

# MISYS Risk Forum

ZKB Presentation  
Actual Risk Vision Environment

10:00 – 11:00

London, September 2, 2009  
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# Agenda

- Portrait of ZKB
- Summary on where Risk Vision is up to
- Outlook
- How Risk Vision helped ZKB to cope with the Financial Crisis

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# Portrait of the Zürcher Kantonalbank (1/3)

Source: ZKB Annual Report 2008

■ Balance sheet total	113,2 bn CHF	+8,9%
■ Customer lending total	64,4 bn CHF	+6,0%
– of which Mortgages	53,9 bn CHF	+3,3%
■ Lending to financial institutions	16,3 bn CHF	-30,6%
■ Net Equity	7,4 bn CHF	+1,4%
■ Consolidated net income	503,0 m CHF	-40,4%
■ Assets under management	121,5 bn CHF	+2,4%
■ Employees	ø 4'685	+5,4%
■ Ratings: S & P / Moody's / Fitch	AAA / Aaa / AAA	
■ Branches	104	
■ Established	1870	

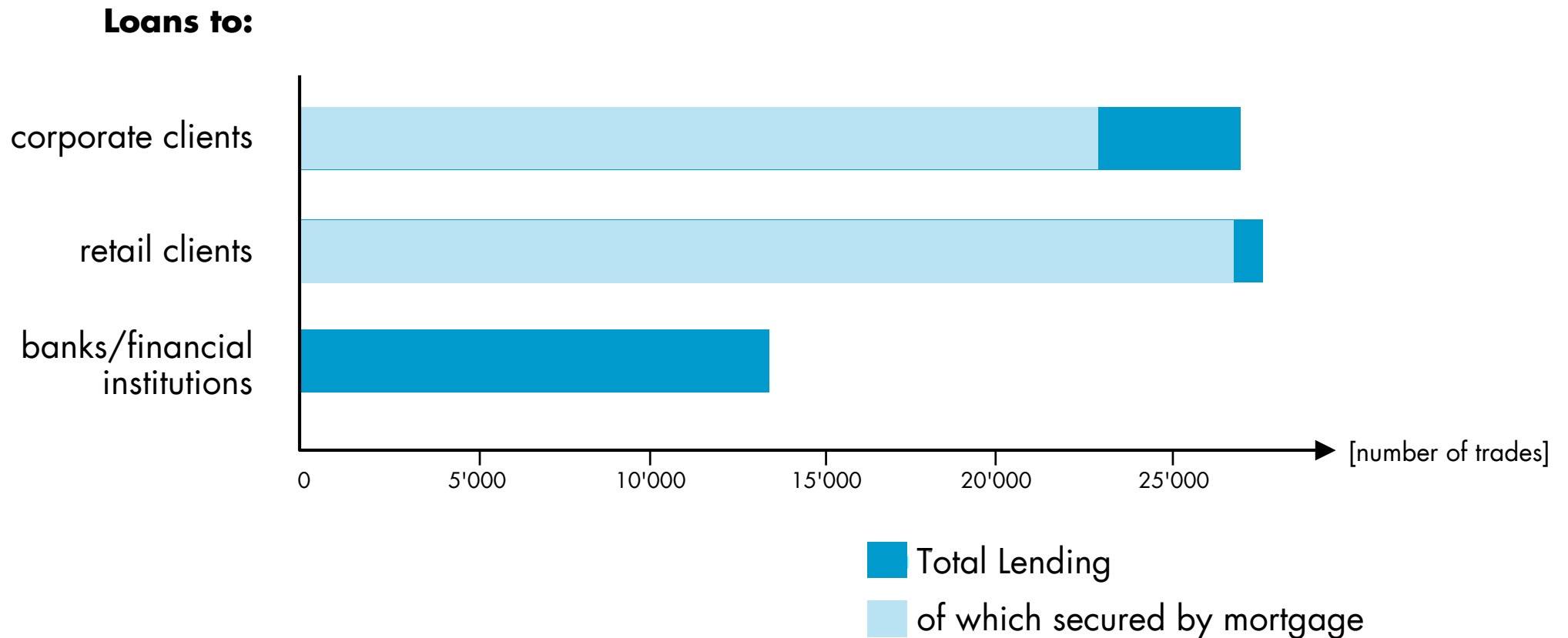
# Portrait of the Zürcher Kantonalbank (2/3)

*Structure of credit risk positions (83,5 bn CHF in credit equivalent)*

Section \ Assets	Customer lending (Corporates and Retail Clients, incl. mortgages)	Lending to Banks and other Financial Institutions
Balance sheet	~ 79 %	~ 12 %
Off balance sheet	~ 1 %	~ 8 %

# Portrait of the Zürcher Kantonalbank (3/3)

*Loans by customer segment and secured by mortgage*



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# Risk Vision is the bankwide limit management tool for economic Credit Risk Management

## Credit Risk Management

Risk engine

**Algorithmics**

- Risk factor calculation (Add on)

Limit engine

**Risk Vision**

- Risk Calculation (MtM plus Add on)
- Netting and CSA
- Aggregation
- Risk monitoring
  - Limit Management
  - Pre Deal Exposure
- Reporting

# Risk Vision is being used for all trades/positions with Credit Risk for the whole bank

## Number of Organisations

approx. **135'000**

- Retail Clients 95'000
- Corporates 30'000
- Financial Institutions/Banks 15'000
- Private Clients 5'000

## Total number of Limits

approx. **558'000**

*of which are conceded by key personnel*

approx. **280'000**

- *Retail Clients* 188'000
- *Corporates* 75'000
- *Financial Institutions/Banks* 12'000
- *Private Clients* 5'000

# Users are located in many departments all over ZKB

## Number of Trades/Positions

approx. **235'000**

▪ Mortgages	145'000
▪ Lending	40'000
▪ Letter of Credits	5'000
▪ Leasing	7'000
▪ Derivate Deals and Security Positions	38'000

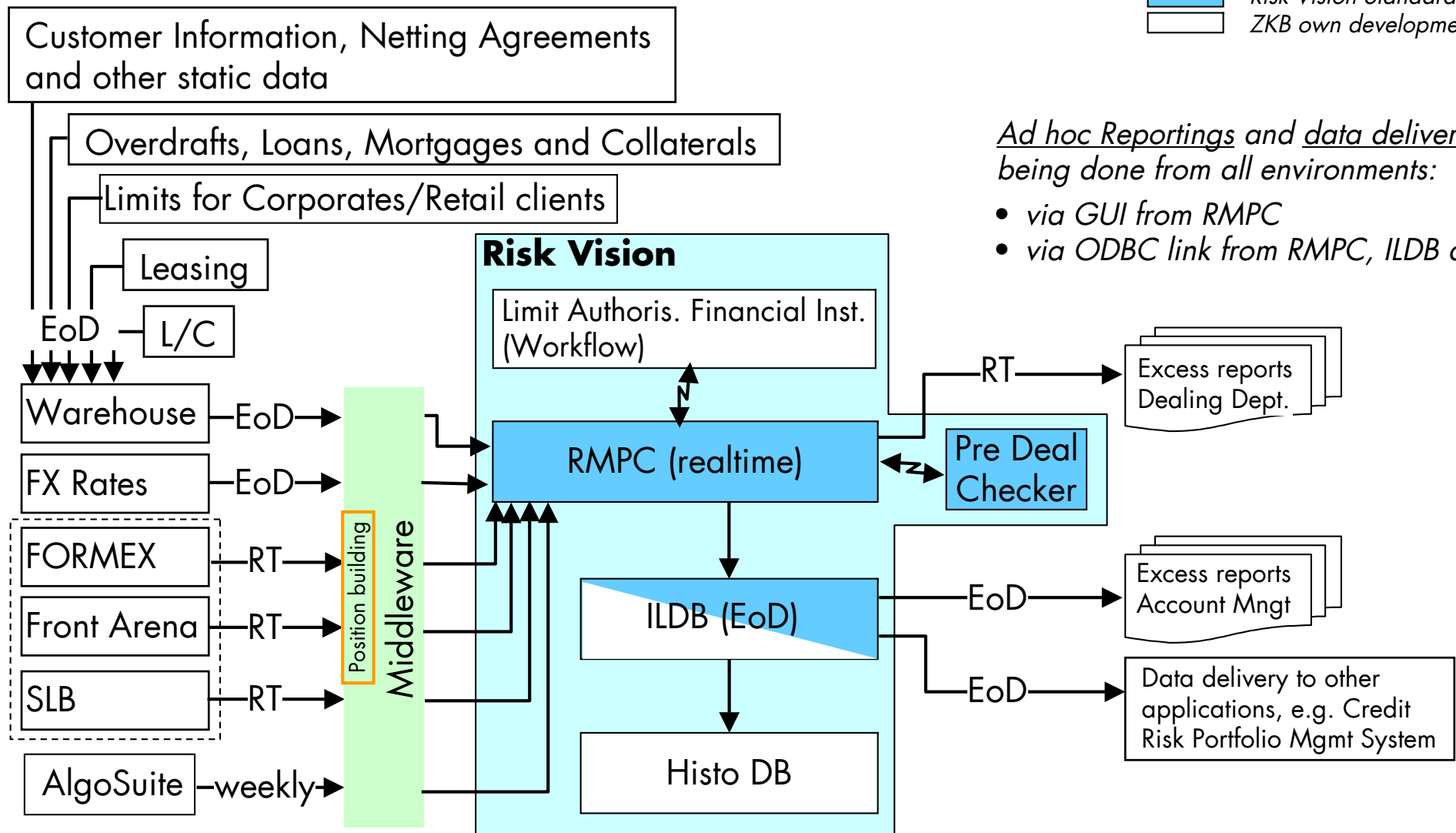
## Number of Users per Area

approx. **340**

▪ Corporate Banking	130
▪ Trading Department	70
▪ Financial Institutions/Banks	40
▪ other Depts such as Retail Banking, Risk Controlling, Credit Risk Management, Audit, IT Support	100

# Applikation framework – brief overview with focus on Credit Risk

EoD = end of day only  
 RT = realtime (and EoD updates)  
 → direction of data flow  
 Risk Vision Standard  
 ZKB own developments



*Ad hoc Reportings and data delivery are being done from all environments:*

- via GUI from RMPC
- via ODBC link from RMPC, ILDB and Histo

# Key figures of technical infrastructure

## Interfaces

- Warehouse (ADB) and Front Office Systems to Middleware and Risk Vision 180
- Risk Vision to ADB other Systems 20

## RV Release 5.4p12

- Load ILDB: with ZKB extensions
- Data History: ZKB own solution (Oracle)

## Server and Database System

- Productive environment:
  - Sun V490 1.8 GHz with Solaris 10
  - Sybase 12.5.3
- Environments for development (2), integration, system tests (2) and production

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# Outlook

- Upgrade Risk Vision to Release 5.5 P2
- Implementation of new products in the trading area
- Integration of collaterals esp. for mortgages
- Risk Vision improvements:
  - New GUIs: They will help users to get the needed information even quicker and easier than today
  - VIP-Entrance for realtime deals. Prevents realtime deals from queueing because of huge loads during EoD data processing

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# Main benefits out of Risk Vision

- Bankwide uniform Limit Structure
- Risk monitoring for the whole ZKB Group (Zurich, Guernsey)
- Realtime Limit monitoring for Derivate Trades (incl. Settlement Risk) incl. Position building; EoD monitoring for non Derivate Trades
- All Credit and/or Settlement risk relevant trades are linked to RV
- Integration of Risk Mitigation information (collaterals) in risk calculation (only partially implementet up to now)
- Risk calculation in two dimensions for Gross and Net Risk:
  - Potential Exposure (PE-RIZ): MtM + Add-on (incl. Netting Agreements and CSA)
  - Current Exposure (CE)

# Main benefits out of Risk Vision

- realtime Pre-Deal-Limit-Check and excess notification
- Daily data delivery to other Systems with data as at EoD previous day
- Efficient and effective Data Quality monitoring due to the consistent relation of Limit, Counterparty Structure, Deals and Collaterals within Risk Vision
- Flexibel (ad hoc) reporting using ODBC connection (e.g. using Access or SAS-EG)

# Thanks to Risk Vision ZKB has been able to deal with the Financial Crisis very effective

Thanks to Risk Vision and its integrated and comprehensive data the needed information regarding limits and exposures could be brought to the right place at the right time.

This has not prevented ZKB from making losses. But it has decisively helped ZKB to get quite save through the Financial Crisis.

# Questions und discussion

