Margin “teach-in”

- *Asset pricing*

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Presentation overview

1. **Pricing concepts – elements of asset margins**
2. **Market developments in pricing**
3. **Pricing and margins – some empirical results**

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Asset pricing concepts
3 views of pricing

Cost of production + profit

Product based pricing (traditional approach) or Risk based pricing (contemporary approach)

Relative market pricing

Capital market product pricing

Supply and demand view

The role of market forces

Cost of production

- Typical “cost of production elements” inherent in pricing

Cost of funds	From funds transfer pricing system
Expected losses	% margin to cater for “known losses”
Capital costs	Regulatory or risk-based capital x cost of capital
Origination and servicing costs	Cost : assets recovery

Plus:

Profit margin	Incremental margin to get to targeted return

Cost of funds

- Obtained from funds transfer pricing system
- Aim
  - To show the cost of funding at the desired maturity given the asset liquidity profile and
  - with an instrument with similar interest rate repricing characteristics
- Example:
  - 3 year floating rate (3 monthly repricing) corporate loan
  - Funding rate = 3 month rate + add-on for liquidity

Regulatory liquidity costs also needs to be factored in

Expected losses

- Expected loss rate commensurate with asset class
- Decision elements
  - One year loss rate ?
  - Annualized cumulative loss rate ?
  - Loss rate given the point in the cycle v long run loss rate ?
  - **Answer: Depends on asset type and pricing strategy**
- Obtain estimates from
  - Historical analysis (e.g. accounting write-offs) or
  - Statistical credit models (probability of default, loss given default, exposure at default estimates)

Example : indicative loss rate

- Corporate 1 year average loss rates (international scale)
  - AAA,AA,A 1bps
  - BBB 15bps
  - BB 50bps
  - B 300bps
  - CCC 1000bps

* Source: S&P 1980 – 2005 data (assuming 50% LGD)

- Retail
  - Homeloans 10-50bps
  - Cards 300-600bps

Loss rates need to be adjusted given future economic condition expectations and maturity of transactions

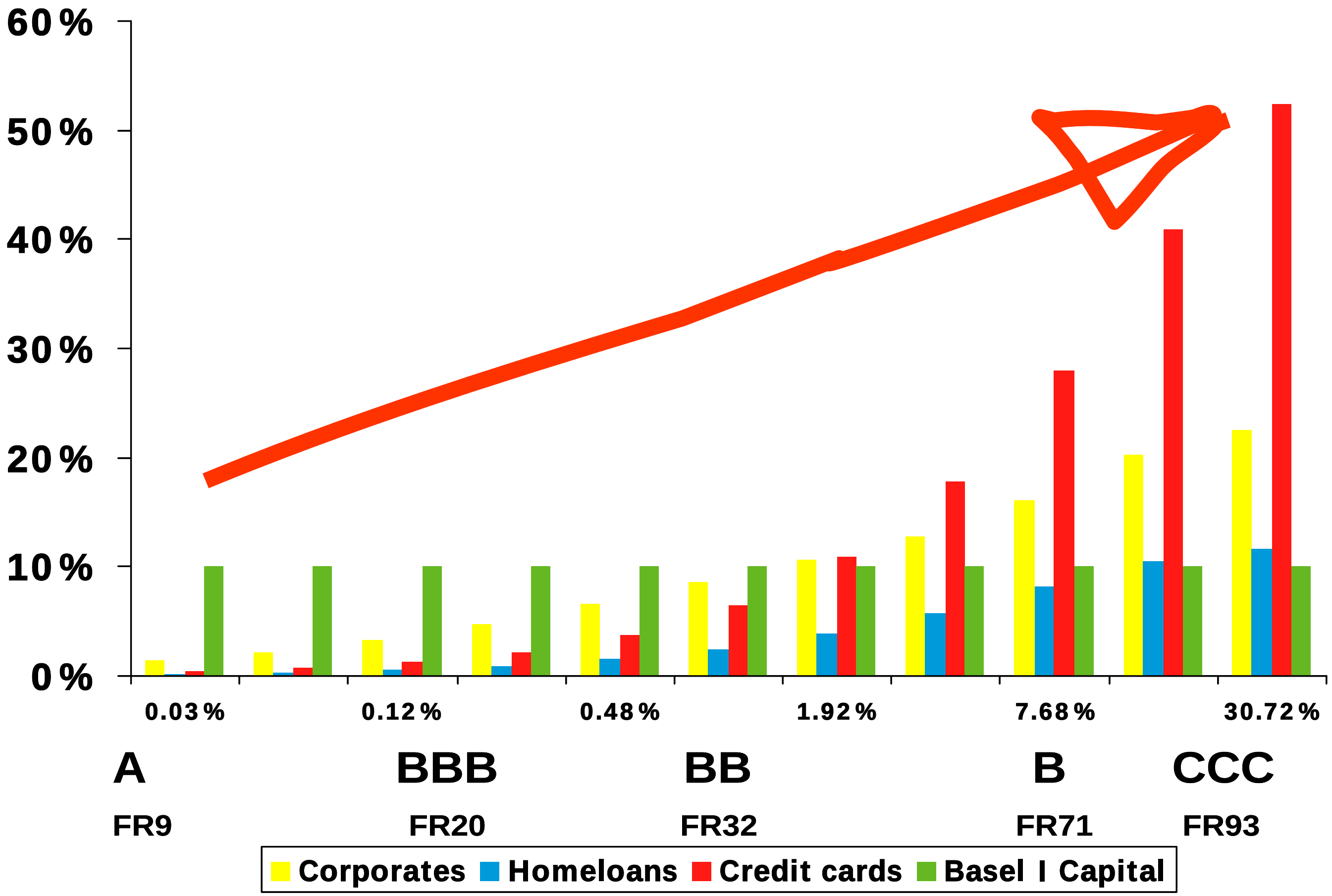
Notes on rating scales

- International scale
  - Foreign currency
  - Local currency
- National scale / domestic rating

Capital costs

- Annual costs of capital requirements
  - Cost of capital x capital requirement
- Decision points
  - Include regulatory costs (typically 10%) x COC **or**
  - Include economic capital costs (risk based) x COC
- Current practice followed in the market

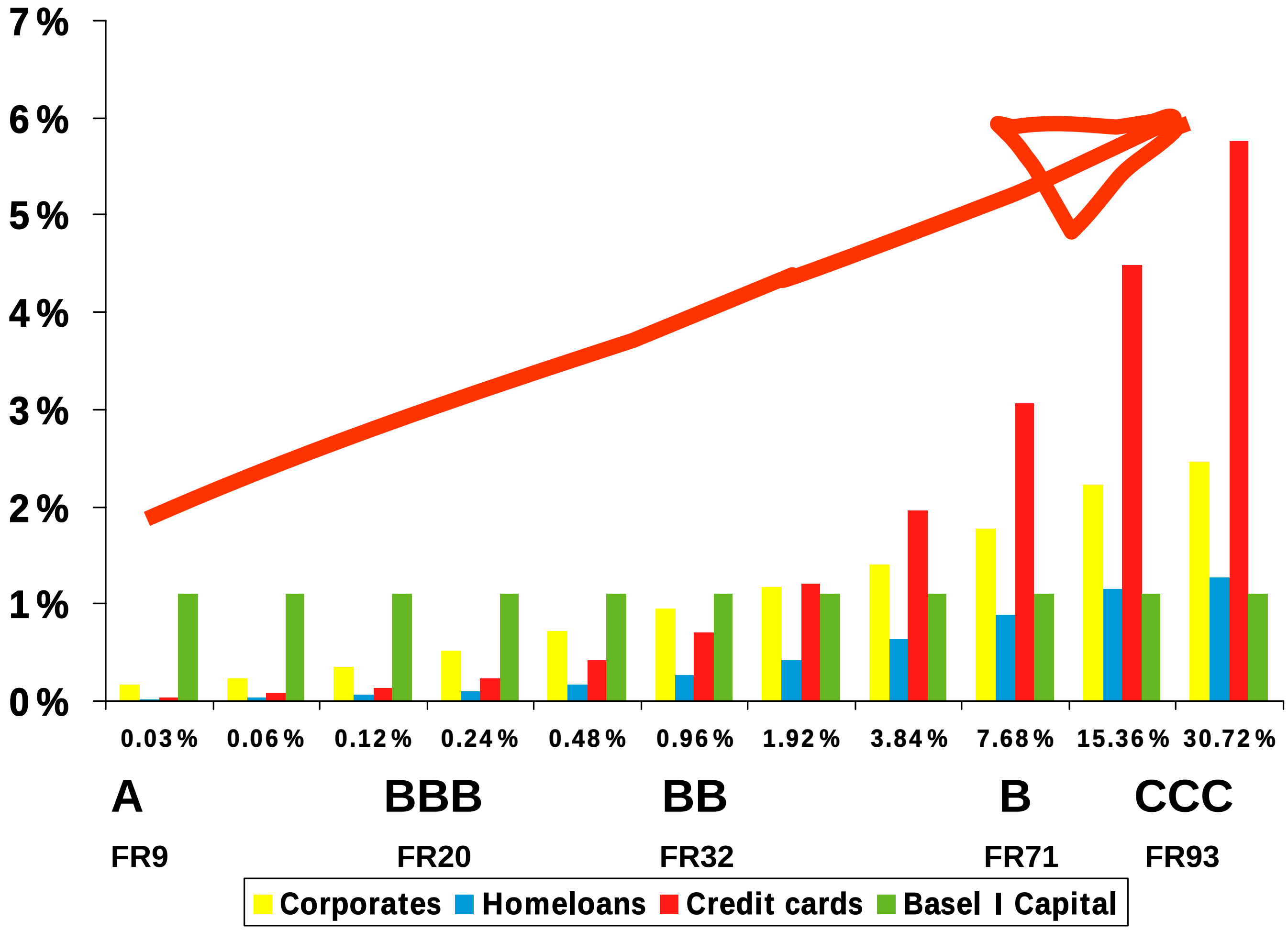
Example: risk based capital requirements (as proxied in terms of Basel II)



** Note: Basel I capital for homeloans are 50% or 100%*

integrated

Example: risk based capital requirements translated into a margin requirement @11% COC



Origination and servicing costs

- Materiality of marginal costs depends on portfolio type
  - Corporate term loans
    - Small, due to large loan sizes
  - Homeloans
    - 0.5%-1%
  - Credit cards and small loans
    - 2-4%

Profit margin

- Depends on
  - Bank's view of what the asset is worth and targeted hurdles
  - Client's view of the cost
  - Competitor's view of the cost
- Factors influencing profit margin
  - Stand-alone pricing v relationship pricing
  - Client pricing v product pricing
  - Other revenue streams
    - Transactional revenue
    - Liability margins

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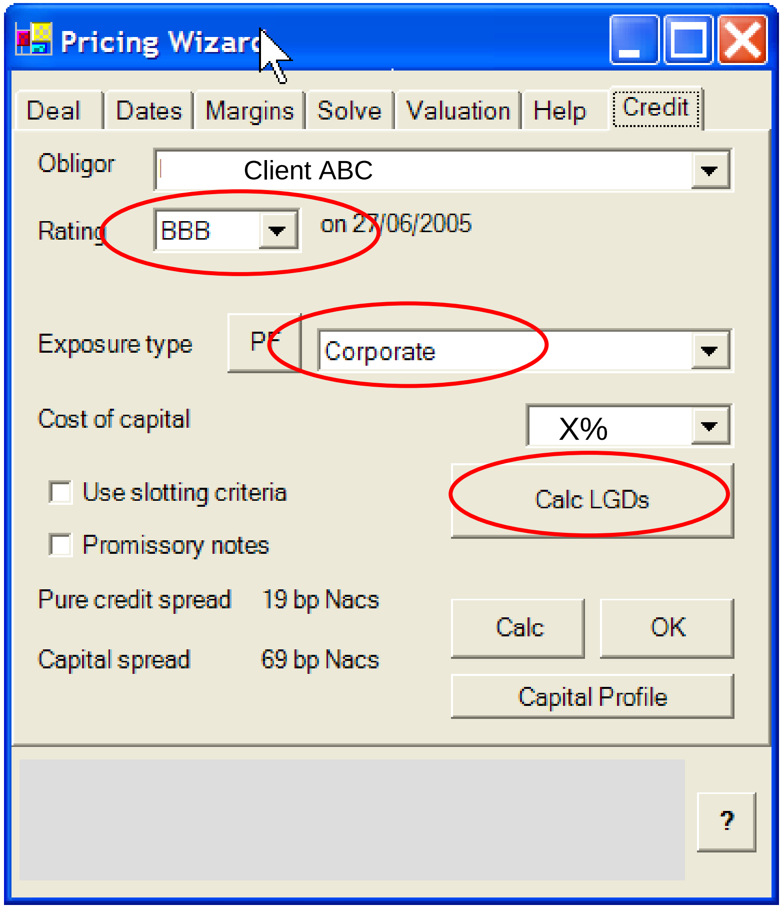
Market status of pricing sophistication

- Traditionally
  - Limited differentiation in pricing
  - Cross-subsidisation
  - Only focussed on making appropriate overall return
- Contemporary practice
  - Banks are moving to more granular risk based pricing
    - More prevalent in the structured credit market for corporates
    - Main driver = ROE targets
  - Regulatory issues such as usury ceilings complicates pricing in the higher risk segments
    - E.g. credit cards
  - Basel II to be a further catalyst for focus on risk-based pricing

FirstRand introduced risk based pricing (credit and capital) in 2003

Example: FirstRand “pricing wizard”



Asset margin developments

- Margin pressures since 2004/5
  - Originators' fees
  - Higher cost of funding mix
    - Increased use in the industry of professional (expensive funding)
    - Low-cost deposits and capital funding benefit less in low-rate environment
- Pressures offset to large extent by lower credit losses
- Increased competition
  - Non-bank competitors

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Other portfolios – correlation between margin and “cost of production” drivers

	Corporate term loans	Homeloans	Credit cards
Typical margins	150 – 250bps	200-250bps	700-900bps
Production costs			
Expected losses	25-75bps	10-50bps	300-600bps
Capital costs (risk-based)	50-100bps	30-60bps	100-200bps
Origination and other costs	25-75bps	50-100bps	200-300bps
Implied profit margin after costs	<100bps	50-100 bps	Low, but transactional revenues makes up

Performing an exact calc: homeloans indicative example

Analysis of HomeLoans incremental new business margin	%
Core margin	3.45
Average client discount	1.35
Margin [Client rate – cost of funds per MMFTP]	**2.10**
Adjusted for costs	1.78
- Liquid asset costs [Regulatory liquidity costs]	0.21
- Expected loss [Long run average credit costs]	0.35
- Origination costs	0.43
- Processing costs	0.23
- Admin costs	0.16
- Capital costs [Based on economic capital x Net COE]	0.40
Residual profit	**0.32**

Considerations in evaluating margins

- Product mix is a key driver
  - Target market for each product will have significant effect
- Cost : assets materially different for different products
  - Net margin after costs should be a key focus
- Variability of credit losses
  - Depends on credit segment targeted
- Capital costs
  - Will become more important under Basel II to manage
- Transactional and other revenue need to be taken into account

Understanding the bank strategy to asset pricing and market Segments targeted are key to understanding margins

Thank you

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