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June 2020

Investment Insights

Commercial Real Estate Debt: An Insurance Perspective

Private commercial real estate debt offers unique characteristics that can make this asset class particularly interesting for insurance companies. Besides attractive economic features, real estate loans may also benefit from favourable regulatory capital charges.

There are many ways in which insurers invest into the real estate sector

Real estate has been a popular asset class among insurance companies for a long time. Today, insurers can access real estate markets in various ways, ranging from traditional direct real estate investments to mortgage loans or real estate investment trusts (REITs). As outlined in Figure 1, real estate capital markets can broadly be categorised into four segments.

FIGURE 1. REAL ESTATE CAPITAL MARKETS

	Equity	Debt
Private / Illiquid	Private real estate equity / direct ownership	Private real estate loans, mortgages
Public / Liquid	Real Estate Investment Trusts (REITs) and other types of property companies	Securitized mortgages (mort- gage-backed securities, MBS) or bonds issued by property companies

According to data published by the European Insurance and Occupational Pensions Authority (EIOPA), insurance companies in the European Economic Area (EEA) hold more than EUR 680 billion in real estate assets including both equity and debt investments (as of June 2019). This represents 8.4% of the industry's total general account assets. For life insurance, the share is even higher with 10.7% of total assets, while non-life insurers have smaller allocations to real estate, averaging about 7.0% of total assets. Additionally, the type of real estate exposure varies significantly between life and non-life insurers (see Figure 2). While both

types of insurer invest mainly in private markets, life insurers tend to do so in the form of debt – such as commercial real estate (CRE) loans or residential mortgages – while non-life insurers prefer direct real estate investments. Gaining real estate exposure via public markets only plays a minor role. This is especially true for investments in mortgage-backed securities which have almost disappeared since the subprime mortgage crisis of 2007/2008. Since then most public real estate debt investments have been made in the form of bonds issued by REITs and other property companies.

FIGURE 2. REAL ESTATE EXPOSURE OF EUROPEAN INSURERS: LIFE VS. NON-LIFE



As of: June 2019; source: DWS calculations based on EIOPA data

There are also significant differences across countries when it comes to the overall share of real estate investments as well as the type of real estate exposures (see Figure 3).

■ Public Real Estate Equity ■ Public Real Estate Debt

Insurers in Dutch, Belgium, UK and Nordic markets have the largest real estate exposure while those in Southern Europe only have limited exposures. Most notably, insurance companies in the Netherlands have significant allocations to private real estate debt (predominately in residential mortgages, often referred to as "Dutch Mortgages"), averaging about 15.2% of total assets. On the other hand, insurers in Finland have the highest average allocation to direct real estate while insurers in Norway prefer indirect equity investments via real estate companies such as REITs.

FIGURE 3. REAL ESTATE EXPOSURE OF EUROPEAN INSURERS BY COUNTRY



As of: June 2019; source: DWS calculations based on EIOPA data

Commercial real estate debt investments of European insurers

Until the subprime mortgage crisis of 2007/2008, commercial mortgage-backed securities (CMBS) were a popular way to gain access to the CRE debt market. This has changed significantly with the CMBS market almost devoid of new issuance in the years since the crisis. Consequently, more insurers have started to invest directly in the underlying real estate loans, also to avoid moral hazard issues potentially inherent in many CMBS structures. Additionally, investments in securitisations have become subject to penal capital charges under Solvency II while investments in the underlying loans typically attract more favourable capital charges. Hence, insurance companies but also other nonbanking institutions such as pension funds have established their own private debt platforms and have become significant players in the CRE lending market over the recent years.

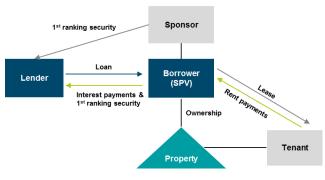
There are various features that may render CRE lending attractive to insurers, in particular European institutions, including:

- _ Illiquidity/complexity premium: Compared to public debt instruments with similar risk profiles, CRE loans can offer higher spreads reflecting an illiquidity or complexity premium
- Zero floor: The majority of real estate loans have floating interest rates, paying a reference rate (e.g. 3M-EURIBOR or 3M-LIBOR) plus a spread. In many cases, the floating component of the coupon is floored at zero so that the lender receives the spread as a minimum. This is obviously a very appealing feature in times where large parts of the bond market are yielding negative rates. In this respect, short-dated senior CRE loans may also be an interesting instrument for strategic cash investments
- Backed by real assets: The underlying property serves as collateral for the loan providing protection through security packages and financial covenants. In case of default, this can also result in higher recovery rates compared to unsecured loans. It is also a source of more comfort for decision making bodies to know that there are bricks-and-mortar backing a loan
- Potentially favourable capital charges: The collateral relationship to the underlying property may also result in lower Solvency II capital charges for (senior) CRE loans compared to unsecured loans. In contrast to residential mortgage loans, CRE loans do not attract a favourable capital charge by default. However, a reduction in capital charges of up to 50% may be achieved under the Solvency II standard formula if the underlying property meets the criteria for collateral stated in Art. 214 of the Solvency II directive. Internal models may allow a more risk-sensitive approach
- Source of duration: CRE loans may be an attractive source of duration to match both shorter and longer-dated insurance liabilities. This makes the asset class attractive for life and P&C insurers alike. However, due to their floating nature in general, interest rate overlays may be necessary
- Customisation: As a private asset class, insurers may negotiate bespoke terms for each loan in order to meet specific duration and cash flow needs as well as regulatory requirements
- ESG investments: In recent years, ESG disclosures in respect of real estate assets (such as energy certificates) have improved significantly. This makes it easier to identify potential ESG investments in the CRE debt space

The basic structure of a commercial real estate lending agreement

The most common structure in CRE lending is set up as a loan to a property-owning special purpose vehicle (SPV) operated by a sponsor. The loan is repaid by the cash flows generated by the property. A basic CRE lending structure is outlined in Figure 4. Historically, CRE debt was mainly provided in the form of whole loans. However, from the end of the 1990s more granular risk profiles started evolving and loans were broken down into senior and subordinated or junior loans (sometimes referred to as 'mezzanine loans'). In the case of junior loans, there will be an additional subordinated SPV acting as the junior borrower. This is typically a holding company, 100% owned by the sponsor, but sitting two or three levels higher than the property-owning SPV. The junior loan to the holding company is serviced from the excess income generated by the property, but only after servicing the senior loan. The order of debt repayment and ranking of security between the senior lenders and the junior lenders is usually governed by an intercreditor agreement.

FIGURE 4. BASIC CRE LENDING STRUCTURE



As of: June 2020; source: DWS International GmbH

Besides the entities mentioned above, CRE lending agreements typically involve various other parties including an arranger for syndicated loans as well as a facility and security agent (on the lender side) and an asset or property manager and guarantor companies (on the borrower side).

Key considerations for investing in commercial real estate loans

Compared to public corporate bonds, private CRE lending structures are typically more complex, with various factors that need to be taken into account.

Seniority

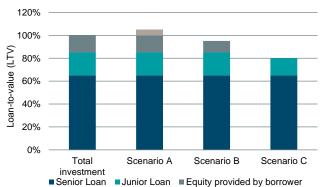
Debt investors rank senior to equity investors. This means that equity investors receive the remaining cash flows from projects, only after deducting operating costs and income used to service debt investors. Today, the majority of private

real estate financing is in the form of senior debt, which ranks in priority to all other financial obligations of the borrower. However, the market offers the opportunity to move further down in the seniority scale, investing in subordinated or junior debt, and receiving a yield premium in compensation for the increased risk. Junior debt sits between senior debt and equity, and it is therefore subordinated in priority of payment to senior debt, but ranks ahead of preferred stocks or equity.

Loan-to-value (LTV)

The LTV expresses the ratio of the outstanding loan value to the value of the underlying property. This ratio is one key metric to assess the lending risk. Higher LTVs leave a smaller (equity) buffer in the event of a decline in property value. The credit quality decreases as leverage increases. Senior CRE loans typically have an LTV below 65% while junior CRE loans usually sit at an LTV between 65% and 85%, taking incremental risk behind the senior loan. This means that a fall in property value in excess of 15% could potentially result in a capital loss for the junior lender whereas the senior lender would only be subject to a potential capital loss should the property value decline by more than 35% (see Figure 5).

FIGURE 5. TYPICAL CAPITAL STACK IN CRE FINANCING



Scenario A - Property value rises by +10% Equity gain for borrower of +67%

Scenario B - Property value declines by -10% Equity loss for borrower of -67%

Scenario C - Property value declines by -20% Equity loss for borrower of -100% and loss for junior lender of -25% As of: June 2020; source: DWS International GmbH

Security

CRE debt is usually secured against the underlying property. Examples of security in senior CRE loans include a first ranking mortgage over the property, pledge over the shares of the property-owning SPV, account pledge, rent assignment and duty of care. Common types of security in junior loans include a second ranking mortgage over the property as well as share pledges on the subordinated SPV.

Covenants

CRE debt includes agreements and conditions between the borrower and lender. These are agreed as a condition of borrowing, with the purpose of supporting the condition of the lender, mitigating the risk of incurring credit losses and acting as an early warning mechanism to lenders. A breach of covenant usually allows creditors to demand repayment of the loan, should the borrower be unable to remedy the breach during a cure period. There are two basic types of loan covenant:

- _ Structural covenants: Impose restrictions on certain activities such as debt issuance, asset sales or other transactions
- _ Financial covenants: Establish thresholds for specific financial metrics. Examples include a maximum loan-to-value (LTV), a minimum interest rate coverage ratio (ICR) or a minimum debt-service coverage ratio (DSCR). Financial covenants are typically tested on each interest payment date

Type of collateral property

Property investments can be broadly categorised into four categories, each of them providing a different level of risk and yield opportunity (see Figure 6). Additionally, the occupancy rate of the property is one key metric that is constantly monitored. For senior CRE loans, DWS typically defines a minimum occupancy rate of 70% but prefers rates above 90%.

Loan size

Lending against commercial property requires a detailed internal credit assessment and due diligence process. For this reason, loans above EUR 50 million are typically preferred by institutional investors.

Loan term

The vast majority of CRE loans are underwritten for between four and seven years. However, due to a growing presence of insurers and pension funds in the lending market as well as due to low interest rates, the share of longerdated senior loans has increased in recent years.

FIGURE 6. RISK CATEGORIES OF PROPERTY INVESTMENTS

Core	Investments in prime assets with relatively high, long-term income streams and strong tenants covenants in more mature, transparent and liquid markets	
Core Plus	Investments in properties requiring a higher degree of asset management than Core assets, located in prime and secondary submarkets of major metropolitan areas and prime sub-markets in secondary cities. Characteristics can include partial current vacancy, near-term lease expiry where rental reversion is possible and tenant reconfiguration	
Value Added	Investments in properties that fall between the two extremes of Core and Opportunistic in terms of return targets and leverage but require a higher degree of active management and risk appetite than Core Plus. Characteristics include asset repositioning and development, and reliance on market growth	

Investments in properties requiring capital and intensive

asset management to reposition them to appeal to Core in-

vestor demand, including distressed debt investments and

opportunities arising from government and corporate out-

As of: June 2020; source: DWS International GmbH

sourcing and restructuring

Repayment

Opportunistic

Typically depending on the lease profile, CRE loans can be amortising or can have a bullet structure. In an amortising structure, the LTV reduces during the term of the loan, reducing the refinancing risk. Some lenders may prefer to avoid prepayment options due to difficulties with liability matching and hedging. Hence, prepayments might not be allowed or will be subject to an additional fee.

Interest rate

The majority of CRE loans are priced according to an interest rate margin over a reference rate such as EURIBOR or LIBOR. In many cases, the floating rate of the coupon is floored at zero so that the lender receives the spread as a minimum. Interest is typically paid on a quarterly basis.

Credit rating

The majority of outstanding private real estate debt is not rated by an external rating agency. However, some lenders or asset managers have internal ratings processes for the loans as part of their due diligence process.

The table below provides a comparison between CRE loans and corporate bond investments.

FIGURE 7. COMMERCIAL REAL ESTATE LOANS VS. CORPORATE BONDS

	CRE Loan	Corporate Bond
Coupon	Majority floating with zero floor	Majority fixed
Security	Typically collateralized by the underlying property	Typically unsecured with no dedicated collateral
Rating	Typically not rated by an external rating agency but internal rating possible	Typically rated by an exter- nal rating agency
Complexity	Requires detailed due dili- gence on the loans terms and the collateral property	Typically high level of standardization and availability of public credit ratings
Legal tenor	Majority 4-7 years but longer durations possible	Typically 5-15 years
Liquidity	1-3 months to loan sale	Daily trading
Valuation	Loan valuation on a monthly basis. The underlying prop- erty is typically only re- viewed by external valuers on an annual basis.	On a daily basis (secondary market)
Major risk factors	Property risk, interest rate risk, inflation risk, liquidity risk	Corporate credit risk, interest rate risk, inflation risk

As of: June 2020; source: DWS International GmbH

Commercial real estate loans under stressed conditions

As a private asset class, CRE loans are typically characterised by a low degree of volatility. Nevertheless, the value of CRE loans also shows sensitives to underlying market conditions. The margin of a senior CRE loan, and hence the value of the loan, is mainly driven by four factors:

- _ Capital costs: These costs are linked to the Basel III and IV capital requirements for CRE loans and typically vary between 0.30% and 0.40% for senior CRE loans.
- _ Operating costs: These costs are linked to banks' operating costs to originate and manage CRE loans. They typically vary between 0.25% and 0.35%.
- _ Liquidity costs: These are the financing costs of banks and financial institutions in the bond market.
- _ Credit costs: These costs are mainly linked to the market value risk of the underlying property and vary with the loan LTV.

Of these four factors, only liquidity and credit costs show significant sensitivities to market conditions.

For example, during the 2007/2008 global financial crisis and the 2012 crisis, bank senior margins (measured by the

Markit iBoxx Banks Senior Index) increased by approx. 2.5%. Additionally, long-term financing costs increased by 0.05% p.a. on average. Hence, the overall liquidity costs for a given loan increased by 2.5% + 0.05% * loan duration during these periods.

Credit costs are most sensitive to changes in LTV. Based on DWS' internal option-based loan pricing model, we estimate the margin sensitivity to LTVs at around 1% per 10% of LTV increase for all loans with a margin of above 2%. This sensitivity is similar across all asset qualities.

Based on these assumptions, DWS ran a simulation to assess the impact of the global financial crisis of 2007/2008 on a representative pan-European senior CRE loan portfolio with an initial LTV of 52%. Using historical data provided by Property Market Analysis (PMA), the portfolio's average LTV would have increased to 69% resulting in an increase of the credit margin of +1.7%. Additionally, given an average portfolio duration of 3.6 years, the liquidity margin would have increased by +2.7%. Hence, the global financial crisis scenario results in an increase of the discount margin by +4.4%, which translates into a decrease of the portfolio value by -18.9%.

Treatment under Solvency II

Under the Solvency II standard formula, senior CRE loans are subject to a Solvency Capital Requirement (SCR) for the spread risk, interest rate risk and potentially currency risk.

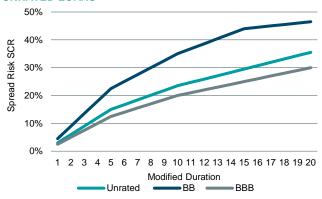
The interest rate risk we will not be further discuss in this section as it is closely related to liabilities which are unique for each insurance company and business line. The same applies to potential currency risks. We assume that any open FX exposure is unwanted and is hence eliminated either via rolling FX forwards or cross-currency swaps. Therefore, the focus of this section is on the SCR for the spread risk, which is determined by the credit rating and duration of loan (applying the SCR standard model).

CRE loans usually do not carry credit ratings from External Credit Assessment Institutions (ECAI). Hence, we mainly see two approaches for determining the spread risk SCR for CRE loans.

Standard approach

The default approach is to apply Article 176 paragraph 4 (Delegated Regulation 2015/35) which defines the spread risk SCR for unrated bonds and loans as a function of duration. The spread SCR for unrated bonds and loans is slightly higher than for BBB-rated bonds and loans but significantly lower than for instruments in the sub-investment grade segment (see Figure 8).

FIGURE 8. SOLVENCY CAPITAL REQUIREMENT FOR UNRATED LOANS



As of: June 2020; source: DWS International GmbH

Some insurers rate their CRE loans internally or may leverage internal ratings provided by asset managers. For example, DWS provides internal ratings based on an approved internal rating model, validated by a highly reputable third party. Depending on the assets, the rating usually range between A to BBB for senior CRE loans. Within the Own Risk and Solvency Assessment (ORSA) insurer may be able to leverage those internal ratings for their internal process.

Collateral approach

Senior CRE loans are typically backed by property as collateral. Compared to unsecured loans, this results in a lower risk for the insurer. However, in contrast to residential mortgage loans, senior CRE loans do not attract a favourable capital charge by default. Nevertheless, following Article 176 paragraph 5, a reduction in the capital charge of up to 50% may be achieved if the underlying property meets the collateral criteria set out in Article 214. The general tone of Article 214 may suggest that only bonds can serve as collateral. However, this interpretation can vary across national insurance supervisors, as DWS has experienced in many conversations across Europe. When applying Article 214 to the underlying property, we believe that the following criteria are most crucial and require a deeper assessment.

(1) Insurer has the right to liquidate or retain the collateral in a timely manner given a default, insolvency or bankruptcy: This condition should not be a problem in Western European countries or the US. Security packages of senior CRE loans are typically structured in a way such that the investor has the right to liquidate or retain the underlying property in the case of default. The timing of the enforcement process varies by jurisdiction. The enforcement process is especially (time-) efficient in the UK and Luxembourg.

(2) Collateral is of sufficient liquidity and stable in value:

There is typically a market for all non-special purpose property. However, liquidity is determined by many factors such as property type (e.g. residential, office, hotel, etc.), location, condition, transaction size, local market dynamics, time and costs to transact. For example, the Swiss Financial Market Supervisory Authority (FINMA) has specified which type of property they consider as liquid and less liquid (see FINMA Circular 2016/5 which defines investment rules for tied assets of Swiss insurers).

Liquid property:

- Residential: Single-family house, multi-family house and condominium ownership
- Commercial: Office and administrative buildings
- _ Mixed usage

Less liquid property:

- _ Building land
- _ Buildings under construction
- _ Production sites, warehouses, distribution centers
- _ Sports facilities
- _ Shopping centers outside the city center
- Hotels, restaurants
- _ Retirement and nursing homes
- School buildings
- Character/luxury properties, holiday apartments and houses
- _ Joint property
- _ Objects in need of renovation with contaminated sites
- Property in foreclosure

This list has no legal relevance for Solvency II regulated entities but might be used as guidance.

(3) No material correlation between credit quality of the counterparty and the value of the collateral: For this requirement, EIOPA provides the following guidance: "If a bond issuer only owns one asset and that asset serves as collateral to the benefit of bond holders, it must be concluded that there is material positive correlation between the credit quality of the issuer and the value of the collateral. This holds also true for e.g. a bond issuer owning only one commercial real estate with tenants on long leases, as the credit quality of the bond issuer will depend on the same factors as the market value of the property, and these will include the factors such as: location, market prices in the area, contract terms, lease duration, tenant credit quality etc."

If the underlying property meets all relevant collateral requirements, the reduced spread risk SCR for the loan is determined based on following parameters:

- Market value of the loan
- _ Risk-adjusted value of the loan: Value of the loan after applying the spread stress for unrated loans
- _ Risk-adjusted value of the property: Value of the property after applying the Solvency II standard formula stress for property of 25%
- _ Modified duration

Given these input parameters, there are three different scenarios with a potential reduction in SCR ranging from 0% to 50%.

Scenario I - Reduction by 50%

In this scenario, the risk-adjusted value of the property is greater or equal to the market value of the loans. This allows to reduce the spread risk SCR for unrated CRE loans by 50%. The risk-adjusted value of the property is calculated by applying the Solvency II standard formula stress for property of 25%. As a result, all CRE loans that carry an LTV of below 75% can receive a reduction in spread risk SCR of 50%.

Scenario II - Reduction by 0% to 50%

Here, the risk-adjusted value of the property is smaller than the market value of the loan but greater than the risk-adjusted value of the unrated loan. In this case, the spread stress is an interpolation between Scenario I and a fixed factor that depends on the LTV, capped by the unrated spread stress:

$$SCR = 50\% \left(SCR^{Unrated} + \left(1 - \frac{MV^{Collateral}}{MV^{Loan}} \right) \right)$$

SCR = Spread risk SCR for the loan with collateral

 $SCR^{Unrated}$ = Spread risk SCR for the unrated loan without collateral

MV^{Collateral} = Market value of the collateral property stressed with 25%

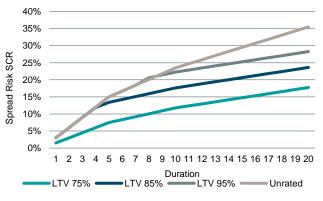
MV^{Loan} = Market value of the loan

Scenario III - No reduction

The risk-adjusted value of the collateral property is smaller than the risk-adjusted value of the loan. In this case, there will be no reduction in SCR and the full SCR for unrated loans applies.

It is important to mention that the collateral approach only applies to unrated loans. For loans rated by an ECAI, the standard approach for bonds and loans applies with the credit rating as one major input factor. The basic assumption is that the collateral relationship is already properly reflected in the credit rating.

FIGURE 9. SOLVENCY CAPITAL REQUIREMENT FOR COL-LATERALISED COMMERCIAL REAL ESTAE LOANS



As of: June 2020; source: DWS International GmbH

Treatment under the Insurance Capital Standards

From 2025, all Internally Active Insurance Groups (IAIGs) are expected to adopt the Insurance Capital Standards (ICS), a global risk-based solvency framework developed by the International Association of Insurance Supervisors (IAIS). Besides its immediate relevance for global insurance groups, the ICS are also used as a blue print for the solvency regimes in various Asian countries. For example, the insurance regulators in Japan, Korea and Taiwan are currently considering to adopt the ICS or a modified version of it as their local solvency regimes.

Under the latest ICS Version 2.0 published in March 2020, mortgage loans are treated as a separate risk category under the credit risk module. For performing commercial mortgage loans for which the repayment depends on the property income, the risk charge is calculated using one of three methods depending on the data availability:

Method 1: The risk charge is based on the ICS Commercial Mortgage (CM) category as determined by the loan-to-value (LTV) and the debt service coverage ratio (DSCR) of the loan. For performing loans, there are five ICS CM Categories with capital charges ranging from 4.8% to 23.5%.

Method 2: For commercial mortgage loans where only the LTV is available, the capital charges solely depends on the LTV and ranges between 4.8% (LTV below 60%) and 15.8% (LTV of 100%) for performing loans.

Method 3: For commercial mortgages where LTV ad DSCR data are not available, a flat 8% stress factor is used.

Commercial mortgages for which the repayment does not depend on the income generated by the underlying property are treated as a regular loan when the LTV is above 60%. When the LTV is 60% or lower, the risk factor is the lower of

3.6% or the risk factor for a regular credit exposure to the borrower.

The capital charge for residential mortgages only depends on the LTV of the loan and can range between 1.5% and 4.5%. In case the repayment of the loan does depend on the income generated by the underlying property, the capital charges are higher ranging from 4.2% to 7.2%.

Delinquent mortgages and mortgages in foreclosure are subject to capital charge of 35%.

Current market environment

Underlying market conditions: The COVID-19 crisis has the potential to be one of the most significant economic events in our lifetime. Looking back over history it is difficult to find examples where economic activity has fallen so far over such a short period of time. The real estate industry is not immune and indeed is often on the front line. Many shops have been shut and offices remain empty. The impact of this crisis will likely be felt well into the decade.

Some economies do appear more vulnerable than others. A number of European governments have implemented measures to furlough employees, helping to limit extreme swings in unemployment from the temporary closure of businesses. However, it seems improbable that we will not see significant job losses in all countries.

To date, retail, travel and hospitality have been among the worst affected sectors of the economy. We have seen some manufacturing halted and office-based businesses furloughing employees, but so far this has been relatively minor compared to the widespread closure of shops, restaurants, bars and hotels. However, the longer this recession will continue, the greater the likelihood that second order effects will lead to a widening impact on the economy and jobs.

So far, we have limited data to assess the impact of the crisis on real estate occupiers. We have seen relatively few business failures and it will take time for leases to become void. Income has been at risk and rent collection rates have fallen. In the United Kingdom, this has particularly been the case for the retail and hotel sectors, where tenants are generating little or no income. Meanwhile, office, logistics, and residential tenants are still paying a large proportion of their rent. We would expect this pattern to be repeated (to varying degrees) in other European countries.

The occupier market for most sectors was in good shape going into this recession, but it is still likely that we could see significant rental decline this year. Equally, while it is difficult to say how far valuations may have moved so far, we would almost certainly expect to see a short-term correction in values.

Private CRE debt market: Going into the current pandemic, strong competition to lend against the most secure office and logistics properties had begun squeezing lending returns. Even so, compared to other similarly rated fixed income products, private real estate debt continued to look attractive. The same could be said when making risk-adjusted comparisons against direct real estate.

At the beginning of the year, EUR-denominated BBB corporate bonds were offering a yield of less than 1.0% for maturities of up to 15 years.² At the same time, based on a proprietary database of deals, DWS estimates that senior private CRE debt was offering an illiquidity premium in the region of 100 basis points over similarly rated non-financial corporate bonds.

Since then, corporate bond yields have spiked and fallen again. The initial spike was far less dramatic than during the global financial crises, when yields moved out by more than 500 basis points at the peak of the crisis. But as of May 2020, average yields remain 50-75 basis points higher than at the beginning of the year.

At the same time, there have been far fewer real estate deals getting pushed through since the pandemic took hold in March this year, and some lenders have pulled back from new lending. With significant uncertainty over where underlying asset values are going, lenders are adopting a more cautious approach. As such, it is difficult to ascertain exactly how far lending terms might have moved over this relatively short space of time.

Moving into the early part of 2020, typical senior margins on European prime offices sat at around 100 to 150 basis points at LTVs of up to 60% to 65%, and junior margins at 600 to 800 basis points at LTVs of up to 80%.³

Given that the effect of COVID-19 on the occupier market has varied significantly by property type, the spread of lending terms between sectors is likely to have widened. Based on our experience, we would estimate that margins on senior lending have increased by 25 to 30 basis points on average since the beginning of the year.

However, for senior loans on retail and hotels the increase is likely to be much greater. Even before the current crisis,

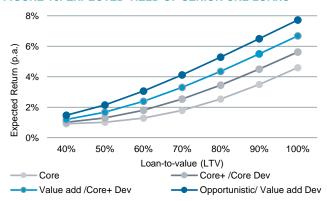
¹ PMA, May 2020

² IHS Markit, iBoxx € Non-Financials BBB, March 2020

³ CBRE, February 2020

underlying issues in the retail real estate market were already beginning to push up margins on retail debt, with a gap of up to 50 basis points having opened up over the other main commercial sectors in the United Kingdom.⁴ And with the situation having worsened very quickly, there may now be a greater chance of seeing loan write-offs within the retail sector.

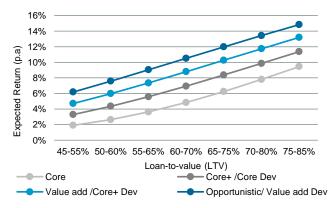
FIGURE 10: EXPECTED YIELD OF SENIOR CRE LOANS



As of: 29 May 2020; source: DWS International GmbH. Forecasts are not a reliable indicator of future returns. Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect.

Equally, for junior loans, we would estimate that margins have risen by around 100 basis points on average, as the upper sections of the capital stack are now deemed to be more at risk. And at the same time, LTVs on most new lending, whether senior, junior or whole loan, are likely to fall as lenders become more cautious over the potential for asset value declines.

FIGURE 11: EXPECTED YIELD OF JUNIOR CRE LOANS



As of: 29 May 2020; source: DWS International GmbH. Forecasts are not a reliable indicator of future returns. Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect.

Last year, fundraising activity in the European debt space was slightly down on the five-year average but was still broadly in line with previous years. Still, real estate debt remained one of the most important parts of private markets in

Europe, being outpaced only by core and opportunistic direct property fundraising.

This year, we would expect that with a significant drop in real estate transaction volumes, new lending activity will also fall. However, transaction activity has not stopped entirely, and there will continue to be a large number of refinancing requirements. With this in mind, there may be opportunities, particularly for alternative lenders, to take advantage of lower levels of competition and to capitalise on an increase in loan pricing.

Conclusion

Prior to the COVID-19 crisis, insurance investors were increasingly worried by the issue of shrinking book yields. Market dislocations caused by the crisis have now enabled insurance companies to invest into plain vanilla asset classes such as investment grade credit at compelling spread levels for the first time in many years — at least for those that were able to benefit of the opportunity.

In the short term, the current market situation therefore represents an opportunity for insurers even if spreads have already tightened significantly again. Moreover, with the various measures put in place by monetary authorities the "lower for much longer" interest rate scenario will be the most likely outcome.

Given this outlook, in our view insurance companies necessarily will have to continue to evaluate private markets in search of higher yields. And within private markets, private debt remains a compelling asset class for liability-driven insurance investors. In particular, loans backed by real assets can provide both a yield premium over public debt and an additional layer of security potentially resulting in higher recovery rates in the event of a default.

Commercial real estate serving as collateral may also be used to reduce the solvency capital requirement for CRE loans. Indeed, we believe that lending against commercial property remains attractive for both life and non-life insurers even if taking into account the knock-on effects from the current crisis in certain sectors.

In addition to continued investments in senior CRE loans – predominately driven by life insurance companies thus far – DWS expects that more Life as well as P&C insurers will also explore opportunities in the junior financing segment, not least due to the attractive risk return profile in relation to the regulatory cost that these assets attract.

In summary, DWS believes that real estate debt, both senior and junior, is a highly compelling asset class for insurance investors.

⁴ Cass, April 2020

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