

**March 2009**



**Debt Investor Presentation Mortgage Pfandbriefe**



## **Commercial Real Estate Pfandbriefe issued by Hypo Real Estate Bank AG**

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Legislation

CRE Business Model

CRE Risk Management

Mortgage Cover Pool

# Legislation

## Summary of German Covered Bond Act (Pfandbriefgesetz)

The German Pfandbrief legislation<sup>1</sup> has a history which spans over a century and was most recently updated on 19th July 2005. Some of the highlights of the legislation relating to mortgage Pfandbriefe include:

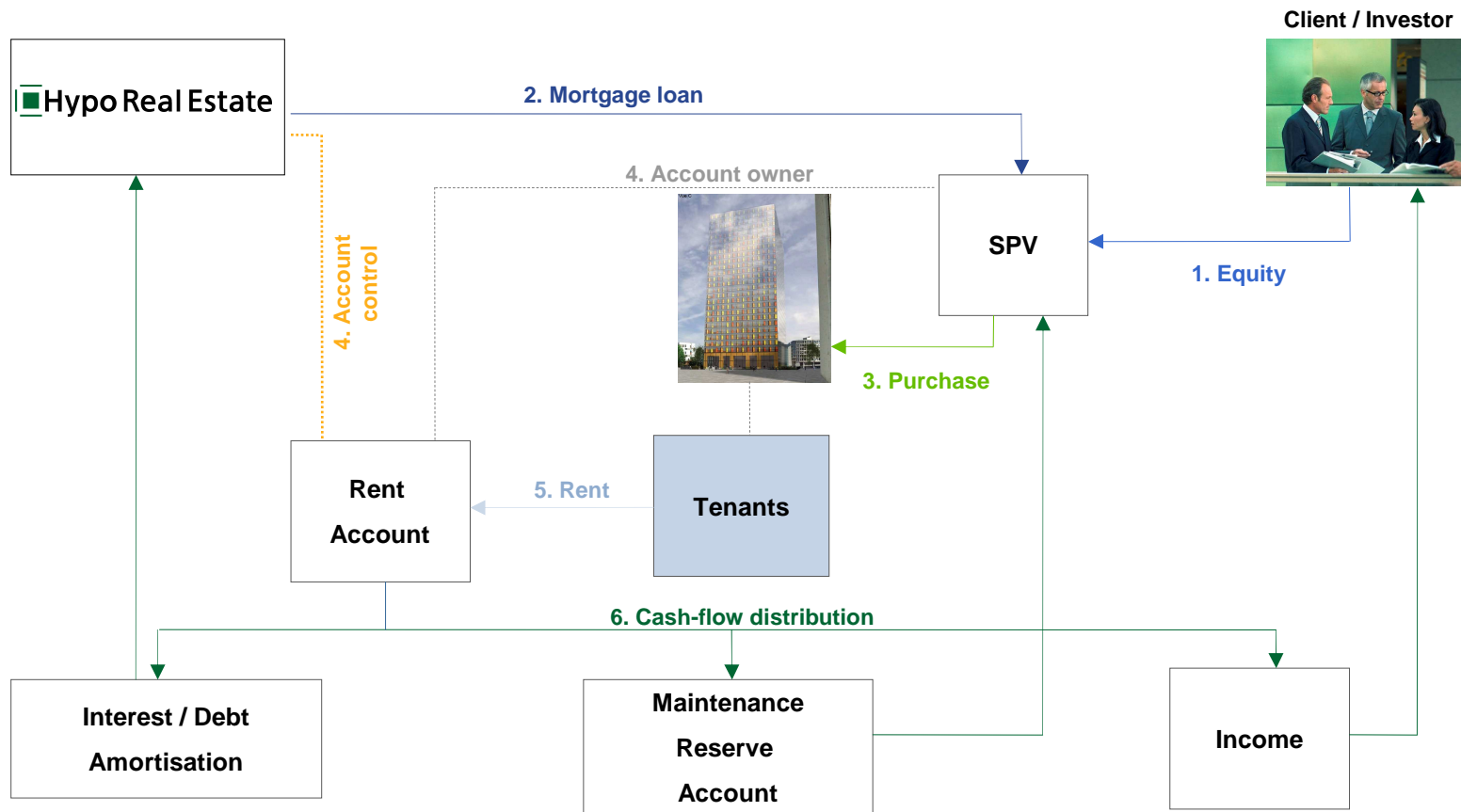
- | **Strict requirements for Pfandbrief issuing institutions:** Issuers need a specific Pfandbrief licence and a professional risk management process as well as enhanced cover pool transparency in accordance with §28 of the Pfandbrief Act
- | **Diversified asset pool:** Mortgage pool may have unlimited exposure to properties situated in all EU member states and 10% exposure to properties in the USA, Canada and Japan and non-EU EEA countries (Iceland, Norway and Liechtenstein) as well as Switzerland in order to enhance diversification
- | **Pool eligible assets:** Mortgage sector assets with a maximum of 60% loan to lending value are eligible for the cover pool. For substitute cover, claims against selected credit institutions are eligible up to 10% of the total cover pool.
- | **Mandatory over-collateralisation:** The present value of the assets must exceed that of the liabilities at all times by a minimum of 2%, also in stress testing scenarios
- | **Preferential claims and bankruptcy remoteness:** Pfandbrief holders rank senior and have a preferred claim to the assets in the pool. The cover pool is excluded from other creditors' claims (including the German tax authorities) in the event of insolvency until all the claims of the priority creditors (i.e. Pfandbrief holders) have been satisfied
- | **Interest rate & currency matching:** Interest receivable must be equal to or exceed interest expense in any given year (coverage by nominal value and by net present value required by law). Currency risk is almost completely hedged and closely monitored
- | **Strong monitoring:** Pfandbrief issuers are monitored by the German banking supervisor (BaFin). A qualified independent trustee (Treuhänder) is responsible for the monitoring of the cover pool and reports to BaFin

**Note:**

# CRE Business Model

## Cash-flow based senior lending

HREB's Commercial Real Estate business is based on senior, on-balance sheet lending to investors and real estate companies in Germany and Europe with direct access to the properties' cash-flow generation<sup>(1)</sup> and the property as collateral



4 **Note:**  
1. Subject to jurisdiction

# CRE Business Model

Cash-flow based senior lending with rigorous stress-testing and scenario analysis

- I All Commercial Real Estate lending is conducted subject to equity participation from the borrower
- I The SPV is a ring-fenced vehicle whose assets are restricted to a specific property or portfolio of properties to be financed: No other activities of the investor/sponsor can impact the credit worthiness of the SPV
- I The property is evaluated on the basis of location, suitability for purpose, probable remaining lifetime, state of maintenance, cash-flow generation capacity etc.
  - I Anchor tenants are identified and the creditworthiness of all tenants is verified
  - I Tenant contracts are examined on the basis of lease price, break clauses, tenor, rights and obligations
  - I Regional leasing conditions, re-letting periods and other relevant data are evaluated on an on-going basis
- I All leasing contracts are assigned to HREB
- I In the majority of cases, the Rent-Collection-Account is assigned to HREB, giving the bank full control over the cash-flows

## Lending Model Stress-Testing

- I On the basis of 20 years detailed historical data per region on:
  - I Regional property prices
  - I Lease prices
  - I Economic development
  - I Interest rates
  - I Re-letting periods
  - I Lease conditions such as tenors and breakage clauses
- I Stress tests are also performed on the cash-flows to determine any possible future covenant breakage and exit risk

# CRE Credit Risk Management

## Multi Stage Risk Management Process

### Prudent Underwriting

- | The Group has a long track record in international real estate finance
- | Underwriting teams and credit risk management have long standing experience in local offices
- | Moderate cash-flow assumptions
- | Underwriting policy adapted to market cycles
- | Including security buffers (e.g. covenants)
- | Exit risk an important factor in the determination of credit risk, therefore analysis of future cash-flows and property value developments undertaken

### Diversification

- | Diversification by region, country, asset class, customer and industry of tenants
- | Ongoing diversification of client base

### Portfolio Management

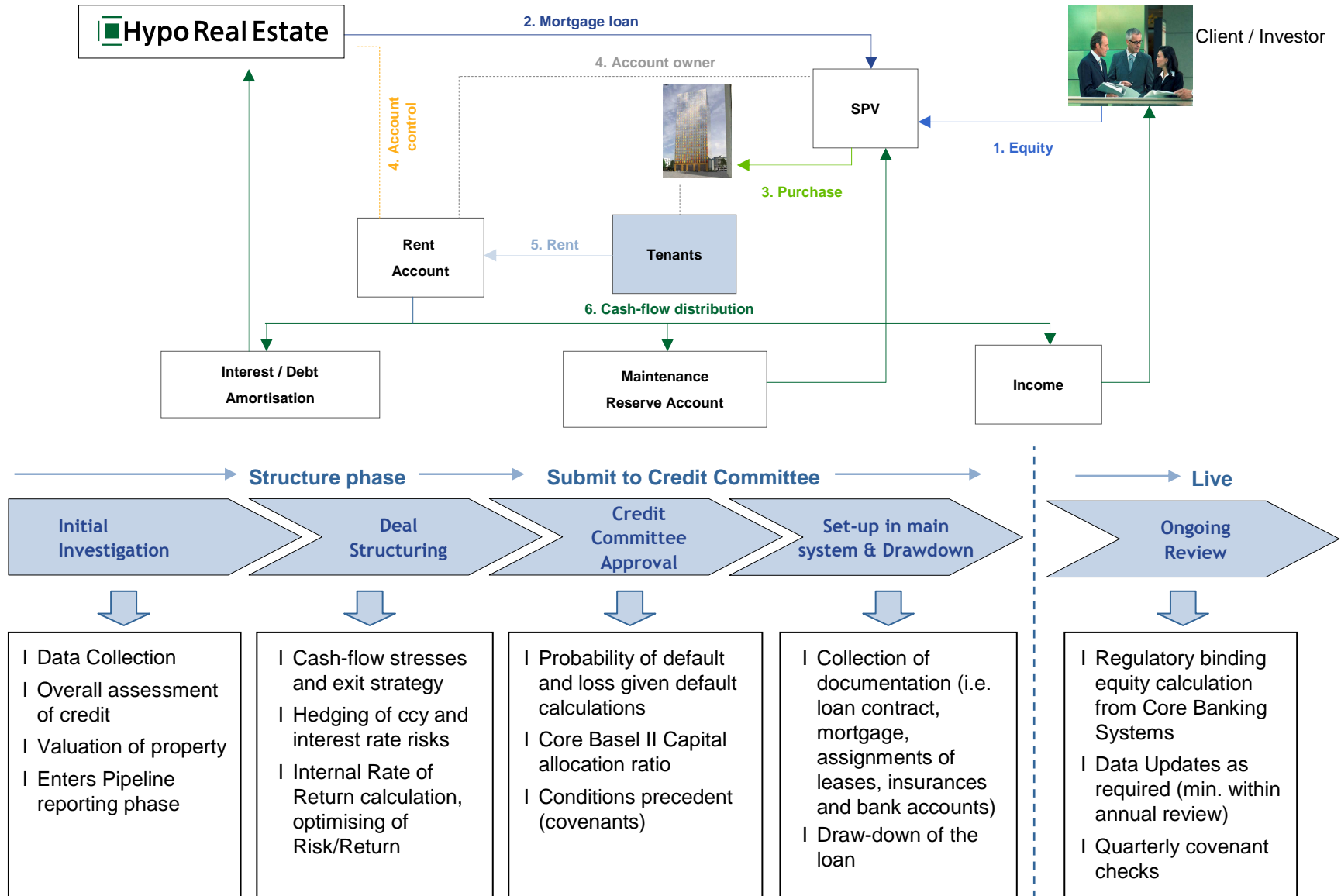
- | Limitation of concentration risks (e.g. exposures to countries, sectors, market segments)
- | Reduction of cyclical risks

### Constant Monitoring

- | Ongoing monitoring on a loan-by-loan and portfolio basis (e.g. annual reviews)
- | Stress tests: interest rate risk, exit risk, rental income, market rents
- | Monitoring of covenants (LTV, ICR, DSCR)

# CRE Credit Risk Management

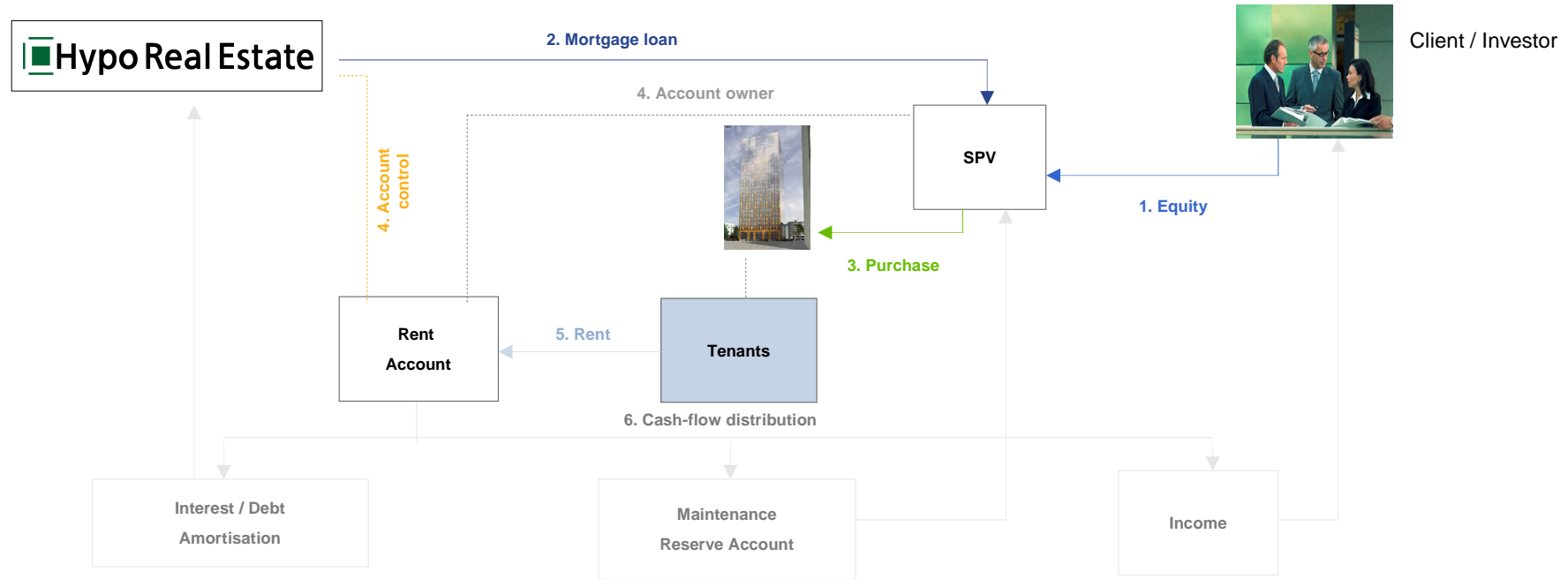
Risk Management starts in the origination phase: Using the SFS System<sup>1</sup>



7 **Note:** 1. Specialised Financial Systems. Analytic tool to simulate cash-flow developments and perform stress tests

# CRE Credit Risk Management

Risk Management starts in the origination phase: PD, LGD and IRR Calculations



## Probability of Default (PD) Calculated using SFS system

- | Borrower Industry
- | Building Location
- | Tenant Structure
- | Interest Cover Ratio
- | Reviewed annually

## Loss Given Default (LGD) Calculated using SFS system

- | Building Location/Type
- | Tenant Structure
- | Loan to Value
- | Reviewed annually

## Internal Rate of Return (IRR) Calculated using internal model

- | Risk Capital Charge
- | Income and fees
- | Funding costs
- | Exit strategies
- | Administration

# CRE Credit Risk Management

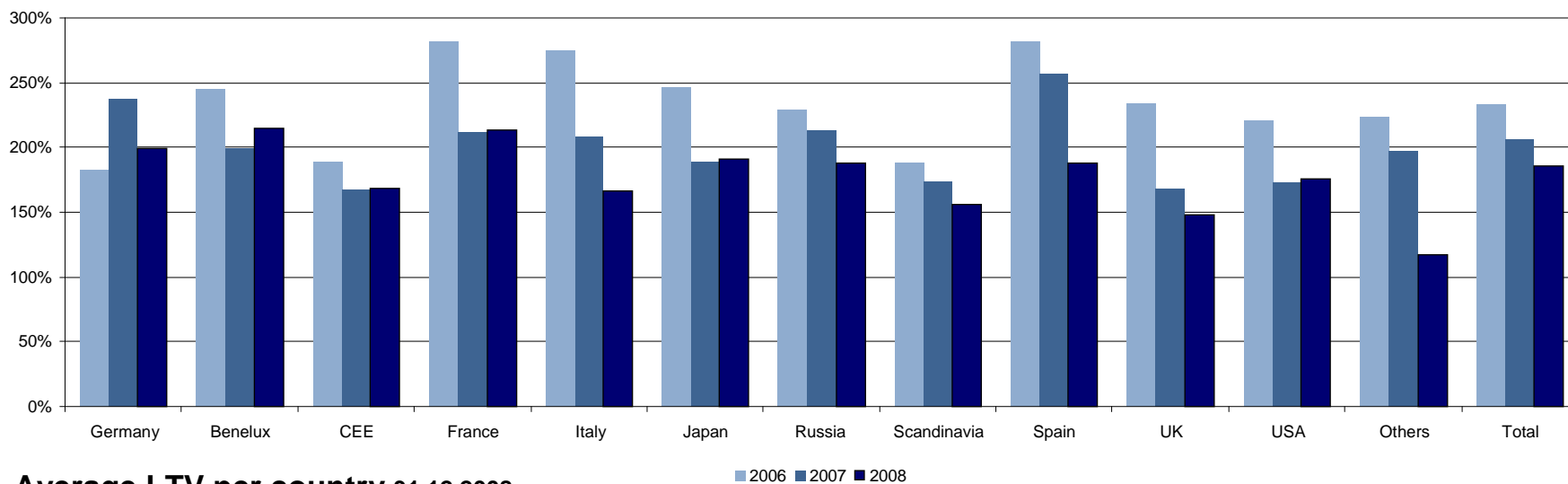
## Risk Management starts in the origination phase: Covenants

- I HRE Group's commercial real estate business model is based on structuring individually tailored transactions
  - I The underlying cash-flows from the asset determine the repayment schedule
  - I Interest periods and the repayment profile on each transaction are individually tailored
  - I Covenants are determined at an individual deal level
  - I HRE defines those terms on the basis of extensive analysis and stress testing for each individual transaction
- I Hedging of interest and currency risks is implemented at the deal structuring phase and forms part of the conditions precedent
- I Loan to Value (LTV) and Interest Service Cover Ratio (ISCR) covenants are always part of the loan contract
- I Covenants are stress tested on a 12-month forward basis in order to assess the likelihood of any possible covenant breaches
- I In 2007 HRE strengthened its LTV and ISCR covenants

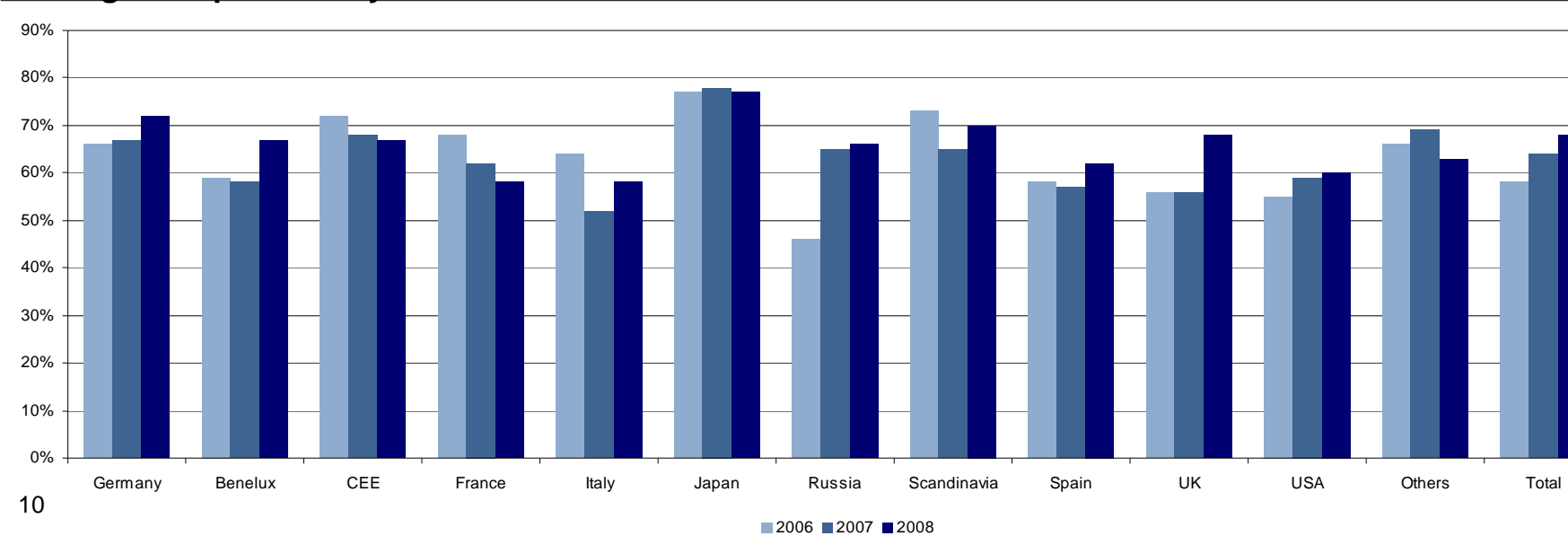
# CRE Credit Risk Management

## Interest Service Coverage (ISC) ratios and Loan To Value (LTV)

**Average ISC per country 31.12.2008**



**Average LTV per country 31.12.2008**



# Mortgage Cover Pool

## Process and documentation

- I In HRE all non-plain vanilla and non-German mortgage cover pool loans are reviewed by the Treuhänder (trustee appointed by BaFin) on the basis of VdP<sup>1</sup>- checklist plus internal additional requirements before any of the assets are included in the Pfandbrief cover pool
- I The Treuhänder maintains a register of all cover pool collateral
- I Close correlation between Pfandbrief collateral and sustainable mortgage values to ensure accurate reflection in case of market volatility
- I To facilitate direct access to details of cover pool assets and to ensure a smooth audit process, the Pfandbrief Collateral Department maintains a mirror credit and collateral documentation
- I Special legal knowledge base for international cover pool material which is constantly updated following VdP seminars for key jurisdictions and cover pool relevant changes in regulatory frameworks
- I In case of new business: involvement of PfandBG<sup>2</sup> specialists at origination stage to ensure cover pool eligible legal structures as well as realistic cover pool amount assumptions

**Note:**

1. VdP = Verband Deutscher Pfandbriefbanken (Association of German Covered Bond Issuers)

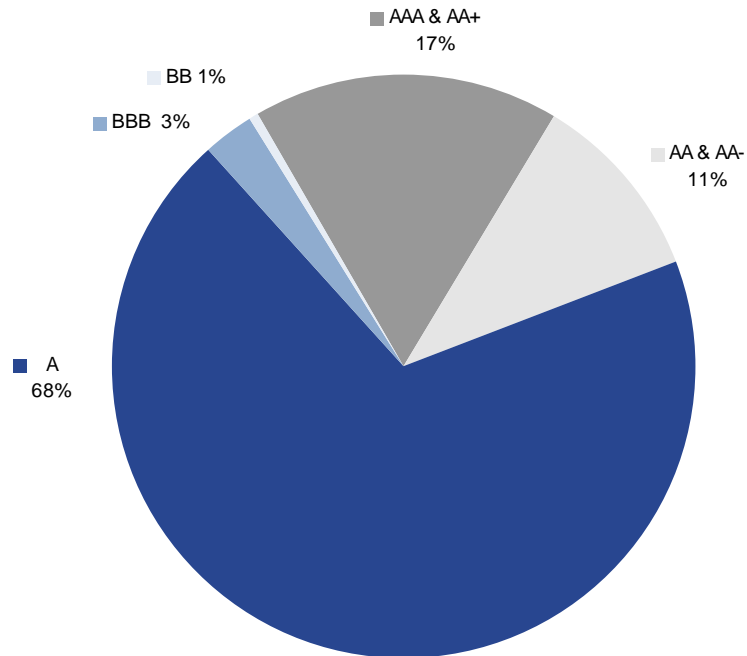
2. PfandBG = Pfandbrief Gesetz of 2005 (Covered Bond legislation)

# Mortgage Cover Pool

Emphasis on Germany and re-let able asset classes

## Mortgage Cover Pool EUR 25.724,3 mm

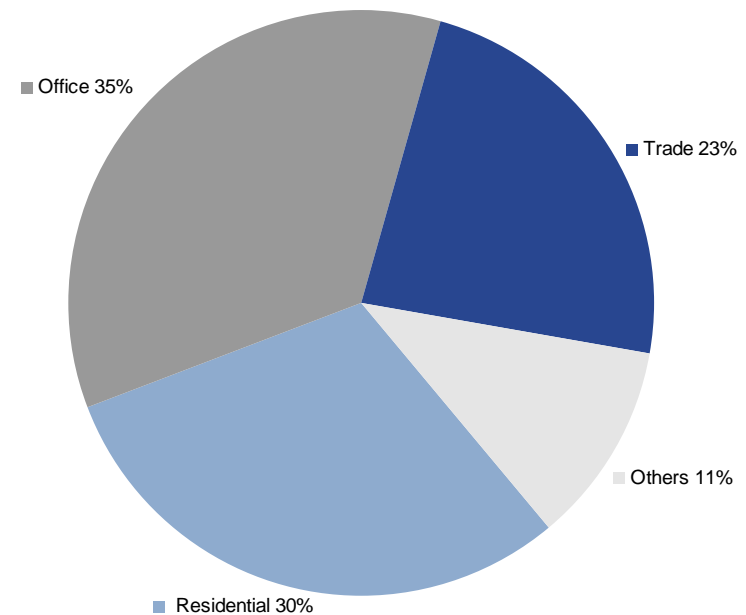
Distribution by internal rating class in% (as per 31.12.2008)



- | Internal ratings based on expected loss (PDxLGD) and transformed into external S&P rating structure
- | 99% of assets are investment grade
- | EL classes AAA to A correspond with expected losses of 0% to 1,0%

## Mortgage Cover Pool

Distribution by asset class in% (as per 31.12.2008)



- | Residential means commercially managed housing and privately owned properties
- | Others comprises of 1% industrial property, 1% unfinished buildings, 9% other commercially used properties

# Mortgage Cover Pool

## Overview Cover Pool by Country & Asset Class

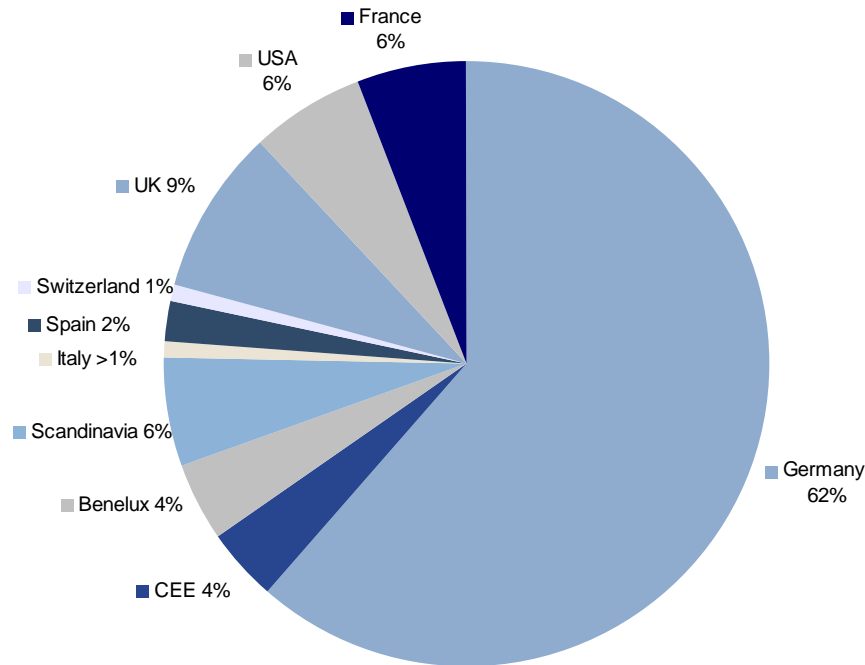
31 <sup>st</sup> December 2008	Total € m	Residential %	Office %	Trade %	Others %
Germany	15,174.5	43.7%	24.5%	20.4%	11.4%
Austria	91.7	0.7%	64.2%	34.9%	0.2%
Belgium	16.3		100.0%		
Czech Republic	252.5		39.8%	46.7%	13.5%
Denmark	163.7	12.3%	68.4%	13.1%	6.2%
Finland	91.6		68.6%	31.4%	
France	1390.8	6.5%	85.6%	5.9%	2.0%
Hungary	194.8			100.0%	
Italy	157.9	25.5%	8.5%	66.0%	
Luxembourg	8.4		100.0%		
Netherlands	963.7	0.7%	67.1%	28.4%	3.8%
Norway	64.1			19.3%	80.7%
Poland	430.7		28.0%	55.7%	16.3%
Slovakia	52.4			100.0%	
Spain	369.3		40.8%	52.5%	6.7%
Sweden	1165.1	32.1%	40.3%	16.4%	11.2%
Switzerland	193.5	44.1%	50.5%	5.4%	
United Kingdom	2320.8	4.6%	42.0%	33.2%	20.2%
USA	1429.2	10.2%	63.9%	11.9%	14.0%
<b>Total</b>	<b>24.531,0</b>	<b>30,3%</b>	<b>35,3%</b>	<b>23,2%</b>	<b>11,2%</b>

# Mortgage Cover Pool

## Geographical distribution of the German portfolio

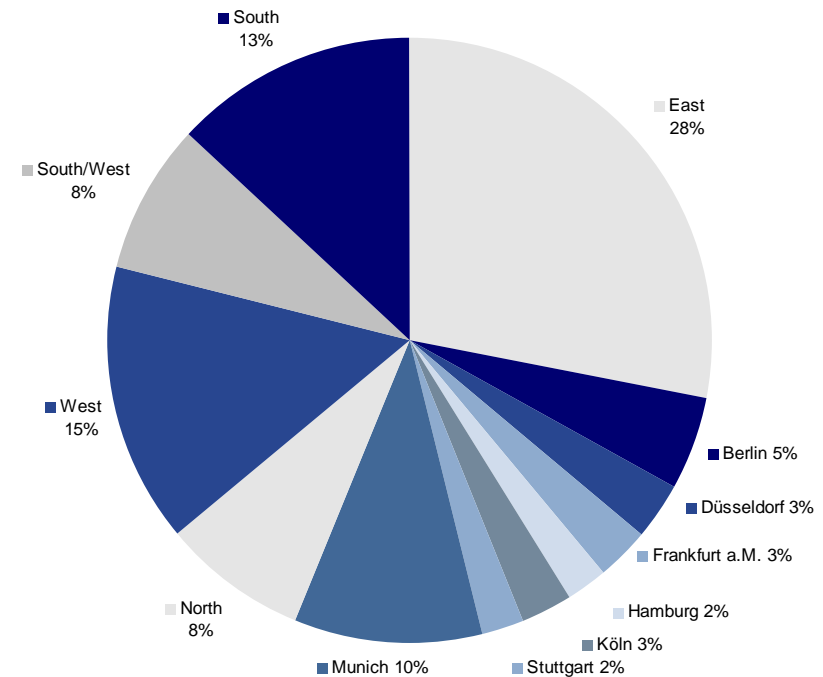
### Mortgage Cover Pool

Geographical distribution in% (as per 31.12.2008)



### Mortgage Cover Pool

Germany in% (as per 31.12.2008)



- I EUR 25,7bn in the Mortgage Cover Pool as per 31.12.2008
- I Well diversified cover pool with majority of exposures in western European countries
- I Germany by far the largest with 62 % exposure

- I More than 70% of the portfolio is located in the western part of Germany and the bigger cities
- I 71% of the residential assets in eastern Germany have an LTV < 50%<sup>1.</sup>
- I 60% of the commercial assets in eastern Germany have an LTV of < 50%

14 **Note:**

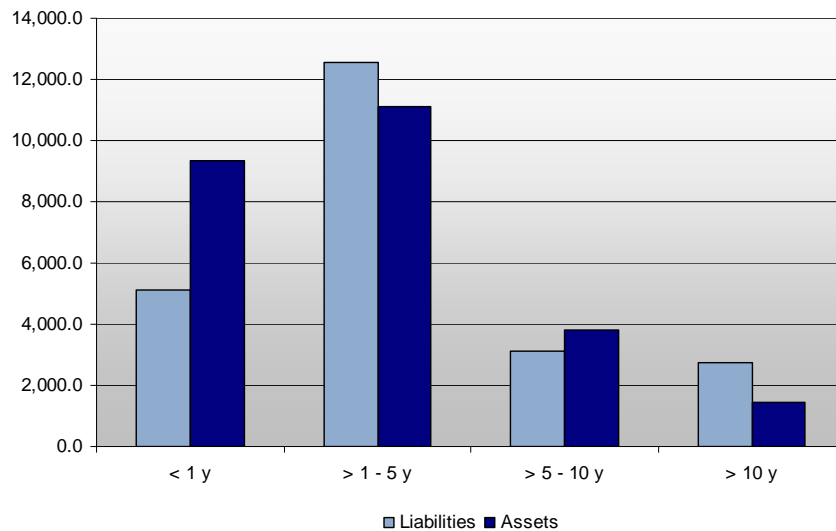
1. LTV means in relation to the cover pool: loan to sustainable mortgage value according to the German Covered Bond Act of 2005

# Mortgage Cover Pool

Maturity profile of assets and liabilities on nominal basis in the cover pool as per 31.12.2008

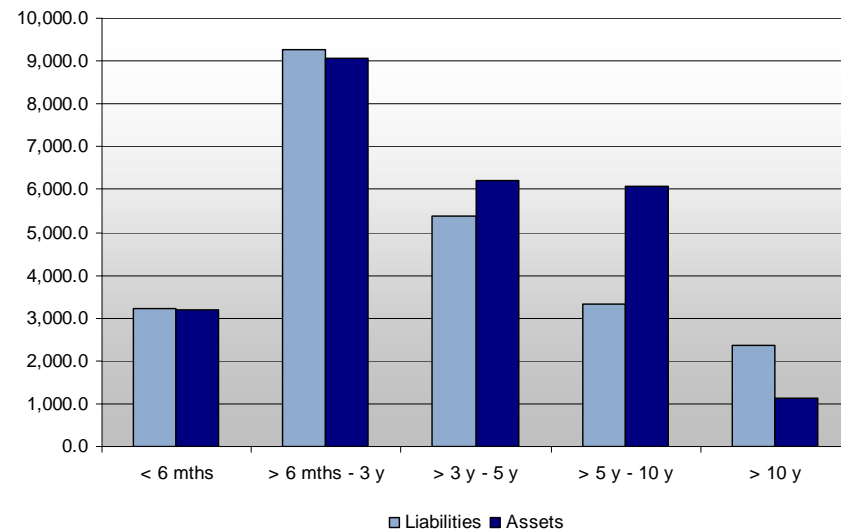
Maturity profile according to § 28 Pfandbriefgesetz

- I Liabilities to legal maturity
- I Assets to interest maturity



Maturity profile on cash-flow basis

- I Assets and liabilities to legal maturity
- I Amortisations taken into account



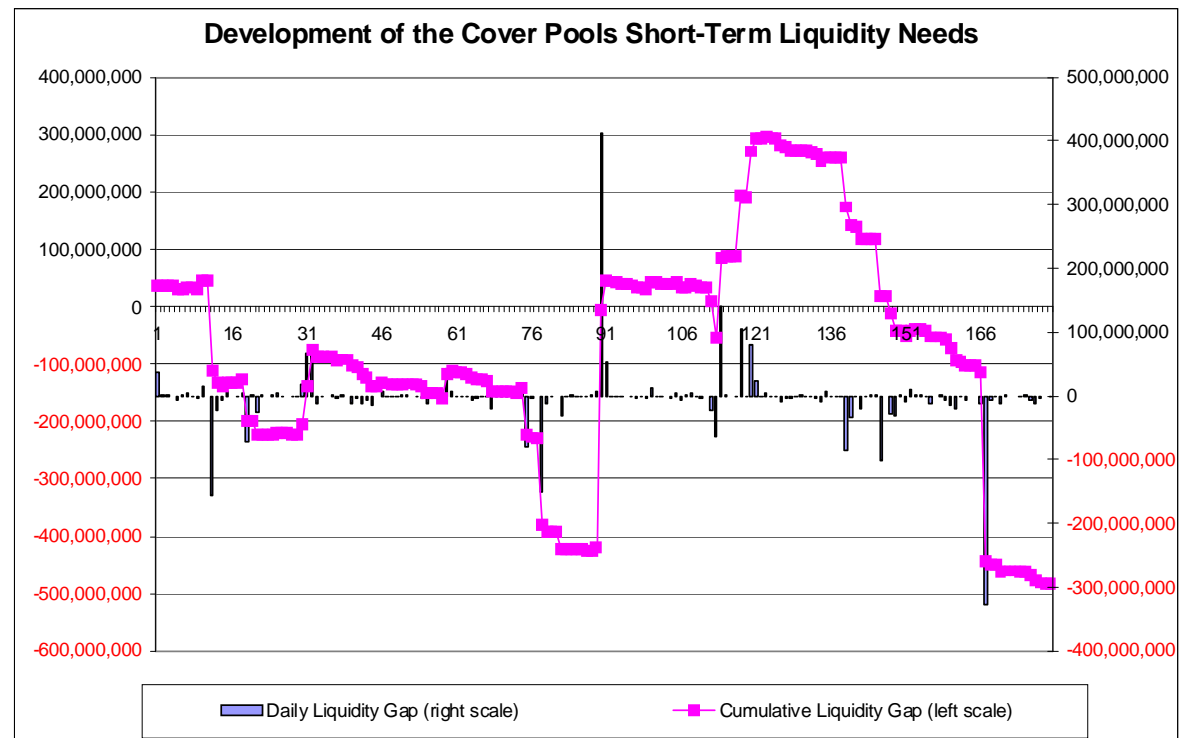
- I The maturity profile on a cash-flow basis gives a more realistic insight in the actual liquidity position of the cover pool

# Mortgage Cover Pool

Cumulative Liquidity need over 180 days as per 31.12.2008

- I The liquidity need for the crucial first 180 days after default is covered by liquid assets.
- I According to § 30 part 2 of the amended German Covered Bond Act (Pfandbriefgesetz 2005) that has become effective as of 26th March 2009, the trustee will have the possibility to use over-collateral for repo-transactions with the ECB and/or Central Banks of EEA countries in order to ensure full and timely payments of Pfandbrief liabilities.

<b>Max Cumulative Liquidity Need Over 180 Days:</b>	<b>-482,616,463</b>
<b>S&amp;P eligible collateral to cover these needs</b>	<b>500,966,684</b>
<b>Committed Liquidity facility</b>	<b>0</b>
<b>S&amp;P Short-Term Liquidity needs fulfilled:</b>	<b>YES</b>



# Mortgage Cover Pool

## Paragraph 28 Pfandbriefgesetz Cover Pool Transparency Requirements

- I “Total volume of Mortgage Pfandbriefe outstanding as well as of the corresponding cover pool in the amount of the nominal value, the net present value and the risk adjusted net present value stipulated in the statutory order in accordance with § 4 par. 6”

in Euro Million*	Nominal Value	Net Present Value	Risk adjusted Net Present Value
			(Including Interest and FX Risk)
Liabilities (Pfandbriefe)	23,553.90	24,680.10	
Mortgage Cover Pool Assets	25,724.30	27,571.600	
Over-collateralisation(+), Undercollateralisation (-)	2,170.40	2,891.50	<b>2164.40</b>
in % of Nominal	9.21%		
in % of NPV		11.72%	<b>8.77%</b>

- I “The share of derivatives included in the cover pools in accordance with § 19 par. 1 no. 4 sent. 3, also in conjunction with § 20 par. 2 no. 3 and § 26 par. 1 no. 4”

in Euro Million*	NPV	%
Ratio of Derivatives with a negative NPV in % of the Cover pool Liabilities	0	0%
Ratio of Derivatives with a positive NPV in % of the Public Sector Cover pool Assets	700	2.54%

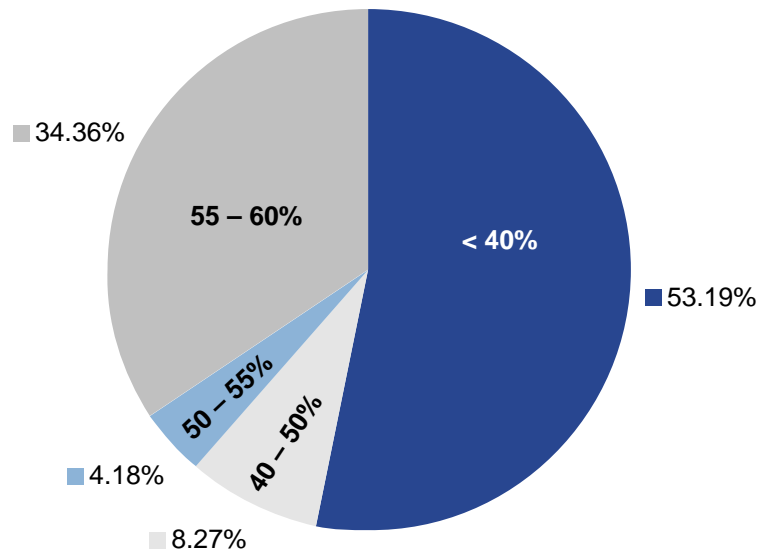
- I “The total amount of payments on these claims that are at least 90 days in arrears and their regional distribution”

90 days overdue in Euro Million*	Amount	%
Total	37.3	0.15%

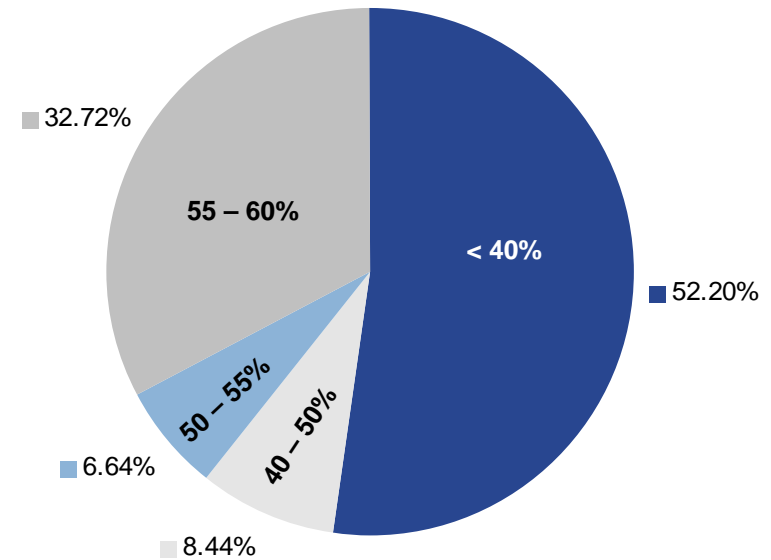
# Mortgage Cover Pool

LTV of commercial real estate in the mortgage pool

**LTV of German assets (EUR 15,95 bn)**



**LTV of international assets (EUR 9,80 bn)**



- | More than half of the assets in the cover pool have an LTV of < 40%
- | LTV's are conservatively calculated on the basis of sustainable mortgage values according to the German Covered Bond Act of 2005

# Contacts

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### Newsflash

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**06.03.2009**  
 ↳ Hypo Real Estate Holding AG comments on legal action by a former member of the Management Board

**03.03.2009**  
 ↳ DEPFA Funding IV LP will not pay the next coupon on its Preferred Securities

**20.02.2009**  
 ↳ Hypo Real Estate Group clarifies facts regarding hedge transactions

### Further Information

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**21.12.2008**  
 ↳ **Investor and Analyst Conference Call**  
 on 22 December 2008 at 09:00 am (CET)

### Reports/Information

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Share Price & Events

Financial Reports

- ↳ Share Price Information
- ↳ Interim Report as of 30 September 2008
- ↳ Obligatory Publications
- ↳ Financial Calendar
- ↳ Annual Reports
- ↳ Annual Report 2007

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- ↳ Ireland
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- ↳ Locations (DEPFA Bank)

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