were unwilling or unable to continue making payments. There was a notably sharp increase in failure to make payments when "teaser" interest rates reset to a market-based interest rate. Furthermore, home prices began falling as the GFC proceeded, eroding the value of the collateral and contributing to large losses for many lenders, including mREITs holding non-Agency MBS.

The decision whether or not to take on credit risk was a major determinant of whether the mREIT survived the GFC. Indeed, most mREITs that focused

[2] The TBA market trades forward contracts of Agency MBS to be delivered at a future date, at a predetermined price, but without specifying which exact mortgage securities will be delivered.

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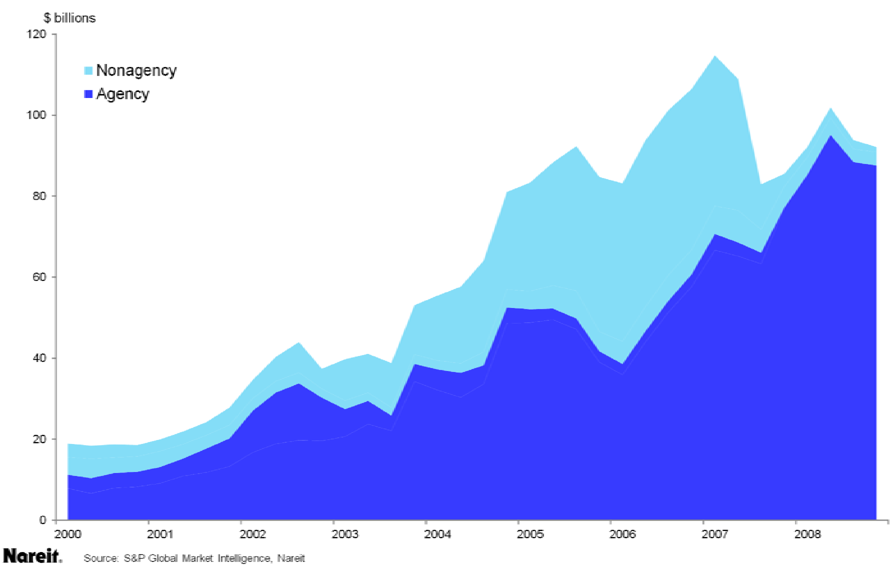
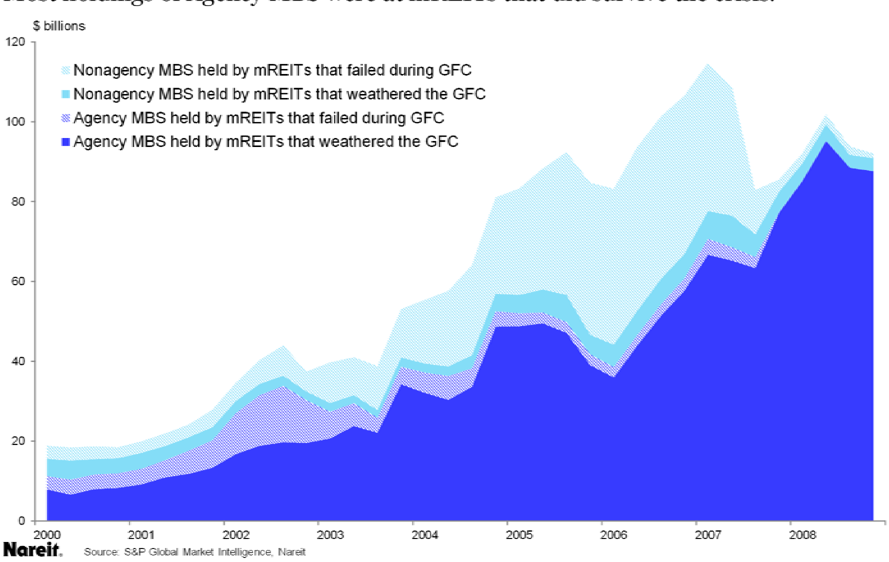
Mortgage Assets of Home Financing Mortgage REITs

REIT holdings of nonagency MBS grew rapidly from 2004 to 2007.



Mortgage Assets of Home Financing Mortgage REITs

Most holdings of nonagency MBS were at mREITs that did not survive the crisis.
Most holdings of Agency MBS were at mREITs that did survive the crisis.



on non-Agency MBS failed during the crisis, and the MBS in their portfolios represented 87 percent of the total non-Agency MBS held by mREITs (chart, hashed light blue area, and table). In contrast, all the major Agency mREITs survived the GFC, and over 94 percent of Agency MBS held by mREITs were on the balance sheets of those that survived the GFC.

mREITs Since the Great Financial Crisis

Recapitalizing the Agency MBS Market

The mREIT sector grew even more rapidly following the onset of the GFC. Most traditional investors in MBS, including commercial banks, investment banks and the GSEs, Fannie Mae and Freddie Mac, came under severe funding pressure, in particular related to their portfolios of MBS. Many investors were forced to trim their holdings or liquidate their portfolios, putting downward pressure on asset prices and raising concerns about fire sales. During this period, several mREITs stepped in to purchase Agency MBS, helping to stabilize asset prices. The Federal Reserve also began purchasing Agency MBS, as well as Treasury securities, to improve market liquidity. mREIT holdings of Agency MBS rose from less than $90 billion at the end of 2008, to $380 billion in 2012. (chart) To a certain extent, the investments by

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Mortgage Assets of Home Financing Mortgage REITs

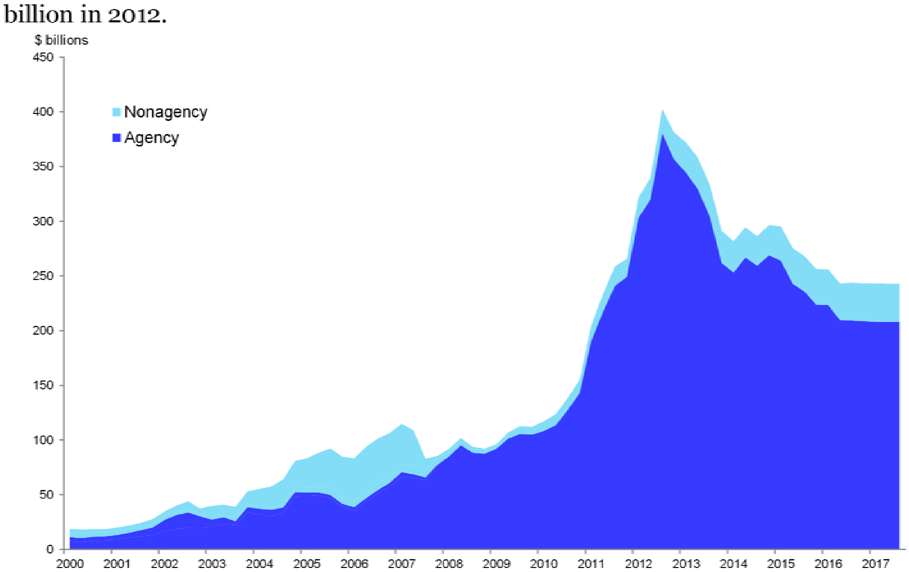
Billions of dollars and percent of sector holdings

	2006 ($b)	2006 (%)	2012 ($b)	2012 (%)
Non-Agency MBS	47.1		22.4	
mREITs that failed during GFC	41.1	(87.2%)	0	(0.0%)
mREITs that weathered the GFC	6.0	(12.8%)	22.4	(100.0%)
Agency MBS	46.7		380.2	
mREITs that failed during GFC	2.7	(5.6%)	0	(0.0%)
mREITs that weathered the GFC	44.0	(94.4%)	380.2	(100.0%)

Nareit. Source: S&P Global Market Intelligence, Nareit

Mortgage Assets of Home Financing Mortgage REITs

Holdings of Agency MBS rose from less than $100 billion in 2008 to over $400 billion in 2012.



Nareit. Source: S&P Global Market Intelligence, Nareit

mREITs in Agency MBS helped reinforce the Fed's efforts to calm the crisis.

mREITs raised permanent equity capital to help fund these investments. Equity issuance during the period of most rapid portfolio growth, 2010-2013, totaled $50 billion, and the total amount raised from 2009 through 2017 was $76 billion (chart). One of the contributing factors to the financial crisis had been excessive use of debt and high leverage, that is, a lack of permanent equity capital to support mortgage investments, including those by the commercial banking and investment banking sectors. By raising significant amounts of equity capital, the mREIT sector helped recapitalize the mortgage and MBS sector.

The $76 billion of equity capital that mREITs raised not only facilitated balance sheet growth, but also allowed them to strengthen their own balance sheet positions. Prior to the GFC, the median leverage (debt-to-book equity) ratio of mREITS was 8.5x (chart, dark blue bars). Among home financing mREITs, which tend to use higher leverage than the commercial mREIT sector, the median leverage ratio was 11.9x in 2006 (light blue bars); the median leverage ratio of commercial mREITs reached a peak of 6.5x in 2007 (grey bars). Since the GFC, however, leverage ratios have declined sharply. The median leverage ratio among all mREITs dropped to as low as 3x, and has subsequently risen slightly, to 3.6x. This reflects a median leverage ratio

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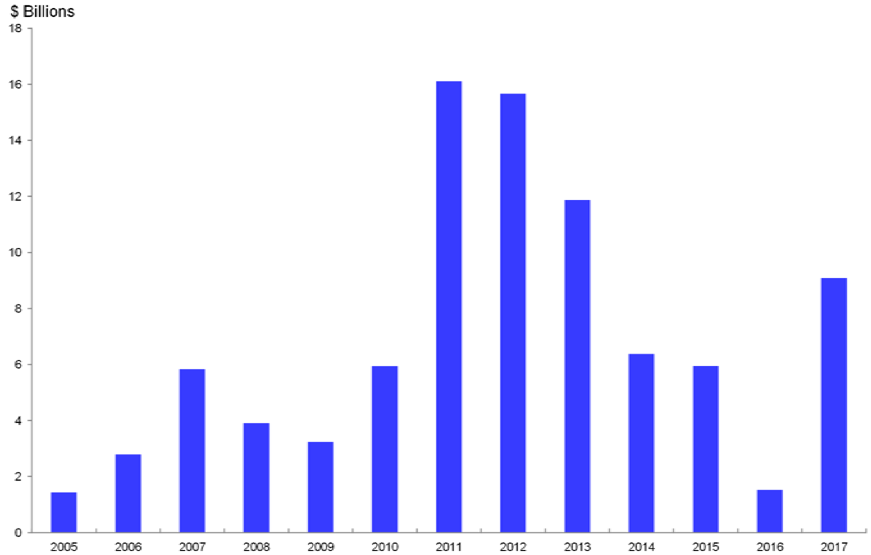
Equity capital raised by mREITs

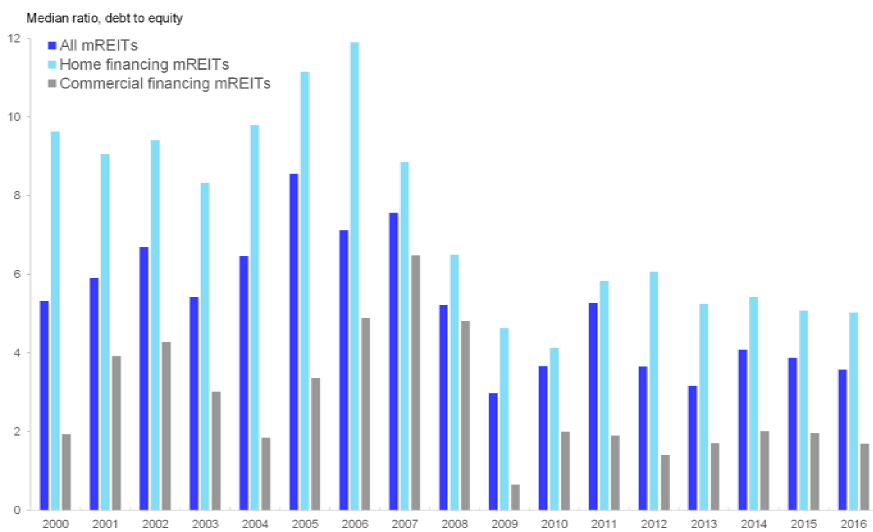
Mortgage REITs raised $76 billion in equity capital from 2009 through 2017



Nareit. Source: S&P Global Market Intelligence, Nareit

Median leverage ratio of mREITs

Leverage ratios are roughly half what they were prior to the GFC.



Nareit. Source: S&P Global Market Intelligence, Nareit

of 5.0x and 1.7x, respectively, for the home financing and commercial mREIT subsectors.

Restructuring the non-Agency MBS Market

The central issue of the GFC was the large amount of credit-impaired mortgages and non-Agency MBS, which totaled $2.3 trillion as of 2007, that were held in the portfolios of commercial banks and other investors. The challenge of what to do with these troubled investments remained a major concern for national policymakers and leaders in the private financial sector in the immediate aftermath of the GFC. Even after the worst of the crisis had passed, most banks wanted to improve the overall quality of their balance sheets by selling off those defaulted, non-current, or other credit impaired assets (we will use the term "legacy non-Agency MBS" to refer to any current holdings of non-Agency MBS issued prior to the GFC). With most of the major investors wishing to reduce exposures, there was a lack of potential buyers.

Several mREITs bought legacy non-Agency MBS from banks and other investors. Total non-Agency MBS held by mREITs began increasing from a low of $4.3 billion in early 2009, to $25 billion in 2012, and continued rising to $35 billion in 2017. Many of these assets were purchased at a deep discount to their face value, often less than 50 cents on a dollar,

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reflecting the troubled credit of the mortgages underlying the MBS. The estimated face value of these legacy non-Agency MBS represents as much as 15 percent of total legacy non-Agency MBS outstanding at the end of 2017 (total outstanding non-Agency MBS had a face value of $474 billion is of 2017:Q4).

Some of the mortgages underlying legacy non-Agency MBS are reperforming; that is, homeowners who may have struggled financially during the crisis and fallen delinquent, but subsequently resumed making payments on the mortgages. Others have been restructured to help the owner remain in the home and avoid the costs of going through foreclosure and home sale (in essence, the borrower and lender agree to share the costs of past delinquent payments, in an effort to enable the homeowner to make payments in the future). Still others of these are mortgages that have been resecuritized, that is, packaged into a new pool of mortgages to back a newly-issued MBS.

By purchasing these legacy non-Agency MBS and mortgages at a discount, and taking measures to improve the chances that the homeowner will make payments in the future, mREITs have been able to earn an attractive rate of return on these legacy assets.

Total Return of Agency mREITs

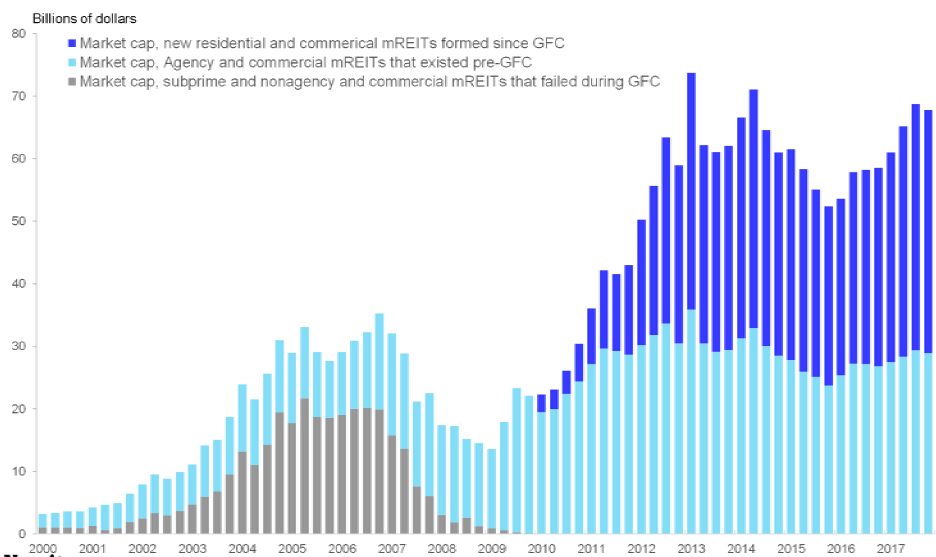
The FTSE Nareit Mortgage REITs index is a float-adjusted market capitalization-weighted index of returns of the mREIT constituents of the index. For the period beginning prior to the GFC, this includes a heavy weighting of the return of non-Agency mREITs, which, as mentioned previously, constituted 70 percent of the market cap of the home financing sub-index (chart). Most of these constituents experienced significant losses and negative returns during the GFC, pulling down the reported returns of the mREIT sector.

While this index is appropriate to measure the performance of the sector as it existed prior to the GFC, the current composition of the industry is much different. As noted above, there are no mREITs currently in the business model of investing in original-issue subprime MBS—indeed, there are virtually no subprime mortgages being originated in the United States. Rather, the mREIT sector today is composed of firms that invest primarily in Agency MBS, other mREITs that invest in Agency MBS and also legacy non-Agency MBS (purchased at deep discount), plus the commercial mREITs.

We have constructed an index of total returns of the Agency mREITs that were in operation through the GFC as well as those that formed subsequent to the GFC. The 15-year total return of the FTSE Nareit Mortgage REITs index was 4.3 percent (through

Equity market capitalization of mREITs

mREITs formed since the Great Financial Crisis (GFC) constitute a majority of industry market cap.



Nareit. Source: S&P Global Market Intelligence, Nareit

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December 31, 2017), compared to an 11.1 percent return for the FTSE Nareit All Equity REITs Index and a 10.3 percent return for stocks in the Russell 3000 Index (Table). The Agency mREITs posted an annual return of 8.9 percent over this period, significantly outperforming the FTSE Nareit mREIT Index, and rivalling the performance of the All Equity REIT Index and the Russell 3000.

The income return on the FTSE Nareit mREIT Index and the Agency mREITs were comparable, at 11.4 percent and 11.8 percent, respectively, over the 15 year period through December, 2017. The price return, however, were quite different, with an annualized -7.1 percent for the FTSE Nareit mREIT Index but -2.9 percent for the Agency mREITs (chart). The difference in total return performance between the index that included the non-Agency mREITs prior to the GFC, 4.3 percent, and the Agency mREIT returns of 8.9 percent, underscores the importance in comparing returns by the type of mREIT. This Agency mREIT index reflects the current composition of the mREIT sector, and is more relevant for investors in today's mREITs.

Agency mREITs had total returns 2x those on the mREIT index over the 15 years spanning the GFC

	1-year	3-year	5-year	10-year	15-year	20-year	25-year	30-year	35-year	40-year	45-year
FTSE Nareit All Equity REITs	8.7	6.7	9.8	7.8	***11.1***	9.1	10.9	10.8	11.6	12.5	11.9
FTSE Nareit mREITs	19.8	10.3	9.2	6.6	***4.3***	4.4	6.9	5.7	5.4	6.5	5.4
Agency mREITs*	20.0	10.6	8.5	7.8	***8.9***	N/A	N/A	N/A	N/A	N/A	N/A
Barclay's Capital MBS Index	2.5	1.9	2.0	3.8	4.1	4.9	5.3	6.3	7.3	7.4	N/A
Russell 3000 Stock Index	21.1	11.1	15.6	8.6	10.3	7.4	9.7	10.8	11.3	N/A	N/A

Nareit.

Source: Nareit analysis of monthly total returns through December 2017.
*Agency mREIT returns estimated by Nareit as Agency mREITs in the FTSE Nareit All REITs Index.

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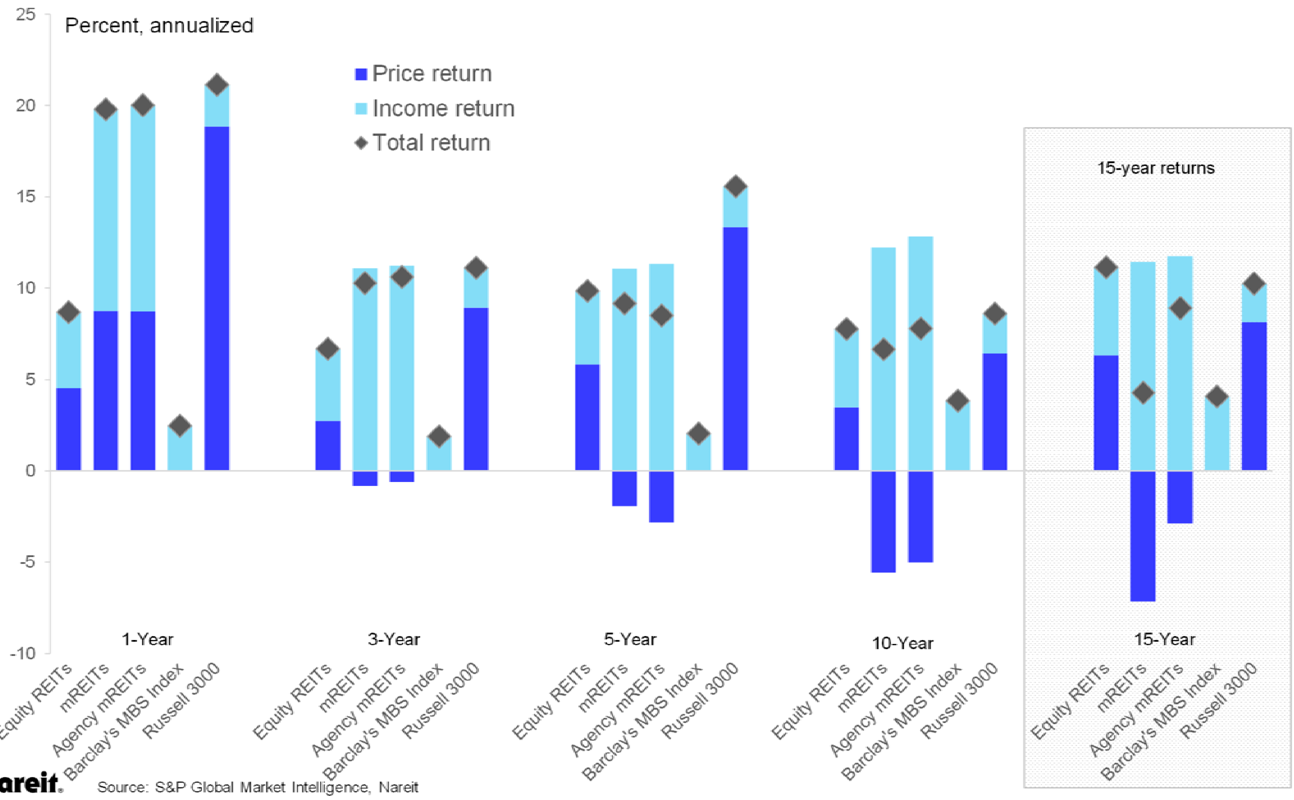
Price, income and total returns

mREITs have offered the highest income returns. Total returns of Agency mREITs were 2x those of all mREITs over a 15 year period that spans the GFC.



Nareit. Source: S&P Global Market Intelligence, Nareit

Conclusion

The mREITs sector has grown rapidly over the past decade. The composition of the sector has changed as well, especially among mREITs that finance residential real estate. mREITs that had taken on exposures to credit risk prior to the financial crisis have exited the sector, while those that invest in mortgage securities guaranteed by the Government Agencies constitute nearly all of the home financing mREIT subsector.

The total return of these Agency mREITs over the past 15 years has been comparable to investment returns in other sectors, including equity REITs and the Russell 3000 Stock index. mREITs provide both income and total return to investors.