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Lessons Learned from the Great Financial Crisis

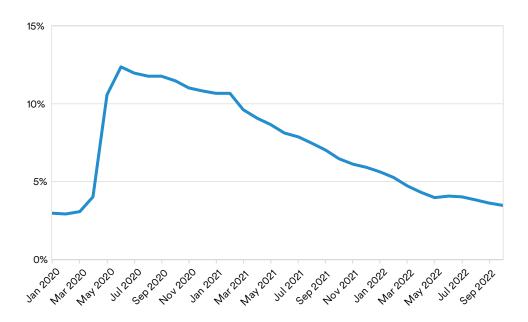
Since their genesis in the 1930s, residential mortgages have become a mainstay of the U.S. economy with a market value over \$14 trillion¹. Though the severity of the Great Financial Crisis (GFC) from 2007–2009 left an indelible blemish, lessons learned from the GFC have materially changed how loans are originated and how mortgages are purchased. Underwriting standards, for example, across the industry have since vastly improved and become more stringent. Lenders have tightened credit boxes and implemented robust underwriting and due diligence processes to ensure borrower creditworthiness, ability to repay and defensible property valuations. Improvements also include technological advancements, more robust algorithmic models and third-party reviews that enable originators to produce risk analyses and validation appraisals of the underlying collateral accurately and efficiently. These capabilities have allowed private investors to effectively manage mortgage portfolios and help to mitigate unexpected market risks.



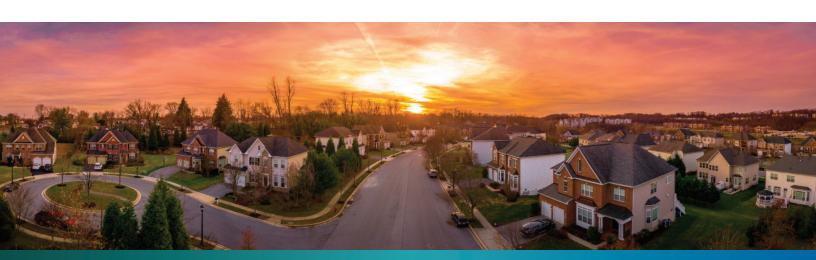
Proven Performance through Market Changes

The strength and resilience of residential mortgages have been evident since the GFC, particularly as the market underwent unprecedented stress from the pandemic. Lenders, loan servicers and investors used lessons from the GFC to develop successful loss mitigation programs against borrower default or financial hardship that include modification, forbearance and/or deferral. This has kept delinquencies at all-time lows and was especially evident during the uncertainty of the COVID-19 pandemic when the industry at large navigated an uncharted systemic crisis and effectively managed a material increase in loan delinquencies². The COVID-19 pandemic provided proof that servicers and the market can handle a material increase in loan delinquencies and keep borrowers in their homes. At MetLife Investment Management (MIM), our established relationships with servicers enabled nearly 90% of borrowers impacted by the pandemic to return to current and have their mortgages cash flow again, with only approximately 20% of those requiring a modification to loan terms.

Chart 1 | The Impact of Covid-19: % of MIM Managed Mortgages 60+ Days Delinquent



Source: Based on historical MIM managed portfolio data between January 2020 and September 2022.

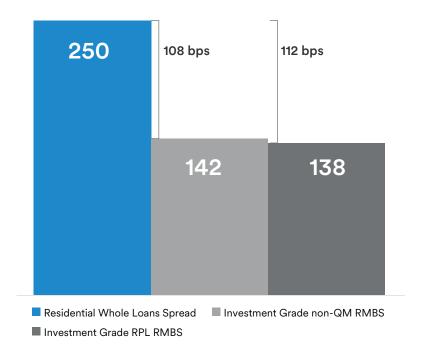


Investments in Residential Whole Loans

The residential whole loan market offers investors a range of opportunities with unique attributes that continue to make investing in the asset class potentially attractive:

1. Originators obtain liquidity either via the public residential mortgage-backed securities (RMBS) market or by selling their loans into the whole loan market. Spreads remain wider for whole loans relative to public investments in residential credit, due to the management required of the underlying assets and the differences in market liquidity relative to structured products, as well as eliminating those costs associated with creating an RMBS structure. By purchasing whole loans, investors can capture a material portion of the coupon borrowers are paying, net of servicing fees. To highlight the juxtaposition against whole loans, there is a considerable difference between the coupon and the returns received by investors, as shown below.

Chart 2 | Average Potential Whole Loan Spread Premium



Spreads are nominal and are shown as of March 31, 2024. Investment Grade spreads for RPL and non-QM non-agency RMBS are weighted averages calculated using representative market deal structures. Investment Grade bonds within utilized benchmarks are inclusive of bonds rated from AAA to BBB.

- 2. Life insurance companies, in particular, have increasingly focused on residential whole loans because of their favorable capital treatment relative to RMBS bonds. With a capital charge just under 75 bps³, this capital efficiency offers investors for life insurance general accounts an attractive capital-adjusted return that includes a spread pickup to public RMBS.
- 3. There is a wide array of sub-sectors under the residential whole loan umbrella (see chart on next page). This provides flexibility around credit and prepayment risk profiles where an investor can pivot to any of these sub-sectors at any time depending on relative value. Strategies can also be tailored to fit investors' requirements.

The Mortgage Credit Risk Spectrum in the Current Market

LOWER RISK	Prime Jumbo	Pristine credit, high income borrowers, generally under 80 LTV	
	Agency Eligible	Ability to sell to Government Sponsored Entities (GSEs) for Agency securitization	Banks Private Equity
	Near Prime	One credit criteria off (e.g., higher LTV, lower FICO, higher debt to income	
	Proven Pay, Reperforming Loans	Loans with past payment defaults that have completed at least a year of clean payment history. FICOs usually range from 600 – 720 and mark-to-market LTVs may exceed 80 or even 100 in some cases.	
	Non-Qualified Mortgages	Mortgages underwritten that lack some piece of regulated requirements to meet "qualified" criteria. This may include alternative income documentation and interest-only payment periods.	
	Second Lien	Closed-end second lien used to borrow against the equity on the property. In a default scenario, the second lien is subordinate to the first lien.	
	Ginnie Mae Early Buyout	Delinquent government insured loans that are repurchased out of Ginnie Mae securities.	
	Residential Transition Loans	Loans to investors for the purpose of purchasing, renovating and selling the property within a short period. Also commonly referred to as fix-and-flip loans.	
	Choppy Pay Reperforming Loans	Past default history within the past twelve months and/ or consistently misses some payments but is current on the mortgage at time of investment.	
HIGHER RISK	Non-Performing Loans	Loans currently behind on payments. Tend to be more sensitive to home prices and the ability of servicers to create reperforming loans quickly.	

Information generated by MIM regarding potential targeted investments are based on market observations and are subjective in nature.

4. Investors who are members of the Federal Home Loan Bank (FHLB) can leverage their residential whole loan portfolios to access attractive financing through FHLB advances. The FHLB provides lines of credit at 70–75% of the collateral's market value, with financing rates typically just above SOFR (between 20–50 bps for 0–5 year tenors and 50–100 bps for 5–10 year tenors)⁴. These advances, available from overnight to 30–year terms, require pledged loans to meet specific eligibility criteria including maximum loan-to-value ratios, minimum credit scores and property type restrictions. This financing structure is particularly valuable because investors can deploy borrowed funds into higher-yielding investments while maintaining their original loan portfolio. Additionally, by pledging residential whole loans, investors can free up other high-quality collateral like U.S. Treasuries for alternative strategies. Regular mark-to-market requirements and potential collateral adjustments ensure prudent risk management, while the low cost of capital makes FHLB financing an attractive option for portfolio enhancement.

- 5. Residential whole loans not only offer potential for higher risk-adjusted yields but can also provide investors greater control over the investment process. The direct purchasing of loans offers increased transparency and control in investing in the underlying assets. Investors can determine their own credit criteria and portfolio risk tolerance by more selectively carving out loans for purchase. This type of investment allows for more creative purchasing structures that enable investors to manage their exposure to credit and interest rate risk such as purchasing loans that meet specific attributes or reducing purchase premiums through seller- or servicer-retained excess servicing strips, thus mitigating the effects of negative convexity.
- 6. While many asset managers like MIM are 'buy and hold,' the flexibility of residential whole loans extends to exit strategies. If an investor decides to exit their position, e.g., to realize their portfolio gains or adjust their portfolio risk, they have options in determining how to do so, including securitization strategies through the public market or private targeted loan sales. The granularity allows investors to define which loan pools from their portfolio to sell, in contrast to RMBS holdings where investors must sell the entire rated security or tranche.
- 7. Investment strategies evolve by product type as market dynamics and relative value across loan products change over time. Investments across various product types show the advantage of having control over the credit criteria, allowing investors to focus on capturing better relative value and yield than that available in the public RMBS market. For example, MIM and other assets mangers shifted to non-QM mortgages in 2022 due to a thorough understanding of the credit and prepayment risk profile, along with more attractive spread pickup compared to other subasset classes.
- 8. Lastly, the fundamentals of today's housing market are much healthier than during the GFC, and residential whole loans offer a potentially attractive path for investors to diversify their exposure to U.S. housing, consumer credit and geography. National home supply continues to be below pre-crisis levels as approximately 80% of all outstanding mortgages were locked into sub-4% mortgage rates as of 2023 year-end⁵. Combined with the post-pandemic increase in housing demand, the supply of homes for sale has been very constrained but in turn has kept property prices stable. Borrowers now have a substantial amount of equity built up in their homes, which has brought delinquencies and severities to all-time lows across MIM's portfolio, as incentivized homeowners look to protect their gains.

Insurance Strategic Asset Allocation

In the context of strategic asset allocation, residential whole loans can offer several benefits to an insurance company portfolio:

- Diversification
- Portfolio Construction
- Steady Income Stream
- Attractive Risk-Adjusted Returns

- Inflation Risk Mitigation
- Customized Investment Staple allocation
- Potential Increased Capital Efficiency

Diversification: Incorporating residential whole loans into an insurance company portfolio helps achieve a balanced mix of income, diversification and risk management aligned to long-term investment strategies. Residential whole loans provide a different risk and return profile compared to traditional investments like fixed income and equity. This diversification can smooth out returns while reducing overall portfolio risk and volatility.

Portfolio Construction: Residential Whole Loans offer distinct portfolio construction advantages that complement traditional fixed income and other risk assets in a diversified multi-strategy portfolio. While they exhibit negative convexity and prepayment risk during falling rate environments, these characteristics can be actively managed through careful loan selection, vintage diversification and creative purchasing structures that can enable investors to manage credit and interest rate risk exposures. Residential mortgages are often complementary because when interest rates are falling, other parts of the portfolio are performing well. In other words, the slower reaction of residential loans to interest rate movements, particularly in declining rate scenarios, can benefit portfolio performance when paired with non-callable bonds and other assets exhibiting positive convexity, such as bullet corporate bonds or Treasury securities. This lag effect creates a natural hedge against interest rate volatility.

Steady Income Stream: Whole loans generate regular principal and interest payments, which can offer a reliable source of income for insurance companies, helping to match their liabilities with steady cash flows. The consistent income streams and relatively higher yields compared to similarly rated corporate bonds enhance overall portfolio yield without significantly increasing credit risk. The secured nature of these loans, combined with their historically strong recovery rates in stressed conditions and granular exposure across geographic regions and borrower types make them particularly valuable for liability matching strategies in insurance portfolios.

Attractive Risk-Adjusted Returns: Whole loans, especially those with strong credit quality, which are typically purchased by traditional insurers, offer the potential for attractive risk-adjusted returns compared to other fixed-income alternatives. Rotation into residential mortgage loans can also help mitigate the effects of deterioration in fundamentals in the commercial office and retail sectors. Residential mortgages accounted for 11.2% of the mortgages held by life insurers at year end 2023, a 200% increase in industry-wide allocation over three years.⁶

Inflation Risk Mitigation: Residential whole loans often come with higher yields and spreads versus high-grade corporate bonds. Premiums to publics often range between 150–200 bps versus alternatives. Residential whole loans can also provide some degree of protection as a hedge against inflation, since the value of the underlying real estate generally rises with inflation, potentially preserving the real value of income and principal.

Customized Investment – Staple allocation: Insurance companies can easily tailor whole loan investments to fit their specific risk tolerance, return objectives and liquidity needs, aligning with their strategic asset allocation goals. This is especially true given the varied types of products within the residential mortgage loan space; examples include Non-Qualified Mortgages, Prime Jumbo, Second Liens and Residential Transition Loans.

Potential Increased Capital Efficiency: Whole loan investments offer favorable capital treatment under many regulatory frameworks, allowing life insurance companies to optimize their capital usage and improve overall capital efficiency.

MetLife Investment Management's (MIM) Residential Whole Loan Strategy

We believe residential whole loans are an under allocated asset class within the insurance industry. MIM has established a record of performance and maintains relationships necessary to build tailored portfolios for clients. Clients must consider factors such as liquidity, duration and credit quality.

MIM currently manages over \$20 billion⁷ in residential loans and offers various client services, including sourcing, loan level due diligence, regular servicing oversight, reserve modeling and loss mitigation strategies. This includes providing accounting support during the onboarding process and assistance with pledging assets to the FHLB. The loan management process is designed to handle large amounts of data from various counterparties to monitor and manage asset performance. Using a data and systems-based approach, clients can tailor their whole loan investments to meet their specific objectives and strategic asset allocations.

Endnotes

- ¹ St. Louis Federal Reserve "All Sectors; One-to-Four-Family Residential Mortgages," Jun 30, 2024
- ² MBA "Share of Mortgage Loans in Forbearance Decreases to 0.44% in June," Jul 19, 2023
- ³ The capital charge across MIM's residential portfolio
- ⁴ Based on the pledged loan portfolios of MIM and its clients
- ⁵ FHFA data analysis by Realtor.com "87% of Outstanding Mortgage Debt has a Sub-6% Rate", Dec 31, 2023
- 6 S&P Global "Residential loan surge pushes U.S. life insurers' mortgage holdings to new heights", May 2, 2024
- ⁷As of September 30, 2024. At estimated fair value. Includes all U.S. residential mortgage loans managed by MIM, excluding fair value option residential mortgage loans.

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² Source: Pensions & Investments Managers Ranked by Total Worldwide Institutional Assets Under Management as of December 31, 2023. L1124045032[exp1126][Global]

