Investment Insights
What are US commercial mortgage-backed securities (US CMBS)?

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Introduction
US Commercial mortgage-backed securities (US CMBS) are bonds collateralized by commercial real estate loans which are, in turn, secured by commercial real estate. The cash flow from the commercial mortgage loans is used to service the interest and repay the principal on the bonds.

Background
The US CMBS market began in the early 1990s after the US congress created the Resolution Trust Corporation (RTC) to resolve the savings and loan crisis.[1] S&Ls were active in mortgage, consumer and commercial lending but adopted risky lending practices that led to insolvency. The issuance of CMBS helped the RTC dispose of non-performing and distressed commercial mortgage loans as it liquidated failed S&Ls. The RTC paid discounted prices for the commercial mortgages, pooled them together, and sold them in tranches to investors in the form of securities – CMBS.

Growth
Due to its success as an asset class, the US CMBS market continued to develop after the S&L crisis was resolved. The value of US CMBS outstanding grew from USD42 billion in 1990 to approximately USD900 billion by 2007.[2] Since then, the size of the market has declined to USD565 billon, as loans have been paid down and issuance slowed following the global financial crisis.[3] However, origination activity and corresponding US CMBS issuance has accelerated in recent years as investors have tried to gain exposure to loans with lower current loan-to-value ratios (ratio of loan amount to property value) and higher debt service coverage ratios than those originated pre-crisis.

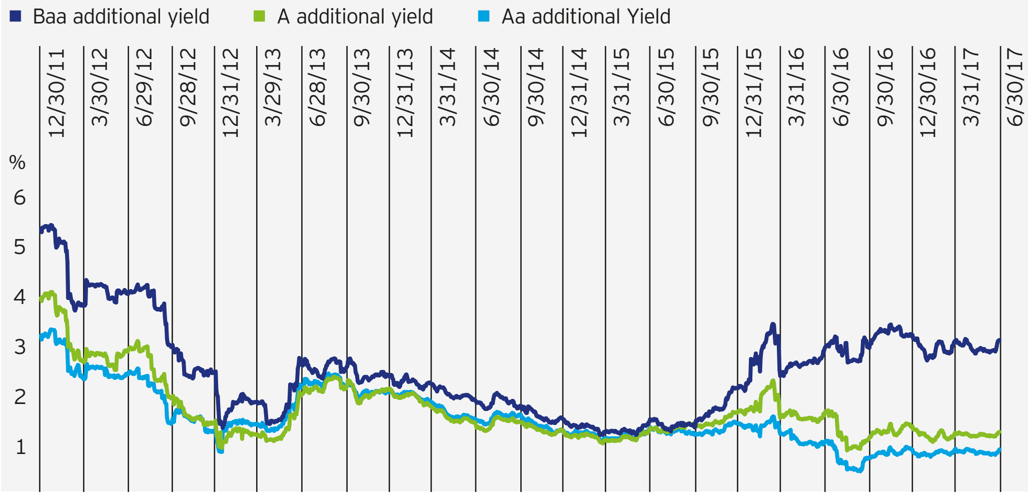
Today
Today's US CMBS market is an important sector in the global fixed income market. It enables a wide range of investors to gain exposure to the US commercial real estate market and facilitates financing to real estate owners across a wide range of property types. Today, the US CMBS sector is part of the BBG BARC U.S. Aggregate Bond Index.

Why consider US CMBS?
A CMBS strategy can provide focused exposure to commercial real estate loans or help diversify an overall fixed income portfolio. We believe interesting opportunities currently exist in US CMBS due to strong US commercial real estate fundamentals and a growing number of US commercial real estate loans that will need to be refinanced. Further, US CMBS may provide attractive incremental yield relative to the US corporate bond market.

We believe institutional money managers, insurance companies, pension funds and other investors may want to consider US CMBS for several reasons:

- Historically provided incremental yield relative to the US corporate bond market
- Limited prepayment risk due to prepayment penalties on underlying loans
- Diversification across property types and US states
- US CMBS are backed by loans secured by income-producing commercial real estate.
- Focused exposure to an improving US economy and a US commercial real estate market that has benefited from increased demand

US CMBS have provided incremental yield
(Yield on CMBS minus yield on comparably rated sector)

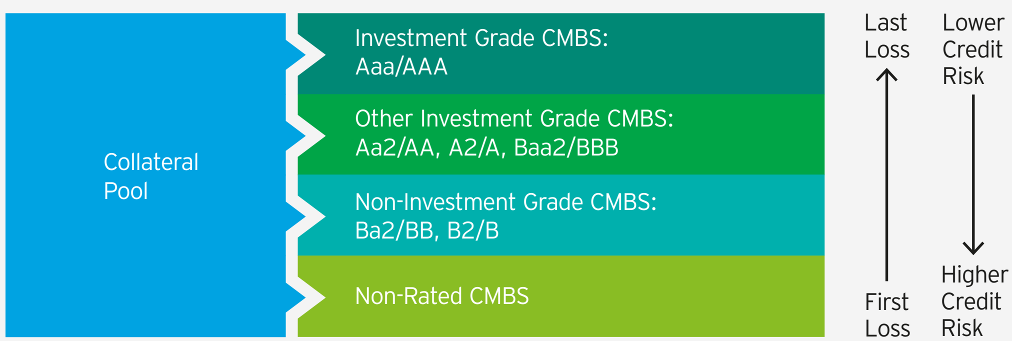


Source: BBG BARC, 31 Dec. 2011 to 30 June 2017. Past performance is not a guarantee of future results. BBG BARC US CMBS 2.0 Aaa 8.5+ Year Index, BBG BARC US CMBS 2.0 Aa Year Index, BBG BARC US CMBS 2.0 A Year Index, BBG BARC US CMBS 2.0 Baa Year Index, BBG BARC Aaa Corporate Index, BBG BARCs Aa Corporate Index, BBG BARC A Corporate Index, BBG BARC Baa Corporate Index.

How does a US CMBS work?

US CMBS start with a pool of mortgage loans. The cash flow from this "collateral pool" of mortgage loans is used to service interest and repay principal on US CMBS. Typical US CMBS capital structures include multiple classes of bonds divided according to their level of expected risk and maturity. These classes have different positions in terms of priority of receiving interest and principal payments. The senior classes (lower credit risk) are scheduled to receive interest and principal payments ahead of the junior classes (higher credit risk). Any collateral losses would typically be applied to the junior classes first and distributed in order of junior to senior class. As such, the risk of not receiving interest and principal payments on a given security is greater for the junior classes relative to the senior classes.

Typical US CMBS Transaction



For illustrative purposes only

IFI approach to CMBS

Invesco Fixed Income (IFI) employs a balanced top-down, bottom-up risk allocation approach in our portfolio construction process. Our top-down analysis examines factors in the broader US economy such as GDP growth, interest rates, labor market dynamics, consumer data and corporate earnings. Our analysis then defines fundamental trends in US commercial real estate such as property supply, tenant demand, occupancy rates, rental rates and financing terms to shape our outlook for various commercial real estate property types across geographic regions in the US. Our outlook for each regional market and property type helps form key rent growth and valuation assumptions used in our bottom-up analysis.

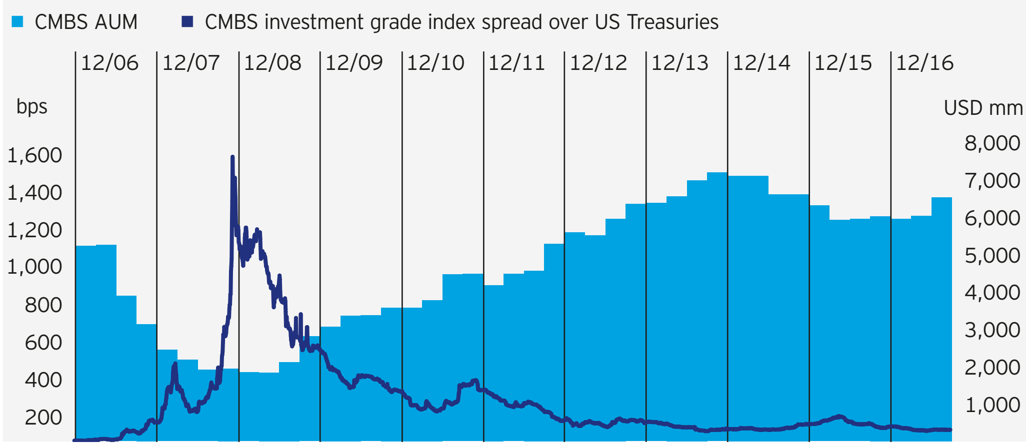
How IFI is different

While many investment managers rely on external credit ratings in making CMBS investment decisions, IFI conducts a review of each credit. Our analysis considers insight from our macro team, direct real estate investors, mortgage servicers and commercial real estate loan brokers in the US. The insights of IFI's corporate credit team are also utilized to monitor tenant risk, such as potential retail store closings.

Our proprietary model projects loan level defaults and corresponding loss severities for individual loans underlying each security (i.e. "collateral performance"). Each loan is assigned a risk score which considers trends in debt service coverage ratios, loan-to-value ratios, occupancy rates, and payment histories. After projecting the performance of the underlying collateral, scenario analysis is conducted to project bond and transaction cash flows under base, favorable and stress scenarios. Each CMBS class is assigned a fundamental rating. These ratings are communicated across the broader IFI team. Performance of collateral pools is monitored and ratings changes are broadcast to the team. Relative value analysis compares internal ratings to projected yields to make buy and sell decisions. Performance of individual securities is closely monitored and positions are typically re-evaluated quarterly, using the most recent underlying property and loan cash flows.

We believe our seasoned investment team and robust research capabilities enable us to identify attractive income opportunities and anticipate incremental credit spread tightening through disciplined security selection and timely sector allocation.

CMBS assets under management across Invesco
December 2006 to June 2017



Source: Invesco Fixed Income and BBG BARC Live (BBG BARC CMBS Investment Grade Index, BBG BARC U.S. Treasury Index), data from 31 Dec. 2006 to 30 June 2017.

1 The large scale failure of community savings and loans institutions, or "S&Ls."
2 Commercial Mortgage Securities Association (CMSA), July 2007
3 SIFMA, Sept. 2016

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