

Refinancing of mortgage loans: An international comparison



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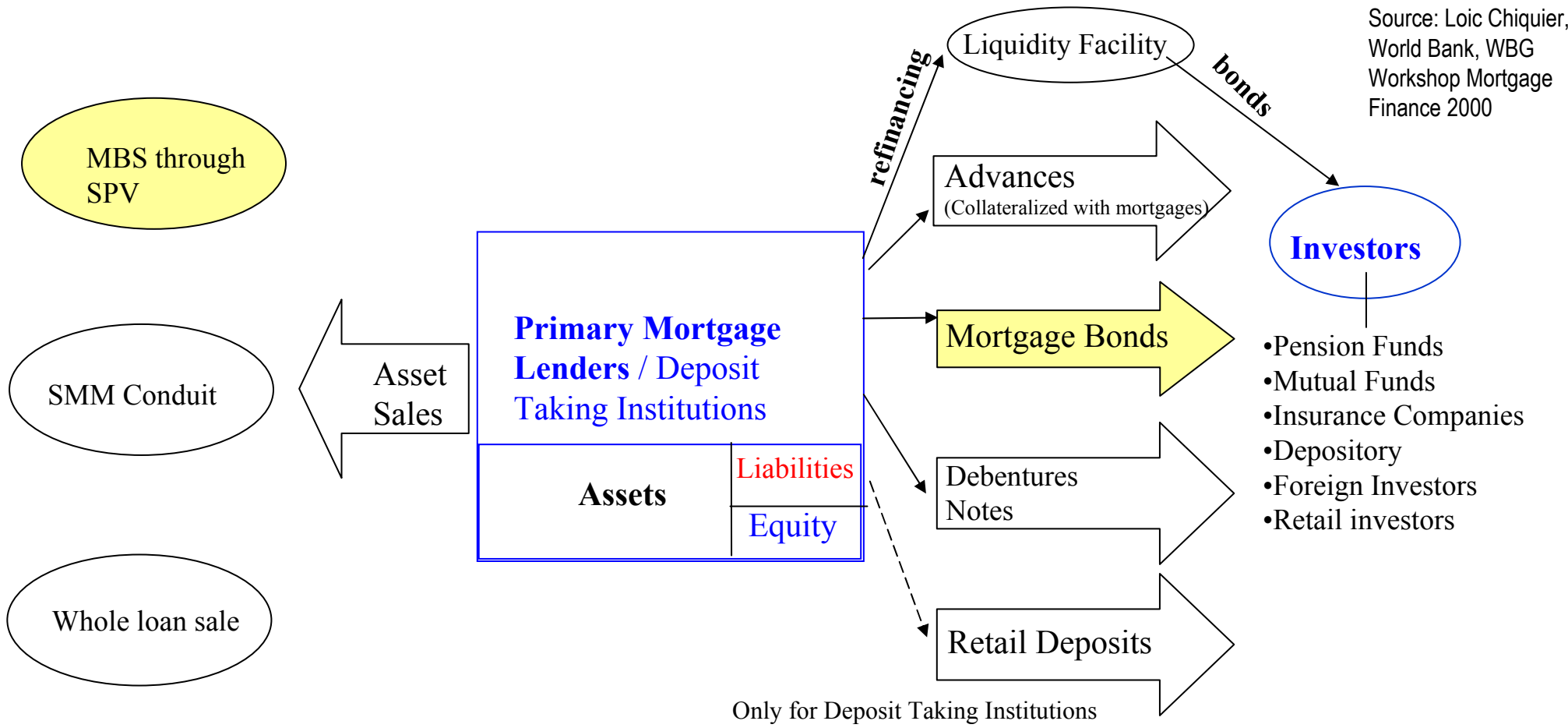
1. Introduction

Introduction

- ⌘ refinancing market for long-term credit capital:
prerequisite for financing real estate investments with outside capital
- ⌘ special importance of the refinancing market for the property markets and the national economy

- ⌘ two fundamental organisational alternatives
 - ⊞ **continental-European mortgage bond system („Pfandbriefsystem“)**
 - ⊞ **anglo-saxon securitization system**

Funding alternatives of a retail lender



2.1 Functions and importance of German type mortgage banks (Hypothekenbanken)

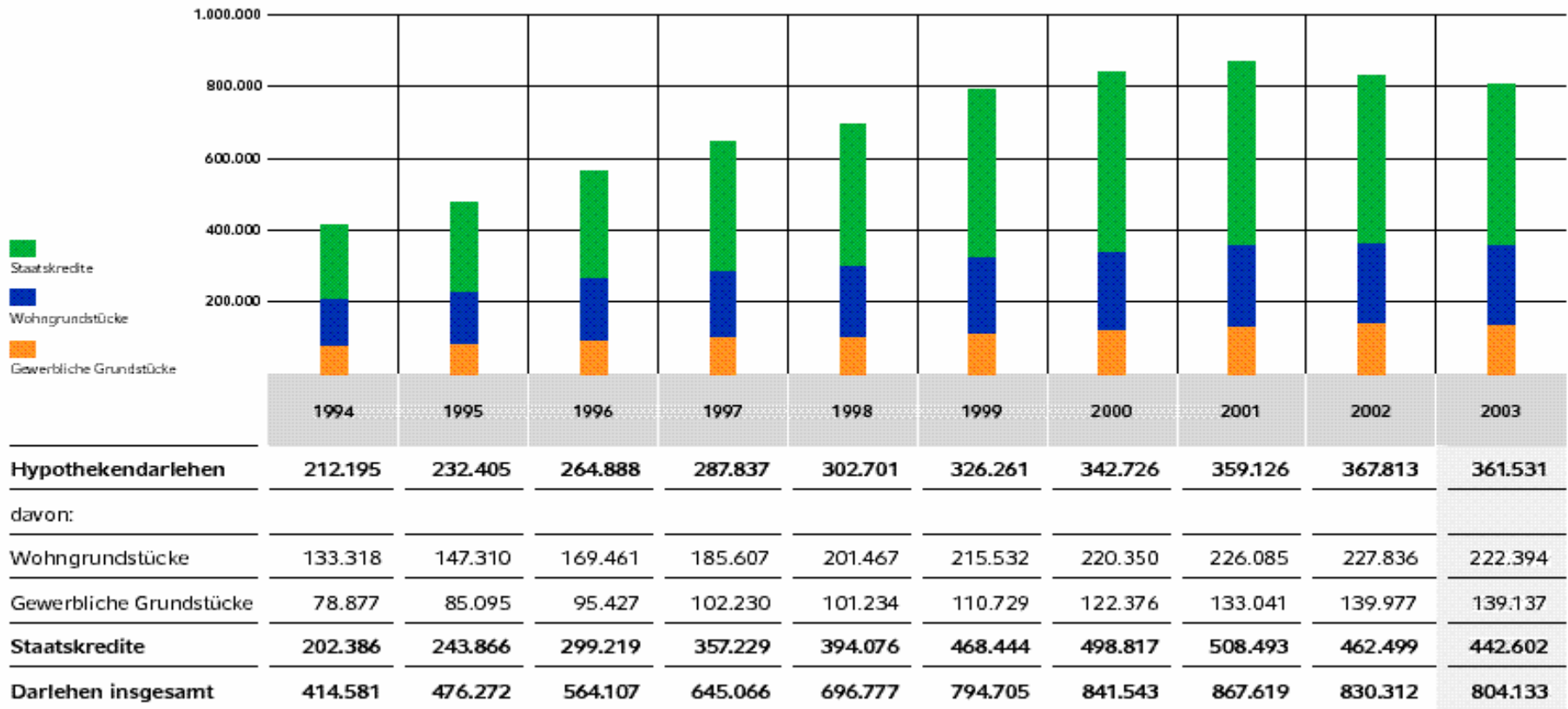
- ⌘ specialised banks
- ⌘ long-term „real loan business“ (Realkreditgeschäft)
- ⌘ state credit: community loan business
- ⌘ assumption: small loss risk

- ⌘ Specialist Bank Principle:
 - ⊞ specialisation advantages
 - ⊞ special competence
 - ⊞ strong market position
- ⌘ refinance of the lendings
 - ⊞ special type of covered mortgage bond: “Pfandbrief”
 - ⊞ usually fixed rate
 - ⊞ no prepayment option
 - ⊞ largest segment of the German bond market

Outstanding loans of private Hypothekenbanken in Germany

Bestand der von Hypothekenbanken gewährten Darlehen 1994–2003

in Mio. €



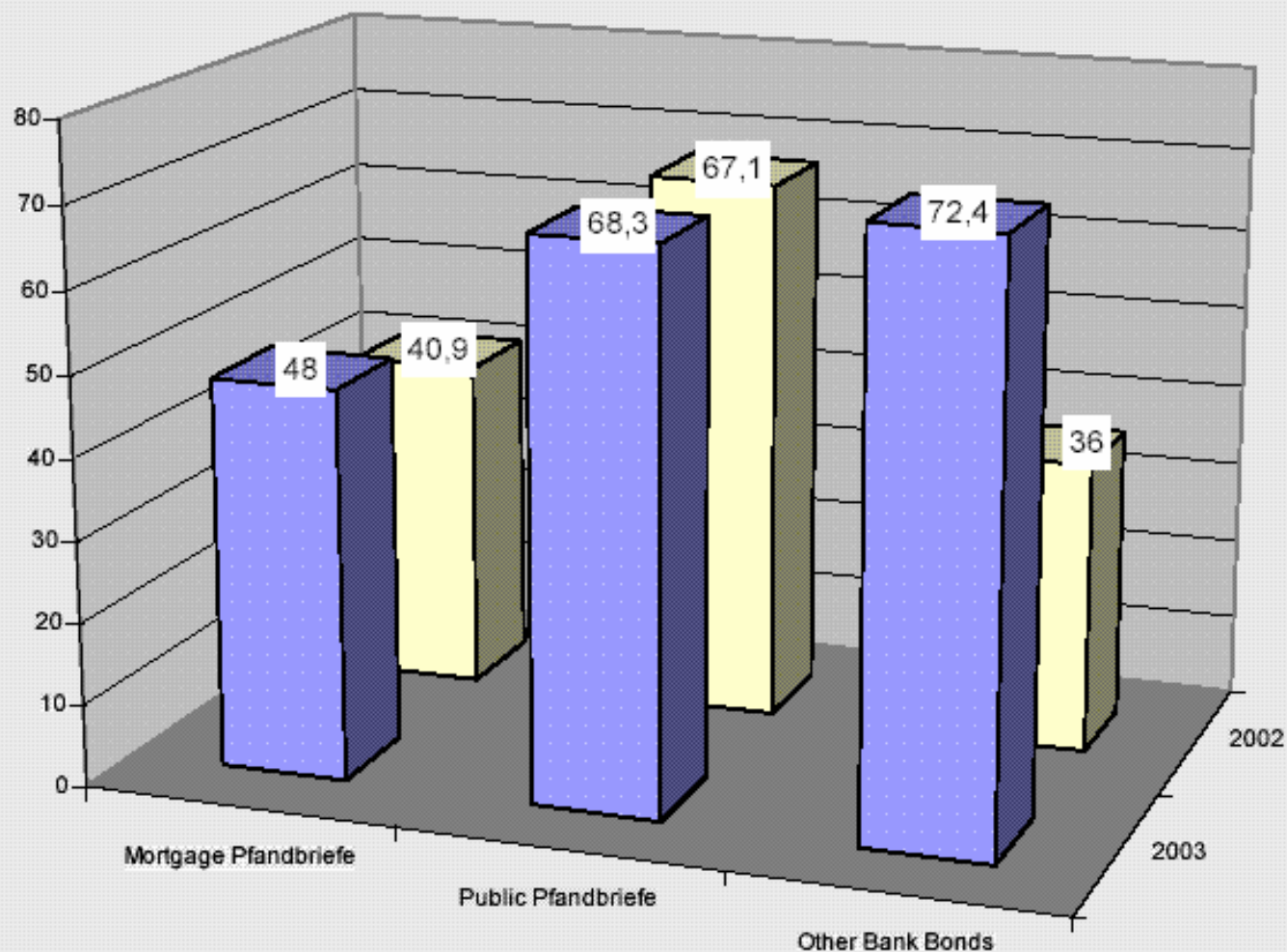
Quelle: VDH-Statistiken

Distribution of market shares in housing finance in Germany

<i>in Prozent</i>	1970	1980	1990	2000	2003
Kreditbanken	4,67	9,68	13,78	21,16	20,49
Großbanken	0,42	4,26	6,84	12,84	11,56
Regional- und sonstige Kreditbanken (einschl. ausländische)	4,10	5,28	6,73	8,31	8,93
Privatbankiers	0,14	0,14	0,20		
Sparkassenorganisation	31,49	29,53	29,83	32,44	32,82
Landesbanken	8,33	8,56	6,67	7,40	7,25
Sparkassen	23,16	20,96	23,16	25,04	25,57
Bausparkassen	16,66	19,67	12,94	9,17	9,43
Private	10,65	13,22	8,97	6,37	6,69
Öffentliche	6,02	6,45	3,97	2,80	2,74
Genossenschaftsverbund	4,88	9,54	11,09	14,11	14,71
Zentralbanken	0,18	0,50	0,24	0,11	0,07
Kreditgenossenschaften	4,70	9,04	10,85	14,00	14,64
Realkreditinstitute	33,02	23,78	21,88	13,94	13,01
Private Hypothekenbanken	11,98	11,83	13,64		
Öffentlich-rechtliche Institute	21,04	11,95	8,25		
Kreditinstitute mit Sonderaufgaben	0,99	0,54	2,22	3,09	3,21
Versicherungsunternehmen	8,30	7,27	8,27	6,10	6,31
Gesamt	100,00	100,00	100,00	100,00	100,00

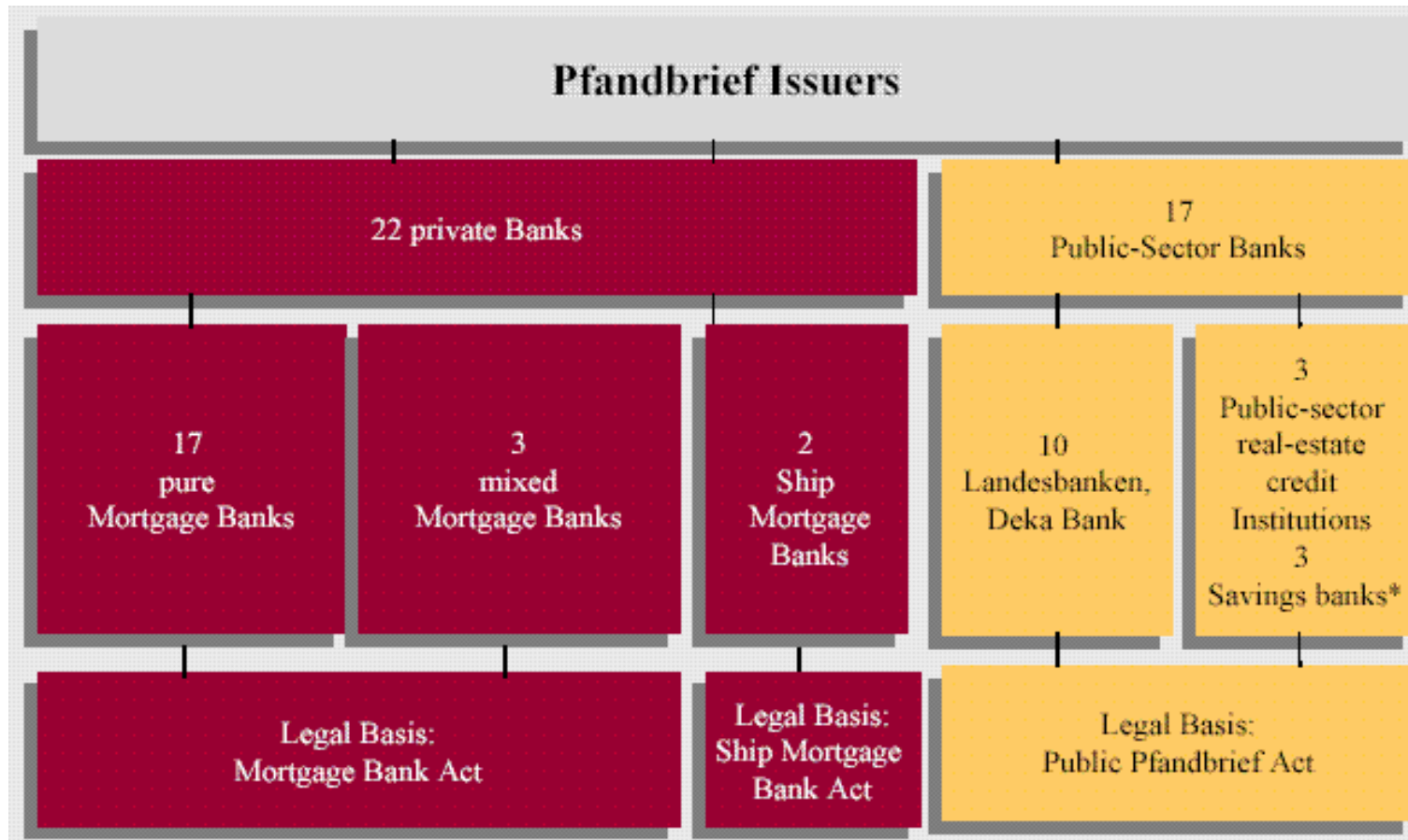
source: Immobilien & Finanzierung, 55. Jg. (2004), S. 284 f.

Mortgage Banks' gross issuance 2003 vs. 2002 (bn €)










Total gross sales: 188.6 bn euros (+ 31% on 144 bn euros in 2002)

Pfandbrief Issuers - overview



Quelle: Verband Deutscher Hypothekenbanken

VDH member banks

<p>Member Institutions of the Association of German Mortgage Banks</p>	 <p>ALLGEMEINE HYPOTHEKENBANK RHEINBODEN AG Member of the DHB Group</p>	 <p>Berlin Hyp Berliner-Transparante Hypothekbank AG</p>	 <p>DEUTSCHE HYPO Deutsche Hypothekbank AG</p>
 <p>DEXIA Hypothekbank Berlin</p>	 <p>Deutsche Genossenschafts- Hypothekbank</p>	 <p>Düsseldorf Hypothekbank AG</p>	 <p>EURO HYPO</p>
 <p>HSH NORDBANK HYPOTHEKENBANK</p>	 <p>Hypo Real Estate AG</p>	 <p>HYPOTHEKENBANK IN ESSEN AG</p>	 <p>HypoVereinsbank</p>
 <p>Karstadt Hypothekbank</p>	 <p>Münchener Hypothekbank eG</p>	 <p>SEB HYP</p>	 <p>M. M. WARBURG & CO. HYPOTHEKENBANK</p>
 <p>WLBANK</p>	 <p>Württembergischer Hypo</p>	 <p>wüstenrot Wüstenrot Hypothekbank AG</p>	<p>Guest member</p>  <p>Deutsche Schiffsbank</p>

2.2 Hypothekenbanken as brokers between capital supply and capital demand

Advantages for an investor (compared with direct loan):

- ⌘ no due diligence assessment of the loan
- ⌘ Pfandbrief: fungible security with established secondary markets
- ⌘ lot size transformation
- ⌘ risk transformation: diversified portfolio

2.3 Measures safeguarding the Pfandbrief creditor



safeguarding measures (1/2)

- ⌘ specialist bank principle
- ⌘ „**coverage principle**“:
„Deckungsprinzip“
- ⌘ priority of the Pfandbrief creditors' claims in case of bankruptcy of the issuer (to be satisfied out of the covering values)
- ⌘ Registration of the covering values into the „**cover register**“ („Deckungsregister“)
- ⌘ Regular examination by a trustee

- ⌘ „**congruent coverage**“ („Refinanzierungskongruenz“):
interest rate changes
 - ☒ accordance of the term structure on the asset and on the liabilities side of the balance sheet: no term transformation
 - ☒ if not: appropriate measures (e.g. swap businesses).

safeguarding measures (2/2)

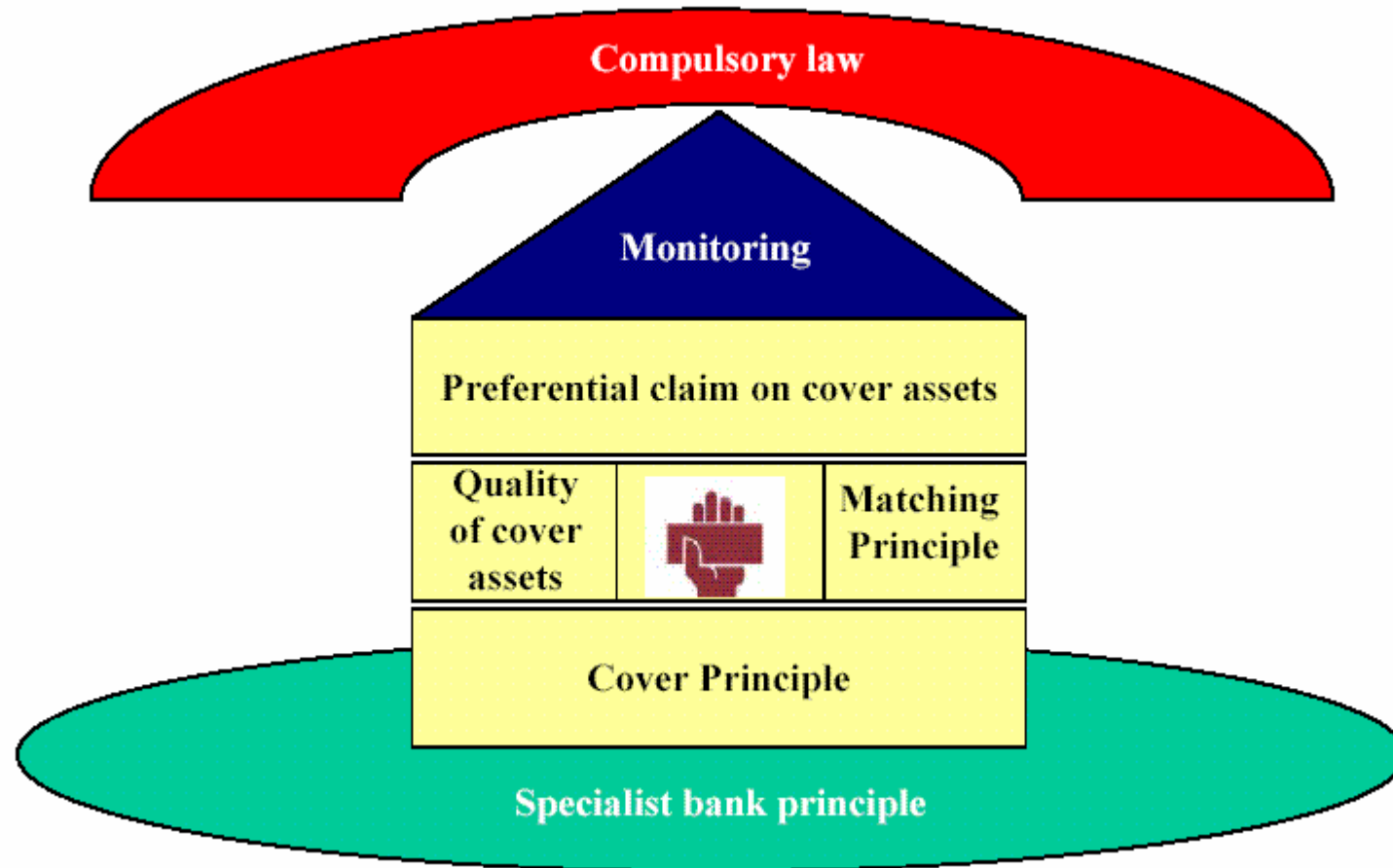
⌘ **quality of the covering values**

- ☒ lending value < market value: sustainable value
- ☒ loan to value ratio: 60 per cent of the market value of the pawned property

⌘ higher equity capital requirement for Hypothekenbanken

⌘ circulating limit: liable equity capital times 60

Pfandbrief - solid shelter for investors



A

balance

P

**regular
collateral values**

mortgage loans

state loans

**substitute collateral
values (< 10%)**

other assets

**Hypotheken-
pfandbriefe**

**Öffentliche
Pfandbriefe**

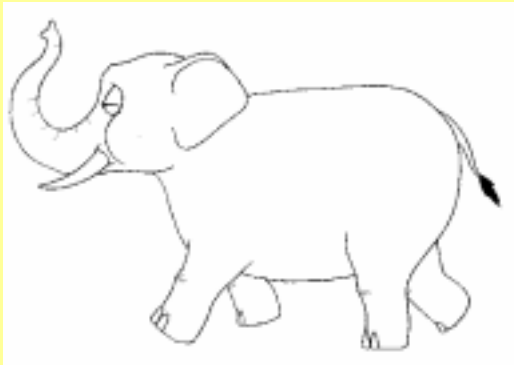
equity capital

**other refinancing
funds**

2.4 Internationalisation of the Pfandbrief

⌘ “Jumbo-Pfandbriefe”

- ⌘ Answer to the segmentation of the Pfandbrief market



- ⌘ fixed interest finally due papers
- ⌘ annual interest payment
- ⌘ emission volume: at least 500 million Euros
- ⌘ consortium of emitting banks: provides for the liquidity and fungibility of the emission

2.5 Amendment of the mortgage bank law

- ⌘ expansion of the range of business within and outside Europe
- ⌘ acceptance of derivatives as covering values
- ⌘ permission to operate additional businesses (e.g. administration and brokerage of mortgage and state loans, real estate agent activity, valuations and location analyses)

2.6 Opening up of the Pfandbrief market?

- ⌘ omission of the emission monopoly of the special banks
- ⌘ Pfandbrief business to be opened up to every credit institution which fulfills **minimum requirements** and possesses a Bafin license
- ⌘ instruments taken over from the existing mortgage bank legislation include loan to value ratio, trustee principle and regular covering mass examinations by the Bafin administration

minimum requirements:

- ⌘ core capital of 25 million Euros
- ⌘ regular emission activity
- ⌘ suitable instruments for the control, monitoring and check of the risks incorporated in the covering masses

2.7 Comparison of the Romanian and the German mortgage bank regulation

	Germany	Romania
Entered into force	1.1.1900	9.12.1999
Specialist bank principle	yes	unclear
Term protected by law	Yes (Pfandbrief)	Unclear (obligatiunile ipotecare)
Refinancable through mortgage bonds	Mortgage and public sector loans	Mortgage loans
Cover register	yes	No
Legally anchored preferential right in bankruptcy	yes	No
Valuation regulations	yes	No
(relative) lending limit for funding through mortgage bonds	60 % of mortgage lending value	60 % of value of portfolio
Absolute lending limit	Basically no (100 % of market value)	No

	Germany	Romania
Limit for lending beyond the cover (volume above the relative lending limit)	20 %	Unlimited
trustee	yes	no
Substitute collateral	yes	no
Limit for substitute collateral	10 %	no
Public-sector bond	Yes	no
Special ranking of cover mortgages	No	no
Specialist public supervision	Yes	no
Art. 22 (4) UCITS directive fulfilled	yes	no

Comparison of Mortgage Bank and „Pfandbrief“ laws in Romania with German legislation (24.9.2002)
 Quelle: Verband Deutscher Hypothekenbanken 22

What all
bond investors
should know about
Pfandbriefe



www.pfandbrief.org

Association of German
Mortgage Banks (VDH)
Berlin, Germany
tel. +49 30 20915-340
e-mail: info@pfandbrief.org

Institutional fixed-income investors can quickly
access essential information at the official
website. For example about **SAFETY, YIELD,
LIQUIDITY.**

The German Pfandbrief – Europe's biggest bond
market. An asset class well worth looking into.



The Pfandbrief
ISSUED BY GERMANY'S MORTGAGE BANKS

3. Alternative refinancing by securitization of claims

- ⌘ Mortgage backed securities (MBS): covered bonds which securitize real estate credits
- ⌘ ability to repay: stream of principal and interest generated by the underlying assets

- ⌘ role of banks: no more risk takers, but mere mediators (financial intermediaries)
- ⌘ U.S. mortgage market: federally promoted institutes Freddie Mae and Fannie Mae most important emitters of MBS

**Asset-Backed Securities
(ABS i.w.S.)**

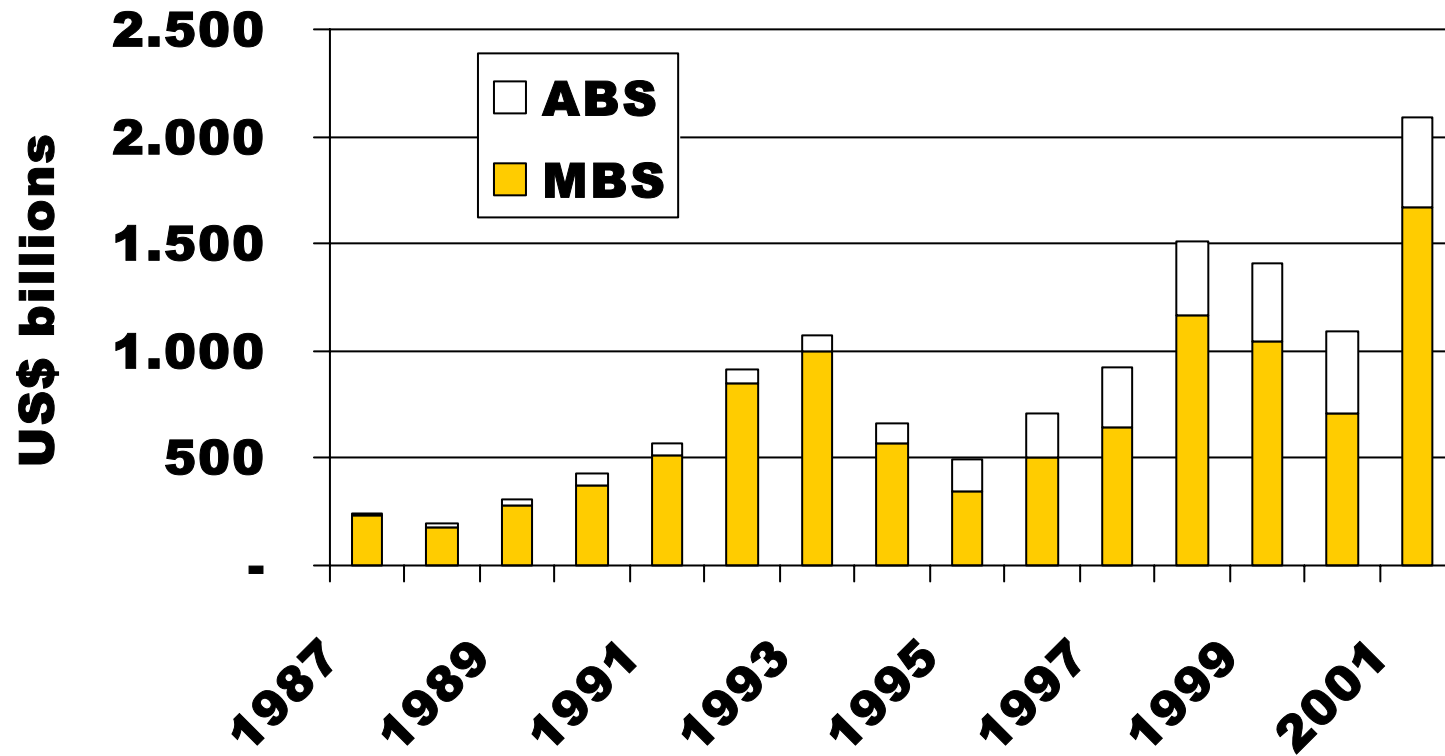
**Mortgage-Backed Securities
(MBS)**

- residential mortgage credits
- commercial mortgage credits

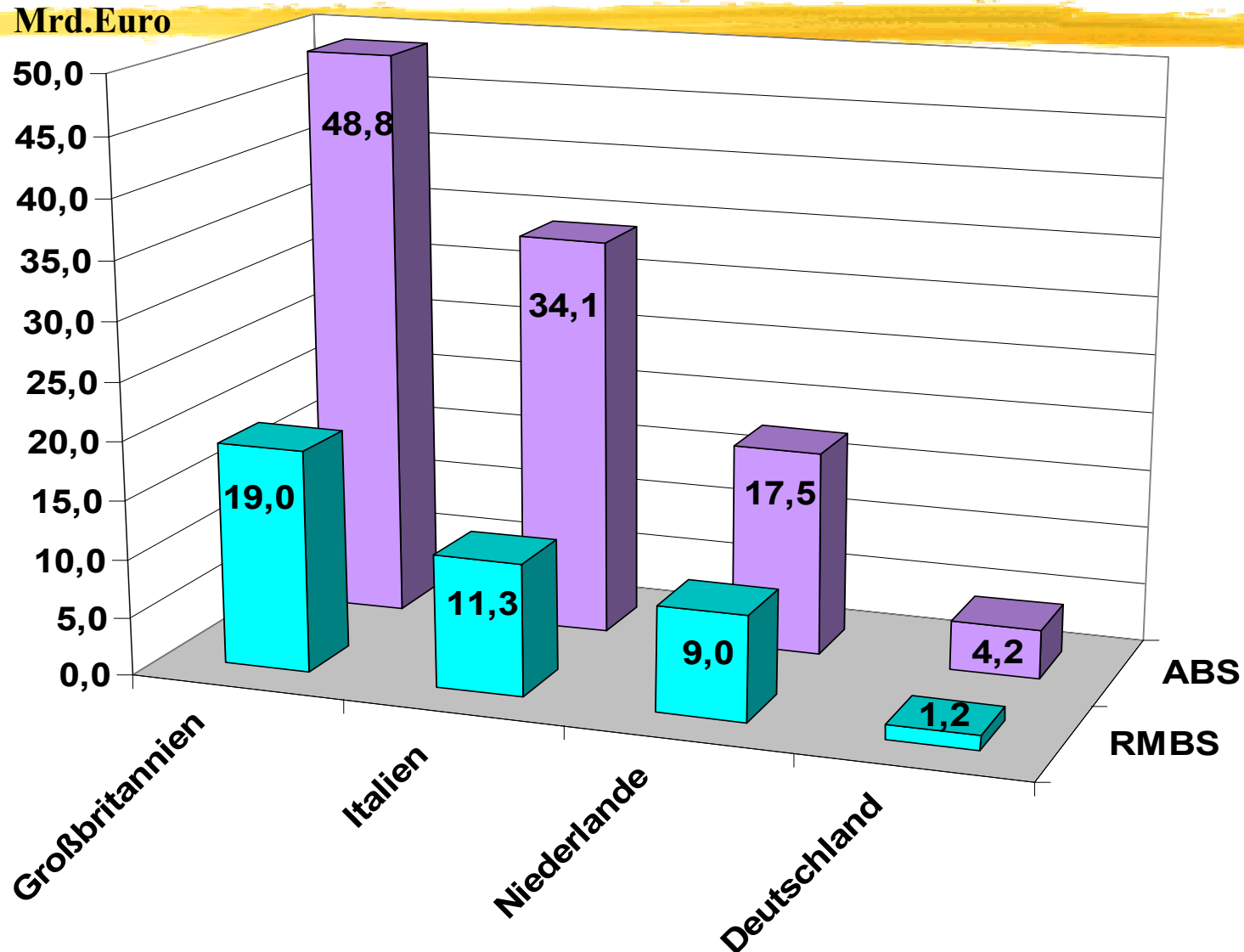
**Asset-Backed Securities
(Non-MBS, ABS i.e.S.)**

- car finance
- credit cards
- commercial credit
- leasing rates
- ...

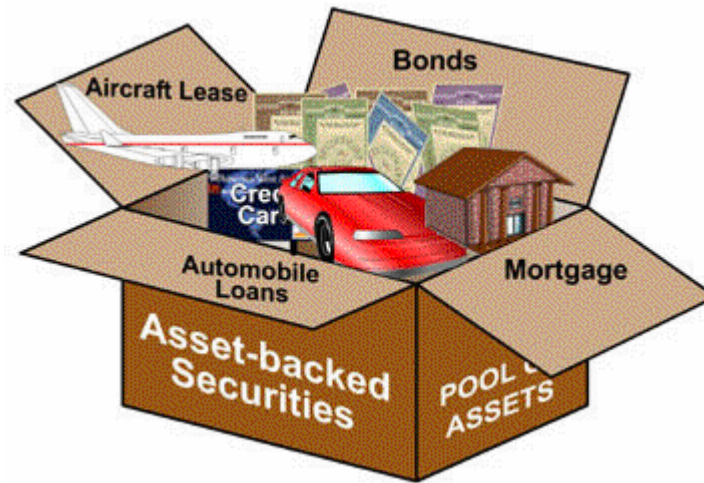
U.S. Securitization Activity, 1987-2001



European Securitization - 2001 by Country of Collateral



3.1 The basic structure of the securitization of claims



The Originators' perspective

⌘ real estate financing institution, e.g. bank, insurance, building society

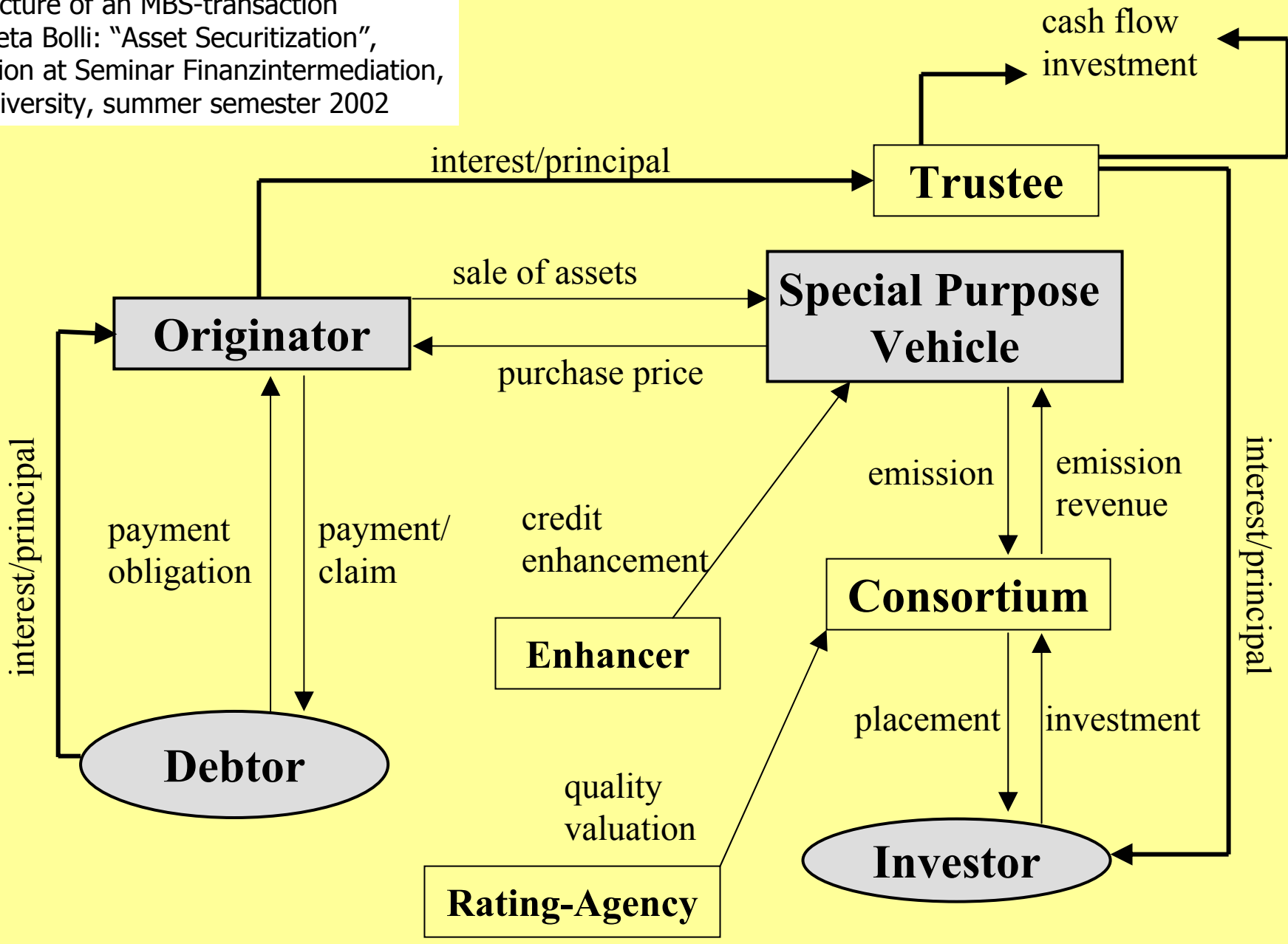
⌘ needs favourable credit rating and widespread portfolio of homogeneous mortgage credits

⌘ defines a bundle of mortgage credits for the purpose of outsourcing it from his balance

☒ capital is liquidized

☒ risk transfer

basic structure of an MBS-transaction
source: Leta Bolli: "Asset Securitization",
presentation at Seminar Finanzintermediation,
Zürich University, summer semester 2002



3.2 The role of the rating agency

- ⌘ first-class rating indispensable
- ⌘ agency examines adequacy of the issuing price of the bonds
- ⌘ repayment stream: expected value and statistical deviation
- ⌘ role of credit enhancements

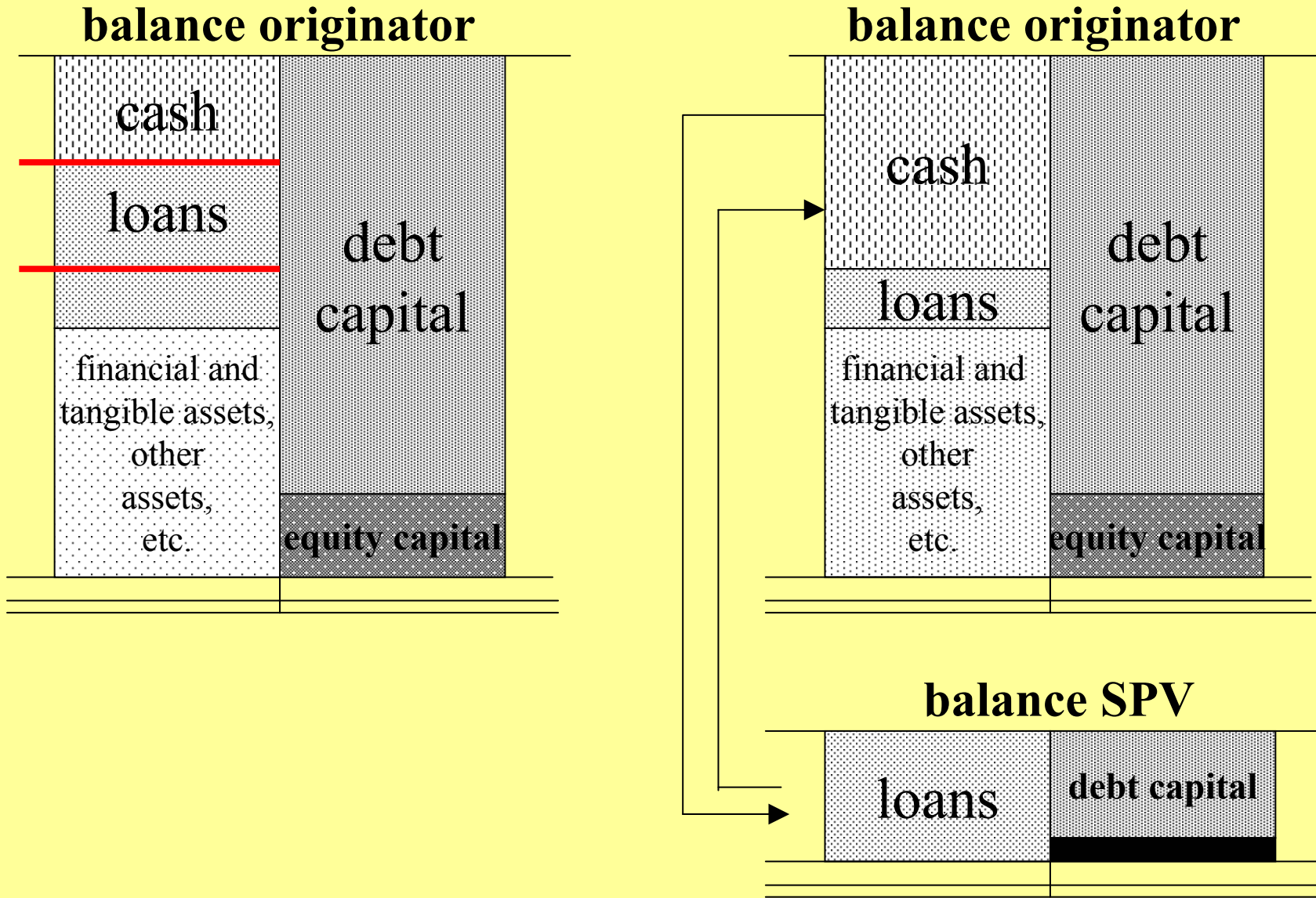
3.3 Costs und treatment in the balance sheet

⌘ The costs of such securitization transactions are not to be neglected.

⌘ non-recurrent costs for the preparation and structuring of the transaction, emission and listing costs

⌘ current costs: for trustees, guarantees, rating agencies, bank consortium

consequences of an MBS-transaction on the balance sheet
source: Leta Bolli: "Asset Securitization", presentation at
Seminar Finanzinter-mediation, Zürich University,
summer semester 2002



3.4 The investors' perspective on MBS

- ⌘ attractive rate of return
- ⌘ estimation of the failure risk by rating procedures

- ⌘ access to a diversified portfolio
- ⌘ fungibility because of securitization (but secondary markets still underdeveloped)

3.5 Comparison with the German Pfandbrief system

- ⌘ two competing refinancing instruments
- ⌘ MBS as supervision arbitrage?

Hypothekenbank as a protective institution



⌘ **Pfandbrief emission:**
entire credit risk is with the mortgage bank, whole emitter portfolio of mortgage credits serves as „Deckungsmasse“

⌘ **MBS transaction:** only specific credit bundle (repayment stream) serves as collateral for the outstanding bonds

Control and safeguard instruments

Pfandbrief:

- ⌘ numerous regulatory safeguard instruments

MBS:

- ⌘ no regulatory safeguard instruments (law, state supervision)
- ⌘ investors need to rely upon the rating
- ⌘ intransparent market for MBS emissions

Pfandbriefe versus MBS

MBS:

- ⌘ more flexible and closer to the market requirements,
- ⌘ appropriate for the securitization of credits which do not fulfill high quality standards,
- ⌘ complex product, needs explanation
- ⌘ monitoring-intensive investment

Pfandbrief:

- ⌘ Superiority of the Pfandbrief as far as the failure risk is concerned: high quality standard of the individual covering credit
- ⌘ smoothly working secondary markets
- ⌘ homogeneity and transparency of the Pfandbrief system: saves information costs



4. The costly prepayment option

Different usances

Germany:

- ⌘ prepayment of a mortgage loan either excluded or sanctioned
- ⌘ debtors stuck to fixed interest rate
- ⌘ usually no prepayment option on the refinancing side

U.S.:

- ⌘ prepayment option
- ⌘ used by many debtors when interest rates fall
- ⌘ prepayment option usually also on the refinancing side
- ⌘ There is no such thing as a free lunch
 - ⊞ compensation: higher interest rate level on both sides
 - ⊞ increases with higher interest rate volatility
 - ⊞ Are capital markets working efficiently?
 - ⊞ If yes, debtors should be indifferent

Superior efficiency of the German institutions?

	Unadjusted price		Adjusted for			
	interest	fee	Refinance	Credit risk	Value of prepayment option	Adjusted price
Denmark	5,10	0,09	3,83	0,06	0,46	0,84
Germany	4,77	0,07	3,99	0,09	0,06	0,70
France	4,93	0,17	3,79	0,13	0,29	0,89
U.K.	4,80	0,07	3,60	0,12	0,01	1,15
Italien	4,68	0,04	3,00	0,19	0,20	1,34
Netherlands	4,39	0,16	3,30	0,08	0,20	0,97
Portugal	3,53	0,06	2,46	0,17	0,00	0,95
Spain	3,44	0,11	2,40	0,12	0,00	1,03

Unpleasant choice?

Pro prepayment option:

- ⌘ consumerism
- ⌘ supposed macro-economic benefits
- ⌘ increases competition

Against prepayment option:

- ⌘ monitoring intensive, unfair
- ⌘ high interest rate premiums in volatile capital markets, e.g. Romania
- ⌘ difficult calculation of the option prices
- ⌘ considerable administrative costs

Efficient solution:

- let both arrangements compete
- free choice of debtors