



Münchener  
Hypothekenbank eG

DISCLOSURE REPORT 2011  
PURSUANT TO ARTICLE  
26a OF KWG >>





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## GLOSSARY OF ABBREVIATIONS

BaFin	German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht)
BVR	Federal Association of German Volksbanken and Raiffeisenbanken (Bundesverband der Deutschen Volksbanken und Raiffeisenbanken)
CCF	Credit Conversion Factor
CDS	Credit Default Swap
CRM	Credit Risk Mitigation (-Techniques)
CVaR	Credit Value at Risk
DP	Data Processing (Datenverarbeitung)
EEA	European Economic Area
EL	Expected Loss
IPRE	Income Producing Real Estate
IRBA	Internal Rating Based Approach
KSA	Standard Approach to Credit Risk (Kreditrisikostandardansatz)
KWG	German Banking Act (Kreditwesengesetz)
LDP	Liquidity Coverage Potential (Liquiditätsdeckungspotenzial)
LGD	Loss Given Default
LRG	Local and Regional Government
MaRisk	Minimum Requirements for Risk Management
MBS	Mortgage Backed Securities
MDB	Multilateral Development Bank
MünchenerHyp	Münchener Hypothekbank eG
PD	Probability of Default
PPU	Permanent Partial Use
PU	Partial Use
SME	Small and Medium-sized Enterprises
SolvV	German Solvency Regulation
UL	Unexpected Loss
VaR	Value at Risk
vdp	Association of German Pfandbrief Banks (Verband deutscher Pfandbriefbanken)



# DISCLOSURE REPORT PURSUANT TO ARTICLE 26A OF KWG

## 1 BASIS FOR LEGALLY REQUIRED DISCLOSURE

The disclosure obligations of institutions in Germany are stipulated by Art. 26a of the German Banking Act (KWG) and by Articles 319 to 337 of the German Solvency Regulation (SolvV). Pursuant to these requirements an institution must regularly release qualitative and quantitative information regarding its equity capital, risk exposure, risk management procedures, techniques used to mitigate credit risk, and its exposure to securitisation transactions. In this context, institutions are also required to regularly examine the appropriateness and efficacy of their disclosure practices.

The Münchener Hypothekenbank eG (MünchenerHyp) has been working to achieve a continuous and sustainable improvement of its risk management infrastructure since 2009. Within this context new internal rating procedures were introduced, processes optimised, and the data processing technology infrastructure was modernised in recent years. These efforts were honoured last year by German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht – BaFin) and the Bundesbank. In 2011 MünchenerHyp received approval to use its internal rating system to calculate its equity adequacy requirements within the framework of the Internal Ratings Based Approach (IRBA) to calculate the required level of adequate equity. Plans call for the entire loan portfolio to be covered by the internal IRBA rating system by the end of 2015.

The structure of the disclosure report was adjusted to reflect the improvements in the risk management area related to the IRBA approval, and also within the framework of disclosure. The structure of the qualitative disclosure is based on the types of risks that were identified as relevant within the framework of the risk inventory and the preparation of MünchenerHyp's risk strategy. Qualitative and quantitative information was presented for each type of risk as required pursuant to the regulatory disclosure guidelines.

This report fully complies with all of the regulatory disclosure requirements that are relevant for MünchenerHyp pursuant to the terms of the aforementioned articles of the KWG and SolvV. This report is published every year on MünchenerHyp's Internet site shortly after the annual financial statements.

## 2 RISK MANAGEMENT

### 2.1 OBJECTIVES AND PRINCIPLES

The ability to monitor and keep risks under control at all times is essential for the successful steering of business development at MünchenerHyp. For this reason risk management plays a very important role in the overall management of the Bank.

The business and risk strategy defines the parameters of the Bank's business activities. MünchenerHyp's entire Board of Management is responsible for this strategy, as well as for the business and risk strategy. These are reviewed at least once a year regarding the attainment of objectives and efficacy, and are updated as necessary and then submitted to the Supervisory Board for their notice. Furthermore, as part of its supervisory duties, the Supervisory Board is informed about the Bank's risk profile, as well as the progress made towards attaining objectives, on a quarterly basis. This takes place using the reports on the Bank's risk-taking capabilities, lending risks, as well as the risk report prepared in accordance with the "Minimum Requirements for Risk Management" (MaRisk).



The basis of risk management consists of, on one hand, the analysis and presentation of existing risks, and, on the other, comparing these risks with the collateral available to cover them (ability to bear risk). The analysis and presentation of existing risks primarily distinguishes between counterparty, market price, liquidity, spread and migration risk, as well as operational risks. Additional risks such as placement risk, reputational risk, business risk etc., are viewed as parts of the abovementioned risks and are taken into consideration in the appropriate manner in the individual calculations, or are taken into account as other risks. In addition, appropriate monitoring processes are in place that are internal process-dependent and are independently supervised. The internal audit department has the process-independent monitoring function.

The professional concepts and models used to calculate abilities to bear risks are continuously further developed in accordance with legal supervisory requirements. Münchener Hypothekbank calculates its ability to bear risks on both a present value and period-oriented basis. The Going Concern scenario is the most important method used for control purposes. This scenario is used to determine if the bank still would have an adequate equity capital ratio exceeding the legally required minimums for core capital and total capital after the occurrence of risks contained in all of the risk categories. The only cover potential that may be used to cover risks in this scenario is the available regulatory equity.

MünchenerHyp employs a limit system as an additional risk control instrument to monitor its ability to bear risks. The paramount purpose of monitoring the ability to bear risks is to ensure that the Bank's income, cost and risk structures are organised in a manner that allows them to be controlled without external assistance. The limit system assists in setting and regularly reviewing limits for debtor categories as well as for countries.

Resolutions enacted by the Basel Committee on Banking Supervision or the European Union regarding regulatory requirements, and their subsequent transposal into German law, are observed, promptly analysed and incorporated into the Bank's risk and business strategies within the context of the regular reviews and further development of these strategies. Based on this, the relevant processes and systems are then adjusted as necessary. The supervisory authority's decisions concerning the treatment of hybrid capital as well as key liquidity and debt figures were implemented within this context. In addition, modifications contained in the third amended version of MaRisk dated December 15, 2010 were implemented by the December 31, 2011 deadline. The establishment of a newly required liquidity buffer, which all capital market-oriented institutions must have, has taken place.

The newly developed and improved methods to measure risk that arose within the framework of obtaining IRBA certification, as well as those stemming from the continuous improvement of the Bank's risk management programme are incorporated in MünchenerHyp's risk management system. The results derived from the risk models are suitable for steering MünchenerHyp. Despite careful development/further development and regular assessments of models, constellations may, however, still arise whereby the actual losses or liquidity requirement are higher than foreseen by the risk models. Stress scenarios are used within the framework of risk mitigation in order to take this extraordinary, and yet plausible, situation into proper account.

## 2.2 RISK STRATEGY

Risk strategy takes legal requirements into account, especially the provisions contained in the latest version of the KWG and MaRisk. In conformity with Article 25a KWG, MünchenerHyp has proper business organisation, which, among other purposes, includes the control of, and the ability to bear, risks in accordance with the enterprise's risk strategy.



Within its business strategy, MünchenerHyp defines its business areas as Retail Germany, Retail Switzerland/Austria, Commercial Domestic, Commercial Foreign and Public Sector/Banks. Strategic and operational objectives are set for each business area, which should be achieved within the framework of the mid-term business plan. Based on this, the risk strategy states how MünchenerHyp will, or plans to, deal with the risks associated with these business activities. Quantitative and qualitative parameters are set for each of the risks arising from the business activities for the purpose of defining how to deal with all of the material risks along with measures to ensure that the parameters are not exceeded. Thus, MünchenerHyp's risk strategy defines the strategic framework for risk management and promotes risk awareness among all employees with the context of the Bank's corporate and risk culture. All of the Bank's employees have access to MünchenerHyp's risk strategy.

The Board of Management is responsible for the regular examination and adjustment of the risk strategy and ensures that appropriate procedures exist for the management, supervision and control of risks. The risk strategy is an element of the firm's internal rules and therefore also within the Supervisory Board's realm of responsibility as the institution's controlling body. The risk strategy is submitted and explained to the Supervisory Board at least once a year.

### 2.3 ORGANISATION, PROCESSES AND RESPONSIBILITIES

The institution-specific Credit Handbook describes the competencies and procedural requirements of entities involved in the lending business, and defines their responsibilities, and also presents the credit products. The Credit Handbook documents the relevant processes and responsibilities for internal risk management within the organisation through the use of organisational guidelines, process descriptions, handbooks and rating-specific professional instructions. It contains descriptions of organisational safeguard measures, on-going automatic measures and controls integrated in the work processes. These include, in particular, separation of functions, the double-check principle, access limitations, payment guidelines, new product process and balance confirmations.

The management methods described in the risk report make qualitative and quantitative statements regarding Münchener Hypothekenbank's economic situation, including, for example, the development of performance. This evaluation involves aspects of all risk categories. A close coordination procedure exists between the risk controlling and accounting departments at MünchenerHyp. This coordination procedure is supervised by the entire Board of Management. The results from the risk management system form the foundation for the multi-year planning calculations, year-end projections, and agreement procedures for approving the realised key figures generated by the Bank's accounting process.

## 3 EQUITY

### 3.1 STRUCTURE

MünchenerHyp conducts its business in the legal format of a registered cooperative. In addition to reserves, core capital consists of participation in the form of shares. A single share costs € 70 with an uncalled liability of € 255.65 per share.



As of December 31, 2011, the volume of these shares was € 161.2 million, of which € 2.3 million was called. In addition, at the end of 2011 the Bank had undisclosed holdings amounting to € 341.6 million, of which € 340.6 million can be considered liable equity capital attributable to core capital. The average interest rate for these undisclosed holdings is 7.73%; their expiration dates fall between December 31, 2011 and perpetual maturity, with an unlimited term of validity.

As of the end of December 2011 supplementary capital amounted to € 375.2 million, of which € 156.1 million were subordinated liabilities that had average interest rate of 5.73%. These liabilities will expire between March 20, 2018 and December 1, 2022. The profit-sharing certificates (€ 6.1 million) included in the supplementary capital have an average interest of 7.35%, with terms running from April 30, 2012 to April 30, 2018. In addition to the subordinated liabilities and profit-sharing rights capital, uncalled member's liability is also attributed to supplementary capital.

At the end of December last year, total capital available for solvency purposes amounted to € 1,140.5 million. The structure of equity as of December 31, 2011 is presented in summarised form in Table 1.

Equity Components	December 31, 2011
in € million	
<b>Core capital for Solvency Purposes</b>	<b>765.3</b>
Paid-up capital	158.9
Reserves	283.8
Undisclosed holdings	340.6
IRBA-value adjustment deficit	-8.4
Other deductible items	-9.6
<b>Supplementary capital for Solvency Purposes</b>	<b>375.2</b>
<b>Tier III capital</b>	<b>0.0</b>
For information purposes: Deductible items per Art. 10 para. 6 KWG	0.0
<b>Total Equity for Solvency Purposes</b>	<b>1,140.5</b>

Table 1: Structure of Equity

### 3.2 APPROPRIATENESS

In a ruling dated December 27, 2011, the BaFin granted MünchenerHyp the right to use IRBA retroactive to October 1, 2011. Following approval to use IRBA for MünchenerHyp's first rating system, the basic IRBA approach will be employed to determine the amount of equity required to back the majority of MünchenerHyp's loan portfolio: this means that only PD will be estimated<sup>1</sup>. The advance IRBA approach will be used for the Retail Business, Germany and Retail Business, Small and Medium-Sized Enterprises (SME): this means that the LGD will also be estimated. In order to comply with supervisory requirements, the standardised approach for credit risk (KSA) will be applied to determine the level of equity required for the remainder of the portfolio. MünchenerHyp already recorded a significantly reduced equity requirement in response to its first IRBA report it submitted as of December 31, 2011 because of the IRBA approach's more exact measurement of risk measurement.

<sup>1</sup> The simple risk weighting for special financings pursuant to Art. 97 SolvV will be applied for the Open Domestic Funds, and Open Foreign Funds customer segments.





With a total equity requirement of € 687.7 million as of December 31, 2011 the total key figure was 13.27% and the core capital ratio was 8.90%. This meant that legally required 8% (total key figure) of equity needed to back existing risk exposure was met by a great margin. The split of equity requirements per December 31, 2011 by different risk categories and exposure classes is summarised in tables 2 to 4. The equity required for borrower risks from the IRBA portfolio amounts to € 306.0 million, and € 364.7 million for borrower risks for the KSA portfolio. Equity required for operational risks and market risks is significantly lower with € 15 million and € 2 million respectively. The basic indicator approach is used to calculate operational risk. The equity requirement arising from market risks is to be completely attributed to the aggregate foreign currency position on the date of record.

Counterparty Risk for IRBA Portfolios		Equity requirement in € million
1.	Central governments	0.0
2.	Institutions	115.2
3.	Companies	107.9
4.	Retail business	73.4
5.	Participations	0.0
6.	Securitisations	1.1
7.	Other non-credit obligation assets	8.4
	<b>Total</b>	<b>306.0</b>

Table 2: Equity Required for Counterparty Risk – IRBA Portfolios

Operational Risk and Market Risks		Equity requirement in € million
	<b>Operational Risk</b>	15.0
	Basic indicator approach	15.0
	<b>Market Risks</b>	2.0
	of which aggregate foreign currency position	2.0
	of which exposure to interest rate risk in trading book	0.0
	of which other risks	0.0

Table 3: Equity Required for Operational Risk and Market Risks



Counterparty Risk for KSA Portfolios	Equity requirement in € million
1. Central governments	0.8
2. Regional governments and local authorities	0.4
3. Other public-sector bodies	2.1
4. Multilateral development banks	0.0
5. International organisations	0.0
6. Institutions	3.7
7. Covered bonds issued by credit institutions	0.2
8. Companies	217.1
9. Retail business	23.9
10. Exposures secured by property	88.9
11. Investment shares	0.4
12. Participations (Grandfathering)	7.1
13. Securitisations	0.0
14. Other items	0.0
15. Overdue items	20.1
<b>Total</b>	<b>364.7</b>

Table 4: Equity Capital Required for Counterparty Risk – KSA Portfolios

Equity backing is part of MünchenerHyp's planning in its multi-year planning calculations and care is taken to ensure that the equity requirements demanded by the supervisory authority are fully met at all times. MünchenerHyp internally judges the appropriateness of equity in line with the regulatory requirements arising from Basel II and Basel III.

## 4 COUNTERPARTY RISK

### 4.1 CONTAINMENT

Counterparty Risk – also referred to as lending risk – is of major significance for MünchenerHyp. Counterparty risk describes the danger that a counterparty or group of counterparties may delay, make partial payments or even default on repaying a loan to the lender. Migration risk is included as a lending risk. Migration risk is defined as the danger of loss in present value arising over the period of a loan due to drop in ratings, which is normally accompanied by an implied increase in yield.

### 4.2 STRATEGIES AND PROCESSES

Strategies and Processes which are relevant for control of lending risks are documented in the business and risk strategies, as well as in the Credit Handbook. The business and risk strategies contain extensive explanations concerning target customers and target markets, as well as requirements regarding the measurement and management of lending risks at the individual transaction and portfolio levels. The competencies and procedural requirements of entities involved in the lending business are contained in the Credit Handbook.



#### 4.3 RISK MANAGEMENT STRUCTURE AND ORGANISATION

Credit risk management begins with selecting the target business for loan conditioning. Risk cost functions are used, which are validated in an ongoing back-testing process. Depending on the category and risk level of the business, various rating and scoring procedures are used. In addition, a computer-supported early warning system is used in order to recognise risks at an early stage.

The expected loss (EL) is taken into account within the framework of calculating the individual transaction by applying standard risk costs during the lending process. Furthermore, the expected loss flows into the credit portfolio model. Based on the credit portfolio model, the unexpected loss (UL) is measured using a Credit-Value-at-Risk procedure (CVaR). The CVaR describes, with a certain level of probability, the maximum losses for a credit portfolio within a specific period. The UL is derived by subtracting the EL for the portfolio from this amount.

The CVaR process is also used for determining credit limits. The individual contribution by a unit and/or a borrower to the Bank's aggregate credit risk – the marginal CVaR – is limited. In addition, limits are also established for individual properties certain transaction categories. Furthermore, limits are also set for each federal state to ensure adequate regional diversification.

#### 4.4 RATING SYSTEMS AND CUSTOMER SEGMENTS

MünchenerHyp uses specific customer-segment rating systems to evaluate creditworthiness. In this context, customers or claims are classified into segments (customer segments). The objective of this segmentation is to assign customers with homogeneous risk profiles to appropriate customer segments, which can in turn be assigned to IRBA classes as defined by the supervisory authority. In order to determine the rating class, and thus the risk level of positions in the various customer segments, rating systems appropriate to the risk profile are used. This guarantees the risk-appropriate and supervision-compliant allocation of requirements to customer segments, rating systems and legal supervision-related exposure categories. In order to express the close relationship between customer segments and rating systems, customer segments and rating systems share the same names at MünchenerHyp. Guidelines for customer segmentation and ratings application are established in corresponding operating instructions and implemented in the relevant data processing systems.

In compliance with Art. 60 of the SolvV (German Solvency Regulation), the rating systems at MünchenerHyp, encompass rating procedures, processes and IT systems. A rating procedure processes all of the creditworthiness-related information about a borrower or a claim, using a specific algorithm, and combines it into a creditworthiness evaluation (rating method). These processes are based on the workflows used in the rating system as well as on control and monitoring procedures. The IT systems are based on the category and method of data delivery or data-related processing of creditworthiness-related information. In this context, MünchenerHyp differentiates between IRBA rating systems and non-IRBA rating systems. IRBA rating systems are rating systems that have already received IRBA approval from BaFin and the Bundesbank. These rating systems are used to evaluate the creditworthiness of the IRBA exposure categories. Non-IRBA rating systems are systems that are not reported until a later date according to the IRBA implementation plan (partial use, PU), or for which no approval is requested because the ratings-related portfolio is less important for MünchenerHyp (permanent partial use - PPU). These rating systems are used to determine the creditworthiness of the KSA portfolio.



#### 4.4.1 IRBA portfolio

The rating systems or customer segments that received IRBA approval in 2011 are summarised in Table 5. This table also shows the associated IRBA portfolio. This is the portfolio used to determine the necessary equity pursuant to the supervisory authority's requirements, based on the approved rating systems.

Seq. no.	Customer Segment/Rating System	IRBA Portfolio Category
1.	Banks	Institutions
2.	Property companies, domestic	Companies
3.	Housing companies	Companies
4.	Closed funds, domestic	Companies
5.	Investors, domestic	Companies
6.	Open funds (special assets), domestic	Companies
7.	Open funds (special assets), foreign	Companies
8.	Retail business, domestic	Retail business
9.	Retail business, SME	Retail business
10.	Intra-Group portfolio	Institutions
11.	Securitisations	Securitisations
12.	Non-credit obligation assets	Other non-credit obligation assets

Table 5: IRBA Rating Systems and Portfolio Categories

##### 1. Banks

This customer segment includes claims against banks and financial institutions that are not members of the protection scheme of the Federal Association of German Volksbanken and Raiffeisenbanken (BVR) and do not fulfil the German Banking Act requirements for a multilateral development bank.

The VR Rating Banks is used to evaluate the creditworthiness of claims in this segment. The VR Rating Banks was developed in the Cooperative Financial Network under the leadership of WGZ Bank and DZ BANK AG, and was approved by BaFin and the German Central Bank as an IRBA ratings procedure. The ratings are provided to MünchenerHyp by the ratings desk at DZ BANK AG. The provided ratings are subjected to a plausibility check by the analysts at MünchenerHyp and adjusted if necessary.

##### 2. Property companies, domestic

The customer segment of domestic property companies includes special purpose companies that keep the property in their portfolio and handle the long-term maintenance of rented/leased properties. This customer segment includes contracts with property companies in the Federal Republic of Germany. What is relevant here is the federal state in which the property is located.

The creditworthiness evaluation for claims in this segment is based on the VR Immo (real estate) Rating. The VR Immo Rating was developed in the Cooperative Financial Network under the leadership of DG HYP, and was approved by BaFin and the German Central Bank as an IRBA rating procedure. The VR Immo Rating consists of various partial modules that are developed, implemented and validated independently with consideration for the special risk characteristics of the customer segments. The VR Property Companies rating module is used to evaluate the creditworthiness of claims in the domestic property companies segment.



### 3. Housing companies

This customer segment includes claims against housing companies. These are companies that provide, administer and renovate residential housing for private persons. Customers in this segment are usually housing construction companies, municipal housing companies and private housing companies. The property must be located in the Federal Republic of Germany.

The creditworthiness evaluation for exposure in this segment is based on the VR Immo Ratings, using the VR Housing Companies module.

### 4. Closed funds, domestic

This segment includes funds that were created to finance firmly defined, generally larger, investment projects. This customer segment encompasses investment properties or projects within the Federal Republic of Germany. What is relevant here is the federal state in which the property is located.

The creditworthiness evaluation for claims in this segment is based on the VR Immo Ratings, using the VR Closed Funds module.

### 5. Investors, domestic

Investors are both natural and legal entities who invest in residential and commercial properties. Investors provide financial resources for their own investment properties, but they do not build or develop properties for third parties. The financed properties in this customer segment must be located in the Federal Republic of Germany.

The creditworthiness evaluation for exposure in this segment is based on the VR Immo Ratings, using the VR Investors module.

### 6. Open funds (special assets), domestic

This segment includes financing options in which capital investment companies take out loans on the account of special assets. The main property must be located in the Federal Republic of Germany.

The creditworthiness evaluation for claims in this segment is based on the IPRE rating. The IPRE rating is an expert-based classification process that allows the expected loss rate to be evaluated, and allows the determined rating categories to be classified within one of the slotting categories established by supervisory authority.

### 7. Open funds (special assets), foreign

Technically, the definition of international open funds corresponds to that of domestic open funds. However, the main property must be located outside the Federal Republic of Germany.

The creditworthiness evaluation in this customer segment is also based on the IPRE rating.

### 8. Retail business, domestic

The "Retail business, domestic" customer segment includes claims against individual persons or private entities residing in the Federal Republic of Germany, up to a total liability of € 1 million. Employees are excluded from this segment.



The creditworthiness evaluation is based on an application score and a behavioural score. In this customer segment, loss rates are estimated internally in the event of default (Loss Given Default, LGD). The Credit Conversion Factor (CCF) is conservatively estimated at a standard 100% for the required equity.

### 9. Retail business, SME

This customer segment includes exposures with the following characteristics of small and medium-sized enterprises (SMEs) up to a total liability of € 1 million:

- Companies (including commercial partnerships) with annual sales  $\leq$  € 50 million.
- Economically independent private persons (freelancers, businessmen, majority shareholders controlling  $\geq$  50% of the company shares)

Certain industries and legal forms are excluded here. The creditworthiness evaluation is based on an application score and a behavioural score. These scores were calibrated using the specifics of the SME segment. In this customer segment, loss rates are estimated internally in the event of default (Loss Given Default, LGD). The Credit Conversion Factor (CCF) is conservatively estimated at a standard 100% for the required equity.

### 10. Intra-Group portfolio

This customer segment includes claims by MünchenerHyp against members of the Federal Association of German Volksbanken and Raiffeisenbanken (BVR) that belong to the BVR protection scheme. The Intra-Group portfolio is allocated to the "Institutions" IRBA portfolio and assigned a risk weighting of 0%.

The creditworthiness evaluation for claims in this segment is based on the VR Rating Banks, through the DZ BANK AG Rating Desk.

### 11. Securitisations

MünchenerHyp uses the ratings-based approach per Art. 257 SolV (German Solvency Regulation) to evaluate securitisations. According to this approach, all risk items are assigned risk weightings analogous to a creditworthiness evaluation by a rating agency or a reference item. MünchenerHyp's current securitisation items use claims from IRBA segments as their underlying securities and are thus included in the IRBA report.

The creditworthiness evaluation for the securitisation items is fundamentally based on ratings from the leading rating agencies (Standard & Poor's, Moody's and Fitch).

### 12. Non-credit obligation assets

To the extent that non-credit obligation assets pose a credit risk to MünchenerHyp, these are allocated to the IRBA portfolio. This includes, for instance, fixed assets and active prepayments and deferred income (that cannot be allocated to a borrower). The risk is weighted in the same way as in the Standard Approach to Credit Risk.

The results for the various rating segments are standardised using the VR master scale in order to make them comparable on a shared basis. The VR master scale also standardises the numerous rating systems used by the companies in the Cooperative Financial Network by way of a Group-wide rating scale, thus creating a uniform view of all the rating systems being used in the Financial Network. This is an important factor that allows the use of the Rating Desk approach, among other things, within the Cooperative Financial Network. The VR master scale is represented in Table 6 in conjunction with the external ratings used at MünchenerHyp for the Standard Approach to Credit Risk.



Rating Class	Probability of Default	S&P; Fitch	Moody's
0a	0.01%	AAA up to AA	Aaa up to Aa2
0b	0.02%	AA-	Aa3
0c	0.03%		
0d	0.04%	A+	A1
0e	0.05%		
1a	0.07%	A	A2
1b	0.10%	A-	A3
1c	0.15%	BBB+	Baa1
1d	0.23%	BBB	Baa2
1e	0.35%		
2a	0.50%	BBB-	Baa3
2b	0.75%	BB+	Ba1
2c	1.10%	BB	Ba2
2d	1.70%		
2e	2.60%	BB-	Ba3
3a	4.00%	B+	B1
3b	6.00%	B	B2
3c	9.00%	B-	B3
3d	13.50%		
3e	30.00%	CCC+ up to C	Caa1 up to C
4a	100.00%		
4b	100.00%		
4c	100.00%		
4d	100.00%		
4e	100.00%		

Table 6: VR Master Scale and KSA-Relevant External Ratings

The rating-related processes and IT systems are constructed in a rating system-specific way and fully comply with the statutory supervisory requirements. In this context, there is a strict separation for all of the rating systems between the areas of market, transaction management and credit-risk monitoring. The rating systems are validated by the credit-risk monitoring unit, which is an application-independent division. When validating the rating systems, we differentiate between a pool validation, which takes place centrally with the rating providers for rating procedures that are applied together with other institutions (for instance for the VR Immo Rating and the VR Rating Banks), and a MünchenerHyp-specific validation. In addition to validating the rating procedure, the latter also evaluates the procedural and IT-related application of the rating system at MünchenerHyp.



In addition to using the results from the rating systems as the foundation for determining the supervisory authority's requirements for equity, they are also used as a basis for risk-adjusted pricing. The use of the rating results as a basis for determining the standard risk costs or equity costs is dependent upon the rating system. However, it is unrelated to the IRBA approval of the rating systems achieved by the German Federal Financial Supervisory Authority and the German Central Bank. Non-IRBA rating systems are thus also used for this purpose.

The following overview (Table 7) shows the item values for special IRBA financing after a simple risk-weighting method, broken down into risk weight classes. The claims come from the customer segments of "open funds, domestic" and "open funds, foreign."

Simple IRBA Risk Weight for Specialised Lending Exposure	
in € million	Exposure
Risk weighting class 1 (strong)	442.3
Risk weighting class 2 (good)	12.6
Risk weighting class 3 (satisfactory)	0.0
Risk weighting class 4 (weak)	0.0
Risk weighting class 5 (defaulted)	0.0
<b>Total</b>	<b>454.9</b>

Table 7: Simple IRBA Risk Weight for Specialised Lending Exposure

The following two disclosure tables show exposure values and average risk weights for the IRBA portfolio of Companies, Institutions and Retail Business after the inclusion of Credit Conversion Factors and credit-risk mitigation measures. For IRBA items in default, the IRBA formula does not provide any risk weights for unexpected loss. Here, the risk is backed by comparing the expected loss with the value adjustments created. Thus the lower part of the table does not show an average risk weight for these items.

Table 8 shows all of the items in the basic IRBA approach for the portfolio of Institutions and Companies, broken down into risk classes. The Institutions portfolio shows the Intra-Group portfolio as having a risk weight of 0. The exposure values are shown as the total of the outstanding credit amounts and undrawn credit approvals, plus the average risk weight, weighted using the item values. The factors established by the supervisory authority for this portfolio are used as Credit Conversion Factors. Participations and securitisations are not shown in Table 8. The standard approach is applied for exposure to central governments, without exception.

For the 2011 reporting year, the IRBA portfolio included a total of € 6.9 million in actual losses as the balance from individual adjustments to value (allocations and divestitures) and direct write-offs. Of these, € 7.9 million came from Retail business. The Companies portfolio showed a net divestiture of € 1.0 million. Thus, there were no significant changes to the IRBA portfolio in comparison with previous years.





IRBA Item Values and Average Risk Weight for Institutions and Companies						
	AAA-AA	A	BBB	BB-C	Default	
	PD ≤ 0.03%	PD > 0.03% PD ≤ 0.1%	PD > 0.1% PD ≤ 0.5%	PD > 0.5% PD < 100%	PD = 100%	Total
<b>Exposure in € million</b>						
Institutions	1,544.3	2,444.9	2,101.5	441.3	0.0	6,532.0
Companies	0.0	2,348.3	1,190.3	682.9	9.8	4,231.3
of which:						
SME	0.0	1,034.0	562.5	166.9	4.4	1,767.8
of which:						
special financing (without slotting)	0.0	503.7	195.0	353.2	0.0	1,051.9
of which:						
special financing (slotting)	0.0	0.0	298.8	156.1	0.0	454.9
<b>Total</b>	<b>1,544.3</b>	<b>4,793.2</b>	<b>3,291.8</b>	<b>1,124.2</b>	<b>9.8</b>	<b>10,763.1</b>
<b>Ø risk weight in %</b>						
Institutions	7.8	18.3	35.6	28.3	0.0	22.1
Companies	0.0	16.7	43.4	64.5	0.0	31.9
of which:						
SME	0.0	15.5	31.6	56.7	0.0	24.5
of which:						
special financing (without slotting)	0.0	17.6	38.3	66.1	0.0	37.7
of which:						
special financing (slotting)	0.0	0.0	63.6	68.8	0.0	65.4
<b>Total</b>	<b>7.8</b>	<b>17.5</b>	<b>38.4</b>	<b>50.3</b>	<b>0.0</b>	<b>25.9</b>

Table 8: IRBA Portfolios – Institutions and Enterprises: Exposure and Risk Weighting



IRBA Exposure – Retail Business						
	EL-band	EL-band	EL-band	EL-band	EL-band	
	EL ≤ 0.05%	EL > 0.05% EL ≤ 0.5%	EL > 0.5% EL ≤ 5%	EL > 5% EL ≤ 25%	EL > 25% EL ≤ 100%	Total
<b>Item value in € million</b>						
IRBA Retail business exposure secured by mortgage liens	9,167.7	1,438.7	200.2	38.9	55.2	10,900.7
<b>Ø risk weight in %</b>						
IRBA Retail business exposure secured by mortgage liens	2.5	19.7	73.5	197.3	330.9	8.4
<b>Ø loss rate in %</b>						
IRBA Retail business exposure secured by mortgage liens	7.4	29.3	17.7	31.4	53.0	10.8

Table 9: IRBA Portfolio, Retail: Exposure and Risk Weighting

In the IRBA Retail business, MünchenerHyp exclusively maintains the partial portfolio of claims secured by mortgage liens. In Table 9, these items are divided into the main Expected Loss bands for MünchenerHyp. The table shows the exposure, the average risk weight after weighting with the exposure and the average loss rate in the event of default after weighting with the exposure values. The IRBA exposure is the product of the IRBA measurement basis and the IRBA conversion factor. In Retail business, the conversion factor is set to 100% as a conservative standard.



#### 4.4.2 KSA portfolio

The customer segments or rating systems used to evaluate the creditworthiness of the KSA portfolios are summarised in Table 10. The rating procedures associated with the rating systems are also shown in this table. Non-IRBA rating systems are not used as a basis for determining the equity required according by the supervisory authority. However, similar standards apply for the use and validation of rating systems at MünchenerHyp as for the IRBA rating systems. This is due, on one hand, to the fact that some of these rating systems will be registered as IRBA rating systems in the future and are already in the use-test phase at this time. On the other hand, the results from these rating systems are used as a basis for determining a riskadjusted price. The rating results from non-IRBA rating systems are also standardised on a common basis using the VR master scale. If no internal rating procedures are available, external ratings are used to determine creditworthiness. In this context, only ratings from the leading agencies (Standard & Poor's, Moody's and Fitch) are used. The transfer of ratings from these agencies to the VR master scale is shown in Table 6. Creditworthiness evaluations are fundamentally not transferred from emissions to portfolios at MünchenerHyp.

Seq. No.	Customer Segment/Rating System	KSA Portfolio Category
1.	Central governments (excluding EEA using zero weighting)	Central governments
2.	Central governments EEA using zero weighting	Central governments
3.	LRG (excluding EEA using zero weighting)	Central governments
4.	LRG (EEA using zero weighting)	Central governments
5.	Special purpose entities, foreign	Companies
6.	Special customers residential construction	Companies
7.	Closed funds, foreign	Companies
8.	Investors, foreign	Companies
9.	Retail business, PostFinance	Retail business
10.	Corporates	Companies
11.	Participations	Participations
12.	Others	N/A
13.	Discontinued business	N/A

Table 10: Non-IRBA Rating Systems and KSA Portfolio Categories

##### 1. Central governments (excluding EEA using zero weighting)

This customer segment includes sovereign states as well as the associated central banks and development banks with the status of Multilateral Development Bank (MDB), with the exception of those in the European Economic Area (EEA) and using zero weighting per the SolvV (German Solvency Regulation). This customer segment is maintained in the Permanent Partial Use (PPU) area at MünchenerHyp.

The VR rating countries is used to evaluate the creditworthiness of claims in this segment. The VR rating countries was developed under the leadership of DZ BANK AG and WGZ Bank in the Cooperative Financial Network and has been approved by BaFin (the German Federal Financial Supervisory authority) and the German Central Bank as an IRBA rating procedure. The ratings are provided to MünchenerHyp by DZ BANK AG in the context of a rating desk. The MünchenerHyp analysts perform a plausibility check of the provided ratings and adjust them if necessary.



## 2. Central governments, EEA, using zero weighting

This customer segment includes sovereign states as well as associated central banks and development banks with the status of Multilateral Development Bank (MDB) within the EEA, using a zero weighting per the SolvV. This customer segment is maintained in Permanent Partial Use (PPU) at MünchenerHyp.

The VR rating countries is used to evaluate the creditworthiness of claims in this segment.

## 3. LRG (excluding EEA, using zero weighting)

The customer segment of Local and Regional Government (LRG) includes all of the local governments, regional authorities and public bodies, with the exception of those in the EEA, and uses a zero weighting as per the SolvV. This customer segment is maintained in PPU at MünchenerHyp.

The creditworthiness of claims in this customer segment is evaluated on the basis of the LRG rating. The LRG rating was developed under the leadership of vdp with the participation of numerous German banks, including MünchenerHyp. The rating procedure was approved by BaFin and the German Central Bank as an IRBA approach. The LRG rating takes into account, among other things, the financial strength and debt level of local and regional authorities.

## 4. LRG, EEA, using zero weighting

This customer segment includes all of the regional governments, local authorities and public bodies within the EEA and using a zero weighting per the SolvV. This customer segment is maintained in PPU at MünchenerHyp.

The creditworthiness of claims in this customer segment is evaluated on the basis of the abovementioned LRG rating.

## 5. Special purpose entities, foreign

This customer segment includes claims against special purpose entities with properties located outside the Federal Republic of Germany. The segment is maintained in the Partial Use (PU) area at MünchenerHyp.

The creditworthiness of claims in this customer segment is evaluated on the basis of the BV rating for special financing. This rating procedure was developed by Risk Management Solutions and is used by several special financing companies in Germany. The BV rating was approved by the BaFin and the German Central Bank as IRBA-compliant.

## 6. Special customers, residential construction

This customer segment primarily includes claims relating to properties for residential use and where less than 50% of the customer's income results from real estate activities. This customer segment is shown in the PPU.

The creditworthiness of claims in this customer segment is evaluated using an expert-based classification procedure (decision matrix).



### 7. Closed funds, foreign

This segment consists of funds created to finance defined, generally larger, investment projects. The customer segment includes investment properties or investment projects outside the Federal Republic of Germany. It is currently shown in the PU.

The creditworthiness of claims in this customer segment is evaluated on the basis of the IPRE rating. In the short term, the plan is to switch the creditworthiness evaluation from the IPRE rating to the BV rating. In the medium term, this will allow claims in this customer segment to be shown as IRBA claims.

### 8. Investors, foreign

The definition of claims in this customer segment corresponds to the explanations for the domestic investors segment (see Chapter 4.4.1), with the distinction that the properties financed by these investors must be located outside the Federal Republic of Germany. This customer segment is currently shown in the PU.

The creditworthiness of claims in this customer segment is evaluated using the IPRE rating. In the short term, the plan is to switch the creditworthiness evaluation from the IPRE rating to the BV rating. In the medium term, this will allow the claims in this customer segment to be shown as IRBA claims.

### 9. Retail business, PostFinance

All of the Retail business claims from the PostFinance sales channel are filed in this segment. Currently, only claims from Switzerland fall within this segment. Corresponding to the Retail business limit, claims against individuals or private persons up to a total liability of 1 million euros belong in this segment. The claims in this segment are shown in the PU.

The creditworthiness evaluation is based on a customer-segment-specific order-scoring procedure.

### 10. Corporates

This rating system consists of companies with balance sheet accounting that are not primarily active in the real estate business. These companies do not share any characteristics with other segments. This segment also includes companies located in other countries whose commercial activities do not involve the renting or leasing of property. The claims in this segment are shown in the PU.

Corporates are evaluated using an expert-based classification procedure (decision matrix).

### 11. Participations

MünchenerHyp's participation portfolio can be classified as an insignificant participation portfolio per Art. 70 SolV. This is because the average accounting value of the participation portfolio, without items for legally regulated programs to support specific industrial sectors, was less than 10% of the modified available equity over the past one-year period. As long as this ratio of "accounting value of participation items" to the "modified available equity" remains the same, participations will be administered in the PPU.



## 12. Other

The category of Other includes all claims that do not have the characteristics of one of the above customer segments. The claims in this segment are of marginal significance for the MünchenerHyp credit portfolio and are administered in the PPU.

The creditworthiness evaluation takes place either on the basis of the IPRE rating or the decision matrix. These rating procedures are expert-based classification procedures.

## 13. Discontinued business

Pursuant to Art. 69 SolvV, a discontinued business area is a segment in which no new risk items are created and where there is no intent to create new risk items. Currently, this segment includes commercial property financing for property located in the United States, GENO loans with and without indemnity, mezzanine financing in other countries as well as equity funds and small employee loans without collateralisation. Discontinued business is administered in the PPU.

The creditworthiness evaluation takes place either on the basis of the IPRE rating or the decision matrix. These ratings procedures are expert-based classification procedures.

Table 11 contains the respective totals for each measurement basis allocated to a fixed risk weighting established by the supervisory authority. The measurement basis used for KSA is shown before and after the inclusion of credit risk mitigation effects of collateral.

creditworthiness levels	Exposure in € million	
	before credit risk mitigation	after credit risk mitigation
0%	8,123.4	8,978.2
10%	25.8	25.8
20%	275.1	369.6
35%	2,711.1	2,711.1
50%	354.2	344.4
75%	450.8	443.0
100%	3,395.1	2,895.5
150%	278.2	165.1
<b>Total</b>	<b>15,613.7</b>	<b>15,932.7</b>

Table 11: KSA Exposure



#### 4.5 STRUCTURE OF PORTFOLIO

This chapter classifies and presents the portfolios according to various criteria. The information in this chapter is based on data from the measurement basis, before the inclusion of credit risk mitigation (CRM). Since the amounts shown do not differ significantly from the average amounts, the average amounts are not shown here.

Portfolio Structure by Equity Requirement Approach and Main Category						
in € million	Loans secured by mortgage liens (incl. commitments)	Other loans (incl. commitments)	Securities	Derivatives	Securitisations	Total
IRBA portfolio value	14,168.5	3,821.0	3,710.3	357.9	69.4	22,127.1
KSA portfolio value	3,094.4	9,876.0	2,643.3	0.0	0.0	15,613.7
<b>Total</b>	<b>17,262.9</b>	<b>13,697.0</b>	<b>6,353.6</b>	<b>357.9</b>	<b>69.4</b>	<b>37,740.8</b>

Table 12: Structure of Portfolio by Equity Requirement Approach and Main Categories

The IRBA approach shows all of the portfolio values with the exception of domestic Retail business and SME in the basic IRBA approach. For domestic Retail business and SME, the advanced IRBA approach is used. The IRBA portfolio for Retail business exclusively includes items secured by way of mortgage liens. The KSA approach shows all of the portfolio values that are maintained using the standard approach, either as part of the PU or the PPU.

The item "loans secured by mortgage liens" shows all of the loan portfolios whose mortgage collateral has a mitigating effect on credit risk as foreseen by the supervisory authority. The portfolios in this category also include open commitments for loans secured by way of mortgage liens. Open commitments are off-balance sheet items referring to untapped lines of credit.

"Other loans" include all loans that do not fall under the portfolio categories of "loans secured by way of mortgage liens," "securities," "derivatives" or "securitisations." Special IRBA financing also falls under the category of "other loans." As a rule, other loans refer to promissory notes and real estate loans whose collateral in the form of property does not have a mitigating effect on credit risk as foreseen by the supervisory authority.

The portfolio values for derivative transactions and for repo business items are shown after the inclusion of netting effects and financial securities (collaterals).



Table 13 shows the geographic distribution of the differentiated portfolio values by main countries and regions. The distribution of geographic areas is based on the risk strategy, with consideration for the main portfolio categories that have been defined. The geographic organisation of loans secured by way of mortgage liens depends on the country where the main property is located. Items in the other portfolio categories are assigned geographically according to the country where the commercial borrower is located. Portfolios in Switzerland are largely based on the partnership with PostFinance. Portfolios in North America are based on discontinued business in the area of international trade. In the European business, the focus is on commercial real estate financing in France and Great Britain.

Breakdown of Overall Portfolios by Countries and Regions						
in € million	Loans secured by way of mortgage liens (incl. commitments)	Other loans (incl. commitments)	Securities	Derivatives	Securitisations	Total
Germany	14,580.5	9,077.2	1,924.3	234.3	0.0	25,816.3
Switzerland	2,630.2	787.7	41.0	16.5	0.0	3,475.4
Europe (excluding Germany and Switzerland)	52.2	1,731.2	4,337.9	87.1	69.4	6,277.8
North America	0.0	2,100.9	50.4	20.0	0.0	2,171.3
<b>Total</b>	<b>17,262.9</b>	<b>13,697.0</b>	<b>6,353.6</b>	<b>357.9</b>	<b>69.4</b>	<b>37,740.8</b>

Table 13: Structure of Portfolio by Countries/Regions and Main Category of Claims





Table 14 shows the total portfolio values by main debtor category and portfolio categories.

Distribution of Total Portfolios by Debtor Groups and Portfolio Categories						
in € million	Credits secured by way of mortgage liens (incl. commitments)	Other credits (incl. commitments)	Securities	Derivatives	Securiti-sations	Total
Banks	0.0	3,226.2	4,412.0	357.9	0.0	7,996.1
Companies	2,994.6	4,384.2	444.2	0.0	69.4	7,892.4
Financially independent private persons	2,704.7	293.5	0.0	0.0	0.0	2,998.2
Financially dependent and other private persons	11,556.3	420.1	0.0	0.0	0.0	11,976.4
Public budgets	0.0	5,363.9	1,497.4	0.0	0.0	6,861.3
Other	7.3	9.1	0.0	0.0	0.0	16.4
<b>Total</b>	<b>17,262.9</b>	<b>13,697.0</b>	<b>6,353.6</b>	<b>357.9</b>	<b>69.4</b>	<b>37,740.8</b>

Table 14: Structure of Portfolio by Debtor Category and Main Category of Claims



Table 15 includes a breakdown of the total portfolio values (excluding derivatives) by contractual residual time periods and main portfolio categories.

Structure of Portfolio (excluding derivatives) by Residual Maturity and Main Category of Claims					
in € million	Credits secured by way of mortgage liens (incl. com- mitments)	Other credits (incl. com- mitments)	Securities	Derivatives	Securiti- sations
up to 1 year	607.0	2,789.2	395.6	7.9	3,799.7
more than 1 less than 5 years	2,599.8	3,794.8	3,736.8	61.5	10,192.9
more than 5 less than 10 years	2,045.8	2,164.9	1,573.4	0.0	5,784.1
More than 10 years	12,006.4	4,685.8	647.8	0.0	17,340.0
Excluding Residual Maturity	3.9	262.3	0.0	0.0	266.2
<b>Total</b>	<b>17,262.9</b>	<b>13,697.0</b>	<b>6,353.6</b>	<b>69.4</b>	<b>37,382.9</b>

Table 15: Structure of Portfolio by Residual Maturity and Main Category of Claims



#### 4.6 RISK MITIGATION AND HEDGING

Both the IRBA and the KSA approach permit institutions to take the applied credit risk mitigation techniques (securities) into account when calculating their regulatory equity requirements. In order to take securities into account when calculating equity requirements, however, the institutions must meet minimum requirements that are explicitly regulated in the SolvV and the KWG, as well as in the interpretation of decisions developed by the supervisory authority and in circulars. All of the classes of collateral used to mitigate credit risk at MünchenerHyp are recognised per the SolvV.

MünchenerHyp's principles of collateralisation are an integral part of its business and risk strategy, and are regulated in detail by internal organisational instructions. At the same time, the category and fundamental framework conditions for recognising, evaluating, monitoring and reviewing collateral accepted by MünchenerHyp as a Pfandbrief bank are also established. The collateral in question are separated in accordance with the internal organisational guidelines by country, property category, intended usage and other characteristics.

Eligible collateral is described in Art. 155 pp. SolvV. As a general rule, the following categories of collateral are recognised at MünchenerHyp:

- Mortgage collateral for property<sup>2</sup> used for residential or commercial purposes per Art. 159 SolvV. Due to its strategic orientation, MünchenerHyp primarily uses mortgage collateral for properties serving as collateral that are either completely built or will be completed by the time the loan is fully paid out. In commercial property financing areas, traditional mortgage-backed collateral can be replaced by other accepted collateral instruments in individual cases, for instance by pledging company shares or assigning claims for the reimbursement of expenses.
- Warranties in the form of guarantees/bonds from central governments, institutions and insurance companies per Art. 162-164 SolvV. The issuers of warranties that MünchenerHyp considers to be risk-mitigating are mainly public-sector bodies or domestic credit institutions.
- Pursuant to Art. 155 SolvV, MünchenerHyp defines financial collateral exclusively in the context of calculating cash securities (collaterals) for derivatives and repo transactions. The exposures are determined based on netting, and collateral offsetting.

Other collateral, such as assigning or pledging rights and claims arising from building loan contracts, life insurance, credits, deposits, etc., have a lower priority and generally serve as a repayment or bridge until property mortgages have been recorded.

MünchenerHyp carefully monitors possible risk concentrations and cluster risks that it enters into on the basis of its strategic orientation as a mortgage bank. Here the sizes, property categories and regional distribution of the properties play a role. These risk drivers are subject to strict monitoring. In this context, the publication per Art. 28 PfandBG (German Pfandbrief Act) should be noted, which clearly explains potential cluster risks in MünchenerHyp's cover funds on a quarterly basis.

<sup>2</sup> For MünchenerHyp, pure loan financing for property is relevant here in terms of the requirements defined by the supervisory authority. MünchenerHyp does not appear as a lease provider (and therefore an owner) of properties. The SolvV regulations are thus not relevant to MünchenerHyp at this time.



In a quantitative sense, this chapter explains securities that have a risk-mitigating effect on statutory equity requirements as demanded by the supervisory authority. Collateral is taken into consideration per SolvW either in the Probability of Default (PD) or the Loss Given Default (LGD), depending on the category of collateral or by using a risk weighting set as required by the supervisory authority for the collateral portfolio. For Retail business in the advanced IRBA approach, mortgage collateral is implicitly taken into account via the LGD. Thus there is no separate listing for mortgage collateral in Retail business in the lower part of table 16. For the remaining portfolio categories, "other securities" is understood to mean mortgage collateral in the sense of quantitative disclosure at MünchenerHyp. Financial securities for derivative items and items from repo transactions have already been reduced in the disclosed item values.

The securities included in the accounting for IRBA portfolios are shown in Table 16. No financial securities are included in the accounting.

IRBA Portfolio Categories	Eligible collateral in € million		
	Financial collateral	Warranties	Other collateral
1. Institutions	0.0	304.9	0.0
2. Companies	0.0	14.1	3,260.7
3. Retail business	0.0	0.0	0.0
IRBA retail items secured by way of mortgage liens	0.0	0.0	0.0
4. Securitisations	0.0	0.0	0.0
<b>Total</b>	<b>0.0</b>	<b>319.0</b>	<b>3,260.7</b>

Table 16: Eligible Collateral for IRBA Portfolio



The securities that are taken into account for KSA portfolios are shown in Table 17. As with the IRBA portfolio categories, KSA portfolio categories do not account for any financial collateral.

KSA Portfolio Categories	Item values of securities/secured items in € million		
	Financial collateral	Warranties	Other collateral
1. Central governments	0.0	0.0	0.0
2. Regional governments and local authorities	0.0	0.2	0.0
3. Other public-sector bodies	0.0	10.8	0.0
4. Multilateral development banks	0.0	0.0	0.0
5. International organisations	0.0	0.0	0.0
6. Institutions	0.0	246.5	0.0
7. Covered bonds issued by credit institutions	0.0	0.0	0.0
8. Companies	0.0	490.5	0.0
9. Retail business	0.0	7.8	0.0
10. Exposures secured by property	0.0	0.0	3,055.2
11. Investment shares	0.0	0.0	0.0
12. Participations	0.0	0.0	0.0
13. Other items	0.0	0.0	0.0
14. Overdue items	0.0	38.6	7.1
<b>Total</b>	<b>0.0</b>	<b>794.4</b>	<b>3,062.3</b>

Table 17: Collateral for KSA Portfolio



#### 4.7 RECOGNITION OF PROVISIONS FOR RISK

MünchenerHyp defines non-performing loans or overdue loans as credit obligations with shortfalls, or those at risk of default on the basis of other objective risk factors (i.e. threatened or initiated insolvency proceedings). This forms the basis for recognising value adjustments for the mortgage credit business. MünchenerHyp's criteria for recognising in-house value adjustments are considered to be conservative. Mortgage loans are examined to determine if they warrant the creation of, or an addition to, individual adjustments to value when one of following prerequisites exists:

- An individual adjustment to value was already created or maintained in the previous year
- Foreclosure or enforced receivership proceedings are pending
- The customer has been unsuccessfully dunned, and the amount owed exceeds – depending on the possibilities of using the loan as cover – certain minimal thresholds
- The loan is default-endangered due to other objective criteria (e.g. threatened, or actually applied for insolvency)

"Overdue items" are defined as claims that are overdue for payment by more than 90 days and more than € 100 or by more than 2.5% of the total unpaid amount.

In general, if it is determined that the value of a loan needs to be individually adjusted in the retail area of business the portion of the loan exceeding 60% of the mortgage lending value, or 70% of its current market value, plus the outstanding interest payments, is value adjusted. Individual deviations from this policy must be justified.

In principle, an adjustment to value in the non-retail business is based on the current market value of the mortgage lending value less an appropriate margin of safety, or 100% of the break-up value exceeding the value of the loan plus the outstanding interest payments.

The Bank has created a general adjustment to value reserve as a precautionary measure to cover latent lending risks. This general adjustment to value is calculated per the terms contained in a Federal Ministry of Finance notice dated January 10, 1994. The key default rate is calculated using 60% of the average volume of defaults that took place over the last five years compared to the average volume of loans-at-risk made over this period. The general adjustment to value is the result of multiplying the default rate by the volume of loans-at-risk on the date of record.

Table 18 shows the distribution of non-performing and overdue claims by major debtor categories. The total amount of non-performing and overdue claims is based on total claims before deduction of the individual adjustments to value. The remaining amount is calculated by determining the difference between the total claims and the sum of individual adjustments to value.

Above all, it should be noted that the major portion of overdue loans noted for US exposure in the portfolio are not actually distressed loans. On the contrary, it is quite common that serious negotiations are initiated in the US shortly before the end of a loan's fixed period of interest. This means that loans become "overdue" on their due date even though, in principle, both sides are striving to extend the loan agreement and are only negotiating the margin, or the amount that will be paid as partial repayment. The majority of these loans receive a good rating immediately after the loan agreement has been extended – just as is the case in the event of a technical default.



Non-Performing and Overdue Claims by Debtor Category			
in € million	Total claims	Assets with individual adjustment to value	Overdue without individual adjustments to value
Banks	0.0	0.0	0.0
Companies	256.6	46.6	210.0
Financially independent private persons	32.9	7.2	25.7
Financially dependent and other private persons	44.5	7.4	37.1
Public budgets	0.0	0.0	0.0
Other	0.7	0.3	0.4
<b>Total</b>	<b>334.7</b>	<b>61.5</b>	<b>273.2</b>

Table 18: Non-Performing and Overdue Claims by Debtor Category

Table 19 shows the distribution of non-performing and overdue claims by major countries and regions.

Non-Performing and Overdue Claims by Countries and Regions			
in € million	Total claims	Assets with individual adjustment to value	Overdue without individual adjustments to value
Germany	84.9	17.3	67.6
Switzerland	0.0	0.0	0.0
Europe (without Germany and Switzerland)	23.7	2.8	20.9
North America	226.1	41.4	184.7
<b>Total</b>	<b>334.7</b>	<b>61.5</b>	<b>273.2</b>

Table 19: Non-Performing and Overdue Claims by Countries and Regions



Net allocations to provisions for risk in the form of direct write-downs and recoveries of written-off claims by debtor category are shown in Table 20.

Provisions for Risk by Debtor Category			
in € million	Net allocation from individual and general adjustments to value	Direct write-down	Recoveries of written-off claims
Banks	0.0	0.0	0.0
Companies	-17.1	0.4	0.0
Financially independent private persons	0.4	0.6	0.0
Financially dependent and other private persons	1.2	2.4	0.5
Public budgets	0.0	0.0	0.0
Other	0.0	0.0	0.0
<b>Total</b>	<b>-15.5</b>	<b>3.4</b>	<b>0.5</b>

Table 20: Provisions for Risk by Debtor Category

The development of provisions for risk for the entire lending business in the year 2011 is summarised in Table 21.

Lending Business						
in € million	Opening balance	Additions	Reversal	Utilisation	Changes related to exchange rate shifts and other factors	Closing balance
Individual adjustment to value	90.0	11.3	25.7	14.1	0.1	61.6
General adjustment to value	14.1	0.0	1.2	0.0	0.0	12.9
Reserves	0.0	0.0	0.0	0.0	0.0	0.0

Table 21: Development of Provisions for Risk in the Lending Business





#### 4.8 RISK REPORTS AND MANAGEMENT INFORMATION SYSTEMS

Risk reports provide the foundation for management decisions. These reports are regularly prepared for various groups.

The Bank's credit risk situation is presented in Credit Risk Report, which is prepared on a quarterly basis. Particular attention is devoted to the following risk-relevant subjects in risk reporting: portfolio structure, limit utilisation, quantification of risk, cluster and concentration risks, provisions for risk, workout management's portfolio, intensive attention portfolio, as well as the development of new business. All risk-relevant key figures are reviewed within the context of the quarterly risk report, including expected and unexpected loss as applicable to both the aggregate portfolio and sub-portfolio level. In addition, at the aggregate level, each portfolio is broken down by rating classification, size category, lending ratios, type of property, region and broker. The Credit Risk Report is distributed to:

- the Supervisory Board
- Board of Management
- unit and department heads in the Market and Transaction Management departments
- person responsible for operational risk

The extent to which the limits are utilised for capital market purposes is measured on a daily basis and a related report is submitted once a week. A separate monthly status report is also prepared consisting of a monitoring report presenting the utilisation of limits for the capital market sector, and if they were exceeded at any time. The weekly utilisation report reviewing the limits for the capital market is distributed to the following bodies:

- Member of the Board of Management responsible for Transaction Management Treasury
- Head of Transaction Management Treasury
- Head of Capital Market – Active

A report will be submitted to the above bodies pursuant to the escalation procedure if the limits are exceeded in the area of Capital Market – Active.

The Transaction Management units are responsible for monitoring the country limits within the context of new business decisions. Measurement of the utilisation of the country limits for mortgage business purposes takes place on a daily basis. The Credit Risk Controlling unit is responsible for the quarterly assessment of the country limits for the mortgage business within the Credit Risk Report. Pursuant to the escalation procedure, a report will be submitted to the Board of Management and the responsible market unit within the framework of proposed resolutions for new business purposes.

The determination of the limit utilisation for the remaining business areas will take place on a quarterly basis and be reported as part of the Credit Risk Report. The monthly status report regarding the limits will be submitted directly to the Board of Management.



## 5 MARKET PRICE RISK

### 5.1 CONTAINMENT

Market price risks include risks to the value of items or portfolios due to changes in market parameters, e.g. interest and exchange rates. They are quantified as a potential present-value loss using the present-value model. We distinguish between risks associated with changes in interest rates, (credit) spreads, options, currency and stocks.

The interest change risk describes the risk that the market value of interest-rate-dependent investments or exposure could develop negatively. It is the most important component of market price risks for MünchenerHyp.

The credit spread is defined as the difference in yield for a risky and a non-risky loan. Spread risks account for the danger that this difference in interest rates could change while the creditworthiness remains the same. The reasons for changes in yield premiums are: varying estimates by market participants, actual changes in issuers' credit quality – as long as this is not already reflected in the rating – and macroeconomic factors that affect creditworthiness categories. All asset-side loans are affected by credit spread risk. The claims listed under "Public Sector" include bonds issued by sovereign states or sub-state entities, as well as claims against non-government debtors that are additionally insured by way of a direct guarantee from the corresponding state.

Among other considerations, options also include the following risks:

- Vega: the risk that increasing or declining volatility will change the value of a derivative instrument
- Theta: the risk that the value of a derivative instrument will change over time
- Rho: the risk that the option value will change if the risk-free interest rate changes
- Gamma: the risk that the option deltas will change if the price of the underlying value e changes

The currency risk describes the risk that the market value of exchange-rate-dependent investments or liabilities could develop negatively due to changes in the exchange rate.

The stock risk refers to the risk of a negative development on the stock market that leads to a decline in the value of an asset.

### 5.2 STRATEGIES AND PROCESSES

In order to manage market price risks, all transactions at MünchenerHyp are subject to a daily present-value analysis. Transactions whose valuation is limited to discounting cash flows are valued in the portfolio management system. Structured transactions – in particular interest-limiting agreements, swaptions as well as statutory and individually agreed termination rights – are valued in a separate system. As a rule, structured transactions are secured with a micro-hedge, which is equivalent to the evaluation of a synthetic floater when valuing the interest rate risk. Deposits do not play a role at MünchenerHyp.

The Delta vector is the backbone of our interest rate risk management system and is calculated on a daily basis. This figure is determined by the present value of the loss incurred per range of maturities when the mid-swap curve is raised by one basis point. MünchenerHyp uses the value-at-risk figure (VaR) to identify and limit market risks. Linear as well as non-linear risks are taken into consideration using a Delta-Gamma approach when calculating value-at-risk. Additional stress scenarios are used here to measure the effect of extreme shifts in risk factors and the effects of other risk categories.

MünchenerHyp is a trading book institution for futures only.



The maximum VaR for the MünchenerHyp's banking book (interest rates and currencies), at a 99.5% confidence level and a 10-day holding period, was € 16 million; the average amount of the same year-ago figure was less than € 10 million.

The current (daily) stress scenarios for controlling interest rate risk are:

- Changes in legal regulatory requirements: The current interest rate curve is completely parallel shifted up and down by 200 base points for every separate currency used. The worst result of the two shifts is used for calculation purposes.
- Parallel shifts: The current interest rate curve is completely shifted up and down by 100 base points across all currencies. The worst result of the two shifts is used for calculation purposes.
- Steepening/flattening: The current interest rate curve is rotated in both directions around the 5-year rate as the fixed point.

The following events are used for historical simulation purposes:

- September 11, 2001 terror attack in New York: Changes seen in market prices between September 10, 2001 and September 24, 2001 – the immediate market reaction to the attack – are transferred using the current levels as a base level.
- The 2008 crisis in the financial markets: Changes in interest rates seen between September 12, 2008 (last banking day before the collapse of Lehman Brothers, an investment bank) and October 10, 2008 are transferred using the current levels.

The current (daily) credit spread stress scenarios are:

- Parallel shifts: All credit spreads are shifted up and down by 100 base points. The worst result of the two shifts is used for calculation purposes.
- Historical simulation of the collapse of the investment bank Lehman Brothers: the scenario assumes an immediate change in spreads based on the changes that occurred one working day before the collapse of the investment bank until four weeks after this date.
- Worst Case Scenario: The maximum widening of spreads for all classes of securities in the Bank's portfolio since January 2, 2007 is calculated. The average value of these calculations is used as the parallel shift to the respective class of security.
- Flight into government bonds: The scenario simulates a significantly visible aversion to risk that was previously seen in the markets. Spreads for riskier classes of paper widen while spreads for safer government bonds narrow.
- Worst Case Scenario up to the collapse of Lehman Brothers: this scenario is derived from the Worst Case Scenario. The time period used here starts on January 2, 2007 and ends one banking work day before the collapse of the investment bank Lehman Brothers.

As the Bank generally does not employ options for speculative purposes, risk exposure in this area is assumed to be moderate. Positions are generally entered into on an implied basis due to the debtors' option rights (for example the right to give legal notice of termination per Art. 489 of the German Civil Code – BGB) and are then hedged. Nevertheless, these risks are attentively monitored in the daily risk report and are limited.



No significant risk items exist in foreign currencies. MünchenerHyp's transactions outside of Germany are hedged against currency risks to the greatest extent possible and only margins involved in payment of interest can be unhedged.

Stock risks are not relevant for MünchenerHyp as our total investments in this asset class amount to less than € 5 million.

Because MünchenerHyp is a trading book institution – only for futures – it uses a special application to control potential risks in this area on an intra-day basis. Furthermore, these trades are also integrated into our normal reporting. The standard method is used to determine equity requirements for market price risks in the trading book. The trading book contained no exposure to risk as of December 31, 2011.

### 5.3 RISK MANAGEMENT STRUCTURE AND ORGANISATION

MünchenerHyp uses a limit system to control market risks. This limit system is based on the applied measurement procedures, which implement both a VaR limitation and a basis point value limitation. The limits established for market-risk management are based on the ability to bear risk and on the Bank's earning potential, and are defined as an absolute limit for actively controlled items. A negative annual performance reduces the available limit by the same negative performance amount. A positive performance does not increase the limit.

The VaR limitation is based on the books defined by MünchenerHyp in the context of operational management. Limit monitoring is integrated into the process of daily performance and risk measurement. The risk drivers of foreign currency interest curves and option volatility can be integrated into the value-at-risk calculation once the Summit trading system (a current project) is implemented.

### 5.4 RISK MITIGATION AND HEDGING

We engage in hedging activities – interest rate and currency derivatives – in order to further reduce our risks and to hedge our business activities. We do not employ credit derivatives. In the past, we have only occasionally insured individual loans or portfolios against counterparty risk. At the level of individual transactions, we use asset swaps as micro-hedges. Structured fundamental transactions such as callable securities are hedged accordingly with structured asset swaps. Interest currency swaps are used to hedge exchange rate risks. Interest rate swaps are the main hedging instruments we use at the portfolio level. Bermudan options on interest swaps (swaptions), swaps and interest options (caps and floors) are used as macrohedges for embedded legal termination rights.

### 5.5 RISK REPORTS AND MANAGEMENT INFORMATION SYSTEMS

The market risk value-at-risk, as well as the market risk and credit spread stress tests, are determined and reported on every Munich banking day. The market risk limits are monitored every Munich banking day and reported within the context of the performance and risk calculation. The Market Risk Controlling unit is responsible for the preparation, coordination and distribution of the reports, which are distributed to the Treasury department, the Board of Management, and the Supervisory Board (quarterly).

If a limit is exceeded the a report is prepared pursuant to the escalation procedure and submitted by the Market Risk Controlling unit to the Member of the Board of Management responsible for Controlling, the Member of the Board of Management responsible for Treasury, as well as the Heads of Controlling, Treasury and Audit.



## 6 LIQUIDITY RISK

### 6.1 CONTAINMENT

Liquidity Risk includes the following risks:

- inability to fulfil payment obligations when they become due (liquidity risk in the narrow sense),
- inability to procure sufficient liquidity when needed at anticipated conditions (refinancing risk), or
- inability to terminate, extend or close out a transaction, or only be able to do so at a loss, due to insufficient market depth or market turbulence (market liquidity risk).

### 6.2 STRATEGIES AND PROCESSES

The 2009 MaRisk classified liquidity risk as a significant risk for the first time, requiring monitoring and controls through regular, appropriate stress tests for liquidity risks. Furthermore, a process must be in place for early recognition of liquidity requirements so that any financial shortfalls can be identified in a timely manner. This will ensure that refinancing is guaranteed at all times.

The revision of the MaRisk in late 2010 brought about stricter requirements for controlling liquidity risks. The main reasons for this were:

- the partial failure of the interbank market as a refinancing source,
- the strong increase in spread premiums for refinancing, and
- the collapse of the secondary markets (for instance, for asset-backed securities).

MünchenerHyp has always taken liquidity risk into consideration in its business and risk strategies. In order to account for all of the regulatory and internal requirements, MünchenerHyp distinguishes between operative liquidity disposition, short-term liquidity risk management pursuant to MaRisk BTR 3.2 for securing payment capability, and medium-term structural liquidity planning.

The goal of operative liquidity disposition is to ensure that the Bank can fulfil its proper payment obligations in full in a timely manner. The relevant strategies and processes for operational liquidity controls are established in the Treasury Handbook.

A technical concept for short-term liquidity risk management pursuant to MaRisk BTR 3.2 was developed in conjunction with the banking supervisory authority in 2011 to ensure payment capability, and was subsequently implemented in a separate system. The content primarily involves the technical process for creating a capital gap analysis that can be used to evaluate the extent to which our own liquidity requirements are covered over time. Methods have been defined to generate corresponding additional funds if our cash outflow exceeds cash inflow (including liquidity stocks), for instance by selling assets; this is known as the liquidity coverage potential. The focus here is on a short-term liquidity analysis (1-year time frame). A range of parameters are used to calculate various (stress) scenarios in order to fulfil the scenario considerations required by MaRisk:

- Base case (control scenario)
- Bank stress
- Market stress
- Combined stress (MaRisk scenario)



The purpose of structural liquidity planning is to ensure mid-term and long-term liquidity and involves the following key liquidity figures as components for determining results across all due dates:

- accumulated total cash flow requirement,
- available potential covered funding including planned new business and prolongations in line with the surplus cover requirements set by Moody's, a rating agency,
- uncovered refinancing needs,
- additional detailed data for planning and control activities.

Additional stress scenarios are conducted based on structural liquidity planning. An integrated stress test concept was developed in order to achieve the best possible structured and flexible measure of risk. Various relevant liquidity risk factors were identified for MünchenerHyp, which focus on either market or reputational effects. A total of five stress tests were defined on the basis of these risk factors:

- Reputation scenario (high stress)
- Market scenario (high stress)
- Market & reputations scenario (light stress)
- Market & reputations scenario (high stress)
- Worst Case Scenario

Complementary to the risk factors and their varying stress test combinations, corresponding measures were defined for simulation purposes to reduce the liquidity risks in the respective cases.

### 6.3 RISK MANAGEMENT STRUCTURE AND ORGANISATION

In order to keep refinancing risks at a minimum, MünchenerHyp strives to refinance loans with concordant amounts and maturity dates and continuously checks if its relevant refinancing sources (primarily those within the Cooperative Financial Network) remain available. In order to limit market liquidity risks in its lending business with public-sector borrowers and banks, MünchenerHyp primarily acquires securities that are acceptable as collateral by the European Central Bank, and which can be used for open market business at any time. Investments in less liquid bonds, like Mortgage Backed Securities (MBS), are no longer being made.

The limitation of liquidity risks takes place using short-term liquidity risk management pursuant to MaRisk BTR 3.2 and using the medium-term structured liquidity forecast and the stress scenarios based on the Bank's uncovered refinancing needs. Because a mortgage bank's liquidity management is closely connected to the cover requirements for Pfandbriefe, forecasts for liquidity and cover are technically linked by IT systems.

The purpose of limiting liquidity risks is to secure short, medium and long-term liquidity and to prevent structural liquidity gaps. Short-term liquidity risk management pursuant to MaRisk BTR 3.2 and the LiqV figure are used to limit short-term liquidity risk. The structural liquidity forecast can identify structural liquidity gaps early on and close them through appropriate refinancing. In the context of liquidity risk management pursuant to MaRisk BTR 3.2, a three-level limit is defined in accordance with the combined stress scenario required by MaRisk. The limit consists of a green, yellow and red zone that define the respective time periods up to the (theoretical) inability to fulfil payment obligations.



The structural liquidity forecast defines a standardised three-level limit system for all of the defined (stress-test) scenarios. The limit system consists of a green, yellow and red zone whose boundaries change over time. The maximum time frame for limit planning is a standard twelve months. However, it should be noted here that the different time frames, depending on the "severity" of the scenarios, must be taken into consideration if a limit is exceeded. As with structural liquidity planning, the uncovered refinancing need is limited with consideration for the risk factors, including the assigned measures.

In addition, an escalation process applies if a limit is exceeded or in the event of poor market liquidity. When a limit is exceeded, the causes are first clarified. Next, a plan is created for the funding mix in order to cover the increased liquidity needs. The exceeded limit and the corresponding solution are communicated to the respective Management Board members responsible for the affected areas, and to the affected division or department heads.

#### 6.4 RISK MITIGATION AND HEDGING

MünchenerHyp strives to make its funding as diversified as possible at all times by placing a mixture of public and mortgage Pfandbriefe, uncovered long-term bank titles and various money-market instruments on the market. At the same time, we try to refinance loans with concordant amounts and maturity dates in order to limit the respective funding gaps.

The Treasury department has an emergency plan that can be implemented during times of reduced liquidity.

#### 6.5 RISK REPORTS AND MANAGEMENT INFORMATION SYSTEMS

The liquidity risk calculations pursuant to the German Solvency Regulation are created on a monthly basis. The Accounting department is responsible for creating, coordinating and distributing liquidity risk calculations pursuant to the Solvency Regulation. The Treasury department is responsible for ensuring compliance with requirements. The recipients of these liquidity risk calculations pursuant to the Solvency Regulation are the Federal Ministry of Finance (on a monthly basis) and the Treasury department (weekly forecast and monthly key figures).

The liquidity risk reports for short-term liquidity risk management pursuant to MaRisk BTR 3.2 and for the structural liquidity forecast are created and reported on a weekly basis. Liquidity risk controlling is responsible for creating, coordinating, monitoring and distributing short-term liquidity risk management pursuant to MaRisk BTR 3.2 and the structural liquidity forecast. The Treasury department is responsible for daily operational liquidity disposition and the necessary evaluations. The liquidity risk reports are distributed to:

- the Supervisory Board (short-term and structural liquidity risks, on a quarterly basis)
- Board of Management (short-term and structural liquidity risks, on a weekly basis)
- Treasury department (short-term and structural liquidity risks, on a weekly basis and ad hoc)

The liquidity risk limit is monitored on a weekly basis within the respective liquidity risk reports. Liquidity risk controlling is responsible for monitoring the liquidity risk limit. The utilisation of the liquidity risk limit is reported to the following recipients:

- the Supervisory Board (quarterly)
- Board of Management (weekly)
- Treasury department (weekly)



## 7 OPERATIONAL RISK

### 7.1 CONTAINMENT

Operational Risk refers to possible losses caused by personal misconduct, weaknesses in procedural or project management, technical failure or negative outside influences. Personal misconduct also includes unlawful actions, improper sales practices, unauthorised actions and transaction errors.

### 7.2 STRATEGIES AND PROCESSES

MünchenerHyp minimises its operational risks by qualifying its employees, by using transparent procedures, automating standard procedures, and by having fixed working instructions, comprehensive functional testing, as well as appropriate emergency plans and preventive measures.

MünchenerHyp has established a programme to manage its operational risks. This programme is documented in the Operational Risk Handbook and is based on three pillars:

- Pillar 1: Implementation of a periodic self-assessment for the purpose of determining, evaluating, and examination of all potential risks
- Pillar 2: Creation of a loss database
- Pillar 3: Creation of an early-warning system with the help of risk indicators

MünchenerHyp uses a self-assessment method as an ex-ante procedure to record and evaluate operational risks within the Bank. The risk officer in each unit estimates the frequency of occurrence and evaluates the possible losses in terms of their financial dimensions. In this procedure, the classification of operational risks (loss events) is based on legal recommendations and represents minimum content for the annually conducted self-assessment.

MünchenerHyp maintains a loss databank as an ex-poste procedure to record and evaluate operational risks within the Bank. In addition, an early-warning system using indicators is being established. These indicators are to be understood as being measurable parameters that will indicate the occurrence of a future event. Indicators are split into the following categories: total databank-related, and departmental or unit-related early-warning indicators.

In addition, for supervisory purposes, the basic indicator approach is used to determine operational risk, which takes into account the ability to bear risk using scaled levels of confidence. The formulae of the German Solvency Regulations are used for this purpose.

### 7.3 RISK MANAGEMENT STRUCTURE AND ORGANISATION

A standard form must be used to document in detail operational risks that have materialised. The completed form must then be submitted to the Operational Risk Officer. This statement must also include potential countermeasures to prevent a reoccurrence. Larger loss events must be immediately reported to the Board of Management.

All departments within MünchenerHyp, e.g. including staff units, which regularly discover cases of operational risk as a result of their reports, are also obligated to report them.

### 7.4 RISK MITIGATION AND HEDGING

Insurable risks are covered by insurance to the normal extent required by banks.





### 7.5 RISK REPORTS AND MANAGEMENT INFORMATION SYSTEMS

The Board of Management and the Supervisory Board are informed about operational risks within the context of the MaRisk Report on a quarterly basis. In addition, a separate operational risk report is prepared twice a year. An evaluation of risks based on the self-assessment is submitted to the Board of Management once a year. Pursuant to the terms of the MaRisk, additional potential operational risks noted during the year are reported in the semi-annual operational risk reports and the periodic overall risk report. Major risks are addressed immediately. The Accounting department is responsible for preparing, coordinating and distributing the reports, which are distributed to the Supervisory Board and the Board of Management.

## 8 Participation Risk

MünchenerHyp's participations are made primarily for strategic reasons. As the participations are kept in the banking book, an annual review is carried out to determine any permanent reduction in value. If such a reduction occurs, it is written off at current fair value. The participations carried in the MünchenerHyp asset ledger are neither listed participations nor participations in a diversified portfolio. The book value was € 89.0 million as of the end of December 2011. The participations are permanently taken out of the standardised credit risk model and allocated to the credit risk standardised approach. MünchenerHyp's participations are not a significant risk driver with regard to counterparty risks.

## 9 CREDIT RISK ON DERIVATIVES AND NETTING

A limit system is used to restrict counterparty risks for all of the borrowers carried in the Treasury area of business. In doing so, limits on counterparties and issuers are made on a case-by-case basis and are approved by the entire Board of Management after a presentation and vote by the Market and the Transaction Management departments. Only banks and insurance companies located in OECD countries are accepted as counterparties for derivative deals.

After netting, derivatives are offset against the counterparty limit using their market values plus add-on. The limit is monitored on a daily basis. In the event that the limit is exceeded the entire Management Board is informed immediately. Furthermore, a monitoring list is provided to the entire Management Board on a monthly basis. The creditworthiness of the counterparties and the limits are examined at least once a year. In creating offset agreements (netting), MünchenerHyp orients itself according to standard market practices.

Within the framework of collateral agreements made to additionally secure net derivative positions, only cash deposits in euros are accepted as collateral. To a small extent, some collateral agreements contain exempt amounts that are dependent on creditworthiness. These exempt amounts are not subject to being automatically adjusted in the event of changed credit ratings, so no liquidity risk arises because of additional funding obligations. In terms of internal risk management for the entire Bank, exposure for derivatives is taken into account using their market value plus add-on and taking netting agreements into account.

Market and counterparty risks are calculated separately at MünchenerHyp and then added conservatively, for example when determining risk-bearing abilities. Thus no diversification effects are recognised via correlations.



Table 22 shows the structure of the derivatives and offset items as of December 31, 2011.

Derivatives and Offset Items	in € million
<b>Total positive replacement values before offsetting and before collateral</b>	1,998.7
- of which, interest-related contracts	1,898.8
- of which, currency-related contracts	87.7
- of which, swaptions (interest or currency-related)	11.1
- Deadline transactions (securities, promissory notes)	1.1
Netting opportunities	1,673.3
Collateral	267.8
<b>Total positive replacement values after offsetting and after collateral</b>	57.6
<b>Total add-ons</b>	300.3
<b>Value of receivables after offsetting and after collateral</b>	<b>357.9</b>

Table 22: Structure of Derivatives and Offset Items

MünchenerHyp does not enter into any CDS transactions as either a buyer or a seller.

## 10 Securitisations

With regard to the securitisation market, MünchenerHyp only participated as an investor in Mortgage Backed Securities (MBS), although these investments are declared to be discontinued pursuant to Art. 69 SolvV. Until now, the portfolio (6 securities backed by properties in Germany, France and Spain) has been processed according to plan and is thus constantly shrinking. The expected weighted residual maturity is less than 2 years.

MBS investments were fundamentally made as credit substitute transactions to develop a portfolio that is complementary to the credit business. MünchenerHyp only invested in securities that have at least two external ratings from Moody's, S&P or Fitch, and have fundamental asset values which bore up well against an internal credit analysis comparable to that of the credit business. The current average rating is AA, and the lowest individual rating overall is A. All of the securitisation items are in the banking book. The report to the supervisory authority takes place pursuant to the standardised credit risk model and is based on the external ratings. MünchenerHyp applies a ratings-based approach here.



Table 23 describes the exposure values and capital requirements of the securitisations acquired by MünchenerHyp, differentiated according to the ranges for securitisation risk weights. It is apparent here that the securitisations in MünchenerHyp's portfolio fall completely within the first three ranges with a maximum risk weight of 50%. The overall capital requirements from the securitisation items were only € 1 million as of the end of December 2011.

The process used to monitor changes in counterparty risks and market risks associated with the securitisation positions is explicitly defined within the context of portfolio monitoring in the MBS portfolio handbook.

Risk weight ranges	Exposure in € million	Capital required in € million
≤ 10%	17.6	0.1
> 10% < 20%	20.1	0.2
≥ 20% < 50%	31.7	0.7
≥ 50% ≤ 100%	0.0	0.0
> 100% ≤ 650%	0.0	0.0
> 650% ≤ 1250%	0.0	0.0
1250% / capital deduction	0.0	0.0
<b>Total</b>	<b>69.4</b>	<b>1.0</b>

Table 23: Securitisations: Exposure Values and Capital Requirements



Volksbanken Raiffeisenbanken  
cooperative financial network

Münchener Hypothekenbank eG  
Karl-Scharnagl-Ring 10 | 80539 Munich  
PO Box 22 13 51 | 80503 Munich  
Phone + 49 (0) 89 / 53 87 - 800  
Fax + 49 (0) 89 / 53 87 - 900  
E-mail: [serviceteam800@muenchenerhyp.de](mailto:serviceteam800@muenchenerhyp.de)  
Internet: [www.muenchenerhyp.de](http://www.muenchenerhyp.de)