

Balance Sheet Risk Management, (2 Days)

This practical workshop is an introduction to balance sheet risk management. It explains the basic methods used by financial institutions. How the calculations are made and what they show. It will also explain the advantages and disadvantages of the techniques and why several risk measures are normally used together.

The course will cover:

- Gap reports, Duration, Basis point value, (PV01/DV01), Futures equivalency
- Value at risk
- Liquidity management
- Stress testing
- Interest rate options, the Greeks
- Pipeline & prepayment risks

Below is a summary of the workshop content. The course has been placed in a logical sequence and emphasis will be placed on practical case study examples.

Day 1, Morning

Market Risk

- What it is
- Why we measure it

Hedging techniques & strategies

- How market risk occurs
- The role of ALCO
- How derivatives are used to hedge
- Why exposures remain

Measuring foreign exchange risk

- Spot equivalency
- Strengths & weaknesses

Measuring interest rate risk:

Gap reports

- What they are
- What they show
- Pipeline risk
- Use in balance sheet management
- Strengths & weaknesses

Duration

- Simple & modified duration
- How it is calculated
- What it shows
- How you can use it
- Use in the industry
- Strengths & weaknesses

Basis point value

- How it is calculated
- What it shows
- How you can use it
- Use in the industry
- Strengths & weaknesses

Futures equivalency

- Interest rate futures & bond futures
- How it is calculated
- What it shows
- How you can use it
- Use in the industry
- Strengths & weaknesses

Day 1, Afternoon

Value at risk

- What it is
- Some of the calculations involved
- Single position VAR
- Diversified & undiversified VAR
- Variance/covariance, what it is
- Why it is used
- Strengths & weaknesses
- Importance of validation & testing
- Importance of stress testing

“Normal” market conditions

- Why risk measures do not capture all the risks you have
- Why it is important to use a combination of measures to report risk
- Why consistency in the risk reports produced is important

Where risk reporting can go wrong

- Timeliness/availability
- Understanding
- Validity of data
- Accuracy
- Reporting of excesses and action
- Real life case study

Day 2, Morning

Liquidity risk management

- Purpose
- 0-8 day risk
- Liquid assets, quality and ratios
- Stress testing
- Diversification of funding sources

Balance sheet simulation

- An introduction to this topic
- Modelling net interest margin over 1 year
- Selection of yield curve
- Volatility and yield curve generation to give NIM estimates

Day 2, Afternoon

Basis risk

- The base rate/Libor mismatch
- Is it a benefit or cost?
- How it can be measured
- Should you hedge this risk?

Interest rate options Caps, Floors Swaptions

- What they are
- How they can be used

The Greeks

- An introduction to what they are and what they are used for
- Delta
- Gamma
- Theta
- Vega

Delta Hedging

- What it is
- How it works
- The problems it introduces

-Pipeline hedging

- What this risk is
- The problem with pricing it
- How you could manage this risk

Prepayment Risk

- An introduction to this topic including what it is, problems with data collection and management, transfer pricing, penalty fees, hedging with swaptions and problems with pricing, problems associated with data from the GBP market, whether behavioural models are applicable.

Transfer pricing

- The main issues concerning mortgage pricing. The pricing process, cost of hedging and its application to the mortgage product.

End of workshop & review

