> Risk Management at Erste Bank Group

- André Horovitz, CRO Erste Bank
- > Vienna, 17 September 2003



# Synopsis of the CRO function

- » Optimize economic capital allocation throughout Group
- » Safeguard Group's risk position through:
  - » Risk policy formulation & implementation
  - » Risk limits allocation (ex ante & ex post)
  - » Limits utilization monitoring

> Credit Risk



# Group credit risk profile - regional diversification

- » Group credit risk profile is typical for a CE retail banking franchise
- » Regional Structure clear focus on core markets:
  - »52 % Austria
  - » 21 % Central Europe
  - » 24 % Industrialized Countries:
    - » driven mainly by interbank placements
  - » 3 % Emerging markets and Less Developed Countries:
    - » minimal share of risk with declining tendency

# Group credit risk profile - regional diversification

## H1 2003

	Total outstanding													
in EUR million	Low risk	Management attention	Substandard	Doubtful	Total									
Austria	47.135	9.321	3.570	3.185	63.211									
Industrialised Countries	27.689	865	217	245	29.016									
Extended Home Market	22.883	1.310	331	678	25.202									
Croatia	2.046	105	140	73	2.364									
Slovak Republic	3.841	309	17	119	4.286									
Slovenia	708	33	5	39	784									
Czech Republic	14.193	288	137	397	15.016									
Hungary	2.095	575	32	50	2.752									
<b>Emerging Markets</b>	2.538	521	24	95	3.179									
Asia	947	36	2	29	1.014									
Latin America	578	118	13	25	734									
Russia	28	112	1	3	144									
other	985	255	8	38	1.286									
LDC's	99	19	18	23	159									
Total	100.345	12.036	4.160	4.226	120.767									

Group credit risk profile - segmental by industry class

- » High share of Financial Institutions (35 %) and Public Sector (14 %) exposure
  - » due to inclusion of treasury investments
- » Private sector (15 %) underscores retail focus of Erste Bank Group
- » Real estate (9%) contains diversified types of borrowers and therefore does not constitute a significant risk concentration

# Group credit risk profile - segmental by industry class

## H1 2003

	Total Outstanding											
in EUR million	Low risk	Management attention	Substandard	Doubtful	Total							
Banking and insurance	41.931	719	82	69	42.801							
Private households	16.371	1.110	371	799	18.651							
Public administration	16.825	137	9	36	17.006							
Real estate	6.403	2.568	716	636	10.323							
Manufacturing	4.479	1.751	880	554	7.665							
Trade	4.175	1.639	783	701	7.298							
Construction	2.743	1.039	333	368	4.483							
Hotels and restaurants	997	898	440	424	2.759							
Transport and communication	1.532	693	216	195	2.636							
Other (industries < 2% of total)	4.889	1.481	329	445	7.144							
Total	100.345	12.036	4.160	4.226	120.767							

## Group credit risk profile - segmental structure

#### » 64 % of credit risk in core retail business:

» Savings Banks
25 %

» Retail 20 %

» Central Europe
19 %

>

# Group credit risk profile – segmental structure

## H1 2003

	Total Outstanding												
in EUR million	Low risk	Management attention	Substandard	Doubtful	Total								
Savings Banks	21.916	4.355	1.764	1.643	29.678								
Retail and Real Estate	18.884	3.056	998	1.116	24.054								
Large Corporates	6.815	2.678	933	670	11.096								
Trading and Investment Banking	18.257	158	0	1	18.415								
Austria total	65.872	10.247	3.695	3.429	83.243								
Ceska Sporitelna	14.713	182	124	410	15.429								
Slovenska Sporitelna	3.867	290	16	116	4.290								
Erste Bank Hungary	1.048	395	31	19	1.493								
Erste & Steiermärkische Bank + Rijecka Banka	1.607	70	143	60	1.881								
Central Europe total	21.235	938	314	606	23.092								
International Business	13.045	852	151	192	14.240								
Corporate Center	192	0	0	0	192								
Total	100.345	12.036	4.160	4.226	120.767								

## NPL coverage ratios

#### H1 2003

		To	otal Outstandi					
in EUR million	Lowrisk	Management attention	Substandard	Doubtful	Total	Non- performing loans	Risk provisions	NPL coverage
Austria total	65.872	10.247	3.695	3.429	83.243	3.429	2.112	62%
Central Europe total	21.235	938	314	606	23.092	606	806	133%
International Business	13.045	852	151	192	14.240	192	138	<b>72</b> %
Corporate Center	192	0	0	0	192	0	0	
Total	100.345	12.036	4.160	4.226	120.767	4.226	3.056	<b>72</b> %

- » NPL coverage ratios mimic the distinctly different economic stages of countries in our core markets
- » NPL coverage ratios do not reflect the value of collateral
- » Risk provisions forecast for the year 2003 remain flat

> Market Risk



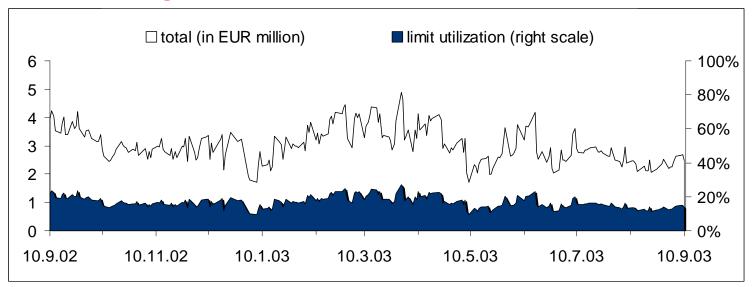
>

# Low limit utilization reflects conservative approach to risk taking in trading

#### Market-value-at-risk per end of July 2003:

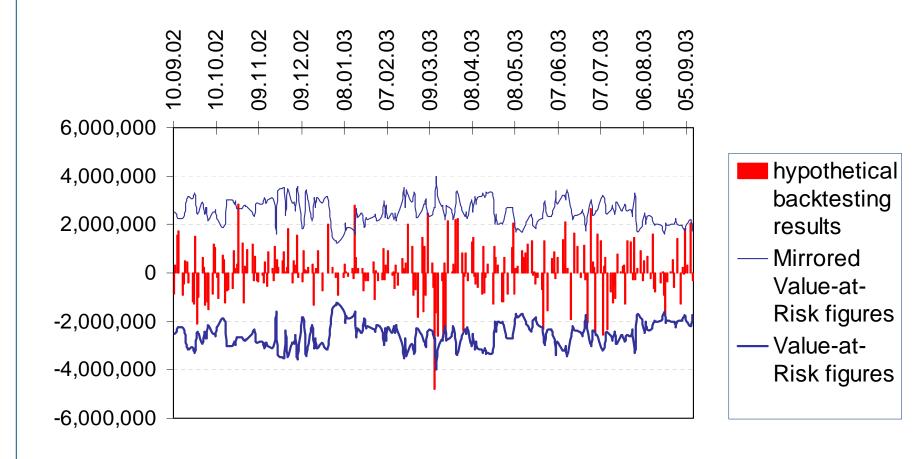
in EUR million	total	interest rate	currencies	equities	commodities	volatility
Core Group	14.51	13.22	0.70	4.64	0.10	1.62
Trading Book	2.51	1.67	0.74	0.92	0.07	1.59
Banking Book	14.05	14.17	0.07	2.57	0.03	0.07
Hedge Funds	1.60	-	-	1.60	-	-

### **EOD Trading book-Value-at-Risk and limit utilization:**



## Trading book VAR figures

## Regulatory reporting vs. hypothetical backtesting results in EUR



#### Regulatory capital multiplier was reduced to 3.0

- » Model based on historical simulations using KVAR+
- » Covers trading & banking books (incl. Foreign subsidiaries)
- » No surcharges due to hypothetical backtesting overruns 2 cases of theoretical loss exceeding 99% VAR over a rolling 250 days period

## Limit procedures and position flow processes

#### » Procedures concerning position limit approval/review:

- » Dual limit structure (VaR and sensitivity limits)
- » Combination of top down and bottom up approach
- » Global market risk limit allocated by the Risk Committee congruent with economic capital utilization
- » Market Risk Committee assigns global market risk VAR limits to risk taking units. Sensitivity limits are allocated for trading units consistent with VAR limits.
- » Market risk limit structure: Value-at-Risk limits, Sensitivity limits, Stop loss limits, Nominal limits

#### » Position flow processes:

- » centralized real-time position keeping
- » common trading systems
- » real-time interfaces

> Operational Risk



# Operational Risk Control

» Independent unit "Group Operational Risk Control" as part of "Group Risk Control"

#### » Quantitative approach

- » Loss data collection
- » Statistical modelling (loss distribution approach)

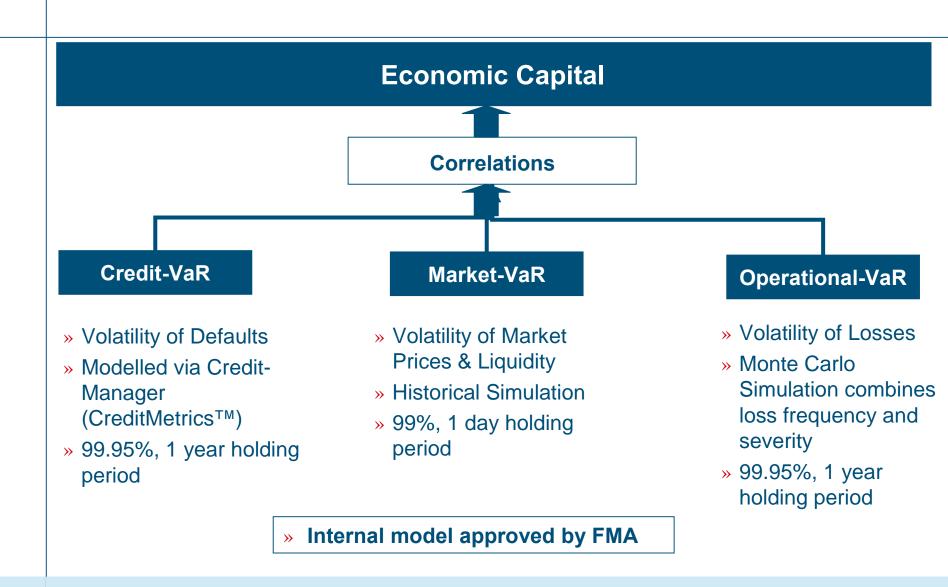
#### » Qualitative approach

» Risk Assessments

# Operational Risk Loss Data Collection

- » Loss data collection in Erste Bank Vienna since mid 2001 (Loss time series since 1998)
- » Loss data collection in ČS and savings banks since begin 2002
- » Goal: Loss data collection in all major subsidiaries by begin of 2004
- » Currently use of Excel-sheet and Access-database, a web-based tool is under development (planned for 1st half 2004)

## Economic Capital - where it all fits together



>

# Capital Utilization - a quarterly review

30.06.2003

**EUR** mio.

Risk leve	95%	Limit
-----------	-----	-------

Capacity to cover risk 95%

Probability in %

Probability in years

Economic Capital - actual risk (99,95%)

Economic Capital - Limit (99,95%)

Capital (excl. profit for the year)

Capital (incl. reserves)

443.8

93.9%

16.3

2,122.8

2,161.3

2,944.8

3,359.9

> Erste Bank & Basel II



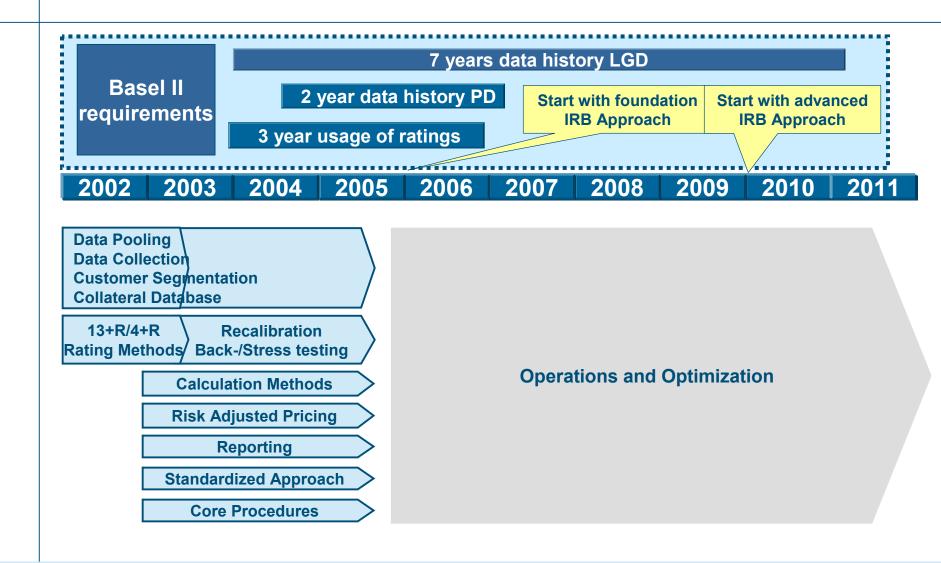
# Basel II is a Group Project

- » Erste Bank strives to qualify for the IRB approach for credit risk (commencing with the foundation setting)
- » Opt for the AMA OpRisk
- » Erste Bank treats Basel II as a group project
  - hence all Group entities follow a joint path towards the project's completion
- » Implementation under methodological leadership of Erste Bank consideration of local conditions/ regulatory specifics

> Appendix



## Project Plan for Basel II

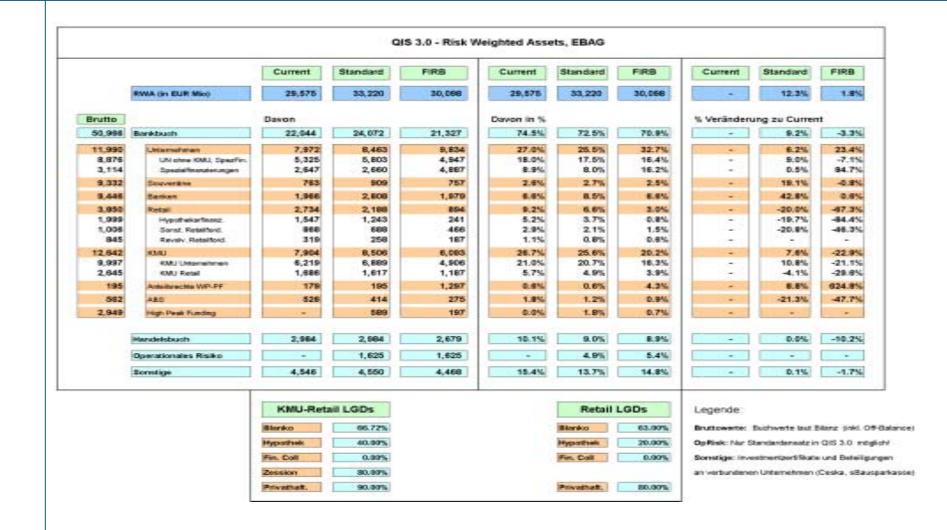


## Impact of Basel II on Credit Risk Management

- » Introduction of standardized rating systems for all client segments
- » Data collection and data pooling to meet the IRB approach (internal ratings-based approach)
  - » foundation approach
    - bank's internal assessment of PD (Probability of default)
    - supervisory regulation for LGD (Loss given default) and EAD (Exposure at default)
  - » advanced approach for retail portfolio
    - bank's internal assessments of PD, LGD and EAD
  - » advanced approach for the rest of the portfolio as soon as the required data series are available
- » Adoption of the organizational structure and process according to Basel II requirements

(e.g. independent credit risk management to examine rating-systems and methodologies)

## QIS 3.0 - Results for Erste Bank AG



#### Customer Classes in EB

## 5 Customer classes according to Basel II requirements

#### 1. Retail:

- » Private individuals: employed and self-employed persons (e.g. freelancers, sole traders, farmers)
- » Non private entities: SMEs (Small and Medium Enterprises) Exposure less €1 Million and turnover less €5 Million for SME and self-employed persons

#### 2. Corporates:

- » "normal corporate" lendings (includes special methods as for Public houses construction, leasing, insurance, …)
- » 5 classes for Specialized lendings (Project finance, Income producing real estate, Object finance, Commodities finance, high volaltility commercial real estate),
- 3. Sovereigns: national / regional / local
- 4. Banks: Banks / PSE (Public Sector Entities) / Security firms
- 5. Equity: investment book

## Rating Systems in EB

#### » Retail: inputs for rating systems

- » for Private individuals: personal data, household budget, behaviour scoring, external informations
- » for employed persons and SMEs: hard facts (key financial data) soft facts, behaviour scoring

Result: Customer risk grade and Facility risk grade => Final risk grade >> Corporate:

- » Systems based on SABINE-Tool (ann. reports analysis) financial ratios combined with soft facts
- » Special methods for specialized lendings
- » ECAI External credit assessment institutions / KMV
- » Sovereign: Systems for developed and emerging markets / External credit assessment institutions / Expert opinion
- » Banks: Systems for banks / External credit assessment institutions / Expert opinion
- » Equity:

Erste Bank Private Cust.	Erste Bank Other Cust.	Standard & Poor's	S&P One-Year Default Rates	Standard & Poor's Ratings Definitions					
	1	AAA	0,00	An obligor rated "AAA" has EXTREMELY STRONG capacity to meet its financial commitments. "AAA" is the highest Issuer Credit Rating assigned by Standard & Poor`s.					
		AA+		An obligor rated "AA" has VERY STRONG capacity to					
	2	<b>AA</b>	0,01	meet its financial commitments. It differs from the highest rated oligors only in small degree.					
		<b>AA</b> -		gea. ratea engele em y em an aeg.ee.					
A		<b>A</b> +		An obligor rated "A" has STRONG capacity to meet its financial commitments but is somewhat more					
	3	A	0,05	susceptible to the adverse effects of changes in circumstances and economic conditions than obligors in					
				higher-rated categories.					
4a	4a	BBB+		An obligor rated "BBB" has ADEQUATE capacity to meet its financial commitments. However, adverse economic					
	4b	ввв	0,37	conditions or changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its					
	4c	BBB-		financial commitments.					
	5a	BB+	0,52	An obligor rated "BB" is LESS VULNERABLE in the near term than other lower-rated obligors. However, it faces					
В	5b	ВВ	1,16	major ongoing uncertainies and exposure to adverse business, financial, or economic conditions which could					
	5c	BB-	2,07	lead to the obligor's inadequate capacity to meet its financial commitments.					
	6a	B+	3,29	An obligor rated "B" is MORE VULNERABLE than the obligors rated "BB", but the obligor currently has the					
C	6b	В	9,31	capacity to meet its financial commitments. Adverse business, financial or economic conditions will likely					
	7	B-	13,15	impair the obligor's capacity or willingness to meet its financial commitments.					
D	8	ccc	27,87	An obligor rated "CCC" is CURRENTLY VULNERABLE, and is dependent upon favorable business, financial and economic conditions to meet ist financial commitments.					
		cc		An obligor rated "CC" is CURRENTLY HIGHLY- VULNERABLE.					
R	R	D							

## Customer Classes in Erste Bank Group

Ra	tingmethod		Customerclasse									asses	S																		
short term	long term	Re	tail								Corp	orat	е							Sc	over	reigr	า			Ins	stitu	tior	1	Eq	uity
		Priv	NPr		Corporates general						Spec	cialis	ed Le	ending	js	Ass	BaSec					mixed	Bank		other		mixed	Equ	oth		
		Ind.	Ent.	gen	Publ.	Prop	Le	Ins	oth	mixed	Proj	InPro	Obj	Com	HiVo	mixed	ABS	mixed				Mult	oth			Pub	Sec	oth			T
				eral	hou.	Man	as	ura			Fin.	Real	Fin	Fin.	Com.							Dev				Sec	urit.				
					cons		ing	nce				Est.			R.Est							Ban				Ent.	Firm				
PRK	Privates																														
PAU	KOFB flat rate																														
EAR	KOFB prof./loss-Statem.																														
BIL	KOFB double bookkeep.			f																											
	CORP turnover < x Mio.			1	1	1																								1	
CORPALL	SAB-Corpor. general										]																				
CORPWB	SAB-Pub. hous. constr.																														
CORPHVW	SAB-Prop. Managem.					1				<b>f</b>	]																			1	
CORPL	SAB-Leasing Company						匍				]																			f	
CORPV	SAB-Insurance Comp.										]																			1	
CORPSON	SAB-other									<b>f</b>																				1	
SLPF	SL-Project Finance										1					1 1														1	
SLIPRE	SL-Inc. Prod. Real Est.														1	1 1														1	
SLOF	SL-Object Finance																													f	
SLCF	SL-Commodit. Finance													f		a a			Ì						i –						П
KMVPR	Private Firms / Abroad			f						f f																				f	
KMVPU	Public Firms / Abroad										]																			1	
LRIL	Developed Markets																														
LREM	Emerging Markets																		1											T	T
GEM	Municipalities																														T
CARLA	Banks								1		]												1	1 1	1					1	
ECAI	Extern. Credit Ass. Inst.							鄶	f		]						f		匍	f	f		f	f f	1	匍	f	f			
EXOP	Expert opinion			f	f	f	fil					f		f	匍				1	f		f	f		f	f	f				

Private individuals/profession: 1. employed persons, into education, non and part-time employees, unknown

2. self-employed persons (freelancer, craftsmen, farmer)

Corporates:

private individuals (self-employed persons) and non private entities

Note:

Default value