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The treatment of mortgages (RRE & CRE) and covered bonds under the new Capital Requirements Directive (CRD)

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AGENDA

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- The structure of the new framework: Proposal - COM (2004) 486 - amending the Consolidated Banking Directive 2000/12/EC and the Capital Adequacy Directive 93/6/EEC adopted on 14 July 2004
- Expected treatment of mortgage lending
  - Modified standardised approach
  - Internal rating based approach
    - Foundation IRBA
    - Advanced IRBA (LGD Grading)
  - Property Valuation
    - Monitoring of values, revaluation & property and market rating
- Expected treatment of covered bonds
  - Definition
  - Standardised approach
  - IRBA
- Challenges and Timetable

The structure of the CRD Framework

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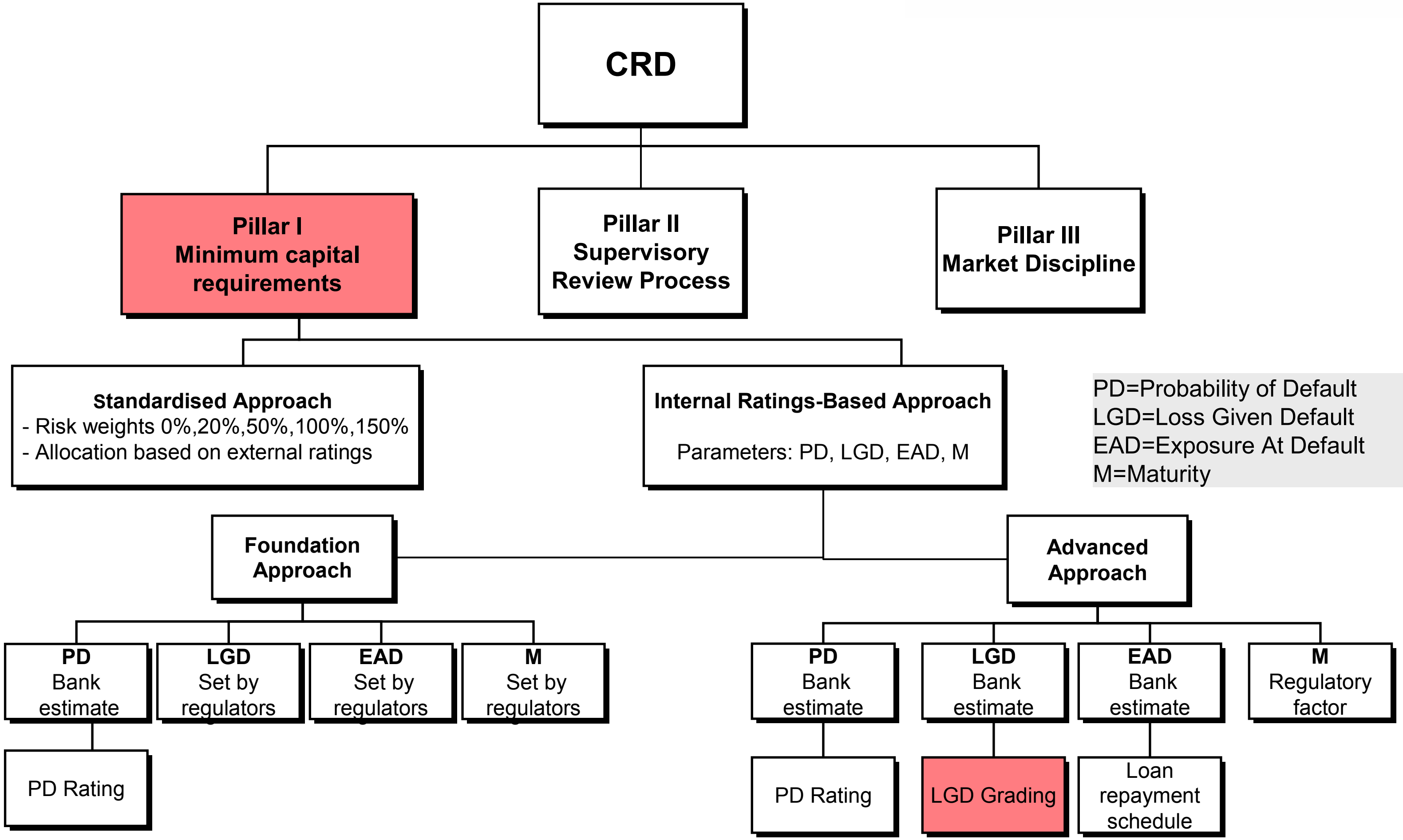

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Modified Standardised Approach: Treatment of private residential mortgage lending

- 35% weighting of residential mortgages fully and completely secured on residential property which is or shall be occupied or let by the borrower (actually 50%)
- The value exceeds by a substantial margin the claim (LTV limit at the discretion of the national supervisor !)
- Independence of the property value from the credit quality of the obligor (exclusion of specialised property)
- Independence of the borrower's risk from the performance of the underlying property (discretion to dispense: low loss rates, well-developed & long-established residential real estate market!)

Modified Standardised Approach: Treatment of commercial mortgage lending

- General rule: 100% weighting
- Subject to discretion of the competent authority: 50% weighting of claims fully and completely secured by mortgages on offices or other commercial premises
- 50% of the market value or 60% of the mortgage lending value
- Independence of the property value from obligor's credit quality
- Independence of the borrower's risk from the performance of the underlying property, but possibility to dispense if
  - well-developed and long-established commercial real estate market
  - hard tests: loss rates < 0,3 % of the outstanding loans in any given year and overall losses < 0,5 % of the outstanding loans in any given year

Modified Standardised Approach: Treatment of past due mortgage loans

- Past due mortgages = payment incident since more than 90 days
- Unsecured claims
  - 150% weighting
  - 100% weighting if the loan is provisioned at 20% or more
- Residential mortgages
  - 100% weighting
  - 50% weighting at national discretion if the outstanding loan is provisioned at 50% or more
- Commercial mortgages
  - 150% weighting like unsecured loans ? (Basel: 100%)

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Internal Rating Based Approach: Basic principles and asset classes

- Equity allocation = Loan amount x risk weight (EAD, PD, LGD, M) x 8% solvency ratio
- In the Foundation IRBA, the PD is estimated by the credit institution itself and the LGD is assigned by supervisors
- In the Advanced IRBA, both PD and LGD are estimated by the credit institution
- The IRBA being categorised into 7 asset classes, the mortgage business is allocated to the following 2 categories:
  – Retail asset class (residential mortgage loans, revolving retail exposures & other retail exposures)
  – Commercial mortgages are allocated to the corporate asset class consisting of 4 sub-classes of specialised lending (project finance, object finance, income producing real estate and commodities finance)

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Treatment of mortgage collateral under the Foundation IRBA

- Real estate collateral (residential & commercial) is recognised as credit risk mitigation instrument in order to receive regulatory capital relief
- LGD ratio for mortgage collateral (RRE & CRE) is fixed at:
  - 35% (Council: 30%), if collateral value > 140% of the mortgage loan amount (LTV below 71%)
  - 45% for the remaining part being considered as unsecured
- In order to keep consistency with the Standardised Approach, competent authorities may authorise credit institutions to apply a 50% risk weight to the part of the exposure fully collateralised by RRE or CRE, if the additional conditions (LTV, hard tests etc.) of the Modified Standardised Approach are fulfilled (= partial use)
- No maturity adjustments

Treatment of residential mortgages in the (advanced) IRBA (I)

- There is only one (Advanced) IRBA available for retail residential mortgages
- A retail residential mortgage loan requires
  - an exposure to an individual and
  - a security of the following types
    - a residential structure with one living unit
    - or a small number of living units (with limit set at the discretion of competent authorities)
    - or a small number of living units in a condominium or co-operative residential property

Treatment of residential mortgages in the IRBA (II)

- PD and LGD are estimated by the credit institution
- But residential mortgages are penalised because the risk curve for the PD estimation is built on a high ‘asset correlation’ factor of 0,15%, the asset correlation factor for revolving and other retail exposures being fixed at only 0,02% (asset correlation is the correlation between the quality of the borrower and the security)
- Together with presumably very low LGD figures (LGD grading), residential mortgage loans will nevertheless end up at less than the standardised 35% weighting
- Supervisors set a 10% LGD floor for the first 3 years

Advanced IRBA: Treatment of commercial mortgages

- Multipurpose commercial RE is treated on the corporate risk curve
- Other commercial mortgages are treated as '**S**pecialised **L**ending'
  - If the credit institution is able to estimate the PD of the borrower, the corporate risk curve applies
  - If the credit institution is not able to estimate the PD of the borrower, the 'slotting criteria approach' applies:
    - 50% weighting assigned only to 'strong' SL exposures with maturity less than 2,5 years
    - Good SL exposures: 75% / 100% weighting following maturity
    - Satisfactory SL exposures: 150% weighting
    - Weak SL exposures: 350% weighting
- Maturity adjustments: no adjustments for loans to borrowers with consolidated sales & assets < 500 Mio Euro at national discretion

Advanced IRBA: Treatment of maturity

- Whereas in the Foundation IRBA, a maturity adjustment of 2,5 years is implicitly assigned to all exposures,
- credit institutions using the Advanced IRBA shall recognise effective maturity for each facility by a maturity adjustment leading to
  - an additional equity charge for loan maturities more than 2,5 years with a maximum equity charge at 5 years maturity
  - an equity relief for loan maturities less than 2,5 years
- Exemption for SME's having consolidated assets & sales with less than 500 million Euro (national discretion)
- Maturity adjustments are penalising long term mortgage lending by multiplying the equity allocation by a factor 1,2 to 1,6 depending on the calculation model and PD

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Advanced IRBA: LGD Grading (for residential & commercial property)

- In order to enable credit institutions to estimate LGD's of mortgage loans at their own, VDH members developed a 'LGD Grading' tool focussing on recovery rates from property repossessions (loss history)
- based on
  - a detailed property type segmentation
  - location risk analysis
  - and a property market forecast

Property Valuation

- Property valuation is recognised as a major risk management tool in order to appropriately reflect the risk sensitivity of mortgage lending
- Valuation rules are drafted as ‘minimum requirements’ which shall apply to all types of properties (residential and commercial) throughout all weighting approaches (standardised, IRBA) covering
  - Definitions of values (market value & mortgage lending value)
  - Monitoring of values and revaluation
  - The qualification of valuers

The valuation approach

In order to receive recognition for real estate collateral, property valuation is mandatory:

– Market Value: the property shall be valued at or less than the market value. The market value definition of the European Valuers' Association 'TEGoVA' will be implemented

– Mortgage Lending Value: In those countries that have laid down rigorous criteria for the assessment of the mortgage lending value in statutory or regulatory provisions, the property may instead be valued at or less than the mortgage lending value. The TEGoVA definition = Directive 2000/12/EC definition will be implemented

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Definitions of values

- **Market value:** MV is the estimated amount for which a property should exchange on the date of valuation between a willing buyer and a willing seller in an arms'-length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently and without compulsion
- **Mortgage lending value:** MLV shall mean the value of the property as determined by a valuer making a prudent assessment of the future marketability of the property by taking into account long-term sustainable aspects of the property, the normal and local market conditions, the current use and alternative appropriate uses of the property. Speculative elements shall not be taken into account in the assessment of the MLV. The MLV shall be documented in a transparent and clear manner

Valuation: Monitoring & Revaluation

All values of properties (residential & commercial) or of real estate collateral have to be monitored frequently and revaluated under certain conditions:

- Monitoring: the value of the property shall be monitored on a frequent basis and at a minimum once every year. More frequent monitoring where the market is subject to significant changes in conditions. Statistical methods may be used
- Revaluation: when information indicates that the value may have declined materially relative to general market prices. For loans > EUR 3 millions or 5% of the bank's own funds, the property shall be evaluated at least every three years

Valuation: Qualification of the valuer

- The property / collateral shall be valued by an independent valuer
- Independent valuer shall mean a person who possesses the necessary qualifications, ability and experience to execute a valuation and who is independent from the credit decision process
  - both external and internal valuers are suitable to be recognised as independent valuers
  - valuation departments of banks have to be organised in a way to ensure their independence from business units

Valuation: Property and Market Rating

- PaM is a standardised procedure aiming to display the sustainable quality of a property in its relevant market
- PaM uses a rating scale which reflects the notching approach of rating agencies. It consists of 10 grades where the 1st grade represents an excellent rating and the 10th the worst one.
- PaM is based on
  - a weighted matrix of market, location, property and cash flow specific criteria being composed by a greater number of sub-criteria
  - combined with a property classification into retail properties, residential properties, offices and warehousing, distribution and production properties

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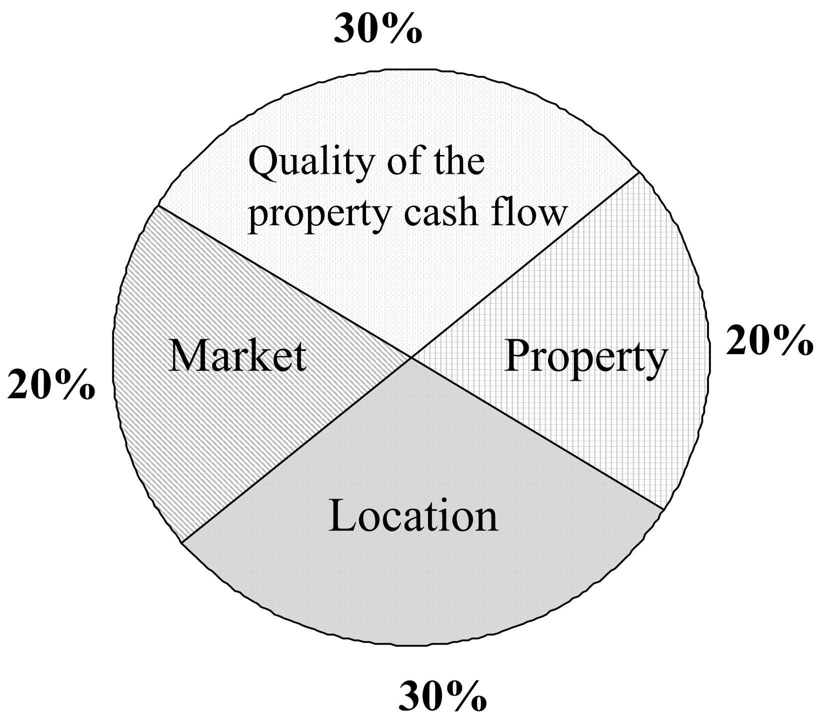
Property and Market Rating: Table of Scales

Aaa to AA3	A1 to A3	Baa1 Baa2	Baa3 to Ba1	Ba2 to Ba3	B1	B2	B3 to Caa			Moody's
AAA to AA-	A+ to A-	BBB+ to BBB	BBB- to BB+	BB to BB-	B+	B	B- to C			S & P

excellent	very good	good	above average	average	below average	poor / special mentioned	very poor / substandard	doubtful	loss	Internal Bank Rating

1	2	3	4	5	6	7	8	9	10	Property and market rating
excellent	very good	good	slightly above average	average	slightly below average	mediocre	poor	very poor	disastrous	

Property and Market Rating:
Matrix of weighted criteria



PaM Rating: Measuring Example

Criteria class ‘location’ consists of 5 sub criteria

- Acts of God
- Suitability of the location for the property type & target occupiers
- Image of the area and location
- Quality of local supply facilities
- Quality of transportation infrastructure
  - Rating 1-2: direct connection to all public transportations, excellent accessibility by car, sufficient number of car parkings
  - Rating 3-4: public transportation within walking distance, average accessibility by car, largely sufficient number of car parkings
  - Rating 6-7: Limited accessibility by public transportation, insufficient parkings
  - Rating 8-9: No public transport within walking distance, constant traffic jams, no car parkings available

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PaM Rating: Scope of application

- Establishment of property risk profiles in the context of securitisation transactions
- Property analysis in the context of investment and disinvestment decisions
- Portfolio management (analysis and control)
- Mortgage loan granting process (risk adjusted pricing)
- Advanced IRBA of Basel II where PaM might be implemented as a rating tool into the rating system which a credit institution intents to apply

The treatment of covered bonds: Definition

- Preferential treatment of CB is linked to:
  - the conditions of Art. 22 par. IV of the UCITS directive
  - eligibility of assets defined by Annex VI of the new CRD
- Eligible assets are
  - exposures to or guaranteed by central governments … , public sector entities, regional governments and local authorities … that qualify for the credit quality assessment step 1 (= 0% risk weight of central gov. and 20% of regional gov. and local authorities)
    - Problem: Rating not lower than AA- required (accession countries ??)
    - Solution: exposures to central & regional governments and local authorities of the EU should be eligible as cover assets regardless of their external rating
  - loans secured by residential real estate (80% LTV)
  - loans secured by commercial real estate (60% LTV)
  - Probably: AAA residential MBS up to 20% of the cover assets and AAA commercial MBS up to 20% of the covered bonds issue

Treatment of Covered Bonds under the Modified Standardised Approach

- The risk weight is assigned on the basis of the risk weight attributed to senior unsecured claims on the institution which issues them (although the covered bond is designed to disconnect the bondholder from the financial strength of the bank)
- Risk weight of claims on institution of 20%, covered bond is weighted at 10% (option I & II)
- Risk weight of claims on institution of 50%, covered bond is weighted at 20% (option II)
- Risk weight of claims on institution of 100%, covered bond is weighted at 50% (option II)

Treatment of covered bonds under the IRB approach

- Foundation IRBA: Weighting is calculated on the basis of the PD of the issuing institution (although the covered bond is designed to disconnect the bondholder from the financial strength of the bank) and the supervisory LGD of the covered bond
  - PD of the bank: see risk curve for institutions (0,03 upwards)
  - LGD: fixed at 12,5% (although mortgage LGD's in Europe are considerably lower, i.e. below 10% - Germany: 6,3%)
- Advanced IRBA: No specific provision

Treatment of covered bonds under the advanced IRB approach ?

- Advanced IRBA covered bond investor has to estimate the PD of the issuer and the LGD value of the cover pool
- Without relevant data about the cover pool, own LGD estimates are impossible
- For methodological reasons, the investor is not allowed to take LGD figures provided by the issuer: no advanced IRB approach ?
- Proposal:
  - Advanced IRB bank shall be allowed to use third party data provided by the covered bond issuer
  - Advanced IRB bank shall be allowed to use the Foundation IRBA for the risk weighting of covered bonds

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Challenge for IRB banks

- Implementation cost of IRB systems / models
- Availability of historical data and track records
  - 5 years historical data for the calculation of PD's
  - 7 years historical data for the calculation of LGD's
  - Shorter periods for IRB implementation purposes
- Implementation of use tests
- Supervisory review process
  - Consistency of the banks' capital position with their overall risk profile and strategy
  - Review of risk management processes and strategies, the timely adoption of appropriate prudential measures if weaknesses or deficiencies are detected

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Challenge for banking supervisors

- Approval of internal rating systems (before 2007)
  - Approval of the borrower's and transaction's risk assessments
  - Control of meaningful risk differentiations by pooling and grouping exposures
  - Implementation of appropriate stress scenarios
  - Appreciation of the predictive power of the models and model validation
- Probable use of the different weighting approaches by German banks
  - IRBA will be used by 39% of the German credit institutions
  - Large majority of banks intent to request the approval of IRBA systems before the end of 2005

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Current state of discussion / Timetable

- Basel II / CRD open technical issues
  - Elimination of expected losses with a need to re-calibrate the risk curves
  - Trading book issues
  - New impact study in year 2005 (pro-cyclicality)
- Open political issue: Attitude of the US Government
- Implementation dates in the EU:
  - 1. January 2007 for Standardised and Foundation IRB approaches
  - 1. January 2008 for the Advanced IRB approach
  - Timetable puts enormous pressure on EU-Commission and European Parliament to solve open issues and to adopt the Directive in due time in order to permit national transformation