

US Mortgage Backed Securities

Composite Performance
Data as of Sept. 30, 2019



Key facts

Benchmark	Bloomberg Barclays U.S. Mortgage-Backed Securities Index
Inception	09/30/2002
Total product assets*	\$2.5 Billion

Management Team

Broad Fixed Income

Target objectives

Performance objective	40 bps
Tracking error	80-100 bps
Annual turnover	100%

Representative account characteristics

Average duration (years)	2.6
Weighted average life (years)	5.2
Average yield to maturity	2.9%
Current yield	4.5%
Average weighted coupon	3.8%
Average quality (Barclays)**	AA+

Available investment vehicles

Separate account	\$50 million minimum
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Distinguishing attributes

- Focused exposure to the MBS sector
- High credit rating
- Highly liquid

*Total product assets shown above may include accounts that are not reflected in the GIPS composite performance.

**Average credit quality (ACQ) is an internal measurement calculated by taking the highest rating of the three major rating agencies (S&P, Moody's & Fitch) at a security level. It is then changed into a numerical value, asset weighted and then calculated to be shown at the portfolio level in S&P format. Non-rated securities are not included in the average quality calculation. Information on non-rated securities is provided in the Quality Distribution chart, if applicable. ACQ calculations may vary across the industry and should not be the only factor in analyzing a portfolio. Please review all information carefully before investing.

These portfolio characteristics are subject to change, and current holdings may differ.

The principal risk of derivatives is that the fluctuations in their values may not correlate perfectly with the overall securities markets. For some derivatives, it is possible to lose more than the amount invested in the derivative or, if used as a hedge, the hedge may not succeed. Derivatives are also subject to counterparty risk – the risk that the other party will not complete the transaction.

Sources: Invesco, and Barclays

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Investment objective

Invesco Fixed Income's US Mortgage-Backed Securities strategy seeks to outperform the Bloomberg Barclays MBS Index by 40 bps on average per year. We focus on producing returns consistently by seeking to reduce volatility in the portfolio. The strategy invests primarily in investment grade securities, which are largely fixed rate structured securities.

Investment strategy

The US Mortgage-Backed Securities strategy is for investors who seek focused exposure to the mortgage-backed sector or diversification of fixed income holdings. It is an actively managed, total return strategy designed to achieve returns while managing volatility and stability. Mortgage-backed securities are the primary sectors, although commercial-mortgage and asset-backed securities may be used as well. Duration is designed to range from +/- 0.5 years around the benchmark. Fixed rates will comprise most of the securities, although floating rate securities may be used. Duration, maturity selection, sector allocation, spread volatility and security selection are each potential sources of return.

Third quarter commentary

US bond returns continued to post strong nominal results for the quarter, as rates fell precipitously amid a decelerating global economy and persistent trade disputes between the US and China. Global risks remained a headwind to growth, especially in Europe with the uncertainties of Brexit, auto tariffs and Italy still in crisis. Chinese growth also continued to slump, even as policy makers were actively easing monetary policy. Nevertheless, credit investors were generally rewarded over the period, despite the heightened volatility and escalating recession fears. US-based yield strategies remained competitive from a global perspective as negative yields increased across regions. The Federal Reserve (Fed) cut the fed funds rate twice during the period by 25 basis points (bps) each time, which lowered the overnight yield target range to 1.75% - 2.00%. These accommodative policy actions were well received by the market, but US market yields still finished the quarter pricing in further rate cuts by the Fed.

US rate movements were the primary valuation drivers for fixed income for the quarter. The 2-year Treasury yield declined from 1.75% to 1.63%, the 10-year Treasury yield dropped from 2.00% to 1.68%, and the 30-year Treasury yield fell from 2.52% to 2.12%. The yield curve, as measured by the yield differential of the 2-year versus the 30-year, flattened notably from 77 bps to 48 bps, driven by investors' concern with global growth and modest inflation risks.

Within structured securities, the agency mortgage-backed securities (MBS) sector was able to marginally outperform comparable Treasuries, even with escalating prepayment risks amid the notable rally in rates. Thirty-year conventionals outperformed both 30-year Government National Mortgage Association (GNMA) and 15-year conventionals for the quarter, producing 0.19% of outperformance relative to Treasuries, versus -0.11% for GNMA and -0.19% in 15-year. The asset-backed securities (ABS), commercial mortgage-backed securities (CMBS) and non-agency residential mortgage-backed securities (RMBS) sectors outperformed with the fervor for yield, as these sectors are less impacted by the declining global growth given the underlying US-focused collateral.

The US MBS strategy generated a positive return and outperformed its benchmark, the Bloomberg Barclays US MBS Index, for the quarter. Outperformance was driven primarily by out-of-index exposure to CMBS and security selection within MBS pass-through securities. The strategy's duration posture, which was shorter than the benchmark, detracted from relative return as interest rates continued to fall during the period. The strategy's out-of-index exposure to agency collateralized mortgage obligations (CMOs) was also a slight detractor for the period.

The strategy's overall allocation to MBS is modestly below that of the benchmark, with an underweight in 30-year fixed rate pass-throughs that is offset by agency CMO holdings. Current coupon valuations remain attractive both on a historical basis and relative to investment grade alternatives in the corporate and CMBS sectors, given continued outperformance in those sectors. Fundamental and technical challenges remain, however, warranting a more conservative stance. We remain neutral the sector, maintaining an overweight to conventional over GNMA collateral, with neutral positioning across the 15-year coupon stack. The strategy also continues to hold substantial allocations to RMBS and CMBS with a more modest allocation to ABS. In our view, these structured security credit sectors still offer enhanced yield with supportive fundamentals.

Important information

All material presented is compiled from sources believed to be reliable and current, but accuracy cannot be guaranteed. This is not to be construed as an offer to buy or sell any financial instruments and should not be relied upon as the sole factor in an investment making decision. As with all investments there are associated inherent risks. This should not be considered a recommendation to purchase any investment product. This does not constitute a recommendation of any investment strategy for a particular investor. Investors should consult a financial professional before making any investment decisions if they are uncertain whether an investment is suitable for them. Please obtain and review all financial material carefully before investing.

Invesco Fixed Income

- More than \$300 billion in fixed income assets under management
- Innovative investment strategies that seek to generate consistent income
- Strong track record in a variety of market conditions
- Decisive research, credit analysis and security selection
- Strong risk management at every step of the process

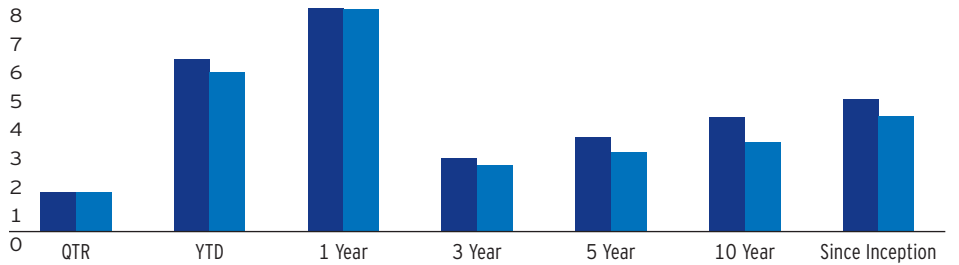
Three year regression analysis

Alpha	0.31
Beta	0.97
Tracking error	0.36
Standard deviation	2.43
Sharpe ratio	0.43
Information ratio	0.67
R-Squared	0.98

Periodic total returns (%)

Composite Inception Since 09/30/2002

- US Mortgage Backed Securities (gross)
- Bloomberg Barclays Mortgage-Backed Securities



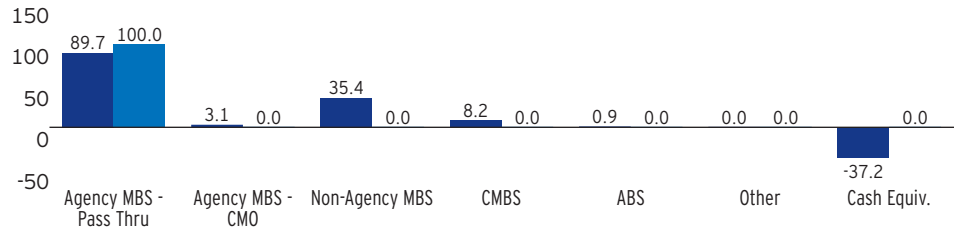
Performance (%)

	Quarter	Year to date	1 year	3 years	5 years	10 years	Since inception
US Mortgage Backed Securities (gross)	1.39	6.05	7.82	2.56	3.32	4.02	4.65
Bloomberg Barclays Mortgage-Backed Securities	1.37	5.60	7.80	2.32	2.80	3.14	4.04

Gross of fee returns are before deduction of management and custodial fees but after trading commissions. Net returns will be lower. Past performance is not a guarantee of future results. All performance is through Sept. 30, 2019 and returns for periods greater than 12 months are annualized.

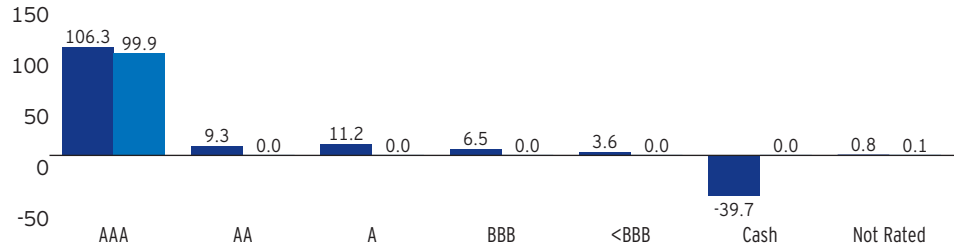
Sector distribution (%)

- US Mortgage Backed Securities
- Bloomberg Barclays Mortgage-Backed Securities



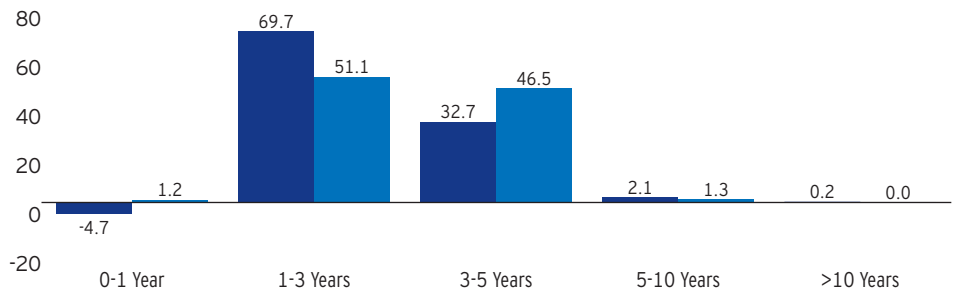
Quality distribution (%)

- US Mortgage Backed Securities
- Bloomberg Barclays Mortgage-Backed Securities



Duration allocation bucket (%)

- US Mortgage Backed Securities
- Bloomberg Barclays Mortgage-Backed Securities



Schedule of investment performance as of September 30, 2019

Composite Inception Since 09/30/2002

	Gross rate of return (%)	Net rate of return (%)	Benchmark return (%)
2018	0.79	0.49	0.99
2017	2.92	2.61	2.47
2016	2.85	2.54	1.67
2015	2.15	1.84	1.51
2014	6.78	6.46	6.08

Annualized compound rates of return ending September 30, 2019

1 Year	7.82	7.49	7.80
3 Year	2.56	2.26	2.32
5 Year	3.32	3.01	2.80
10 Year	4.02	3.70	3.14
Since Inception	4.65	4.33	4.04

Invesco Worldwide claims compliance with the Global Investment Performance Standards (GIPS®).

Composite notes

Invesco Worldwide claims compliance with the Global Investment Performance Standards (GIPS®). Invesco Worldwide has been independently verified for the periods 1st January 2003 through 31st December 2018. The legacy firms that constitute Invesco Worldwide have been verified since 2001 or earlier. The verification reports are available upon request. Verification assesses whether (1) the Firm has complied with all the composite construction requirements of the GIPS standards on a Firm-wide basis and (2) the Firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. Verification does not ensure the accuracy of any specific composite presentation.

Invesco Worldwide ("The Firm") is defined as follows: Invesco Worldwide manages a broad array of investment strategies around the world. The Firm comprises U.S.-based Invesco Advisers, Inc. (excluding Unit Investment Trusts) and all wholly owned Invesco firms outside of North America (excluding Invesco India and Source Investment Management Limited). All entities within the Firm are directly or indirectly owned by Invesco Ltd. Invesco Canada Ltd. is also a GIPS-compliant firm whose assets are managed by a subsidiary of Invesco Ltd. Invesco Senior Secured Management, Inc., Invesco Private Capital, Inc., and Invesco Capital Management LLC are affiliates of the Firm. Each is an SEC-registered investment adviser and is marketed as a separate entity. Invesco Great Wall Fund Management Co. Ltd is a fund management company established under China Securities Regulatory Commission's approval, and its assets are excluded from total Firm assets. On May 24, 2019 Invesco acquired Massachusetts Mutual Life Insurance Company's asset management affiliate OppenheimerFunds. As a result of this transaction assets previously part of the OFI Global Asset Management (OFI Global) GIPS® firm will now be part of Invesco Worldwide (IWW) GIPS® firm. Firm assets under management for OFI Global as of December 31, 2018 were \$214 billion. IWW historical firm assets have not been restated to reflect the acquisition. OFI Global was independently GIPS® verified through December 31, 2018.

The Composite returns are benchmarked to Bloomberg Barclays US Mortgage Backed Securities Index. The benchmark is used for comparative purposes only and generally reflects the risk or investment style of the product. Investments made by the Firm for the portfolios it manages according to respective strategies may differ significantly in terms of security holdings, industry weightings, and asset allocation from those of the benchmark. Accordingly, investment results and volatility will differ from those of the benchmark.

The minimum portfolio size for the Composite is \$20,000,000. Prior to June 30, 2008 the minimum size was \$50,000,000.

Interest rate futures, options, swaps, and forwards may be used to replicate cash investments, manage yield curve or other risk positions and to pursue investment strategies generally allowed by the Composite. Derivatives must be included in the duration calculations of portfolios in the Composite and must abide by the duration, credit quality, and all other constraints of Composite accounts.

Gross-of-fee performance results are presented before management and custodial fees but after all trading commissions and withholding taxes on dividends, interest and capital gains, when applicable. Net-of-fee performance results are calculated by subtracting the highest tier of our published fee schedule for the product from the monthly returns. The annual management fee is as follows: 30 basis points on the first \$50 million, 25 basis points on the next \$50 million, 20 basis points thereafter.

Valuations and portfolio total returns are computed and stated in U.S. Dollars. The Firm consistently values all portfolios each day on a trade date basis. Portfolio level returns are calculated as time-weighted total returns on daily basis. Accrual accounting is used for all interest and dividend income. Past performance is not an indication of future results.

To receive a presentation that adheres to the GIPS standards, and/or to receive a complete list and description of the firm's composite, please contact Paige Dennison at 502 561-3283 or by email at Paige.Dennison@invesco.com.