PRIVATE REAL ESTATE DEBT STRATEGIES

Commercial & Multifamily Mortgage Investments

CHECK ALL THE BOXES Relative Diversification Performance

FOURTH QUARTER 2015

SELECT BENEFITS:

- Strong relative value
- Competitive credit loss experience
- Diversification
- High current income return
- Limited correlation of returns with other asset classes
- Call protection
- Ability to tailor investments to meet investor needs (asset-liability matching, credit risk tolerance, etc.)

INTRODUCTION

Commercial and multifamily mortgage investments form an integral part of the fixed income asset allocation strategy of many institutional investors. They offer an appealing mix of strong relative value, competitive credit loss experience, and diversification benefits within a larger fixed income portfolio. Investors also value the asset class' high current income return, limited correlation of returns with other fixed income alternatives, call protection, and the ability to tailor a portfolio to meet specific durational needs. The asset class also offers a unique combination of positive attributes that appeal to many investors in today's market environment.

This paper provides an overview of the role of life insurance companies in the commercial mortgage marketplace, an assessment of the potential for mortgages to provide excess returns over yields available from corporate bonds, a review of the industry's historical credit performance, and an assessment of other benefits associated with commercial and multifamily mortgage investments.

SERVING TODAY'S MARKET

Core commercial and multifamily mortgage investments include senior private mortgage loans secured by first liens on well-leased office, retail, industrial, and for-rent multifamily residential properties. Investment sizes range from less than US$5 million to far in excess of US$100 million per transaction, with terms ranging from less than three years to more than 20 years. Lenders/investors typically access the market via direct borrower relationships, through correspondent mortgage broker networks or via an investment advisor. According to the U.S. Federal Reserve, the total balance of commercial and multifamily debt outstanding in the United States was approximately US$3.61 trillion at the end of the fourth quarter of 2015.[1]

Investors in the market include commercial banks and savings institutions, asset-backed securities (CMBS) issuers, life insurance companies, government-sponsored enterprises, governmental entities, finance companies, real estate investment trusts, pension funds, and others.

[1] "Flow of Funds Accounts of the United States: Flows and Outstanding Fourth Quarter 2015", Board of Governors of the Federal Reserve System

> Principal Life Insurance Company has invested in high quality commercial mortgage loans for more than 50 years. This asset class has not only provided strong relative value compared to other asset classes, but important diversification for our portfolio.
>
> **-Tim Dunbar,**
> *Chief Investment Officer,*
> *Principal Life Insurance Company*

Although various types of lenders frequently compete to provide the same loans, some lenders focus only on specific segments of the market. Life insurance companies in particular tend to focus on high-quality properties in major metropolitan areas, seeking properties with durable cash flow streams and values. As a result, life insurers' credit loss experience has been among the most favorable in the industry. A later section of this paper examines life insurers' historical credit experience with commercial mortgages.

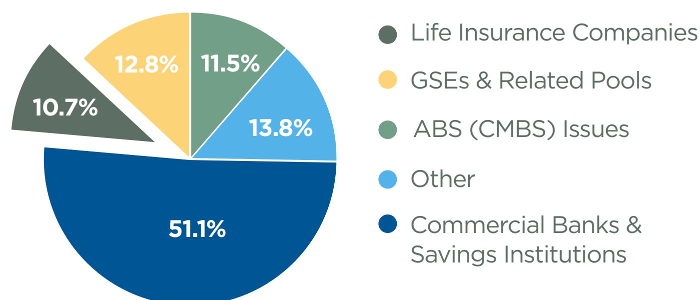
Insurance companies held over US$386 billion of U.S. commercial and multifamily residential mortgage loans as of fourth quarter 2015. Data from SNL Financial (SNL) revealed that holdings varied by size of insurer, with larger companies more likely to hold a greater share of mortgages in their portfolios, perhaps due to economies of scale associated with mortgage loan origination. SNL's analysis of more than 400 life insurance companies showed average commercial mortgage holdings equal to 10.91% of life insurers' overall investment portfolios.[2]

Exhibit 3 shows year-end 2015 real estate-related holdings among a group of large life insurance companies active in commercial mortgage lending. Despite the current low interest rate environment, many life insurers find mortgage investments compelling today, based on favorable risk parameters from an historical perspective and strong relative values compared to other asset classes. Consequently life insurers have increased their recent allocations to commercial mortgages and today hold a greater exposure to the asset class than ever before.

Exhibit 1

U.S. Commercial and Multifamily Mortgages

US$3.61 Trillion of Outstanding Debt Fourth Quarter 2015

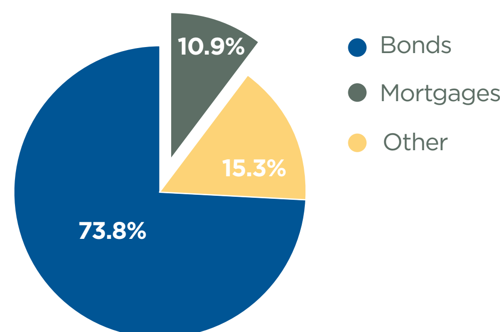


Source: U.S. Federal Reserve

Exhibit 2

Average Portfolio Composition

U.S. Life Insurance Companies at Year-End 2015



Source: SNL Financial

Exhibit 3

Commercial & Multifamily Mortgage Loan Exposure Select Large Companies

Year-End 2015

	CMLs as % of Invested Assets
Principal Life Insurance Company	18.6%
Nationwide Life Insurance Company	17.5%
Prudential Financial, Inc.	17.4%
Metropolitan Life Insurance Company	17.1%
Pacific Life Insurance Company	15.5%
Northwestern Mutual Life Insurance Company	15.9%
Massachusetts Mutual Life Insurance Company	15.4%
New York Life Insurance Company and Annuity Corporation	12.2%

Source: SNL Financial

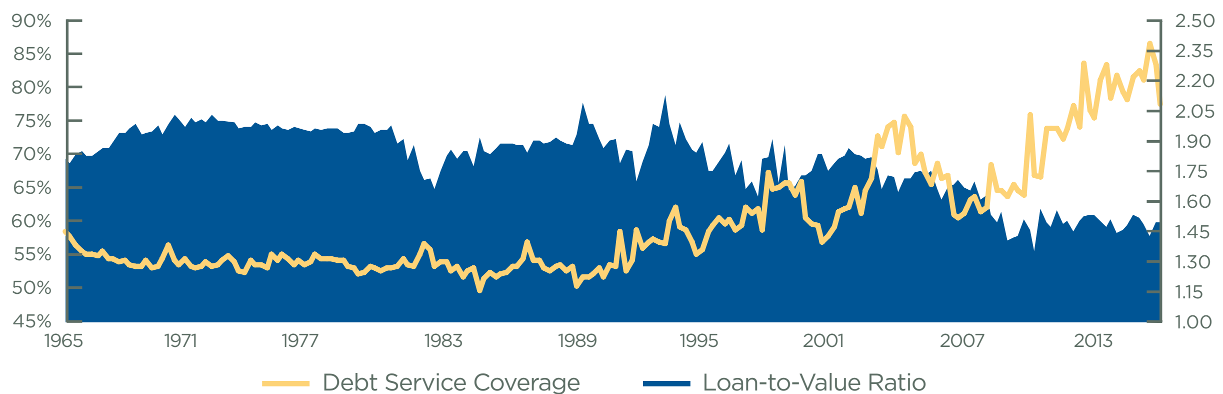
[2] Year-end 2015 data provided by SNL Financial at www.snl.com

Exhibit 4, based on data from the American Council of Life Insurers[3], illustrates the very favorable trend in two key underwriting metrics, loan-to-value (LTV) ratio and debt service coverage ratio (DSCR). As the chart shows, the fourth quarter 2015 average LTV ratio of 59.8% compared quite favorably to the historical industry average of 69.0%. The fourth-quarter 2015 average DSCR of 2.08 also greatly exceeded the historical average of 1.50. Renewed competition has placed some pressure on underwriting metrics for new loans, but credit standards among life insurance company lenders remain near record-best levels.

From a relative value perspective, mortgage spreads continue to provide excess returns relative to the returns available from similarly rated corporate bonds. Examining the differential between (i) Principal Global Investors Real Estate's market clearing spread estimates for commercial and multifamily mortgages, and (ii) Barclay's corporate bond spread indices, considering 5- and 10-year terms and a range of investment grade credit ratings, mortgages have offered on average a 71 bps superior return since the beginning of the year 2000.[4] **Exhibit 5** shows the relative frequency with which mortgages have delivered varying spread premiums over

Exhibit 4

Average Credit Metrics for Newly-Originated Life Insurance Company Loans



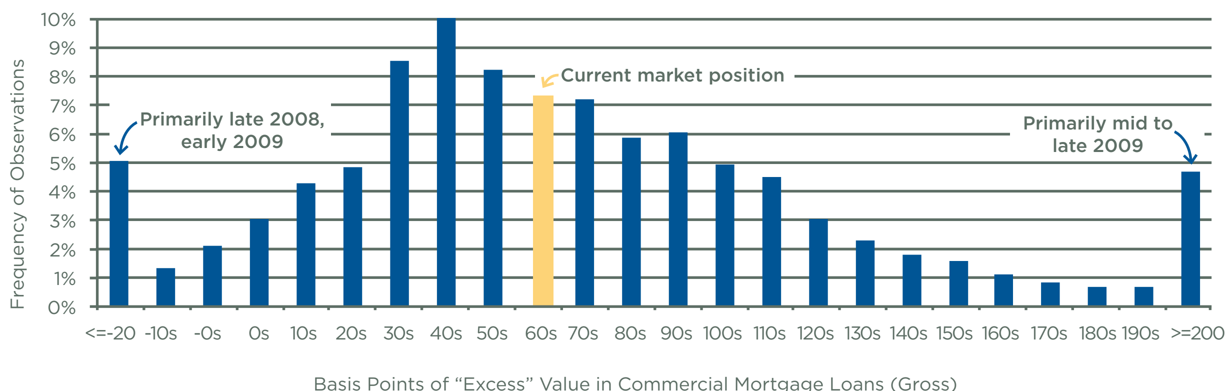
Source: American Council of Life Insurers

Exhibit 5

Relative Value at-Market-Clearing: CML Spread Premiums Observed Since 2000

CML Market-Clearing Spread Estimates Less Corporate Bond Composite Index

5 & 10-Year Terms, All Investment Grande Classes and Times Weighted Equally, Annual Effective Yield Basis



Source: Barclay's and Principal Global Investors Real Estate

[3] "Commercial Mortgage Commitments", various editions, American Council of Life Insurers

[4] Using Principal Real Estate Investors' proprietary credit risk rating system, a 60% LTV loan for a property with a highly durable cash flow stream and favorable property, market and sponsor attributes might be rated A+/A. A 68% LTV loan for the same property might be rated BBB+.

corporate bonds with comparable terms and credit risk. The attractive spread differential more than offsets the higher administrative costs and lesser liquidity of mortgages compared to corporate bonds, making mortgage investments compelling from both risk and return perspectives.

OTHER PORTFOLIO MANAGEMENT CONSIDERATIONS

Although current measures of risk and return feature prominently in an evaluation of the asset class, other factors also merit consideration. Investors should carefully consider the historical and potential future performance of the asset class in terms of credit performance and investment returns, the benefits of portfolio diversification (including correlation of performance with other asset classes), volatility of returns over time, asset/liability matching considerations, the current income nature of returns versus price appreciation, call protection, risk based capital implications, how to select a well-qualified asset manager and other factors.

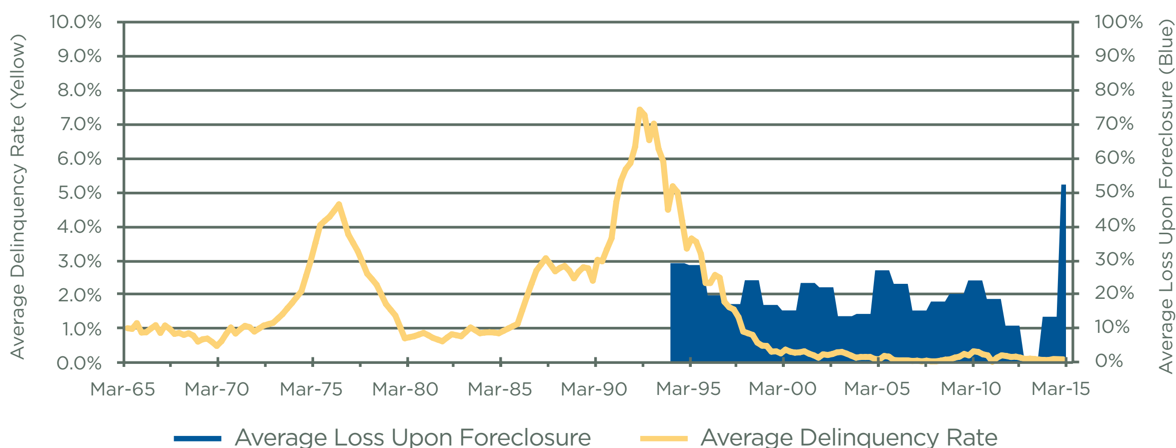
CREDIT RISK FROM AN HISTORICAL PERSPECTIVE

Data compiled by the American Council of Life Insurers (ACLI)[5] provides insights regarding the historical delinquency and loss experience of mortgage portfolios owned by life insurance companies. The ACLI has collected and reported mortgage delinquency data since 1965 and mortgage loss data for loans and mortgage data loss since 1994.

As **Exhibit 6** indicates, recent mortgage portfolio delinquency rates below 0.20% are significantly lower than the historical average of 1.52%. It should be noted however, that today's low reported delinquency rates do not reflect the impact of substandard loans sold by life insurers prior to the loans becoming delinquent, which has become a common practice over the past several years. As a result, delinquency rate data provided by the ACLI for the past few years may be less reflective of default risk than one might assume. Loss rate data reported by the ACLI is generally deemed more reliable as an indicator of potential loss given default, although the severity of actual losses may be modestly muted by note-sale economics as well.

Exhibit 6

Historical Mortgage Credit Loss Experience Among Life Insurers



Source: American Council of Life Insurers

[5] "Mortgage Loan Portfolio Profile – Historical Database", Second Quarter 2012, American Council of Life Insurers

A CREDIT RISK CASE STUDY: A- PERFORMANCE FROM A COLLECTION OF PORTFOLIOS

To supplement the analysis of historical credit loss data from the ACLI, Principal Global Investors Real Estate reviewed the performance of 28 commercial mortgage loan portfolios that it created and managed. The data set included mortgage investments originated for each of Principal Global Investors Real Estate's core commercial mortgage clients excluding Principal Life Insurance Company, whose data was excluded from the study so that the results might better reflect a broad range of strategies employed for various clients. The data set included 1,193 loans originated between 1988 and 2015 with an original principal balance of approximately $6.563 billion. At year-end 2015, loans with an aggregate balance of US$1.644 billion remained outstanding. Key findings included the following:

- Of the 1,193 loans studied, 25 experienced losses totaling US$41.73 million, or 0.64% of the original aggregate principal balance;
- Based on an approximate outstanding term of seven years, the average annual portfolio loss rate was 0.091% or roughly 9 basis points (bps);
- For the 25 loans that incurred losses, the loss severity relative to the principal balance at the time losses were incurred average 27.60%.

A study by Moody's Investors Services[6] reported that between 1982 and 2007 the average cumulative loss rate for bonds during their first five years after issuance was 26.3 bps for bonds originally rated "A" and 109.9 bps for loans originally rated "Baa". Therefore, the 9 bps *annual loss* rate experienced for the collection of mortgage portfolios cited above might be described as having produced "A-" type credit performance, which is consistent with the average of the original risk ratings assigned to the loans in the data set by Principal Global Investors Real Estate.[7]

When assessing the potential future credit performance of core commercial mortgage portfolios, consider that underwriting structures today remain more lender-friendly than was common seven to ten years ago. Although past performance cannot be deemed predictive of the future, many investors speculate that future mortgage portfolio credit performance will remain strong based on historical observations and recent trends in underwriting standards.

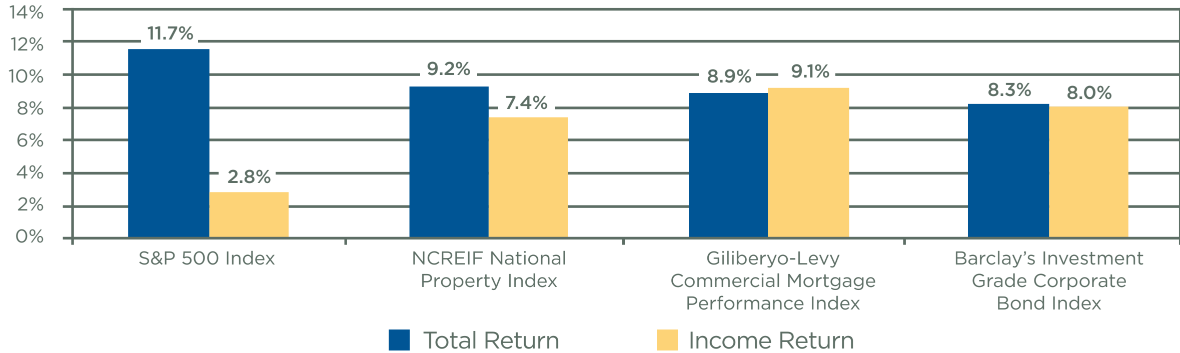
HISTORICAL TOTAL RETURNS AND CURRENT INCOME RETURNS

Investors focused on total return metrics may be pleasantly surprised to learn that over the past 37 years commercial and multifamily mortgages delivered total returns approaching real estate equity returns and in excess of corporate bond returns. **Exhibit 7** illustrates the difference in returns for corporate equity, real estate equity, real

Exhibit 7

Average Annual Returns: Total Return vs. Income Return

1978 Q4 through 2015 Q4



Source: Giliberto-Levy, Barclays, NCREIF, Standard & Poors

[6] "Corporate Default and Recovery Rates, 1920-2007", February 2008, Moody's Global Corporate Finance

[7] Principal Global Investors Real Estate assigns a credit risk rating to each new mortgage loan that it originates, considering both the objective output of its proprietary credit risk rating model that it developed and refined over the past 24 years as well as the subjective judgment of its underwriters and investment committee members.

estate debt and corporate debt as measured by the S&P 500 Index, the NCREIF National Property Index (NPI), the Giliberto-Levy Commercial Mortgage Performance Index and Barclay's Investment Grade Corporate Index, respectively. (For those unfamiliar with the measure, the Giliberto-Levy Commercial Mortgage Performance Index tracks the performance of more than 28,000 mortgage loans totaling over US$600 billion which are held on the balance sheets of institutional lenders.[8]) When earlier performance data is excluded and the analysis focuses only on the most recent 20-year time period, total returns for real estate equity exceed those of mortgages by a larger margin, but mortgages continue to provide a meaningful yield advantage over corporate bonds.

An analysis of the same data sets also reveals that commercial mortgages have provided a consistently high level of current returns over time, which is an attribute of the asset class particularly appealing to investors with significant current liabilities. The following chart illustrates current returns (interest, dividends and other cash flow) historically generated by these asset classes over time.[9]

CORRELATION AND VOLATILITY

Total returns for commercial mortgages have demonstrated a high correlation with total returns for bonds, since the price appreciation and depreciation measures for each of those fixed income asset classes are driven largely by the overall level of interest rates. To gauge the excess value provided by commercial mortgage investments over bond investments, primary focus should be placed on spread differentials and credit loss expectations. However, it's interesting to note that the total returns of those two fixed income asset classes are not perfectly correlated (only a 0.7998 correlation since the third quarter of 1978). Therefore bond investors who supplement their fixed income portfolios with mortgage investments will likely realize material diversification benefits. Investors whose portfolios contain a mixture of fixed income and equity investments will recognize even greater diversification benefits, as mortgage total returns historically have shown very little correlation with the total returns of real estate equity (-0.0160 correlation) and corporate equity (0.1067 correlation).[10] Lagging real estate equity returns by three years does result in a slightly greater correlation with commercial mortgage returns, but still only 0.0969.

Although the highest total returns have historically been generated by corporate equities, the volatility associated with those returns has been significant. As **Exhibit 10** illustrates, one standard deviation of annual total returns for the S&P 500 Index has been a significant 16.0% since late 1978. By comparison, the same measure for corporate

Exhibit 8

Average Annual Returns: Total vs Income

Annual IRR for Various Indices

	Full Comparable Data Series (1978 Q4 through 2015 Q4)		Past 30 Years (1985 Q4 through 2015 Q4)		Past 20 Years (1995 Q4 through 2015 Q4)		Past 10 Years (2005 Q4 through 2015 Q4)	
	Total Return	Income Return	Total Return	Income Return	Total Return	Income Return	Total Return	Income Return
S&P 500 Index	11.67%	2.82%	10.57%	2.30%	8.32%	1.86%	7.46%	2.10%
NCREIF National Property Index	9.21%	7.41%	7.90%	7.20%	9.91%	7.03%	7.76%	5.78%
Giliberto-Levy Commercial Mortgage Performance Index	8.92%	9.13%	7.79%	8.02%	6.63%	6.82%	5.46%	5.87%
Barclay's Investment Grade Corporate Bond Index	8.29%	7.99%	7.37%	7.05%	5.85%	6.08%	5.29%	5.27%

Source: Giliberto-Levy, Barclays, NCREIF, Standard & Poors

[8] "The Giliberto-Levy Commercial Mortgage Performance Index: A Performance Benchmark for Investments in Private-Market Real Estate Debt", September 2013, Dr. Michael Giliberto

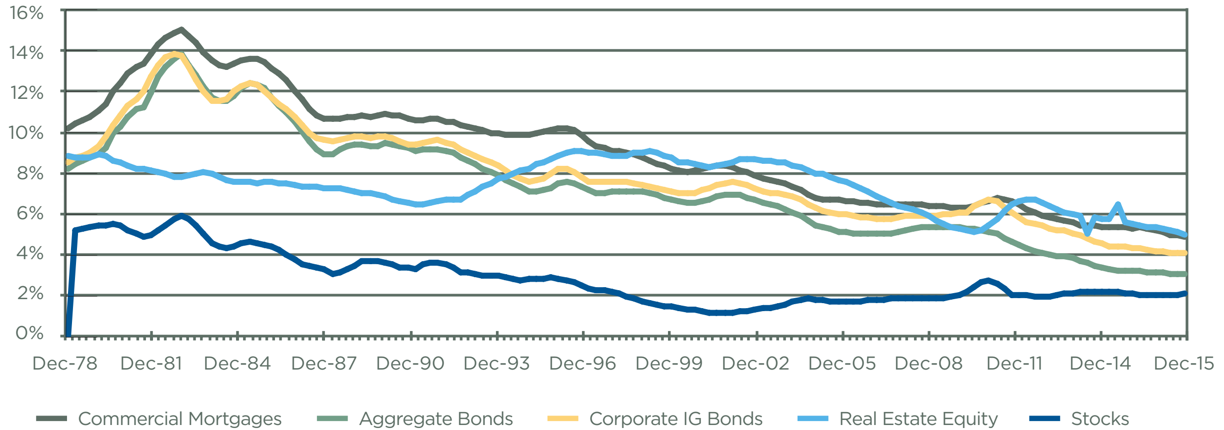
[9] Based on data from Standard & Poor's, Barclay's, the National Council of Real Estate Investment Fiduciaries, Giliberto-Levy and Principal Global Investors Real Estate Research

[10] Based on data from Standard & Poor's, Barclay's, the National Council of Real Estate Investment Fiduciaries, Giliberto-Levy and Principal Global Investors Real Estate Research

Exhibit 9

Average Annual Income Returns: Commercial Mortgages vs. Other Asset Classes

1978 Q4 through 2015 Q4



Sources: Giliberto-Levy, Barclay's, NCREIF and Standard & Poor's

bonds, real estate equity and commercial mortgages has been just 9.3%, 7.8% and 7.3%, respectively.

Calculations of various risk/return ratios such as the Sharpe ratio suggest that the risk/return relationship associated with commercial mortgage investments has been highly favorable from a portfolio management perspective for those investors who mix fixed income and equity investments in their portfolios. Such considerations ignore the fact that nominal yields on commercial mortgages are quite low from an historical perspective today, with core investment grade mortgages typically offering nominal note rates between the low three percent and low four percent range in the current market environment. However, the analysis does suggest that core mortgage investments should not be reserved solely for investors focused on asset- liability matching. Total return focused investors may also find commercial mortgage investment interesting in certain interest rate environments or to meet portfolio diversification goals.

RISK-BASED CAPITAL (RBC)

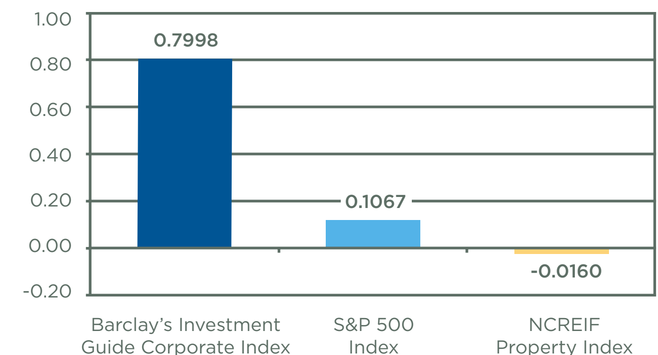
Commercial mortgage investments have become more attractive to U.S. life insurance companies as a result of recent changes to insurers' risk based capital rules. In 2013 the National Association of Insurance Commissioners (NAIC) approved a proposal by the American Council of Life Insurers (ACLI) regarding risk-based capital requirements for commercial mortgage investments.

Each loan is now assigned to a risk category based on loan-to-value and debt service coverage ratios, which are updated over time to reflect changing market and property conditions. The newer methodology for calculating risk based capital requirements replaces a prior methodology that utilized a "mortgage experience adjustment factor" which was widely criticized among industry participants. The new methodology of rating each asset independently is consistent with risk-based capital requirements for fixed income assets like corporate bonds.

Exhibit 10

Correlation of Quarterly Total Returns: Giliberto-Levy Commercial Mortgage Performance Index vs. Other Indices

1978 Q4 through 2015 Q4



Source: Barclays, NCREIF, Standard & Poors

The great recession and resulting capital markets stress provided strong evidence that well underwritten commercial mortgages can provide a high level of performance versus other fixed income alternatives. This performance is a driving factor in why insurance companies are allocating to the sector at record levels.

-Todd Everett,
Senior Managing Director,
Principal Global Investors Real Estate

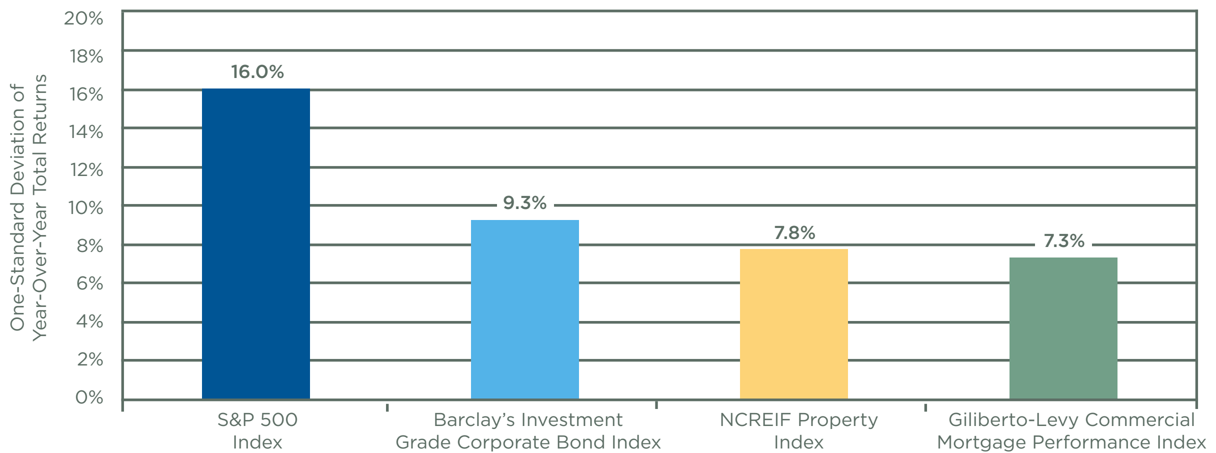
Exhibit 12 displays the base RBC charges for corporate bonds ("NAIC Rating" column) and commercial mortgages ("CM Rating" column), along with the related RBC charges.

Life insurance companies often consider RBC requirements for each loan at the time of loan approval, and managers monitor the performance of individual loans over time to assess the impact that changes in property or market performance have on capital reserving requirements. Recent changes in reserving methodology require greater emphasis on portfolio oversight, but allow life insurers to better manage risks associated with their mortgage portfolios.

Exhibit 11

Volatility of Total Returns

1978 Q4 through 2015 Q4



Source: Gilberto-Levy, Barclays, NCREIF, Standard & Poors

Exhibit 12

Risk Based Capital Charges by Rating

NAIC Rating	CM Rating	Base RBC
1		0.40%
	1	0.90%
2		1.30%
	2	1.75%
	3	3.00%
3		4.60%
	4	5.00%
	5	7.50%
4		10.00%
	6	18.00%
5		23.00%
	7	23.00%
6		30.00%

Source: National Association of Insurance Commissioners

Strong Relative Value Appealing Credit Performance Diversification Benefits

OTHER CONSIDERATIONS

Most commercial and multi-family mortgage investments feature a high degree of call protection. In the event a borrower prepays a fixed rate loan prior to the final three months of the loan term, most loan documents require that the borrower pay a yield maintenance prepayment premium to the lender. However, in certain instances lenders will negotiate more flexible prepayment provisions at the time of loan origination in exchange for a higher interest rate.

Due to the private nature of the commercial mortgage market, lenders are often able to tailor loan terms to meet their portfolio's average life and duration needs. Lenders may also specify investment criteria that are well-suited to their credit risk tolerance and yield requirements. While many life insurance companies select core senior mortgage programs as foundations to their real estate debt portfolios, those who prefer slightly higher risk/return profiles may also consider construction lending, subordinate debt or bridge lending strategies.

CONCLUSION

The private market nature of core commercial mortgage investments creates both challenges and opportunities for the investor. The management intensive nature of the asset class, a strong need for specialized knowledge, expertise and information systems, and reliance upon relationships with the right borrowers and intermediaries to foster success can all serve as material barriers to entry for new lenders in the market. However, investors may overcome those barriers by selecting an investment advisor with the right people, tools and relationships to engender success.

Investors who take affirmative steps to overcome those barriers likely will enjoy a mix of strong relative value, minimal credit losses, appealing current income returns and diversification benefits from their commercial mortgage investments.

Principal Global Investors Real Estate is the dedicated real estate asset management group of Principal Global Investors. Principal Global Investors Real Estate builds upon a vertically-integrated platform, incorporating all disciplines of commercial real estate. We provide clients with access to opportunities across the spectrum of public and private equity and debt investments, allowing institutional investors to customize their real estate portfolios to their specific objectives, including sustainability and risk management guidelines. We believe our substantial business in all four quadrants gives us a unique perspective of the real estate space and capital markets. Our investment process is team- oriented, research-based and multi-disciplined, using a relative value approach for all investment management decisions.

Principal Global Investors Real Estate and our parent company, Principal Global Investors, traces its history over more than six decades of real estate investment experience.[11] Over that time we have earned a reputation as a trusted advisor and built a top-tier investment platform. The breadth of our capabilities provides a distinct perspective on real estate and capital markets, and enables us to deliver the investment solutions our global client base expects.

[11] Experience includes investment activities beginning in the real estate investment area of Principal Life Insurance Company and continuing through the firm to present.

For additional information or to discuss market opportunities in core commercial mortgage investments, please contact one of the following individuals at Principal Global Investors Real Estate:

DOUG HARPER
Managing Director – Real Estate
404-395-5444
harper.doug@principal.com

TODD EVERETT
Managing Director – Head of Real Estate Fixed Income
515-246-7003
everett.todd@principal.com

For a listing of our office locations, please visit www.principalrealestateinvestors.com

DISCLOSURES

The information in this document has been derived from sources believed to be accurate as of April 2016. Information derived from sources other than Principal Global Investors or its affiliates is believed to be reliable; however, we do not independently verify or guarantee its accuracy or validity. Past performance is not a reliable indicator of future performance and should not be relied upon as a significant basis for an investment decision.

The information in this document contains general information only on investment matters. It does not take account of any investor's investment objectives, particular needs or financial situation and should not be construed as specific investment advice, an opinion or recommendation or be relied on in any way as a forecast or guarantee of future events regarding a particular investment or the markets in general. All expressions of opinion and predictions in this document are subject to change without notice. Any reference to a specific investment or security does not constitute a recommendation to buy, sell, or hold such investment or security, nor an indication that Principal Global Investors or its affiliates has recommended a specific security for any client account.

Principal Financial Group, Inc., Its affiliates, and its officers, directors, employees, agents, disclaim any express or implied warranty of reliability or accuracy (including by reason of negligence) arising out of any for error or omission in this document or in the information or data provided in this document.

The investment strategy is subject to various risks, not all of which are outlined herein. As a general matter, the strategy entails a high degree of risk and is suitable only for sophisticated investors for whom such an investment is not a complete investment program and who fully understand and are capable of bearing the risks associated with such strategy. There can be no assurance that the strategy's objectives will be achieved, and investors must be prepared to bear capital losses, including a loss of all capital invested.

This document is issued in:
- The United States by Principal Global Investors, LLC, which is regulated by the U.S. Securities and Exchange Commission.
- The United Kingdom by Principal Global Investors (Europe) Limited, Level 1, 1 Wood Street, London EC2V 7JB, registered in England, No. 03819986, which has approved its contents, and which is authorised and regulated by the Financial Conduct Authority.
- Singapore by Principal Global Investors (Singapore) Limited (ACRA Reg. No. 199603735H), which is regulated by the Monetary Authority of Singapore. In Singapore this document is directed exclusively at institutional investors [as defined by the Securities and Futures Act (Chapter 289)].
- Hong Kong by Principal Global Investors (Hong Kong) Limited, which is regulated by the Securities and Futures Commission and is directed exclusively at professional investors as defined by the Securities and Futures Ordinance.
- Australia by Principal Global Investors (Australia) Limited (ABN 45 102 488 068, AFS Licence No. 225385), which is regulated by the Australian Securities and Investments Commission.
- This document is issued by Principal Global Investors LLC, a branch registered in the Dubai International Financial Centre and authorized by the Dubai Financial Services Authority as a representative office and is delivered on an individual basis to the recipient and should not be passed on or otherwise distributed by the recipient to any other person or organisation. This document is intended for sophisticated institutional and professional investors only.

In the United Kingdom this document is directed exclusively at persons who are eligible counterparties or professional clients (as defined by the rules of the Financial Conduct Authority). In connection with its management of client portfolios, Principal Global Investors (Europe) Limited may delegate management authority to affiliates that are not authorised and regulated by the FCA. In any such case, the client may not benefit from all protections afforded by rules and regulations enacted under the Financial Services and Markets Act 2000.

This material is not intended for distribution to, or use by any person or entity in any jurisdiction or country where such distribution or use would be contrary to local law or regulation.