Herrenhausen Investment S.A.
Compartment I, Germany

(P)BBB$_{SF}$
Structured Finance

Rated entity

Purpose:	Synthetic risk transfer of commercial real estate loans
Issuer:	Herrenhausen Investment S.A. acting for the account of its Compartment I
Product name:	Inhaberschuldverschreibung
Notional:	EUR 60m
Coupon:	5% fix + [1%]
Expected Maturity:	Dec. 2024
Legal Maturity:	March 2052
Exchange:	Hannover, Germany

Transaction profile

Herrenhausen Investment S.A. is a bankruptcy remote SPV under Luxembourg law, which is issuing a EUR 60m credit linked note (CLN) via its Compartment I. The CLN is exposed via a guarantee agreement to the mezzanine credit risk of a EUR 1.29bn portfolio of commercial real estate loans originated and serviced by Deutsche Hypothekenbank.

Rating result

Rating:	**(P) BBB**$_{SF}$
Sector:	Commercial Real Estate
Date of Issuance:	[March] 2014
Monitoring:	YES

Analysts:

Sebastian Dietzsch (Lead Analyst)
E-Mail s.dietzsch@scoperatings.com

Philipp Wass (Back-up Analyst)
E-Mail p.wass@scoperatings.com

Rating Rationale (Summary)

Scope has assigned a preliminary rating of (P)BBB$_{SF}$ to the EUR 60m credit-linked note (CLN) to be issued by the Herrenhausen Investment S.A. via its Compartment I. The CLN is exposed to the mezzanine credit risk of a static EUR 1.29bn commercial real estate (CRE) portfolio originated by Deutsche Hypothekenbank Actien-Gesellschaft.

The (P)BBB$_{SF}$ rating reflects:

+ the credit quality of the underlying loan pool, which is commensurate with an average investment grade credit risk profile;
+ the structural credit enhancement, which protects the CLN against the first 1% of losses arising on the underlying pool;
+ the amortization mechanism of the transaction leading to an accelerated amortization of the CLN under certain conditions;
+ Deutsche Hypothekenbank’s long-standing experience in acting as loan originator and servicer in the commercial real estate market;
- the underlying pool´s 16.1% of loans that Scope has assessed as non-investment grade credits;
- the credit risk exposure of the CLN’s full notional and coupon to Deutsche Hypothekenbank as cash collateral account provider and credit protection buyer.

Scope has performed independent credit assessments of the underlying loans and the major counterparties, especially Deutsche Hypothekenbank, to incorporate all relevant transaction features.

The rating of the CLN is linked to and constrained by Scope’s credit opinion on Deutsche Hypothekenbank. Scope’s internal credit review of Deutsche Hypothekenbank reflects the profit/loss-transfer agreement with Nord/LB, the support from major shareholders (German sub-sovereigns) and the safety net mechanisms provided by the Deutsche Sparkassen und Giroverband-Association.

Scope’s rating reflects the expected loss on the interest and principal of the rated notes by March 2052.

Rating Drivers

Positive	Negative
Asset quality: • Average low investment-grade credit quality according to Scope's credit assessment of the pool • Average loan-to-collateral value of 82% • Scope expects an average recovery rate of 80% on loan defaults	The rated notes carry a mezzanine risk largely driven by the lowest credit quality asset in the pool (16.1% of the pool is non-investment grade in Scope's assessment)
Strong alignment of interest between the rated notes and Deutsche Hypothekenbank, the loan originator, which retains a significant risk exposure to the asset pool	Linkage to the credit quality of Deutsche Hypothekenbank as collateral account bank provider
Pro-rata amortization feature of the Mezzanine tranche and the Senior tranche	Low geographical diversification of the underlying loans portfolio focused on core Europe
Structural credit enhancement, protecting against 1% underlying pool losses	70.3% of either bullet loans or amortization structures with large final payments in the pool. This aspect is, however, reflected in Scope's individual credit assessments because the presence of large outstanding nationals at maturity increases the likelihood of defaults (balloon risk).
External audit supervision, by two external auditors	
Legal integrity and enforceability of the structure	

Rating Change Drivers

Positive	Negative
Improvement of portfolio credit quality, including a decrease in the average loan-to-collateral value	A deterioration in the CRE investment environment impacting the average portfolio quality of Deutsche Hypothekenbank
Improvement in the CRE market cycle	Negative credit risk migration of Deutsche Hypothekenbank and/or its parent company Nord/LB
	A weakening or deterioration of the safety net mechanisms built into the Deutsche Sparkassen und Giroverband Association
	A lower realized recovery rate than expected on loan defaults

Involved Counterparties

Issuer:	Herrenhausen Investment S.A. acting for the account of its Compartment I
Originator:	Deutsche Hypothekenbank AG
Servicer	Deutsche Hypothekenbank AG
Provider of IT infrastructure interface (Servicer-Seller):	Deutsche Hypothekenbank AG
Cash Collateral Account Provider:	Deutsche Hypothekenbank AG
Paying Agent and Calculation Agent:	Deutsche Hypothekenbank AG
Calculation Agent:	Deutsche Hypothekenbank AG
Investor:	Nord/LB Asset Management acting on behalf of Deutscher Spezialfonds
Security Account Manager:	Sanne Trust Company Limited
Legal Counsel:	Clifford Chance
Issuer Account Provider:	Société Générale Group
Trustee:	BBWP Wirtschaftsprüfungsgesellschaft mbH
Corporate Service Provider:	Sanne Group S.A.

Rating Rationale

Transaction Overview

Transaction description

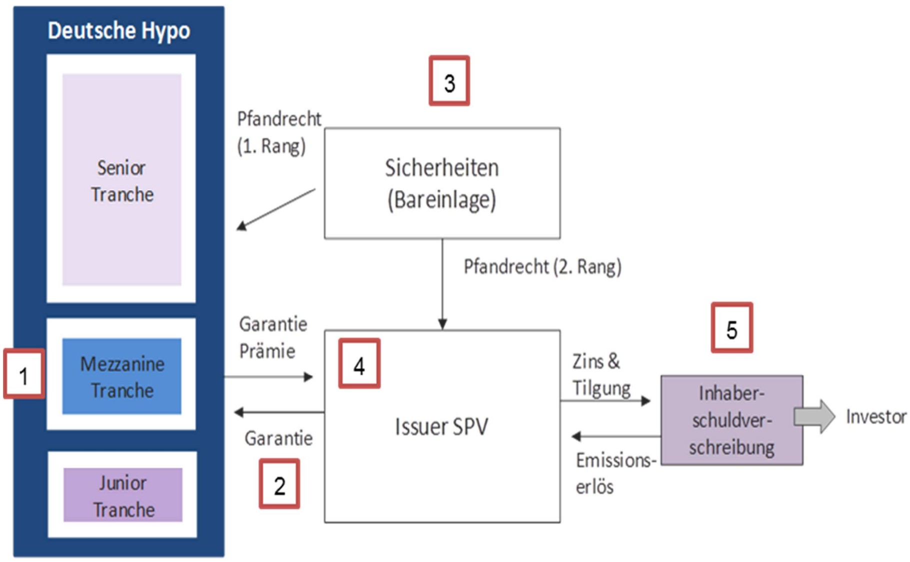
Herrenhausen Investment S.A. acting for the account of its Compartment I (Herrenhausen) is a bankruptcy remote special-purpose vehicle (SPV) under Luxembourg law, which will issue a EUR 60m credit-linked note (CLN) out of its Compartment 1 (see (5) in diagram below). The CLN is exposed to the credit risk of a static EUR 1.29bn commercial real estate (CRE) loan portfolio (1).

At issuance, the SPV will enter into a guarantee agreement with Deutsche Hypothekenbank (DH), whereby the SPV will provide synthetic credit risk protection to DH on the mezzanine piece of a CRE loan portfolio originated by the bank. The risk transferred to the rated note corresponds to a mezzanine tranche of 4.64% (or EUR 60m) of the underlying pool benefiting from a first loss protection of 1.01% (or EUR 12.9m - the "junior tranche"). The residual risk ("senior tranche" accounting for 94.35%) and the junior tranche are retained by DH.

The CLN proceeds are deposited on a cash account held by DH (3) during the full life of the transaction in order to collateralize the SPV's obligation to DH under the guarantee. The CLN investors are therefore exposed to the bank's credit risk during the entire life of the transaction (see counterparty risk section).

The notes will pay a 5% annual fixed rate on a quarterly basis, increased by the cash collateral margin of [1%] per annum with a final maturity in March 2052, including a two-year grace period. DH has a clean-up call right in Dec. 2024 when the outstanding pool is expected to fall below 10% and a time call right in March 2019.

Transaction chart



Source: Term Sheet Deutsche Hypothekenbank

DH's main objective with this transaction is to achieve a risk transfer allowing for regulatory capital benefits.

Herrenhausen is a repeat transaction of "Herrenhausen I", which was issued in August 2012.

Alignment of Interest

Transaction rationale

Herrenhausen provides the loan originator DH with the following benefits:

- The transaction provides a EUR 60m credit risk protection against the realization of the mezzanine credit risk of the underlying EUR 1.29bn CRE pool.
- The risk transfer provides significant regulatory capital relief, thus increasing DH's balance sheet capacity.
- In its function as originator, DH will determine the occurrence of credit events and the

associated credit losses borne by the CLN.

Mitigated conflicts of interest

In the various functions DH performs for Herrenhausen, the following aspects generate potential moral hazard conflicts, which are mitigated by a sound alignment of interest.

- First, and most importantly, DH retains a significant portion of the risk exposure. For every single loan, only 95% are part of the tranched pool, which leaves DH with 5% of every loan, ranking pari-passu. Furthermore, DH retains the junior tranche, i.e. the first loss piece, and the senior tranche. Retaining the senior tranche becomes a mitigating factor because there is only a 5.65% subordination to cover losses, before the attachment point of the senior tranche is reached. Thus, high losses will immediately affect the senior tranche.
- Second, regulatory risk transfer is a major focus of the transaction. High losses will decrease the subordination and thus the ability to call for regulatory capital relief.
- Third, an external auditor will review and approve the call for credit event, as well as the determination of the potential and final credit loss. Besides the external auditor review, the general auditor of DH - KPMG – will review the loss determination, since the loans remain part of DH's balance sheet.
- Fourth, since the event and loss information needs to be shared with the issuer as well as the investor, DH has a reputational incentive to comply with its general duties of care and standards.
- Fifth, according to the CLN documentation, DH is legally obliged to comply with all its internal guidelines and the duty of care standard of a good merchant.
- Sixth, DH needs to comply with the standards of a regulated covered bond origination bank to keep its status as a covered bond origination bank ("Pfandbriefgesetz").

Guarantee Setup

Credit loss determination

The credit risk is transferred via a bilateral guarantee between Herrenhausen and DH. At inception, DH will determine a specific CRE portfolio that provides the reference for the guarantee. The guarantee is set up to cover losses in the reference pool triggered by credit-related losses, which (a) rise above the detachment point of the junior tranche and (b) stay below the attachment point of the senior tranche.

Credit losses are determined by the servicer when a reference exposure credit event occurs. Credit events covered by the guarantee are (i) debtor insolvency or bankruptcy and (ii) 30+ days delinquency on a monthly rate. The credit loss is determined as follows:

Credit Loss = max(**nominal value**; **nominal value** plus **accrued interest** plus **early termination fines** plus **external foreclosure costs** minus **recovery proceeds**)

The servicer will calculate a provisional loss, equal to the loan-loss provisions, which will block repayments of the junior and subsequently the mezzanine tranche, until the final loss is determined.

The trustee will validate first, the occurrence of a credit event and second, the provisional loss, as well as the final loss based on the information delivered by the servicer.

The final loss determination occurs no more than 24 months after the credit event. If the final loss is higher than the provisional loss, the additional amount is deducted from the guarantee. If the final loss is lower, remuneration is triggered up until the guarantee provider is in the same position as he would have been, if the loss had been determined correctly from the very beginning.

Guarantee cancellation

A number of conditions applying to (i) the issuer, (ii) the investor and (iii) the originator may trigger the early termination of the guarantee. The guarantee may be cancelled by:

(i) the issuer, if:

- The originator is delinquent (3 days) or insolvent
- The guarantee is cancelled
- The cash collateral ceases to exist
- The issuer is subject to withholding tax
- The interest on the issuer account or the cash collateral account is subject to withholding tax

(ii) the investor, if:

- The issuer is delinquent
- The issuer is the cause of other performance disruptions
- The issuer is insolvent

(iii) the originator, if:

- The issuer is delinquent (3 days) or insolvent
- The CLN is terminated early
- The originator is subject to adverse legal & tax changes
- The outstanding portfolio falls below 10% of the original portfolio (optional)
- The transaction lifetime exceeds March 2019 (optional)

A guarantee termination by any of the parties above triggers the repayment of the funds outstanding on the collateral and issuer account, according to the relevant principal and interest priority of payments.

Priority of Payments on CLNs

The reference amount for interest payments is the outstanding amount of the guarantee collateral, which is not affected by potential losses. The guarantee required principal is reduced by:

- Repayments in the reference portfolio, or
- Losses in the underlying portfolio rising above the detachment point of the junior tranche

Interest available funds and distribution

(i) Interest and (ii) principal available funds are recognized on two different accounts – interest on the issuer account and principal on the cash collateral account. Funds are provided to the investor via two separate waterfalls.

(i) Interest available funds credited to the issuer account consist of:

- The guarantee premium, which equals the sum of:
  - Interest on CLN (5%)
  - Costs of the SPV including taxes
- Interest on the cash collateral account (approx. 1%)

Interest is paid to investors according to the following priority of payments:

- Tax
- Management & corporate service provider fees
- Interest on the CLN
- Excess payments to issuer equity

Principal available funds and distribution

(ii) Principal available funds credited to the cash collateral account consist of:

- Reductions in the guarantee collateral on the cash collateral account are triggered by repayments in the underlying loan portfolio (guarantee collateral reduced by losses in the underlying portfolio do not free up cash for redemption)
- At maturity – all amounts outstanding on the cash collateral account.

Before a guarantee cancellation event, principal is repaid to investors according to the following priority of payments:

- Required payments under the guarantee
- Amortization of CLN
- Excess paid to issuer equity

Post-guarantee cancellation event distribution

After the cancellation of the guarantee, principal repayments follow the following priority of payments:

- Outstanding payments under the guarantee

- Amortization of CLN
- Excess paid to issuer equity

Synthetic cash-flows on virtual Tranches

DH retains 5% of each loan, which ranks pari-passu with the 95% being put in the portfolio. The share of single loan repayments available to the portfolio will be distributed on a pro-rata basis between the three virtual tranches, before the performance trigger is hit.

When a trigger event occurs, the tranche repayment will change to partial sequential order, where the senior tranche and the mezzanine tranche remain in a pro-rata schedule, while the junior tranche will be fully sub-ordinated to them. The trigger to change the synthetic priority of payments towards the three tranches is based on the performance of the underlying assets:

- The cumulative losses of the reference portfolio rise above 50% of the junior tranche, or
- One credit event occurs

Provisional and actual credit losses are distributed in full, bottom-up, sequential order.

Reference Portfolio

Eligibility criteria

At inception, the portfolio is fully ramped up with loans meeting the following single loan and portfolio eligibility criteria:

- Single loan criteria:
  - Existing and legally-binding loan agreements
  - All loans carry a first lien mortgage, except for loans that have a subsidized loan (i.e. loans issued by development banks like KfW) in most senior position
  - Properties are located in Germany, France or the Netherlands
  - LTV ≤ 85%
  - None of the loans is delinquent in terms of either interest or principal and there has never been a warning over the lifetime of the loan
  - Min. DH internal rating is 10 (B according to external PD scale) - valid for one year
  - Max. loan amount EUR 85m
  - Max. maturity - legal final of CLN minus 2 years

- Portfolio criteria:
  - Average LTV 65%
  - Average loan amount EUR 25mn

All of the portfolio's loans have gone through DH's credit approval process and meet the transaction eligibility criteria, thus complying with DH's general internal credit origination standards. These standards have gone through a number of adjustments and specifications.

Scope assumes that the assets sourced by DH are of acceptable credit quality given the sound alignment of DH interests with those of CLN investors.

The CRE portfolio referenced by the guarantee consists of 57 loans with a total portfolio cut-off value of EUR 1.29bn. With loan sizes ranging from EUR 3m to EUR 84m, the portfolio is relatively granular compared with those of other CMBS transactions.

Two CRE sectors dominate the portfolio, Office and Retail.

Portfolio split

Property type distribution (% of notional)

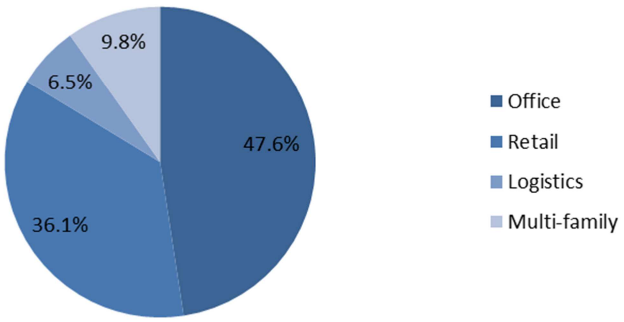


Figure 1: Property type split

The pool of properties is spread over three countries: Germany (72.4%), France (16.5%) and the Netherlands (11.1%). The assets underlying the loan pool are located primarily in specific economic centers, which Scope considers credit positive given the good asset performance and investor demand.

Geographical distribution (% of notional)

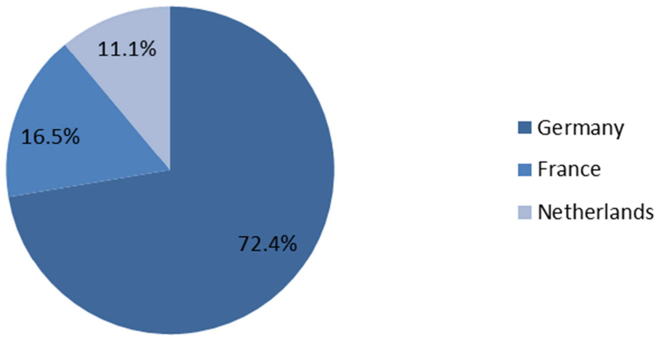


Figure 2: Country split

Portfolio figures

Further portfolio characteristics are:

- Loan-to-Value (LTV) levels range from 39.5% to 85% (average: 63.4%)
- Loan-to-collateral value levels range from 54.6% to 125% (average: 82.5%)
- The maximum current single obligor concentration is 6.15% (current: 6.14%); the maximum concentration of the top 10 obligors is 61.54%, whereas they currently account for 40.6%
- 94.3% of the portfolio were issued from 2009 to 2013, with a strong focus on 2010 (20.7%), 2011 (31.9%), 2012 (22.8%) and 2013 (14.1%).
- 59.1% of the portfolio show a Debt Service Coverage Ratio (DSCR) of 1.4 or higher, while 90.7% have a DSCR above 1. For the remainder, DSCR values are either below 1, due to high amortization (3 cases), or not calculated (1 – it's a bullet structure with very low LTV).
- 89.3% of the portfolio show an Interest Coverage Ratio (ICR) of 1.4 or higher, while 94.5% have an ICR at least equal to 1; in one case no ICR is calculated (4.14% of portfolio).
- 27.7% of the portfolio are bullet structures, while the rest either pay fixed installments or follow an annuity scheme.

Regarding the credit quality, the internal rating distribution according to Scope's credit estimates can be seen in figures 3 and 4. The average credit quality of the portfolio is low investment grade (figure 3) with respect to PD, while the application of an 80% RR brings the portfolio to mid-investment grade (figure 4).

Credit estimates distribution – 0% RR (% of portfolio notional)

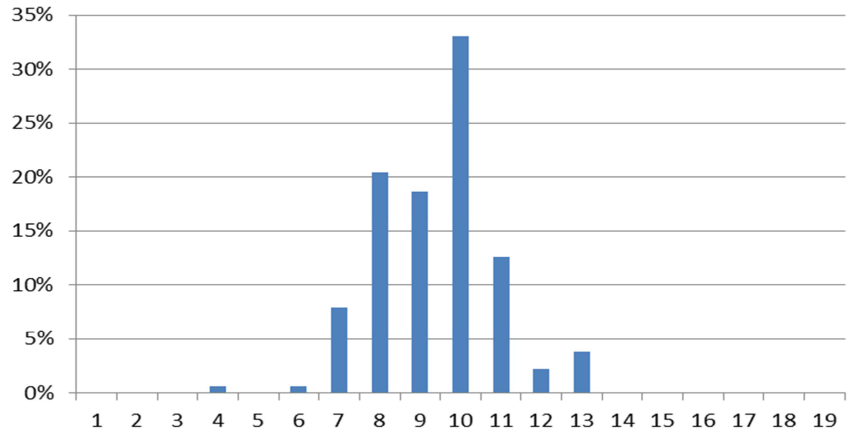


Figure 3: Credit estimates distribution, based on Scope's internal assessment applying 0% RR

Credit estimates distribution – 80% RR (% of portfolio notional)

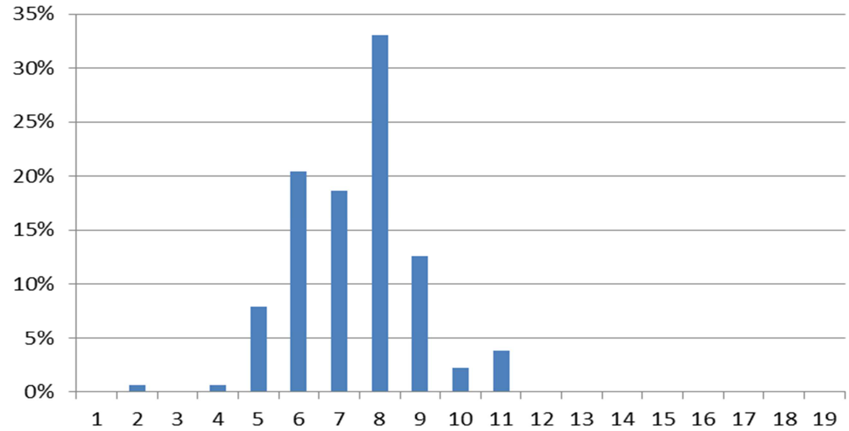


Figure 4: Credit estimates distribution, based on Scope's internal assessment applying 80% RR

The meaning of Scope's internal credit estimates can be inferred from the credit estimate in Appendix I, in combination with Scope's Idealized Expected Loss Table in Appendix II.

Loan bucket with lowest credit quality

The asset pool loan bucket with the lowest credit quality is one of the main drivers of CLN's rating. This bucket contains 11 loans with an exposure at default of EUR 220.4m and a credit quality in line with a high non-investment grade rating (all in PD terms).

The credit profiles of eight loans are mainly driven by weak ICR ratios, LTV figures and credit negative amortization profiles with high final redemption payments.

A qualitative review revealed strengths, which were not covered by the scoring. These include very stable rent profiles with good tenants, joint liability agreements with other exposures, and properties located in good economic environments. Applying a qualitative notching that takes the overall ranking in the portfolio into account provides these loans with a one- to three-notch upgrade.

Three loans have credit figures that are actually in line with mid- to low investment-grade credit quality. However, a qualitative review showed features like pari-passu syndications, which are not reflected in loan amounts, uncertain rent profiles due to short-term rent contracts, and aggressive valuations (two cases; aggregated lending volume EUR 22.3m compared with market standards. A qualitative notching results in one- to six-notch downgrades for these loans.

Modelling

Modelling outline

Scope determines the quantitative anchor point for the rating by computing the expected loss associated with the CLN, taking the first loss protection into account. The analysis is based on an internal model, which relies on a loan-by-loan analysis in a Gaussian copula dependency framework. Scope determines the internal credit estimates required by the model for every single loan according to the principles laid out in Appendix I.

The modelling result, a loss distribution, is used in a cash flow model to assess the unconditional pro-rata mechanism. Contrary to a sequential amortization schedule, this mechanism allows for accelerated amortization of the Mezzanine tranche.

Modelling inputs

Main modelling inputs:

- Senior tranche 94.35%, Mezzanine tranche 4.64%, Junior tranche 1.01%
- 57 CRE loans, EUR 1.29bn
- Asset individual weighted average life
- Scope's credit estimates
- 80% recovery rate (RR) – Scope's recovery rate assumption generally relies on a 65% estimate for senior secured loans. However, in the particular case of Herrenhausen II, Scope takes the low LTVs (loan-to-market values), as well as the low loan-to-collateral values into account and is comfortable to apply an 80% average RR (in line with the avg. 80.25% RR estimated by DH)
- Several asset correlation levels were tested (10% to 30%)

Furthermore, Scope applies a 5% discount rate on the expected loss, which is equal to the note coupon, to account for default timing.

Sensitivity analysis

Scope observed substantial sensitivity of the modelling results with respect to the RR. Changing the RR input from 80% to 65% has a negative model impact commensurate with a three-notch downgrade of the model result.

Modelling results exhibit a limited sensitivity to asset correlation assumption, with a model result impact of less than one notch.

Depending on the assumptions for the default timing in the asset pool, the results from the cash flow modelling show an improvement in line with a one-notch uplift. The pro-rata mechanism protects the mezzanine tranche, in particular from low front-loaded credit losses in combination with high back-loaded credit losses, compared to the full sequential order.

Based on the information provided by DH on the performance of the distressed loan foreclosure process and the low loan-to-collateral values, Scope is still conservative by assuming an 80% RR. Furthermore, given the CRE property of the asset portfolio and the current market environment, Scope considers a default timing with low front-loaded and high back-loaded credit losses to be reasonable.

Counterparty Risk

Deutsche Hypothekenbank (DH)

DH is the major counterparty to this transaction. Besides being the originator and servicer of the loans, DH also acts as cash collateral account provider as well as calculation agent with respect to the credit loss determination. Furthermore, a default by DH triggers the termination of the guarantee and thus a repayment of the CLN. In short, DH's credit quality as well as the operational integrity and performance are key to this transaction.

Originator

1. Role of DH as loan originator

Scope has reviewed the role of DH as originator of the loans. The bank, founded in 1872, has a 140-year track record in issuing mortgage deeds. As of 1H 2013, the bank had a total real estate portfolio of EUR 12.3bn, which is a mid-size volume in comparison with other German covered bond origination banks ("Pfandbriefbank"). In the past years DH has developed a strong strategic focus on commercial loans. The percentage of the housing loan portfolio decreased significantly from 35% to 12% between 2006 and 2012; 95% of the new real estate financing is backed by commercial mortgages. Since the end of the 1980s, DH has also gained extensive experience in the origination of foreign loans, particularly in the UK, France and the Netherlands. Over the last seven years, the share of foreign loans has represented about 40% of the total portfolio volume. From Scope's perspective, the reference portfolio of Herrenhausen represents the key areas of DH's expertise, which we consider a positive qualitative factor.

All portfolio loans have gone through the bank's regular risk management and credit application processes and were not made with the intention to form part of a securitization. The origination standards regime under which the portfolio loans were originated does not fully comply with the bank's current origination standards due to adjustments in the risk strategy to account for macro-economic and industry-related changes. However, the portfolio eligibility criteria comply with the bank's current origination standards. Furthermore, all loans have been on the DH balance sheet since their origination and there has been no need to sell them curing this period.

The organizational structure clearly separates the loan underwriting unit from the loan selection unit for the underlying portfolio. This, together with the above-mentioned alignment of interests, gives Scope sufficient comfort that the guarantee-covered portfolio loans are consistent with the rest of DH's portfolio.

Servicer

2. Role of DH as a servicer of the loans

The implementation of an early warning list reviewed on a monthly basis, yearly internal ratings of debtors and regular real estate valuations, among others, ensures that DH has adequate credit control mechanisms to mitigate the impact of credit events. DH applies the same servicing standards to the securitized loans as to all non-securitized loans. Scope considers this to be supported by the fact that the DH's loan administration and risk management must comply with German covered bond law ("Pfandbriefgesetz") in order for DH to remain a covered bond origination bank. Furthermore, it is in DH's interest to ensure that the loans are serviced properly given the significant exposure to potential losses. After reviewing the servicing principles, processes and staff in charge, Scope is comfortable with DH acting as the servicer of Herrenhausen. Should DH become insolvent, no back-up servicer is required since the transaction will terminate at that date.

DH is also responsible for the work-out of the loans, which in turn determines the final credit loss should a credit event occur. Scope has reviewed the principles and processes in place alongside a review of the responsible staff in charge of the work-out. Given the current setup and the alignment of interest, Scope considers that the work-out ability of DH does not add additional risk to the structure in terms of achieving the best work-out results possible. Furthermore, every loss determined will be reviewed by an external independent auditor as part of the structure, namely BBWP Wirtschaftsprüfungsgesellschaft, as well as by KPMG in the course of the regular annual external audit.

3. Role of DH as cash collateral account provider

Collateral account provider

The role of DH as the cash collateral account provider adds credit risk to the structure. Given that the full notional held in the cash collateral account is exposed to the credit risk associated with DH, the potential loss from an insolvency of DH is a credit negative for the transaction. In that case, all of the outstanding CLN principal at that time will form part of the insolvency mass.

Scope does not consider the performance of DH to be fully independent from the performance of the underlying pool. Thus, the simple sum of the expected loss from DH's insolvency and the CLN stand-alone expected loss would overstate the total expected loss.

DH has provided Scope with an overview of the rescue mechanisms built in by the fact that DH has a profit/loss-transfer agreement with Nord/LB. There is a joint-liability agreement with the Sparkasse association ("Sparkassen-Finanzgruppe"), which entitles DH creditors to receive satisfaction from a security reserve ("Sicherungsreserve der Landesbanken und Girozentralen"). Furthermore, the security reserve, the Sparkassen rescue fund ("Sparkassenstützfonds") and the rescue fund of the municipal savings and loans associations ("Sicherungsfonds der Landesbausparkassen") have a joint-liability agreement and support each other. The cash collateral account would be covered by this rescue mechanism. However, there is no direct legal right to rescue, since a rescue is subject to a positive vote by the members of the Sparkasse association. Historically, this rescue mechanism has covered all potential issues within the association. Additionally, there is sub-sovereign support rising from the material ownership of Lower-Saxony and Saxony-Anhalt. Both safety nets are reflected in the credit profile of Nord/LB and therefore in the rating of DH. Because the safety net and rescue mechanisms are relatively independent from the performance of DH, it would require a double-default scenario to affect the transaction.

Moreover, an insolvency on the part of DH would cause operational disruptions, which could adversely impact repayments of funds to investors. The rescue mechanism as well as the insolvency procedures will block repayments for an uncertain amount of time.

Guarantee premium payer

DH is also the payer of the guarantee premium and of the collateral account interest. Between two quarterly payment dates, there is a credit exposure in the form of accrued interest and guarantee premiums. In case of insolvency, these exposures will also form part of the insolvency mass and need to be recovered via insolvency procedures or the rescue mechanism.

Scope has reviewed DH's credit profile and confirms that its credit quality complies with a low investment grade rating. Scope considers the risk arising on DH's role as counterparty to be mitigated by the rescue mechanism and the anchor shareholder status of the sub-sovereigns, Lower-Saxony and Saxony-Anhalt. However, the low investment grade rating is considered to be a cap to potential rating improvements on the underlying.

Corporate service provider

Sanne Group S.A.

Sanne Group S.A. acts as the corporate service provider to the transaction. The company is not externally rated. Scope does not consider this to be a problem as the operational exposure towards this company is limited. Moreover, several potential back-ups are available as well, which increase the transaction's independence from the performance by Sanne Group S.A.

The main task of Sanne Group S.A. is to provide Herrenhausen with a corporate infrastructure, including official governance and management bodies and an official site. It also handles all queries for auditing and other regulatory requests. At no point in time, does Sanne Group S.A. own a portion of the investors' cash. Scope therefore considers that Sanne Group S.A. does not add risk to the structure.

Collateral account manager

Sanne Trust Company Limited

Sanne Trust Company Limited is the collateral account manager for Herrenhausen. The company is not externally rated. Scope does not consider this to be a problem since, as for Sanne Group S.A., there is little operational exposure. Moreover, potential back-ups are available, which increase the transaction's independence from the performance of Sanne Trust Company Limited.

Sanne Trust's main task is to manage timely payments from the collateral account to DH, in case of loss coverage under the guarantee, and to the investors in case there is non-required collateral. At no point in time, does Sanne Trust Company Limited own a portion of the cash collateral.

Scope considers that Sanne Trust Company Limited does not add risk to the structure.

Issuer account provider

Société Générale Group

Société Générale is the issuer account provider. The issuer account collects the guarantee premiums, which are the major source of the cost coverage at the SPV level as well as for the CLN interest payments. Payments are collected at the respective quarterly payment date and paid out directly to investors. In terms of adding risk to the structure, there is only limited credit risk, but some operational risk. The limited credit risk is caused by the very limited exposure in terms of size and especially time. Operational risk is caused by potential operational disruptions in case of insolvency.

Société Générale is externally rated by Moody's, S&P, Fitch and DBRS, with mid to high investment grade rating by each agency (external ratings: Moody's/S&P/Fitch/DBRS – A2 (P-1)/A (A1)/A (F1)/AA low (R1 middle)).

Given the instrument rating level, Scope considers that the rating level of Société Générale does not add risk to the structure.

Trustee service provider

BBWP Wirtschaftsprüfungsgesellschaft

BBWP Wirtschaftsprüfungsgesellschaft is the trustee service provider. The trustee holds the pledges on the issuer account in the name of the issuer.

Furthermore, the trustee reviews (i) the call for credit event by DH, (ii) the withdrawal of loans from the reference portfolio, (iii) the calculation of provisional credit losses, (iv) the investor reporting provided by DH, (v) the calculated loan loss provisions, and (vi) the outstanding amounts of the senior, mezzanine and junior tranche.

BBWP Wirtschaftsprüfungsgesellschaft bases its approval of a credit loss on the full filing of each loan in distress. This filing is used to perform an independent review, which usually includes opinions from external valuation agents.

Scope has reviewed BBWP Wirtschaftsprüfungsgesellschaft's ability to perform the proposed actions. Given their 15+ years of experience in this playing field and the information received, Scope is confident that BBWP Wirtschaftsprüfungsgesellschaft is able to provide good, independent trustee services.

With respect to the instrument rating level and the alignment of interest between originator and investor, Scope considers that the trustee perspective does not add risk to the structure.

Legal Risk

Scope has reviewed all provided documents and relies on the assessment and experience of Clifford Chance Partnerschaftsgesellschaft, which acts as legal advisor to DH, that all documents are legally enforceable.

Appendix I

Credit analysis approach – Herrenhausen Investment S.A. – Compartment I – CRE portfolio loans

This document explains Scope's approach to deliver credit estimates for the CRE loans underlying the Herrenhausen transaction and presents how key criteria are integrated into the estimation process. Credit estimates reflect point-in-time views on the proposed loans and are not subject to a monitoring process.

The CRE loans are issued by Deutsche Hypothekenbank to finance entities holding or buying CRE. The credit risk of these loans is driven primarily by the loans' ranking within the financing structure, the revenues generated by the underlying assets, the asset value and the macroeconomic outlook of the asset class. In order to provide a transparent and consistent analytical approach across the spectrum of asset classes, e.g. Office, Retail, Logistics and Multi-family, Scope's credit estimates rely on the following analytical building block:

Loan characteristics focus on the characteristics of the loan. This includes relying on a scoring model for the identified key ratios, where the result is subject to potential adjustments due to the assessment of the qualitative characteristics of the loan, the structural aspects or sector specific influences.

Areas of Application

Scope's approach for CRE credit estimates is applicable to the various types of commercial loans in the underlying pool. It allows meaningful comparisons and ensures the consistency required to assess the individual loan's credit risk. The framework incorporates the characteristics of various key ratios, which may be specific to the particular region, market, or market segment. The structures and assets in the underlying pool are heterogeneous. As a result, the approach focuses on the general risk drivers common to loans in order to ensure a consistent and comparable analytical approach.

Definitions and scale applied

1. Definition

Scope's one-year credit estimates assigned to the underlying CRE loan pool constitute a point-in-time opinion on the credit risk of such loans. The credit estimate reflects Scope's opinion on the one-year probability of default [PD].

2. Scoring scale

Scope's one-year credit estimates expressed according to a numerical scale from 1 to 20. Credit Estimates ranging from 1 to 10 are considered investment grade; credit estimates from 11 to 19 considered non-investment grade; 20 represents a defaulted loan.

3. Credit estimate review

Once assigned, a credit estimate will not be monitored by Scope.

Credit estimates framework

1. Credit Risk Analysis: Loan Characteristics

Throughout the credit risk analysis, Scope develops an understanding of the risks related to the respective loan facility from both a quantitative and qualitative perspective. The analysis will focuses on two aspects (i) an assessment of the key ratios and characteristics of the loan itself and (ii) a qualitative assessment based on individual loan information. Both aspects are weighted equally, may be adjusted by Scope Ratings if deemed necessary, and refer to a PD with a one-year horizon.

If the loans are rated externally according to a methodology deemed acceptable by Scope Ratings at its sole discretion, the assessment may take these ratings into account.

2. Quantitative Loan Key Ratios

Six ratios are defined below, which will be analyzed and subsequently scored on a scale of nine (9) to one (1), whereas nine would indicate a very high risk, while 1 would indicate a very low risk. The individual ratios will be weighted according to their significance based on the purpose of the loan.

- Debt Service Coverage Ratios (DSCR)
  The higher the coverage level, the higher the level of cushion for future cash flow declines that might ultimately lead to insufficient cash flow to service interest and debt.

- Interest Coverage Ratios (ICR)
  The higher the coverage level, the higher the level of cushion for future cash flow declines that might ultimately lead to insufficient cash flow to meet interest payments.

- Loan-to-Collateral Value
  The more the property is leveraged, the higher the risk profile of the financing.

- Loan Amortization Schedule
  The higher the amortization during the term of the loan, the greater the increase in equity and hence sponsor commitment in the property.

- Credit enhancements
  Any features decreasing the risk of losses, such as guarantees that are required or incorporated into the loan agreement; these features may also increase the complexity of the loan (e.g., collateralization or overcollateralization, recourse financing, subordination, cash trap, etc.).

- Loan-to-Collateral Value at maturity
  The more the property is leveraged at maturity, the greater the uncertainty of a successful refinancing.

3. Individual Loan Information

Subsequently, the individual loan information will be taken into account to clearly identify the inherent credit risk of each loan facility. Individual loan information which could be of relevance to the credit estimate includes -among others- the following:

- Property Classification
  Depending on the classification of the property (e.g. Prime, Secondary, Tertiary), different hurdle rates must be applied to the loan ratio grid due to the risks implied by each class.

- Property Type
  Depending on the property type (e.g. Office, Retail, Residential), different hurdle rates must be applied to the loan ratio grid due to the risks implied by each type.

- Property Location
  Depending on regional exposure, different hurdle rates must be applied to the loan ratio grid due to the risks implied by each location. To the extent possible, Scope therefor accounts for macroeconomic aspects.

- Sponsor/Borrower Support
  Depending on sponsor/borrower support via side letters or similar items, risk may be mitigated to a certain extent.

- Type of agreed interest and/or amortization payments
  In so far as special agreements have been entered into regarding the payment of interest and/or amortization, risk could be qualified differently from the given key ratios.

In addition, Scope has compared the credit estimates resulting from the key ratio analysis with the internal ratings from Deutsche Hypothekenbank, which are the result of an IRBA approved process.

Appendix II

Scope's Idealized Expected Loss Table

The table attached includes the Idealized Expected Loss that Scope intends to use in order to benchmark the modelling results involved in rating structured finance transactions. Scope generally relies on a 50% LGD assumption to derive default probabilities associated with a given rating over a given horizon.

Users of this table understand that Scope's assumptions regarding default probabilities may be modified from time to time and that Scope is under no obligation whatsoever to inform users of any such modifications.

Users understand further that the table is provided purely as an accommodation by Scope, and that such accommodation creates no obligations of any kind on the part of Scope.

Working Document: Scope's Idealized Expected Loss Table

Scope	1	2	3	4	5	6	7	8	9	10
AAA	0.0013%	0.0034%	0.0076%	0.0154%	0.0303%	0.0487%	0.0688%	0.0904%	0.1137%	0.1386%
AA+	0.0023%	0.0052%	0.0115%	0.0246%	0.0476%	0.0772%	0.1094%	0.1442%	0.1816%	0.2216%
AA	0.0040%	0.0089%	0.0194%	0.0411%	0.0748%	0.1262%	0.1822%	0.2427%	0.3078%	0.3774%
AA-	0.0069%	0.0153%	0.0328%	0.0688%	0.1174%	0.1822%	0.2526%	0.3288%	0.4106%	0.4982%
A+	0.0119%	0.0280%	0.0585%	0.1083%	0.1845%	0.2647%	0.3520%	0.4464%	0.5479%	0.6564%
A	0.0206%	0.0474%	0.0969%	0.1757%	0.2898%	0.3834%	0.4853%	0.5955%	0.7139%	0.8406%
A-	0.0355%	0.0801%	0.1604%	0.2852%	0.4552%	0.5786%	0.7129%	0.8581%	1.0142%	1.1812%
BBB+	0.0612%	0.1469%	0.2952%	0.4970%	0.7151%	0.8924%	1.0855%	1.2941%	1.5185%	1.7584%
BBB	0.1055%	0.2457%	0.4790%	0.7821%	1.1232%	1.3748%	1.6485%	1.9445%	2.2626%	2.6029%
BBB-	0.1820%	0.4110%	0.7772%	1.2310%	1.7644%	2.3802%	2.9558%	3.4912%	3.9865%	4.4416%
BB+	0.3138%	0.7124%	1.3503%	2.1371%	2.7716%	3.5931%	4.3609%	5.0752%	5.7359%	6.3431%
BB	0.5412%	1.1809%	2.1516%	3.2734%	4.3538%	5.4047%	6.3871%	7.3009%	8.1462%	8.9229%
BB-	0.9333%	1.9575%	3.4283%	5.0137%	6.5400%	7.7384%	8.8586%	9.9007%	10.8646%	11.7504%
B+	1.6094%	3.1383%	5.3853%	8.1322%	8.6461%	10.0132%	11.2912%	12.4799%	13.5796%	14.5900%
B	2.7753%	4.8707%	7.5222%	10.2233%	11.1242%	12.6094%	13.9978%	15.2893%	16.4839%	17.5817%
B-	4.7859%	7.5593%	10.5072%	12.8520%	15.3279%	16.9294%	18.4265%	19.8191%	21.1073%	22.2910%
CCC	14.2322%	16.6430%	19.0538%	21.4646%	23.8754%	25.5162%	27.1570%	28.7978%	30.4386%	32.0793%
CC	24.5430%	26.4611%	28.3792%	30.2972%	32.2153%	35.7723%	39.3292%	42.8861%	46.4431%	50.0000%
C	42.3235%	44.2426%	46.1618%	48.0809%	50.0000%	50.0000%	50.0000%	50.0000%	50.0000%	50.0000%

Table 1: Scope's Idealized Expected Loss Table

Important information

Information pursuant to Regulation (EC) No 1060/2009 on credit rating agencies, as amended by Regulations (EU) No. 513/2011 and (EU) No. 462/2013

Responsibility

The party responsible for the dissemination of the financial analysis is Scope Ratings GmbH, Berlin, District Court for Berlin (Charlottenburg) HRB 145472, directors: Thomas Morgenstern, Florian Schoeller.

Rating prepared by

Sebastian Dietzsch (Analyst)
Philipp Wass (Senior Analyst)
Robert Bönisch (Analyst)

Rating committee responsible for approval of the rating

Guillaume Jolivet (Executive Analyst)

The rating concerns a newly-issued financial instrument, which was evaluated for the first time by Scope Ratings GmbH.

Information on interests and conflicts of interest

The rating was prepared independently by Scope Ratings, but for a fee based on a mandate of a third party (the originator) interested in the distribution of the capital investment.

As at the time of the analysis, neither Scope Ratings GmbH nor companies affiliated with it hold any interests in the rated entity or in companies directly or indirectly affiliated to it. Likewise, neither the rated entity nor companies directly or indirectly affiliated with it hold any interests in Scope Ratings GmbH or any companies affiliated to it. Neither the rating agency, the rating analysts who participated in this rating, nor any other persons who participated in the provision of the rating and/or its approval hold, either directly or indirectly, any shares in the rated entity or in third parties affiliated to it. Notwithstanding this, it is permitted for the above-mentioned persons to hold interests through shares in diversified undertakings for collective investment, including managed funds such as pension funds or life insurance companies, pursuant to EU Rating Regulation (EC) No 1060/2009. Neither Scope Ratings nor companies affiliated with it are involved in the brokering or distribution of capital investment products. In principle, there is a possibility that family relationships may exist between the personnel of Scope Ratings and that of the rated entity. However, no persons for whom a conflict of interests could exist due to family relationships or other close relationships will participate in the preparation or approval of a rating.

Key sources of the rating

☒ Legal documentation of the transaction

☒ Third party valuation reports and expert opinions

☒ Individual underlying asset information

Scope Ratings considers the quality of the available information on the evaluated company to be satisfactory. Scope ensured as far as possible that the sources are reliable before drawing upon them, but did not verify each item of information specified in the sources independently.

Examination of the rating report by the rated entity prior to publication / Modification of the report after the examination

The rated entity was given the opportunity to examine the rating report prior to publication. Following that examination, the rating report was modified without impact on the rating.

Methodology

The methodology applicable for the rating of Herrenhausen Investment II S.A. CLN is the Structured Finance Instrument Methodology Guideline, which is available at www.scoperatings.com. The historical default rates of Scope Ratings can be viewed on the central platform (CEREP) of the European Securities and Markets Authority (ESMA): http://cerep.esma.europa.eu/cerep-web/statistics/defaults.xhtml. A comprehensive clarification of Scope's default rating, definitions of rating notations and further information on the analysis components of a rating can be found in the documents on methodologies on the rating agency's website.

Conditions of use / exclusion of liability

Issuer

Scope Ratings GmbH, Lennéstrasse 5, 10785 Berlin

Competent supervisory authority

European Securities and Markets Authority (ESMA)
CS 60747; 103 rue de Grenelle; 75345 Paris Cedex 07, France

This document is not subject to inspection by ESMA.