NAREIT Brief

May 2014

Agency Mortgage REITs And Financial Stability

The Great Financial Crisis has focused attention on potential "macro-prudential" or systemic risks to a stable financial system, including risks from the mortgage market. Agency mortgage REITs invest in mortgage backed securities but manage these risks using well recognized and commonly used risk management practices. Companies with a robust framework for managing interest rate risk, counterparty credit risk, prepayment risk and liquidity risk are unlikely either to initiate or to transmit shocks to the broader financial system.

Contents:

FOCUS ON FINANCIAL STABILITY 1-3

AGENCY MORTGAGE REITS 6-12

AGENCY MORTGAGE REITS IN HOUSING FINANCE 16-17

CONCLUSION 18

Also:

A LOOK AT THE DIVERSE WORLD OF MORTGAGE REITS 4-5

AGENCY MORTGAGE REITS DURING PERIODS OF INTEREST RATE VOLATILITY 13-14

HEDGING STRATEGIES 15

A CLOSER LOOK AT REITS 19-20

National Association of Real Estate Investment Trusts®
REITs: Building Dividends & Diversification®
1875 I Street NW, Suite 600 • Washington, DC 20006
202-739-9400 • 202-739-9401 fax • REIT.com

For more information, contact:
Calvin Schnure, VP, Research & Industry Information
202-739-9434, cschnure@nareit.com

FOCUS ON FINANCIAL STABILITY

The attention of financial regulators in the aftermath of the Great Financial Crisis understandably has focused in part on potential "macro-prudential" or systemic risks that could cause contagion, fire sales and the spread of vulnerability across the financial system. As noted in recent published reports and working papers from financial regulatory organizations and others, the most noteworthy macro-prudential risks are leverage, maturity transformation, short-term financing in the repurchase ("repo") market, interconnectedness and fire sales. Macro-prudential risk management is aimed at reducing the likelihood that such risks could generate contagion and other instabilities across the entire financial system.

Discussions of macro-prudential risks have included reference to mortgage real estate investment trusts or mREITs, especially Agency mREITs that invest primarily in residential mortgage-backed securities (RMBS) issued and guaranteed by agencies of the federal government (Agency RMBS).[1] Several aspects of the systemic risks highlighted by regulators theoretically are related to the "micro-prudential" or business risks of Agency mREITs, including interest rate risk, prepayment risk, maturity transformation and liquidity risk. In practice, however, Agency mREITs effectively manage these micro-prudential risks using well-recognized and

universally used risk management practices developed over more than 30 years, including hedging instruments, active liability management, counterparty diversification, asset selection and active asset management. In addition, the depth, liquidity and asset quality of the government-guaranteed RMBS market help provide a stable market environment for all Agency RMBS investors, including Agency mREITs, which significantly reduces but does not eliminate macro-prudential risks, including the risk of fire sales.

The risk management practices of Agency mREITs reduce the micro-prudential risks facing the companies, their creditors, counterparties and shareholders. More important, by improving the ability of each individual company to withstand unexpected market shocks, such as unanticipated changes in the level of interest rates or a reduction in the availability of short-term credit, these hedging and risk management practices, in combination with the liquidity and depth of the Agency RMBS market, appreciably reduce the risks to financial stability, including the risk of large asset sales in a disorderly market.

The primary often-cited macro-prudential risks to financial stability include leverage, maturity transformation, repo financing, interconnectedness and fire sales. Most all investors in the Agency RMBS market, including Agency mREITs, seek to manage their micro-prudential risks in a manner that reduces risk for investors but also limits the potential of triggering more wide-spread financial instability.

Leverage

Leverage is the use of debt to increase returns on equity. Higher leverage reduces a company's ability to absorb unanticipated shocks from credit losses, changes in the level of interest rates or other economic and financial events. Conversely, higher levels of equity capital help cushion a company from such shocks and, thereby, help prevent a company-specific loss from propagating through the financial system.

Agency mREITs have had access to capital markets in good times and bad, allowing them to raise equity capital to strengthen their balance sheets and reduce leverage. At the end of the fourth quarter of 2013, the average leverage ratio of the seven largest Agency mREITs was 7.2 times equity, which corresponds to a core equity capital ratio of 12.0 percent and is comparable with that of the banking industry. Agency mREITs can also reduce leverage by declining to reinvest principal and interest payments received.

Maturity Transformation

Maturity transformation refers to the financing of longer maturity assets in part with shorter-term debt. Funding longer-term assets with shorter-term debt creates risk from unexpected changes in short-term or long-term interest rates. The need to roll over such funding at a date earlier than the maturity of the assets risks an unexpected change to interest margins and makes the borrower dependent on the smooth functioning of credit markets. This systemic issue applies not only to financial markets at large, but also to the operating integrity of individual companies.

Owing to amortization, refinancing, home sales and curtailments, the weighted average maturity of Agency RMBS currently is about seven years or less, far shorter than the stated maturities of the most common 15-year and 30-year fixed-rate mortgages.[2] Agency mREITs finance their holdings of Agency RMBS in part using shorter-term debt, but they stagger the maturities of their liabilities, maintain a large and diverse roster of counterparties and hold a significant proportion of unencumbered assets to reduce the risk of temporary liquidity or funding dislocations in financial markets.

Repo Financing

The repurchase or repo market provides securities owners with a source of short-to intermediate-term financing. Using repurchase agreements, the owner of securities sells the securities to a lender in exchange for cash and agrees at the same time to repurchase the securities from the lender for a higher price at a specified future date. The terms of the repurchase agreements generally range from one day to a few months, but often extend to several years; less than 10 percent is overnight. The lender typically advances less than

100 percent of the current market value of the securities (the advance rate), with the percentage shortfall below 100 percent referred to as the "haircut."

Repo financing is broadly used by financial market participants, including, among others, commercial banks, brokers and dealers, investment managers as well as Agency mREITs to finance their holdings of mortgage-backed securities, Treasury securities and other liquid securities. The widespread use of short-term funding raises the possibility that weaknesses in credit and liquidity management practices by some market participants could be transmitted to others. In the event a market participant is unable to roll over the short-term repo financing of certain assets during a period of market stress, it could be required to sell assets into an unstable market. In addition, the default of a major broker-dealer in the repo market could generate additional market instability.

Agency mREITs invest almost entirely in the nearly $6 trillion government-guaranteed Agency RMBS market, one of the largest and most liquid securities markets in the world. However, Agency mREITs hold less than five percent of the market, with other larger holders including banks and other depository institutions, mutual funds, insurance companies, pension funds, foreign investors and the Federal Reserve. This diverse capital base improves liquidity and enhances the market's ability to absorb large asset sales, thereby reducing the systemic risk of fire sales. Like other companies, Agency mREITs also have access to other sources of financing, including common and preferred equity, convertible bonds, corporate bonds and medium term notes.

Interconnectedness

A financial institution that is interconnected to other parts of the financial system through counterparty exposures or trading activity may spread financial shocks more widely throughout the system. In addition, institutions that are complex and highly interconnected may have financial problems that are more difficult to resolve in a crisis, hindering the ability of authorities to contain financial troubles once they begin.

There is no significant interconnectedness between Agency mREITs and other financial institutions in clearing and trading operations. Agency mREITs do not engage in trading or market-making activities, participate in a limited amount of tri-party repos, have diversified counterparties with established credit limits, and are involved in derivatives markets such as interest rate swaps only as participants. The Agency mREIT business model is transparent and generally focused on a single business activity, investing in and financing Agency RMBS. In contrast to many other investors in the Agency RMBS market, Agency mREITs do not have the interconnected financial contract relationships that could spread risk throughout the financial system.

Fire Sales

The lender in a repo transaction requires the borrower to post additional collateral ("margin call") should market values of the securities collateralizing repo liabilities fall sharply. A borrower who is unable to do so may be forced to sell the securities to meet the liability. In extreme cases, such sales could, in turn, force security prices even lower, potentially exposing other market participants to margin calls and further asset sales. The cycle of falling asset prices leading to margin calls, which in turn lead to additional asset sales and yet further price declines, is often referred to as a "fire sale." As such a process spreads, the disorderly liquidation of large market positions could threaten overall financial stability.

The Agency RMBS market is one of the largest and most liquid markets in the world. Such liquidity facilitates large-scale buying and selling of securities, thereby reducing the systemic risk of unanticipated sales of large Agency RMBS portfolios. Even during the Great Financial Crisis, the bid-ask spread of Agency RMBS remained narrow, indicating that investors could readily buy or sell Agency RMBS with limited impact on market prices. In 2013, total sales of Agency RMBS by Agency mREITs were less than a single day's average trading volume in the Agency RMBS market.

continued on page 6

A LOOK AT THE DIVERSE WORLD OF MORTGAGE REITS

Real Estate Investment Trusts, or REITs, were established by Congress in 1960 to enable Americans from all walks of life to gain the benefits of investment in real estate. There are two main types of REITs, generally referred to as equity REITs and mortgage REITs. Equity REITs invest in real estate by acquiring properties, such as shopping malls, office buildings, apartments and other properties, leasing space in those properties and collecting rents from their tenants. Mortgage REITs invest in the debt required to finance real estate, including mortgage loans, mortgage-backed securities, mezzanine loans, subordinated financing and construction loans.

Although REITs may be organized as corporations or as business trusts, the majority of both equity REITs and mortgage REITs are organized as corporations.

(See ***A Closer Look at REITs*** on Page 19).

Mortgage REITs

Mortgage REITs access the public markets to bring capital to the mortgage finance system. The REIT model has proven to be an effective way to hold mortgage debt without creating systemic risk. Indeed, since the Great Financial Crisis, mortgage REITs have provided much needed capital to the mortgage market while other sources of capital have pulled back.

Mortgage REITs provide financing for real estate by originating or purchasing mortgages and mortgage-backed securities, earning income from the interest on these investments. Mortgage REITs invest in residential and commercial mortgages, as well as residential mortgage-backed securities (RMBS) and commercial mortgage-backed securities (CMBS). The companies finance their mortgage portfolios with equity capital as well as both short-term and long-term debt, including collateralized financing through the repo market. Mortgage REITs manage the financial risks of their investment portfolios using well-established and widely-used risk management practices.

Residential Mortgage REITs

Mortgage REITs typically focus on either the residential or commercial mortgage markets, although some mREITs invest in both markets. Many residential mREITs invest in Agency RMBS and are called Agency mREITs. Agency RMBS are issued by Fannie Mae and Freddie Mac, often referred to as U.S. government-sponsored enterprises (GSEs), or Ginnie Mae. Agency RMBS constitute the bulk of assets held by mREITs today. Agency RMBS carry virtually no credit risk because the GSEs guarantee the timely payment of principal and interest in the event of default by the borrower, and both agencies operate today under federal government conservatorship. Ginnie Mae is a government owned corporation, and its securities are backed by the “full faith and credit” guarantee of the U.S. government.

Residential mREITs that invest in “non-agency” or “private label” RMBS issued by other non-governmental financial institutions, as well as residential mortgage loans that are not eligible for purchase or securitization by the GSEs, are called Non-Agency mREITs. Non-Agency RMBS typically are backed by underlying collateral that does not qualify for the conventional mortgage underwriting standards of the GSEs, whether the loan in question is too large or the borrower does not meet certain eligibility criteria. Non-Agency RMBS contain credit risk in the event the borrower fails to make principal and interest payments as required, and typically bear higher yields to compensate for those risks. The degree of credit risk for a particular security depends on the credit performance of the underlying residential mortgage loans, the structure of the security and the amount of over-collateralization. Each security may be structured with multiple classes, some of which are repaid more quickly and therefore have shorter maturities, and others of which are repaid more slowly and therefore have longer maturities. Each security also is generally over-collateralized, in which case the face amount

of the mortgage loans held as collateral exceeds the face amount of the security issued. Some non-Agency mREITs may also invest in Agency RMBS or CMBS.

Commercial Mortgage REITs

Commercial mortgage REITs provide financing for commercial real estate. They may invest in commercial mortgages and commercial real estate loans, as well as both rated and unrated CMBS, mezzanine loans, subordinated securities or construction loans, and may participate in loan securitizations. Commercial mREITs traditionally have proprietary origination platforms and provide financing solutions to various buyers of commercial real estate.

Stock Exchange Listed Mortgage REITs

As with equity REITs, most mortgage REITs typically are listed on the NYSE or NASDAQ, allowing a wide range of investors, including individual investors as well as institutions, to purchase shares of their equity securities. Stock exchange-listed mREITs provide a simple way to hold an equity investment in the mortgage market with the liquidity and transparency of publicly traded equities, advantages not available through direct investments in mortgage loans and mortgage-backed securities.

As of January 31, 2014, there were 26 listed residential mortgage REITs with an equity market capitalization of $45.3 billion and 20 listed commercial mortgage REITs with an equity market capitalization of $21.0 billion.

Listed mREITs have grown significantly and prudently, subject to market discipline, because of their access to public markets. Since the end of 2007, 21 companies have had their initial public offerings, and all stock exchange-listed mREITs combined have raised approximately $60 billion of common and preferred equity. Total financial assets of listed mREITs have risen from less than $50 billion in the early 2000s to over $400 billion as of the fourth quarter of 2013 (Exhibit 1). Much of the growth has come through purchases of Agency RMBS following the financial crisis and the government conservatorships of Fannie Mae and Freddie Mac.

Non-Listed Mortgage REITs

Other mortgage REITs have shares that are registered with the SEC but are not listed on any stock exchange. These public, non-listed mREITs typically are sold to investors by a broker or financial advisor. Mortgage REITs also can be privately held.

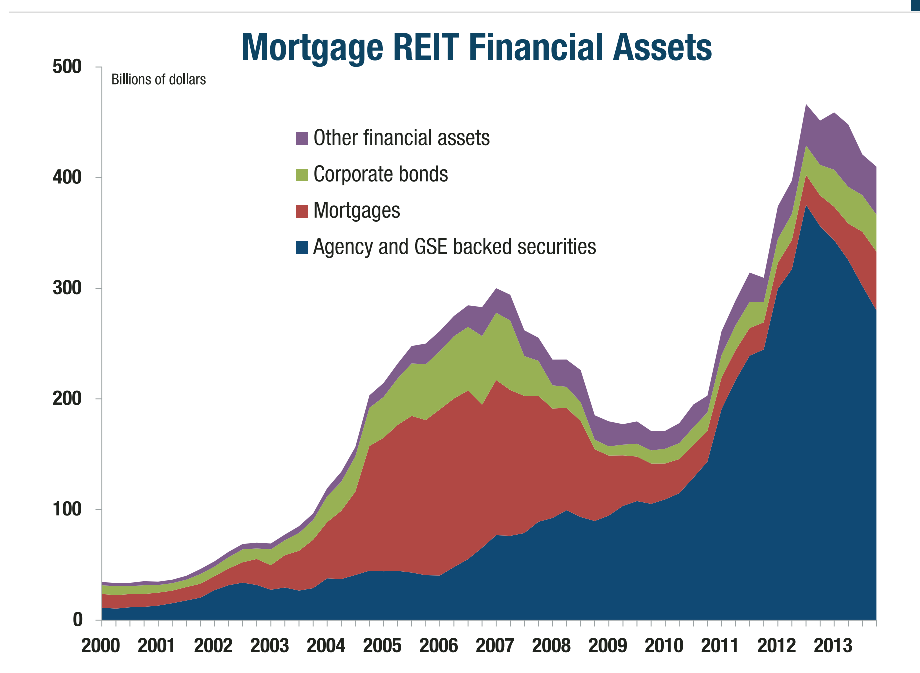


Exhibit 1 - Growth of Mortgage REIT Financial Assets
Source: Federal Reserve Board, *Financial Accounts of the United States*

AGENCY MORTGAGE REITS

Agency mortgage REITs have grown rapidly since the onset of the Great Financial Crisis in 2008 because some other sources of private capital have pulled back and because the REIT structure is a proven vehicle for channeling private-sector capital to finance real estate debt and equity. Despite the recent attention, however, the fundamental business of Agency mREITs is not necessarily well understood.

Agency mortgage REITs access public debt and equity markets to bring capital to the housing finance system through their investments in Agency RMBS. Agency mREITs use debt financing and also issue equity securities, which are liquid, publicly traded investments that pay regular dividends and offer the potential for capital appreciation. With the US mortgage market facing a significant regulatory overhaul, Agency mREITs have the potential to help provide financing for the housing sector in the years ahead.

The Business Model

Like all REITs, Agency mREITs operate in accordance with the requirements, limitations and restrictions of the REIT rules of the Internal Revenue Code. Among the restrictions under which REITs operate is the requirement that REITs distribute nearly all of their taxable income each year to their shareholders in the form of dividends. This restriction has at least three beneficial consequences for investors as well as for overall financial stability. First, it requires that REITs, including Agency mREITs, regularly return to the capital markets to fund new investment, thereby subjecting the companies to the ongoing scrutiny of investors, analysts, the media and others interested in overall financial stability, and incentivizing the companies to remain disciplined in their use of shareholder capital. Second, it results in REITs, including Agency mREITs, paying relatively high dividends, which provide needed income for retirees and other investors. Third, the high income return contributes to the diversification that listed REIT equities, including listed Agency mREIT equities, provide to broadly diversified investment portfolios.

The business risks that Agency mREITs face are similar to those of other financial firms and include primarily interest rate risk, prepayment risk and liquidity risk. Because of their investments in Agency RMBS, Agency mREITs face minimal credit risk. Moreover, the companies are led by experienced professionals who have a demonstrated ability to manage these risks, maintain liquidity and operate with relatively moderate leverage.

Agency mREITs have an extensive set of widely-recognized tools for managing the risks an investment in the Agency RMBS market can pose to that company, its creditors, counterparties and shareholders. These tools for dealing with company-specific or micro-prudential risks have proven to be robust, as Agency mREITs have successfully navigated periods of turbulent interest rates over the past two decades.

Market Characteristics of Agency RMBS

Agency mREITs operate in one of the largest and most liquid securities markets in the world, a market that has been in existence for more than 40 years. A complete understanding of how Agency mREITs operate in that market should focus on the characteristics of the Agency RMBS market, institutional features of Agency mREITs, micro-prudential risks, how those risks are managed and reduced, and how the management practices that reduce micro-prudential risks also help to manage and reduce macro-prudential risks.

Size of the Agency RMBS Market

At nearly $6 trillion, the Agency RMBS market is one of the largest securities markets in the world (Exhibit 2). It has a broad investor base with diverse participants, including commercial banks, insurance companies, mutual funds, pension funds and other institutional investors, mortgage REITs, foreign investors and the Federal Reserve System. At the end of the fourth quarter of 2013, Agency mREITs held less than four percent of the Agency RMBS market, compared with 22 percent by banks and other depository institutions, 20 percent by the Federal Reserve, 11 percent by mutual funds and 6 percent each by insurance companies and pension funds (Exhibit 3). The diverse capital base these varied sectors bring to the market improves liquidity and enhances the market's ability to absorb asset sales, thereby reducing the systemic risk of fire sales.

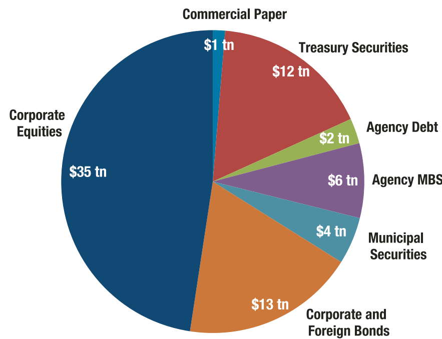


Exhibit 2 - U.S. Financial Markets
Source: Federal Reserve Board, *Financial Accounts of the United States*

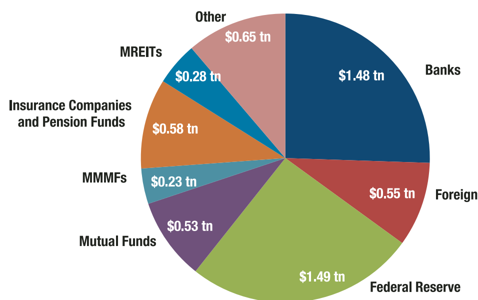


Exhibit 3 - Investors in the Agency RMBS Market
Source: Federal Reserve Board, *Financial Accounts of the United States*

Asset Quality and Liquidity

The Agency RMBS market also is one of the deepest and most liquid markets in the world. The bid-ask spread of Agency RMBS remained narrow even during the Great Financial Crisis, indicating that investors could buy or sell Agency RMBS with limited impact on market prices. Such liquidity helps facilitate large-scale buying and selling of securities, thereby reducing, at least in part, the systemic risk of unanticipated sales of large Agency RMBS positions. In 2013, total sales of Agency RMBS by Agency mREITs were less than a single day's average trading volume in the Agency RMBS market.

Institutional Features of Agency mREITs

Agency mREITs operate with a number of attributes that help them to manage their risks effectively, provide private capital to the housing market and operate in a stable manner. Some of these attributes include access to public capital markets, moderate financial leverage, disciplined use of capital and listing standards required by public stock exchanges.

Access to Public Markets

Agency mREITs typically have had access to capital markets in good times and bad, allowing the companies to raise equity capital to strengthen their balance sheets and to support asset growth even while reducing leverage (Exhibit 4). Because of their regular access to public capital markets, Agency mREITs also have been able to provide an important channel for private-sector capital to help sustain and finance home mortgage markets in the aftermath of the Great Financial Crisis.

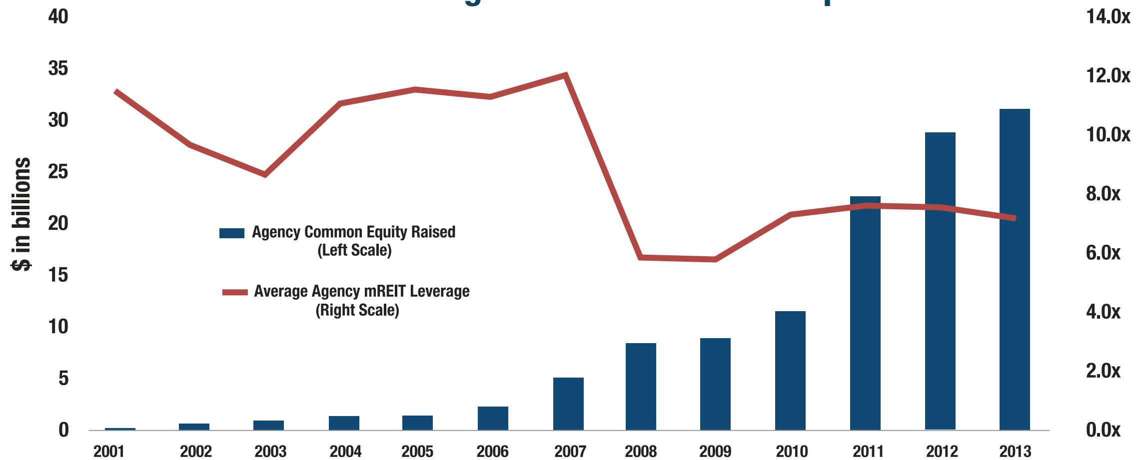


Exhibit 4 – Equity Issuance and Leverage of Agency mREITs
Source: Dealogic, FactSet and Company filings

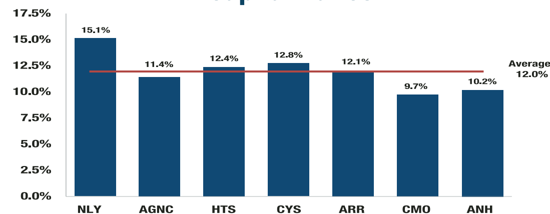


Exhibit 5: Capital Ratios of Agency mREITs
Source: Company Filings, Press Releases and Bloomberg as of 2013:Q4[3]

Moderate Use of Leverage

Access to public markets provides Agency mREITs with the means to raise equity and limit leverage. Consequently, Agency mREITs use moderate leverage on average to maintain relatively stable balance sheets and reduce the likelihood of either creating shocks to financial markets or spreading shocks originated elsewhere throughout the financial system.

The leverage ratio is defined as interest-bearing liabilities divided by total equity. At the end of the fourth quarter of 2013, the average leverage ratio of the seven largest Agency mREITs by assets was 7.2 times equity (Exhibit 5), which corresponds to a core equity capital ratio (equity divided by total assets) of 12.0 percent, comparable with that of the banking industry. Since the peak of the last real estate cycle, Agency mREITs have maintained lower leverage ratios. Leading up to the financial meltdown, most investment banks were leveraged by a ratio of 30 to 1. Government sponsored mortgage giants Fannie Mae and Freddie Mac had leverage ratios of 20 to 1 and 30 to 1, respectively, in 2007.

Discipline of Public Markets

The requirement that REITs distribute essentially all of their taxable income to their shareholders each year significantly limits their ability to grow through retained earnings and maximizes their reliance on public market financing. As a result, Agency mREITs are by design more responsive to market discipline than are many other types of financial firms which are permitted to retain their earnings. Not only does this heighten the effectiveness of market discipline to limit excessive growth, it also restrains leverage, incentivizes prudent risk management, encourages transparency and promotes sound corporate governance.

Stock Exchange Listing Requirements

The vast majority of Agency mREIT assets are held by companies that are listed on public stock exchanges, particularly the NYSE and the NASDAQ. These exchanges set additional standards for the companies they list, including Agency mREITs, to provide the public with information regarding their portfolio investments, such as asset maturities and interest rates, liquidity and capital resources, cash flows, hedge positions and risk management strategies. This transparent disclosure of key business metrics allows investors and counterparties to asses risk exposures in a timely fashion, which further strengthens the effectiveness of marketplace discipline.

Company-Specific Risks

Agency mREITs manage many kinds of risks in the ordinary course of business, including interest rate risk, limited counterparty credit risk, prepayment risk and liquidity risk. They have navigated through a wide range of interest rate and economic environments over recent decades and have a demonstrated competence for managing the risks unique to investing in Agency RMBS.

Interest Rate Risk

Managing the effects of changes in short- and long-term interest rates is an essential and required element of the business of Agency mREITs. Changes in *short-term* interest rates can affect a company's net interest margin, which is a measure of the difference between the interest income from its longer-maturity assets and the interest expense of its shorter-maturity liabilities, and is the fundamental source of earnings. Changes in *long-term* interest rates also can affect a company's net interest margin as well as the market value of its longer-maturity mortgage assets, which affects corporate net worth.

Agency mREITs prudently manage their interest rate risk with widely-used hedging strategies that involve strategic asset selection and liability management as well as the use of derivatives such as interest rate swaps and swaptions to position their securities portfolios for unanticipated changes in the level of interest rates.

Credit Risk

The majority of securities purchased by Agency mREITs are Agency RMBS issued by Ginnie Mae, Fannie Mae and Freddie Mac. In one form or another, the securities issued by all three of these agencies today are backed by the federal government, thereby eliminating any credit risk to investors. The companies may face credit risk in their counterparties for hedging transactions, but they manage such risks in large part by actively managing their assets and liabilities to reduce their duration gap (the duration gap is the difference between the weighted maturity of assets and liabilities) and by maintaining a large and diverse roster of counterparties to avoid over-reliance on limited sources of financing.

Prepayment Risk

Changes in the level of mortgage interest rates or borrower home sales affect how often outstanding mortgages are refinanced or repaid and how rapidly principal is returned to investors. Mortgage curtailments also result in principal being returned to investors earlier than scheduled. When such repayments ahead of schedule – prepayments – occur, the investor holding the mortgage or RMBS must reinvest the proceeds into the prevailing interest rate environment, which may be lower or higher than the interest rate on the prepaid principal.

Agency mREITs manage prepayment risk with effective strategies developed over nearly 40 years and widely used by Agency RMBS investors. These strategies include active management of their assets and liabilities to reduce their duration gap, regularly stress testing their balance sheets to identify and measure their balance sheet risks, and using common derivatives such as interest rate swaps and swaptions to position their securities portfolios for unanticipated changes in the level of interest rates and the effect of such changes on mortgage prepayment rates.

Liquidity Risk

Agency mREITs invest primarily in longer-term Agency RMBS, while their liabilities typically include an appreciable amount of shorter-term debt. This term mismatch requires that the companies roll over or refinance their short-term debt before the maturity of their assets. The companies' ability to do so depends on the liquidity and smooth functioning of the

short-term debt markets. Agency mREITs, like many other investors in the Agency RMBS market, often obtain part of their short-term debt through the repurchase or repo market. The government backing and high level of liquidity of Agency RMBS contribute to their broad acceptance as collateral in the repo market.

Agency mREITs manage their liquidity risk using a variety of strategies. These strategies include extending the average maturity of their repo liabilities to reduce the term mismatch, staggering the maturities of their repo liabilities to avoid having a large proportion of their liabilities mature over a short period of time, diversifying their sources of financing to include other forms of debt and equity and maintaining a reserve of unencumbered liquid assets as a source of alternate liquidity. It is important to note that the repo market is extremely liquid, with an estimated $2 trillion in outstanding transactions and several hundred billion dollars in daily trading volume.[4] The repo market also is a diverse market, with banks, dealers and others using the repo market as an important source of short-term financing and market liquidity.

Interconnectedness

There is no significant interconnectedness between Agency mREITs and other financial institutions in clearing and trading operations. The repo liabilities of Agency mREITs are mainly with commercial banks and are backed by Agency RMBS collateral. Agency mREITs are not active in other markets that may create interconnected links with the broader financial system, such as trading in corporate bonds, currencies, or taking deposits. Risk in Agency mREIT operations does not significantly impact the broader economy.

Risk Management Practices

There is considerable overlap between the risk management practices of Agency mREITs and the characteristics of the Agency RMBS market. This symmetry helps the companies manage their micro-prudential risks in a manner that also reduces the likelihood of Agency mREITs creating significant macro-prudential risks or contributing to overall financial instability. Companies with a robust framework for managing interest rate risk, counterparty credit risk, prepayment risk and liquidity risk are unlikely to initiate or transmit shocks to the broader financial system.

Since Agency RMBS were developed and widely introduced in the 1970s and 1980s, a broad range of strategies and financial instruments have been developed to address the micro-prudential risks of Agency RMBS investors. Many of the tools commonly used to address micro-prudential risks also serve to strengthen overall financial stability. These strategies can be grouped into three categories, including hedging strategies, active liability management and active asset management. In addition, the depth, liquidity and asset quality of the Agency RMBS market help provide a stable market environment for Agency mREIT operations.

Hedging Strategies Utilizing Financial Instruments

Agency mREITs, like many other investors in the Agency RMBS market, typically manage risks associated with their short-term borrowings through conventional, well-tested hedging strategies, including the use of interest rate swaps; swaptions; interest rate collars, caps or floors; and other financial derivatives contracts. The markets for these financial instruments are deep and liquid, with many counterparties, and generally functioned smoothly throughout the Great Financial Crisis, allowing investors in Agency RMBS to adjust their hedges as market conditions warranted.

Hedging strategies appreciably reduce but do not eliminate micro-prudential risks related to unanticipated changes in the level of short - or long-term interest rates. However, to the extent that hedges reduce the impact of changes in the level of interest rates on an Agency mREIT's net worth or liquidity and funding needs, they also reduce the systemic risk that a leveraged position of longer-term assets funded with shorter-term repo financing could generate a fire sale.

(See ***Hedging Strategies*** on Page 15).

Active Liability Management

There are a number of active liability management practices available that help Agency mREITs prudently manage their interest rate and funding risks. By using such practices, the companies also reduce the potential that their maturity transformation and repo financing would introduce shocks to the financial system as a whole or that the companies' participation in these markets would cause shocks originated elsewhere to propagate more broadly.

Liability Maturity Extension

The repo market often is mistakenly described as the "overnight" funding of longer-maturity assets. However, there also is a liquid market for repo financing offering contracts with maturities that extend well beyond overnight, often referred to as "term repo." Overnight contracts constitute less than 10 percent of the repo market. Agency RMBS can be funded in this portion of the market with maturities beyond 90 days, and indeed, repo funding is available for terms of up to several years. In 2013:Q4, for example, Agency mREITs extended the weighted average maturity of their repo liabilities to 73 days in order to reduce risk in a market of elevated interest rate volatility. The average maturity of repo liabilities for the largest Agency mREITs is even longer, helping to shorten meaningfully the duration mismatch between assets and liabilities (Exhibit 6).

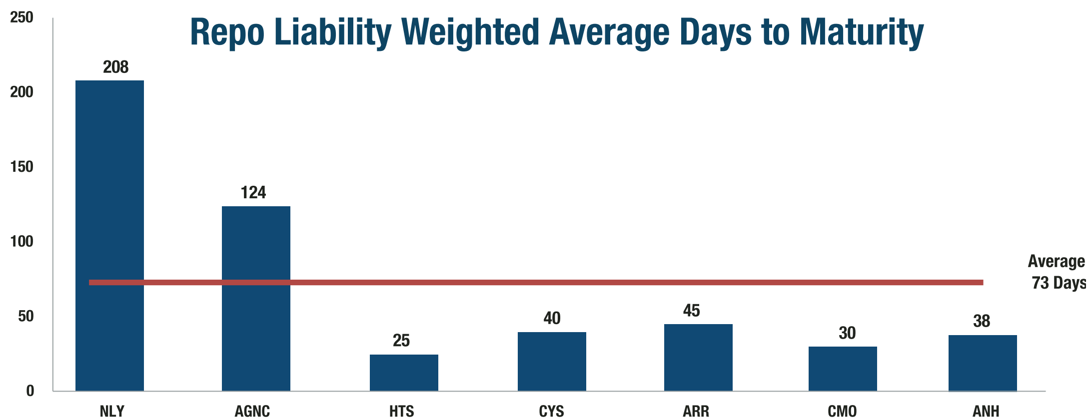


Exhibit 6 - Maturity of Repo liability of Agency mREITs
Source: Company Filings, Press Releases and Bloomberg as of 2013:Q4.

Liability Maturity Staggering

Agency mREITs generally avoid having a large proportion of their liabilities mature over a short period of time, thereby reducing the risk that a temporary dislocation in financial markets would significantly impair their ability to fund their investment portfolios.

Balance Sheet Stress Testing

Consistent with modern bank regulatory practice, Agency mREITs regularly simulate the possible effects of changes in the level of short- and long-term interest rates on the values of their assets and associated hedges. These risk management exercises help the companies to anticipate and prepare for future liquidity and funding requirements, especially during periods of market turmoil. Most creditors of Agency mREITs require results of the stress tests, further enhancing market discipline.

Alternative Financing Sources

Agency mREITs also have access to sources of funding other than repo financing, including preferred equity and convertible bonds. Covered bonds, medium term notes, and unsecured corporate bonds are available.

Counterparty Management

Agency mREITs maintain a large and diverse roster of counterparties to avoid over-reliance on limited sources of financing. This reduces their risks of liquidity shortfalls in the event they are unable to roll over their funding with any particular lender.

Active Asset Management

There also are a number of active asset management practices available that help Agency mREITs prudently manage their interest rate and funding risks. In combination with their active liability management practices and access to capital markets, use of available active asset management practices helps companies to reduce the potential that their

maturity transformation and repo financing would introduce shocks to the financial system as a whole or that the companies' participation in these markets would cause shocks originated elsewhere to propagate more broadly.

Asset Maturity

Agency RMBS have effective maturities that generally are significantly shorter than the stated legal maturities of 15 years or 30 years on the most common 15-year or 30-year fixed-rate mortgages. The average maturities of principal repayments are appreciably shorter than the stated maturities because the unpaid principal of the underlying mortgages amortizes over the life of the loans owing to the principal payments that borrowers are required to make each month. In addition, many loans are repaid in full many years before their stated maturities when borrowers refinance their mortgages to take advantage of lower mortgage interest rates or when borrowers repay their mortgages in full upon the sale of their homes. Other borrowers make additional principal payments from time to time above the scheduled amortization (curtailments) in order to reduce their monthly interest expense or repay their loans more quickly. The weighted average maturity of Agency RMBS typically lengthens or shortens as interest rates rise or fall, respectively, and currently is about 7 years or less.[5] This shorter weighted average maturity means that Agency mREITs are exposed to significantly less maturity mismatch between their assets and liabilities than the most common 15-year or 30-year mortgages would suggest.

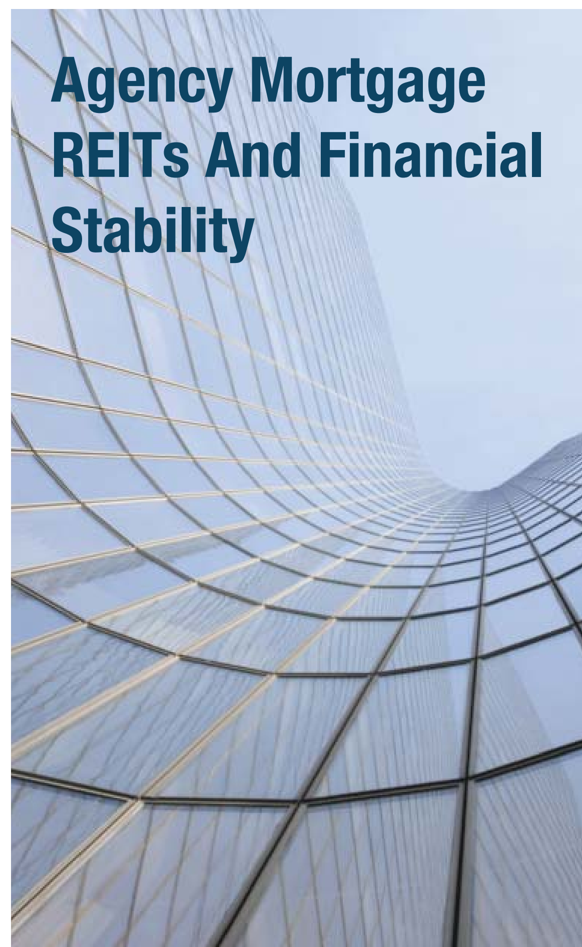
Asset Selection and Mortgage Prepayment Rates

Although principal amortization, refinancing, home sales and curtailments all contribute to average principal maturities of Agency RMBS that are appreciably shorter than the stated maturities, the average maturities of Agency RMBS are not all equal. Different pools of mortgages backing Agency RMBS, often called "specified pools," respond differently to changes in the level of mortgage interest rates, resulting in different rates of prepayment. For example, the coupon rate on a mortgage and financial characteristics of the borrower may affect the likelihood of prepayment, and mortgages originated in different geographic regions of the country may prepay at different rates owing to different economic circumstances. These differences provide Agency mREITs, as well as other Agency RMBS investors, opportunities to select carefully the assets in their portfolios in order to reduce their duration gap and manage their exposure to interest rate risk, prepayment risk and rollover risk.

Unencumbered Assets

Agency mREITs maintain a significant amount of assets that are not pledged as collateral for secured financings. These assets are available to meet margin calls or any other need for short-term liquidity. The availability of such unencumbered assets provides a cushion against liquidity or funding issues that could result from a decline in the market prices of Agency RMBS. Unencumbered assets typically account for over 60 percent of total equity of Agency mREITs.

continued on page 16



AGENCY MORTGAGE REITS DURING PERIODS OF INTEREST RATE VOLATILITY

PERIODS OF INTEREST RATE VOLATILITY

In order to anticipate the performance of Agency mREITs during future episodes of market turbulence, it is helpful to review how the Agency mREIT model has performed in prior periods of volatile interest rates.

Spring 2003: Volatile Long-Term Interest Rates

From the end of March to the middle of June 2003, 10-year Treasury yields declined nearly 100 basis points, and mortgage rates declined by a similar amount. In response, mortgage refinancings spiked to a record level (Exhibit 7). 10-year Treasury yields subsequently jumped 150 basis points by the end of August. Despite the large, rapid shifts in the level of long-term interest rates and Agency RMBS prepayments, the hedging strategies employed by Agency mREITs maintained funding and liquidity throughout this volatile period.

Exhibit 7 - Mortgage Refinancings and Interest Rate Volatility

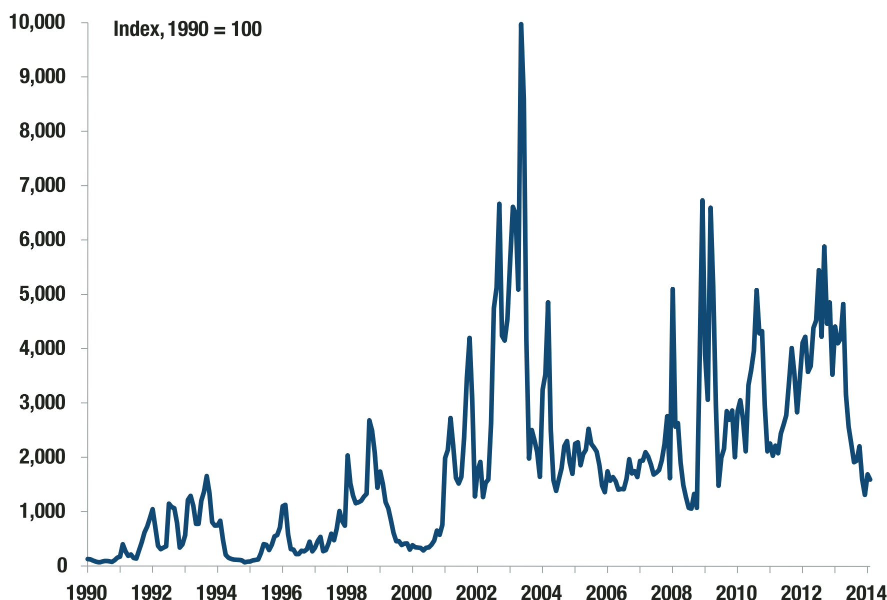
Source: Mortgage Bankers Association, Bloomberg.

2004-2006: Rising Short-Term Interest Rates

Over a two-year period from June 2004 to July 2006, the Federal Reserve implemented a series of increases in its target for the federal funds rate from 1 percent to 5¼ percent. However, this large and sustained increase in short-term interest rates did not result in any significant disruption to the stability and funding positions of Agency mREITs.

2008-2009: The Great Financial Crisis

The Great Financial Crisis had its roots in the residential mortgage market and resulted in widespread losses and failures of major global financial institutions, sharp and unpredictable changes in the level of interest rates and a lack of liquidity in most financial markets. According to the FTSE NAREIT Mortgage Home Financing Index, share prices of Agency mREITs declined 65 percent from the end of January 2007 to the end of January 2009. Even during these challenging times, however, Agency mREITs were able to maintain their liquidity and funding positions, adjust their hedges appropriately, and maintain positive net worth without government support.



AGENCY MORTGAGE REITS DURING PERIODS OF INTEREST RATE VOLATILITY

Spring 2013: Rising Long-Term Interest Rates

From early May to early September 2013, 10-year Treasury yields jumped about 120 basis points following public comments from Federal Reserve officials suggesting that the FOMC would begin to taper its bond purchase program. The hedging strategies used by Agency mREITs allowed the companies to adjust to the volatile market conditions. Share prices of the companies declined, and several Agency mREITs reported losses during the period and appropriately cut their dividend payments. However, the Agency mREITs had sufficient capital to absorb these losses without any threats to their solvency or liquidity or any need to resort to fire sales of Agency RMBS.

Neither the volatility of short-term nor long-term interest rates over these periods impaired the long-term financial performance of Agency mREITs. In fact, the FTSE NAREIT Mortgage REITs Index Home Financing rose over 50 percent from early 2003 through mid-2006, while the S&P 500 was little changed on balance (Exhibit 8). Despite overall market volatility owing in part to the technology bubble at the turn of the century as well as the Great Financial Crisis of 2008, it is noteworthy that both equity REITs and mortgage REITs outperformed the broader equity market as measured by the S&P 500 Index over the past 20 years.

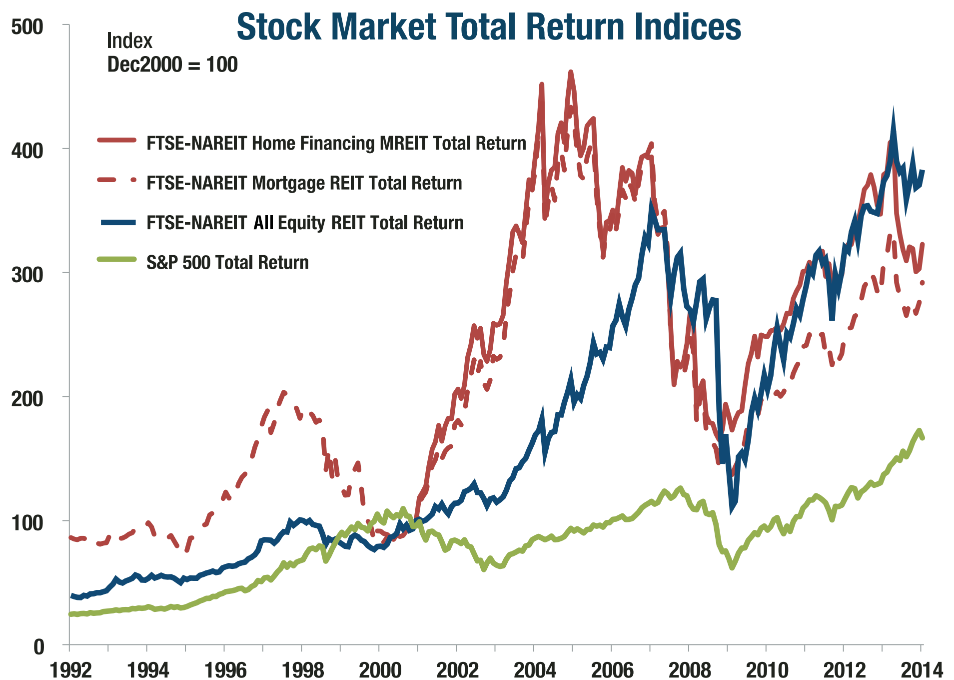


Exhibit 8 - Total return index of mREITs

Source: NAREIT, Bloomberg.

HEDGING STRATEGIES

Swaps

In a swap agreement, one party agrees to pay a fixed rate in exchange for receiving a floating rate based on some benchmark (“payer swap”), or vice-versa (“receiver swap”), over an agreed upon term or “tenor”. Plain vanilla payer swaps, which behave like a short position in a fixed rate bond financed at 3 month LIBOR, are used to hedge interest rate risk and, to a lesser extent, “spread” risk. In an Agency mREIT portfolio, this is the primary instrument used to hedge funding costs, maintain target duration, and hedge generic spread widening (generally realized in swap spreads).

Swaptions

Interest rate swaptions provide the option to enter into a fixed rate payer or receiver swap, but not the obligation to enter into the swap. Swaption contracts have expirations ranging from days to many years. Shorter expiration payer swaptions are primarily used to hedge duration as well as MBS extension risk. Receiver swaptions may be used in environments where MBS contraction risk is deemed high. As interest rates decrease and MBS durations shorten due to higher prepayment expectations, the receiver swaption adds duration back to the portfolio.

Treasury Futures

A treasury futures contract is an exchange-traded derivative instrument whereby an investor agrees to buy or sell a Treasury security on a specified forward date, typically 1-3 months forward. Selling futures contracts is similar to entering into a short position in the underlying Treasury; however, since the contract is for future delivery, the hedger does not have to borrow the security in the securities lending market. As expiration of the contract approaches, futures positions may be “rolled” forward to avoid being outright short the underlying security.

Options on Treasury Futures

Treasury options provide the “option” to buy or sell a particular U.S. Treasury futures contract. Options on Treasury futures are exchange traded and typically have liquid expirations extending out only three months.

Shorting MBS TBA Contracts

MBS “To-be-Announced” (TBA) contracts are similar to Treasury futures except the underlying deliverable instruments are MBS. Thus, a short TBA contract position is designed to hedge the idiosyncratic risk of MBS, such as MBS spread and negative convexity. The most liquid TBA contracts are typically production coupon contracts or contracts with a large amount of outstanding deliverable stock. These may be used as an overlay strategy when MBS spreads are extraordinarily tight relative to historical levels, or if the level of negative convexity in the market is deemed very high. TBA contracts are very liquid and easy to implement. There is a very high correlation between TBA contracts and underlying pools, therefore TBAs tend to be very effective hedges of MBS “basis risk”. This tends to be the most expensive portfolio hedging strategy, because the carry you are short is typically more than the carry associated with US Treasury instruments (cash or futures).

MBS Options

MBS options provide the option to enter into a long or short TBA contract. MBS option contracts have expirations ranging from days to typically no longer than three months and may be bought or sold outright. The benefits depend on the specific options strategy employed. For example, long put option positions hedge rate risk, MBS basis risk, and mortgage extension risk, while short put positions may generate additional income due to premium received from options sold, and allow for the seller of the put option to affect a cheaper entry point to a long MBS position.

Interest-Only (IO) Strips

Interest-Only Strips are MBS securities whereby the coupon of a pass-through Collateralized Mortgage Obligation or CMO is “stripped” from the principal portion of the security to create a new instrument that pays only the interest portion of the underlying security. IO strips typically trade with a negative correlation to MBS pass-throughs, increasing in value as interest rates increase and prepayments decline, and vice-versa. This enables an Agency MBS investor to use IO strips to help immunize a long MBS portfolio from interest rate risk, while typically earning a positive return on both the long MBS portfolio and the IO hedge. It should be noted that IO strips exhibit above average negative convexity, so mREIT portfolio managers use these instruments with a high degree of caution and often spend a portion of the additional carry earned on hedging the additional negative convexity introduced by the presence of these instruments.

AGENCY MORTGAGE REITS IN HOUSING FINANCE

In the aftermath of the Great Financial Crisis that erupted in 2008, both home mortgage and commercial mortgage markets in the U.S. have dealt with pressing issues with respect to lower property values, tighter underwriting standards, limited credit availability and appreciable mortgage refinancing. The home mortgage market in particular is today facing a long-term fundamental restructuring. Unlike the commercial mortgage market, in which credit financing is priced and delivered primarily through the private sector, credit financing in the home mortgage market has been priced and delivered primarily through the GSEs, including Fannie Mae and Freddie Mac, as well as Ginnie Mae, the Federal Housing Authority (FHA) and the Department of Veterans' Affairs (VA).

The home mortgage market has been especially dependent upon government support in the aftermath of the Great Financial Crisis, with the GSEs guaranteeing 90 percent or more of new mortgages and the Federal Reserve purchasing approximately $1.5 trillion of Agency RMBS in conjunction with its bond purchase program. The home mortgage market will face an unprecedented need to raise private-sector capital as it weans itself from this government support. In addition, the future growth of the housing and mortgage markets will require more channels raising still more private capital.

The details of the future home mortgage market have yet to be determined, and the ideas that so far have been proposed have important differences. They do share some common goals, however, including reducing the government's footprint on the residential mortgage market, enabling creditworthy households to have access to homeownership, ensuring that the private sector plays a far more prominent role in bearing credit risk, promoting a greater diversity of funding sources for mortgage financing, and providing robust protection for U.S. taxpayers.

Most scenarios under consideration anticipate a considerably smaller role for the GSEs, which have held or securitized the lion's share of home mortgages for the past three decades. As the GSE role is potentially scaled back, other players in the financial sector will be called upon to recapitalize as much as $2.5 trillion of home mortgages and Agency RMBS. In a future market environment in which the Federal Reserve is no longer purchasing Agency RMBS and the GSEs are winding down their portfolios and distributing mortgage credit risk more broadly, the average mortgage borrower will need stable, well-capitalized long-term holders of mortgage credit to ensure the smooth and stable functioning of the home mortgage market.

Mortgage REITs were authorized by Congress for this purpose. To quote the Financial Stability Oversight Council's 2012 Annual Report: "As the GSEs have reduced their investment portfolios, REITs have been a rapidly growing source of investment capital for agency mortgage-backed securities." As the discussions continue, any credible plan for the future of housing finance should recognize the opportunity Agency mREITs provide for accessing private capital to accomplish the necessary recapitalization through well-capitalized, long-term investment in residential mortgages.

The access that stock exchange-listed mREITs have to public capital markets allowed them to raise additional common equity both during and after the Great Financial Crisis. For the period 2008-2013, the companies raised $4.3 billion through 21 initial public offerings and another $52.8 billion through 151 secondary equity offerings (Exhibit 9). Through their access to public markets, Agency mREITs helped to recapitalize the Agency RMBS market, just as stock exchange-listed equity REITs raised equity capital at the onset of the Modern REIT Era beginning 1993 to help recapitalize the commercial property industry.

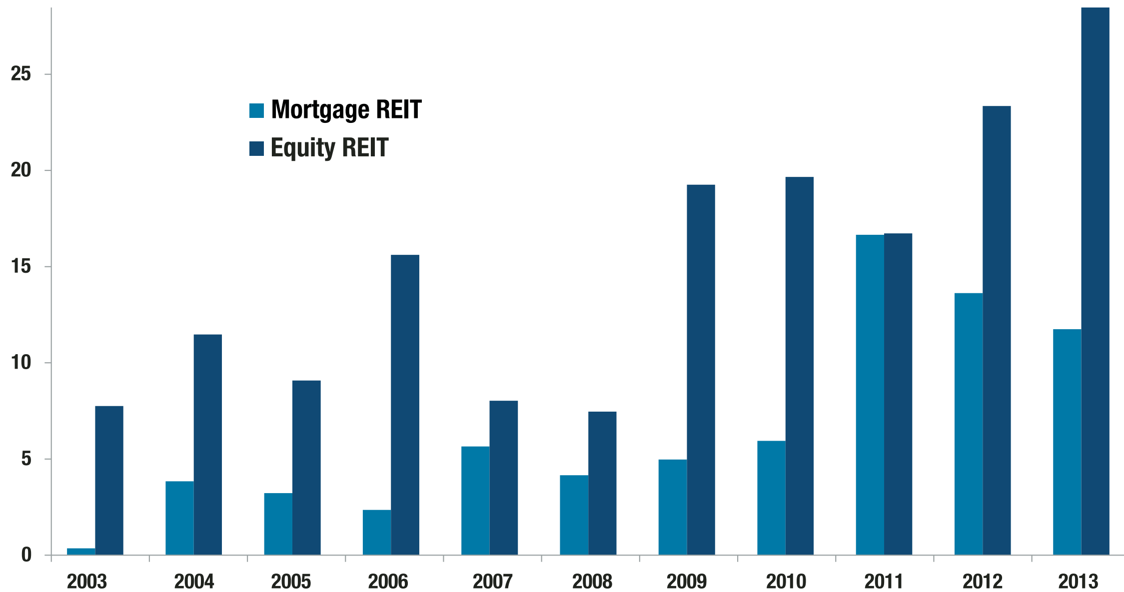


Exhibit 9 – Equity Issuance for Stock Exchange-Listed REITs
Source: NAREIT.

Investors will only supply this capital, however, if they can expect to earn a market return on their investments. Unlevered yields on Agency RMBS and other mortgage investments trail the returns available elsewhere in the capital markets. Indeed, most current participants in the Agency RMBS market today, including banks, employ leverage to increase their returns. Going forward, therefore, it is reasonable to assume that the sectors or institutions that provide the private-sector capital necessary to replace the government's role in financing the mortgage market will utilize leverage sufficient to earn a return competitive with that on other investments.

Total funds required to recapitalize the home mortgage market are extremely large relative to historical amounts of net equity capital raised by the financial sector. There is roughly $2.5 trillion of mortgage debt that will need to be refinanced over the coming years to offset the run-off of the GSE portfolios and, eventually, Agency RMBS purchased by the Federal Reserve in conjunction with its bond purchase program. The amount of equity capital required to finance the market will total in the hundreds of billions of dollars, even if one assumes a moderate use of leverage.

To put the size of this need for capital into an historical context, total net issuance of equity capital by all financial institutions in the United States between 2009 and 2013 averaged less than $60 billion per year.[6] Consequently, the amount of equity capital that the mortgage market will require rivals or exceeds the amount that was raised by all financial institutions as they recapitalized following the Great Financial Crisis. It may be challenging to attract this large amount of equity capital in addition to the capital that the financial sector itself requires to support its non-mortgage activities. A shortfall in the capital necessary to refinance $2.5 trillion of Agency RMBS would hamper the home mortgage and housing markets in their ongoing recovery and prospects for future growth.

The Agency mREIT model has demonstrated its capacity to raise significant amounts of capital in the public markets. The market discipline that results from regular access to the capital markets has resulted in a disciplined approach to managing the risks inherent in Agency RMBS investment.

CONCLUSION

Agency mREITs have successfully navigated some of the most volatile financial and economic environments of recent decades. Several attributes of the Agency mREIT business model have enabled the companies to manage their risks effectively and weather such turbulent market conditions. These attributes include: transparency and good governance, which has allowed all market participants to monitor the companies' operations accurately and maintain investor confidence; access to public capital markets, which, together with the market discipline such access brings, has led to a moderate and disciplined use of leverage; and widely-used tools for hedging interest rate risk and other risks, which have proven to be robust, even through periods of severe market stress.

The home mortgage market faces continuing challenges in the years ahead. There is an unprecedented need to raise private-sector capital as the mortgage market weans itself from the current high levels of government support. Future growth of the housing and mortgage markets will require channels that have ongoing access to private capital. The Agency mREIT model has shown that it can raise significant amounts of capital in various economic and interest rate environments. The market discipline that results from regular access to the capital markets has resulted in a disciplined approach to managing the risks inherent in Agency RMBS investment. Assets owned by mREITs help finance approximately 1.6 million homes, housing 4 million people.

[1] See, for example, Federal Reserve Bank of New York, *Economic Policy Review, Special Issue: The Stability of Funding Models* (February 2014), for case studies of market disruptions that contributed to financial instability in 2007-09, a review of other literature on financial stability, and an analytical framework for the stability of funding models; Financial Stability Oversight Council *2013 Annual Report*, p. 7, for a discussion of Agency mREITs, their leverage, maturity transformation and potential for fire sale risks; Office of Financial Research, *2013 Annual Report*, pp. 14-18, for a discussion of wholesale funding market run risk and fire sales, including those related to mREITs; International Monetary Fund, *Global Financial Stability Report*, October 2013, pp. 9-11, which addresses mREITs, repo funding and asset sales; Financial Stability Board, *Global Shadow Banking Monitoring Report 2013*, pp 36-39, for a discussion of how the reactions of mREITs to adverse interest rate environments could trigger financial instability; Federal Reserve Bank of New York, Staff Report No. 616, *The Risk of Fire Sales in the Tri-Party Repo Market* (May 2013), for a general discussion of liquidity and fire sale risks in markets funded with tri-party repos; Federal Reserve Bank of Richmond, Economic Brief 13-19, *Assessing the Risks of Mortgage REITs*, for a general discussion of mREITs and risks to the financial system.

[2] Bloomberg.

[3] Ticker symbols in Exhibit 5 and Exhibit 6 refer to the following companies: NLY: Annaly Capital Management, Inc.; AGNC: American Capital Agency Corp.; HTS: Hatteras Financial Corp.; CYS: CYS Investments Inc.; ARR: ARMOUR Residential REIT, Inc.; CMO: Capstead Mortgage Corp.; and ANH: Anworth Mortgage Asset Corp.

[4] Federal Reserve Board: *Financial Accounts of the United States* and Federal Reserve Bank of New York, Dealer Positions Report.

[5] Bloomberg.

[6] Federal Reserve Board: *Financial Accounts of the United States*.

A CLOSER LOOK AT REITS

In 1960, the U.S. Congress passed and President Dwight D. Eisenhower signed the initial legislation – the *REIT Rules* – authorizing REITs in the United States as a way to make equity and mortgage debt investment in diversified and professionally managed portfolios of large-scale, income-producing real estate accessible to all Americans in the same way they typically invest in other stocks and bonds. Prior to the creation of REITs, access to the investment returns of commercial real estate debt and equity was available only to institutions and wealthy individuals having the financial wherewithal to undertake direct investments in the real estate asset class.

Today, a U.S. REIT may be a public company with its shares registered with the Securities & Exchange Commission (SEC), or it may be a private company. A public REIT's shares may be listed on an established stock exchange, or its shares may be unlisted and sold directly to investors through a broker-dealer. At the end of 2013, 303 REITs in the U.S. were registered with the SEC, and 213 of those REITs were listed on established U.S. stock exchanges (predominantly on the NYSE). Of the 303 SEC-registered REITs, 93 percent (by total assets) were stock exchange-listed REITs, and 7 percent were public, non-listed REITs. Private REITs are not registered with the SEC.

REITs today are widely owned by both individual and institutional investors. At the end of the second quarter of 2013, direct share ownership by individual investors accounted for 18 percent of outstanding U.S. listed REIT shares. Mutual funds and exchange-traded funds often used by both U.S. and foreign individual investors to invest in corporate securities owned 40 percent and 10 percent, respectively. Pension funds and other institutional investors combined owned 27 percent of all shares, and other investors accounted for the remaining five percent.

The U.S. REIT Rules

To provide this opportunity to the public, Congress has required since 1960 that REITs follow rules closely modeled after those of mutual funds, with the proviso that REITs primarily invest in real estate rather than corporate securities. In general, the REIT Rules create an operating framework requiring that real estate investment is undertaken for the longer term; that taxable income results from real estate-related investment; and that REITs' taxable income is distributed annually to shareholders.

This operating framework is delineated within the Internal Revenue Code (IRC) by numerous rules, restrictions and limitations under which REITs are required to operate. Specifically, any entity that elects with the IRS to operate and be taxed as a REIT under the IRC must be considered a corporation for tax purposes; must be incorporated or otherwise organized in the United States; must maintain at least 75 percent of its assets in qualifying real estate assets; must receive at least 75 percent of its income from some combination of rent from real property, interest from mortgages secured by real property and gains from the sale of real property; must receive at least 95 percent of its income from the aforementioned qualified real estate sources or from other passive sources; and must have more than 100 shareholders with no five or fewer individuals owning more than 50 percent of its stock.

Among the restrictions under which REITs operate is the rule that requires REITs to distribute at least 90 percent of their taxable income each year to their shareholders in the form of dividends. Thus, REITs, unlike other corporations, are not permitted to retain and accumulate an appreciable amount of earnings. In fact, most REITs pay out 100 percent of their taxable income. By complying with the REIT rules, including the annual dividend distribution requirement, a REIT is permitted to deduct from its taxable income the dividends it pays to its shareholders when completing its corporate income tax return – the *dividends paid deduction* – and shareholders pay the tax on the dividend income they receive, generally at the shareholder's *ordinary income* tax rate. In 2013, stock exchange listed-REITs paid out $34 billion in dividends.

The limitation on the accumulation of retained earnings has at least three beneficial consequences for investors. First, it requires that REITs regularly return to the capital markets to

fund new investment, thereby subjecting the companies to the ongoing scrutiny of investors, analysts and others, and incentivizing them to remain disciplined in their use of shareholder capital. Second, it results in REITs paying relatively high dividends, which provide needed income for retirees and some other investors. Third, the high income return contributes to the diversification that listed REIT equities provide to broadly diversified investment portfolios.

In the early years, most stock exchange-listed REITs were "Mortgage REITs," which provide debt financing for commercial or residential properties through their investments in mortgages and mortgage-backed securities. The market's interest in "Equity REITs," which today usually both own and manage commercial properties, initially was limited because the ownership and management of assets were required under the initial rules to remain separate. That restriction changed with the passage of the Tax Reform Act of 1986, which permitted REITs both to own and manage their properties as vertically integrated companies and helped set the stage for a secular wave of equity REIT IPOs in the mid-1990s.

U.S. REITs Today

The U.S. REIT industry today includes a vibrant range of companies engaged in real estate ownership or financing that support nearly all sectors of the economy and help to support nearly one million jobs in the U.S. each year, both through their own operations as well as the operations of the businesses that occupy their properties. More than 90 percent of the more than 200 stock exchange-listed U.S. REITs are equity REITs that own, and in most cases operate, income-producing properties, including apartments, data centers, hospitals, hotels, logistics facilities, nursing homes, office buildings, shopping malls, storage centers, telecommunications towers and forestlands. Equity REITs currently own over $1 trillion of real estate in the U.S., including 40,000 properties across all major property types and in all 50 states and the District of Columbia, accounting for an estimated 15 percent of all income-producing commercial real estate.

The remaining 10 percent of the more than 200 stock exchange-listed U.S. REITs are mortgage REITs that provide financing for the housing and commercial property sectors of the economy by investing in residential and commercial mortgages as well as residential mortgage-backed securities (RMBS) and commercial mortgage-backed securities (CMBS). Today, stock exchange-listed mortgage REITs number 46 companies having a total equity market capitalization of $66 billion and total assets of about $500 billion.

REITs in the U.S. today also have become widely recognized for the important role they play in the real estate industry, in the broader economy and in diversified investment portfolios. That role was first recognized in 2001, when Standard & Poor's admitted stock exchange-listed equity REITs to its primary benchmarks for U.S. equities. In 2013, Standard & Poor's extended eligibility to include stock exchange-listed mortgage REITs. Today, nearly three-fourths of the total equity market capitalization of the listed REIT industry is captured by the S&P 400 Mid Cap, S&P 500 Large Cap and S&P 600 Small Cap Indexes.

Over the course of more than five decades, the U.S. REIT industry has grown substantially and performed well. Not surprisingly, other nations have taken notice. In an effort to provide their citizens and economies with the benefits of REIT-based real estate investment, nearly 30 countries so far have adopted various forms of the U.S. REIT model. For example, each and every G-7 nation has adopted a model for REIT-based real estate investment. Additionally, a majority of countries that are members of the Organisation for Economic Co-operation and Development (OECD) have adopted their own REIT models. Importantly, both of our nation's neighbors, Canada and Mexico, have REIT models in place. All of these countries have chosen to follow, more or less, the pioneering experience set forth by the U.S.