THINK US: Commercial real estate debt

A 'superfood' that can enhance portfolio performance

TH Real Estate

a nuveen company

Data generating art

This image is an abstract representation of Fig.6, showing the breakdown of average return, standard deviation and return per unit of risk across comparable investments.

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Introduction

We consider commercial real estate (CRE) debt to be a portfolio ‘superfood’, given its track record of consistently generating attractive risk-adjusted returns, relative to most other asset classes, although past performance is not a reliable guide to future performance.[1] Prior to the Global Financial Crisis (GFC), banks, life insurers, and CMBS investors held nearly 80% of the $3.9tn[2] US commercial and multifamily mortgage investment market, making it difficult for other investors to access. Stricter banking regulations, enacted in the wake of the GFC, resulted in a pullback in commercial banks’ and CMBS conduits’ lending activities, and according to Preqin, opened up the door for an $18bn capital raise for US CRE debt in 2017.

Commercial mortgages provide the following investment attributes:

SIZABLE INVESTMENT UNIVERSE
The $3.8tn commercial and multifamily mortgage market provides a wide array of potential investment opportunities that vary based on term and structure.

LOWER LOSS AND HIGHER RECOVERY RATES
Commercial mortgages have lower loss and higher recovery rates than comparable corporate bonds.

STRONG RELATIVE VALUE
Senior whole loan commercial mortgages3 provided 168 basis points of additional yield when compared to investment grade corporate bonds between 2000 and 2017.[4]

ATTRACTIVE RISK-ADJUSTED RETURNS
Allocations to commercial mortgages may potentially increase expected returns and could lower return volatility in a multi-asset portfolio.

MAY PRODUCE STABLE INCOME RETURNS
Stable, income-based returns derived from a diverse set of tenants of various sizes, in multiple industries and with staggered lease expirations.

PORTFOLIO DIVERSIFICATION
Commercial mortgages provide diversification to multi-asset portfolios due to modest correlations to most asset classes.

> With an increasing amount of capital targeting CRE debt, it is more important to choose a commercial mortgage origination platform and manager that can couple cycle-test underwriting standards with astute loan structuring. Superior execution of commercial mortgage lending requires size, scale, and industry relationships.

Jack Gay
Global Head of Commercial Real Estate Debt

[1]See Fig.6 highlighting where CRE debt outperformed stocks and bonds on a risk-adjusted basis, from 1997-2017.
[2]Federal Reserve Flow of Funds, Q4 2017.
[3]Unless otherwise stated, commercial mortgages or CRE debt throughout this report refers to senior whole commercial mortgage loans. We believe senior whole loans are an appropriate proxy for the overall CRE debt market because the underlying whole loan structure is comparable to transitional loans, construction loans, B notes and other types of CRE debt.
[4]Barclays Corporate Investment Grade Corporate Bond Index and the American Council of Life Insurers (ACLI).

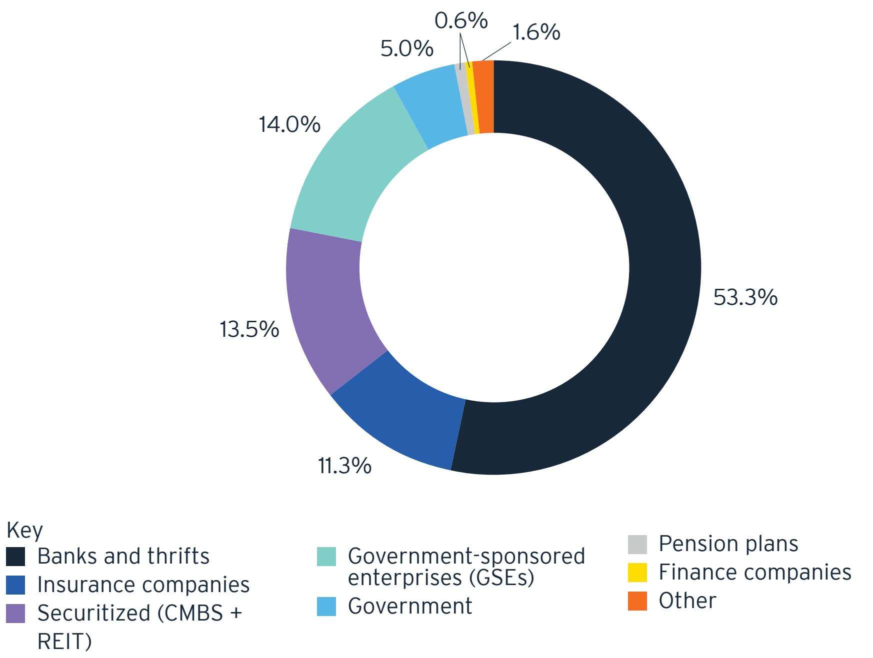
A sizable investment

According to the Federal Reserve, the outstanding value of commercial and multifamily mortgages is $3.9tn, or 8% of the entire US credit market, as of Q3 2017.[5] Commercial banks hold just over half of outstanding CRE debt, followed by government agencies, life insurance companies and asset-backed issuers (Fig.1).

Historically dominated by commercial banks and life insurance companies, the CRE debt industry expanded with commercial mortgage-backed securities (CMBS) starting in the late-1990s and with the emergence of alternative lenders in the last few years. Stricter banking regulations, in the wake of the most recent GFC, resulted in a pullback in lending activities, providing opportunities for alternative lenders in the commercial lending space.

The four primary property types (apartment, industrial, office and retail) provide the majority of CRE debt opportunities, however, lodging and growing niche sectors, such as student housing, medical office, and self-storage, also provide financing opportunities.

Fig.1: US commercial and multifamily mortgages outstanding



Source: Federal Reserve Flow of Funds, 2017

[5]The remainder of the US credit market is comprised of US treasuries, residential mortgages and corporate bonds.

Types of CRE debt

CRE debt can take a variety of forms, however, it generally falls into two categories: whole loans and subordinate loans, with specific types of loans in each category. As Fig.2 shows, different types of loans have unique features and characteristics, each collateralized by the lender's interest in a commercial property.

CRE debt opportunities are generated in a variety of ways such as sales transactions, recapitalizations, maturities of existing loans, refinancing, new construction, redevelopment and expansion of existing properties, and monetization of corporate and business real estate assets.

Fig.2: Features of various types of commercial real estate debt

Whole/senior loans	Term	LTV/LTC	Interest rate	DS coverage	Amortization	Guaranty	Prepayment	Common structuring
Senior fixed core	Intermediate	65% or less (LTV)	Fixed	Not less than 1.30	Partial	Non-recourse	Locked for three or more years; then % of outstanding balance or yield maintenance	Springing cash management
	Long		Floating					
Transitional	Short	80% or less (LTV)	Floating	Not less than 1.20	Partial	Debt service	Locked, then subject to negotiated fee, or spread or yield maintenance	Springing cash management
	Intermediate and extension options				None	Completion		Interest reserve TI/LC reserves
Construction	Short and extension options	80% or less (LTC)	Floating	Not applicable	None	Debt service		Interest reserve
						Completion		TI/LC reserves Free rent reserve

Subordinate loans	Term	LTV/LTC	Interest rate	DS coverage	Amortization	Guaranty	Prepayment	Common structuring
Mezzanine	Short	65-80% (LTV)	Fixed	Not less than 1.20	Partial	Debt service	Locked then defeasance or yield maintenance	Springing cash management
	Intermediate		Floating		None			
	Long				Partial			
B Notes	Short and extension options	65-80% (LTV)	Fixed	Not less than 1.20	Partial	Non-recourse	Spread or yield maintenance	Springing cash management
	Intermediate		Floating					
	Long							
CMBS	Intermediate		Fixed	Not less than 1.50	Partial	Non-recourse	Spread or yield maintenance	Springing cash management
	Long		Floating	Not less than 1.20				Capital reserves TI/LC reserves

Source: TH Real Estate, 2018

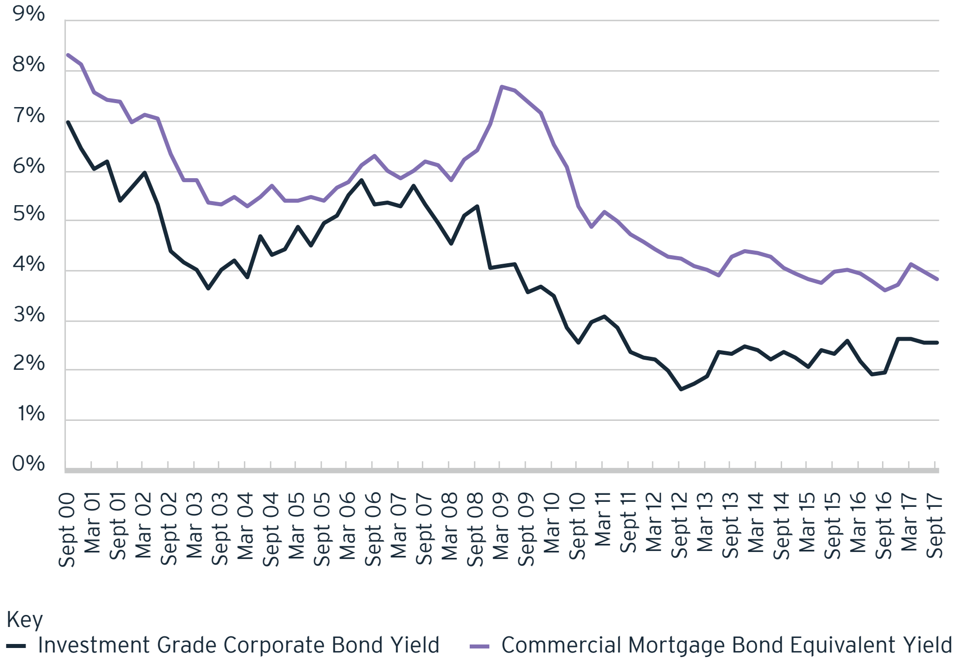
Investment attributes

Strong relative value

While direct comparisons of fixed rate senior mortgages and corporate bond returns are imperfect due to differences in duration, credit quality and the like, various research shows CRE debt yields are higher relative to that of investment grade corporate bonds.

As Fig 3. shows, commercial mortgage yields were 168 basis points higher, on average, relative to the Barclays US Corporate Grade Index between 2000 and 2017.[6] The risk profiles of CRE whole loans and investment grade corporate bonds are similar, making the spread comparison relevant. US insurance companies, which tend to predominately hold senior whole real estate mortgages, have mortgage portfolios that are rated BBB or higher.[7]

Fig.3: Commercial mortgages provide a higher yield relative to corporate bonds



Source: ACLI and Barclays US Investment Grade Corporate Bond Index, Q4 2017
Note: The yield for commercial mortgages are for senior fixed rate mortgages.
The yield for investment grade corporate bonds is yield to maturity.

[6]Aggregate commitment data are from ACLI, specifically the average bond equivalent yield for fixed loans.
[7]Fitch reported 62% of the mortgages held by the insurance companies it covered, were rated 'CM1' and 31% rated 'CM2' as of year-end 2016, categories that are associated with ratings of A to AAA and BBB+ to BBB- ratings, respectively.

Investment attributes (continued)

Lower loss rates and higher recovery rates

CRE debt has higher recovery rates than comparable corporate bonds and CMBS (Fig.4). Recovery rates have historically averaged 75-80% for senior commercial mortgage loans. By comparison, recovery rates for corporate bonds during the past two decades have ranged from a low of 30% for subordinated bonds, to a high of 63% for senior secured corporate bonds.[8]

Commercial mortgages have a higher recovery rate than comparable corporate bonds and CMBS because of the tangible nature of the loan security, the contractual nature of debt service payments, and the greater optionality and control over the resolution process. For example, loan documents and terms are negotiated by lenders and borrowers, with loan terms tailored to the specific characteristics of the property, the borrower's plans for the property, and the lenders' underwriting standards. A similar negotiation occurs when a loan becomes delinquent.
The level of control a lender has around a commercial mortgage is higher than the level of control a corporate bond holder has, which explains the differences in the recovery rates seen in Fig.4.

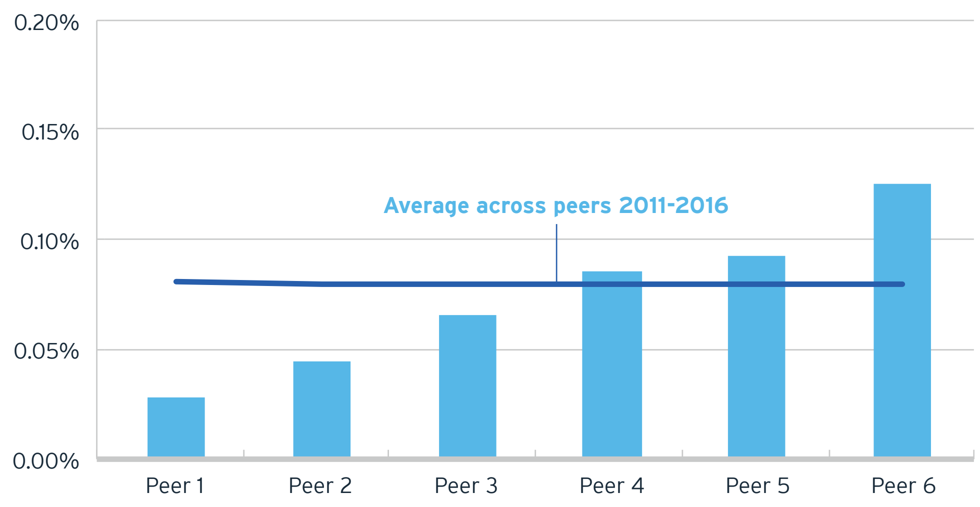
Fig.4: Comparison of recovery rates

Senior whole commercial mortgage loans:	75%-80%
Senior secured corporate bonds:	63%
Senior unsecured corporate bonds:	48%
Subordinate corporate bonds:	28%
CMBS:	57%

Source: Moody's
Note: Corporate loan and bond data are for the period 1987-2016. CMBS data is for the 2000-2016 period.

The average loss rate among six publicly traded life insurers between 2011 and 2017 was a relatively low 0.08%.[9] However, cumulative loss rates among individual insurance companies vary widely. CRE debt performance depends on a lender's ability to target the right assets, markets and sponsors. Additionally, performance depends on the structure of loans and the lender's ability to actively manage loans once originated. Investors considering an allocation to real estate debt need to understand the lender's historical performance in order to gauge their abilities in sourcing, originating and managing commercial mortgage loans.

Fig.5: Average loss rate among life insurers 2011-2017



Source: Analysis from publicly available 10K SEC filings, 2016

[8]Source: Moody's Investor Services, Corporate Default and Recovery Rates, 1920-2016, 17 February 2017.
[9]Losses are from publicly available SEC filings. While impossible to know, the majority of the CRE debt held by these six peers is investment grade senior mortgages, but may also include below investment grade senior mortgages and subordinated loans.

Investment attributes (continued)

Investment performance

We analyzed the potential return and diversification benefits of senior whole loan commercial mortgages[10] between 1997 and 2017, relative to other asset classes. Given the variety of investor risk tolerance, this analysis is for illustrative purposes only and should not be considered an investment recommendation.

Potential benefits to multi-asset portfolios

Traditional stock and fixed portfolios contain a mix of 60-70% stocks and 30-40% fixed income. Our analysis shows that between 1997 and 2017, a portfolio containing 60% stocks and 40% fixed income products would have generated a 7.4% average annual return with a 4.9% standard deviation. By allocating 10%-15% of the fixed income investments to senior whole loans, the portfolio returned 7.5%-7.6%. The incremental return of 15 to 20bps was accompanied by minimal additional volatility of 3 and 5bps, respectively, resulting in a higher risk-adjusted return.[11] This is based on reliance on mean-variance optimization (MVO). MVO requires tempering conclusions because MVO is highly sensitive to data inputs for the time period selected. As a result, our optimization results should be considered broadly illustrative and directional, rather than predictive or precise.

As shown in Fig.6, senior whole loans provide higher risk-adjusted returns compared to other asset classes, largely due to their low volatility. In addition to attractive risk-adjusted returns, senior whole loan returns are a source of portfolio diversification since returns are not correlated with those of stocks, equity real estate or REIT returns. Senior mortgage loan returns are highly correlated with corporate bond returns since both are priced at a spread over treasuries, but senior whole mortgage loans have, according to our analysis, delivered higher risk-adjusted returns as shown in Fig.6.

Fig.6: Commercial mortgages perform well compared to other asset classes

	Annual average return	Standard deviation	Return per unit of risk
Senior whole loans	6.7%	3.7%	1.81
Stocks	7.2%	16.4%	0.44
Corporates (aggregate)	5.0%	3.4%	1.45
Intermediate corporates	5.3%	3.9%	1.36
Equity real estate	9.1%	11.1%	0.82
CMBS	5.6%	7.0%	0.81
Equity REITs	9.1%	19.1%	0.48
Mortgage REITs	4.4%	29.8%	0.15

Source: Life Comps for Fixed Rate Whole Commercial Mortgages; S&P 500 for stocks; Barclays US Aggregate Credit Index for Corporates (aggregate); Barclays US Intermediate Credit Index for Intermediate Corporates; NFI-ODCE for Equity Real Estate; Barclays CMBS Investment Grade Index for CMBS; FTSE/NAREIT All Equity Reit Total Index for Equity REITs; and FTSE/NAREIT Mortgage REIT Total Index for Mortgage REITs.

Note: Past performance is not a reliable guide to future performance.

[10]We use senior whole loans to represent the full range of CRE debt options for two reasons. First, senior whole loans have an extensive history of return data, which is necessary to complete a portfolio optimization analysis. Second, we believe senior whole loans are an appropriate proxy for the overall CRE debt market, given the underlying whole loan structure that is common to transitional loans, construction loans, B notes and other types of CRE debt.

[11]The theoretical multi-asset portfolio was constructed using the correlations of total returns, historical total returns and standard deviations of total returns for each asset class as provided by industry standard benchmarks. These standard industry benchmarks include the S&P 500 for stocks, the Barclays Intermediate Credit Index for corporate bonds, the Barclays US MBS index for mortgage-backed securities, and Life Comps for privately-held senior mortgages. The weighting for each of these asset classes was determined by the Morningstar Direct's optimizer which takes into the correlations, historical returns and standard deviations of these asset classes. The optimizer designs a portfolio and assigns weights to each asset class listed above in a way that achieves the overall highest risk-adjusted return for the multi-asset portfolio. This is a wholly hypothetical portfolio and is based on the methodology outlined above.

Strategic considerations

As previously stated, we believe that commercial mortgages can act as a portfolio 'superfood' given their high risk-adjusted returns and low correlation to most other asset classes. However, the benefits commercial mortgages offer investors may be lost if the sourcing, originating and managing of the mortgages is subpar. Superior execution of commercial mortgage lending requires size, scale, and industry relationships. Real estate lending requires a sizeable staff with a full range of debt experience to effectively source, underwrite, undertake due diligence, structure, close, and manage debt portfolios. Detailed mortgage portfolio monitoring systems and procedures are required to identify potential problem loans. Experience with loan restructurings and workouts is required and only a limited number of the institutions, alternative lenders and third party debt funds currently active in the debt space have extensive experience in this area. A dedicated research team should provide relevant market data and analysis to monitor industry trends and market performance.

Note: Past performance is not a reliable guide to future performance.

Conclusion

CRE debt may provide portfolios with stable and consistent returns throughout any real estate or economic cycle. Historically over specific time periods, the asset class has displayed attractive risk-adjusted returns and may provide portfolios with diversification benefits, although past performance is not a reliable guide to future performance. Unlike other fixed income instruments, lenders have more control over the structuring of the mortgage which helps mitigate losses. Historically, it has been difficult to access commercial mortgage investments because they have been held by banks and life insurers. With the proliferation of real estate debt funds, investors now have a variety of ways to access commercial mortgage investments. However, superior commercial mortgage performance will depend on a lender's ability to pick the right assets, markets and sponsors, and the lender's ability to leverage their debt and equity relationships. Structuring loans and working through problem loans are also critical to performance. In our view, when sourced and managed well, CRE debt can be the 'superfood' for any investment portfolio.

"CRE debt can potentially provide portfolios with stable and consistent returns throughout any real estate or economic cycle. In our view, when sourced and managed well, it can be the 'superfood' for any investment portfolio."

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