

# BIBF

معهد البحرين للدراسات المصرفية والمالية

Shaping tomorrow's financial leaders today

## Banking Crisis, Systemic Risk & Asset Liability Management (ALM)

*16 - 19 November 2009 &  
8 - 11 March 2010*



## BACKGROUND

The ongoing financial crisis is very possibly the greatest threat ever faced by the international financial system. The financial crisis was precipitated by the collapse of the U.S. housing market and the resulting write-downs in the value of mortgage backed securities (MBS) portfolios. The massive write-offs in the value of all types of asset backed securities (ABS) portfolios led to the current liquidity crisis and the de-leveraging currently underway in financial markets.

***Banking Crisis, Systemic Risk & Asset Liability Management (ALM)*** focuses on the origins, causes and effects of the crisis. The program focuses on the markets and instruments that led to the crisis including the mortgage backed securities (MBS) and the collateralized debt obligations (CDO) market and the regulatory response to the crisis. The program includes numerous case studies, including classic case studies such as the bankruptcy of Orange County, Barings Bank, LTCM, Enron and much more recent case studies such as the VAR of Fannie Mae; Systemic Risks, Lehman Brothers & AIG; Liquidity Risk & Bear Sterns, etc.

Asset Liability Management (ALM) has always been a critical function. With the increasing volatility of financial markets and a regulatory landscape that will almost certainly experience some fundamental changes because of the credit crisis, ALM will become an even more critical function for financial institutions. ***Banking Crisis, Systemic Risk & Asset Liability Management*** uses the current credit crisis as the overall context within which to initiate a discussion of ALM. The current credit crisis was preceded by two events which were similar, though much smaller in scope – the 1980's Savings and Loan (S & L) crisis and the collapse of the hedge fund Long Term Capital Management (LTCM). These events are used to provide a context for the development of ALM techniques like duration based balance sheet hedging and the use of risk management techniques like Value at Risk (VAR).

## OBJECTIVES

The objective of this program is two- fold.

1. Provide a broad understanding of what went wrong in the current credit crisis – its underlying causes, effects and long term ramifications. The markets and instruments that played a critical role in the credit crisis (Mortgage Backed Securities (MBS), Credit Default Swaps, (CDS), etc.) are covered in this program.
2. Provide an overview of standard ALM techniques for measuring and managing risk such as Balance Sheet Hedges, Duration Based Immunization Strategies, Value at Risk (VAR) and Liquidity Risk.

The focus throughout the seminar is on understanding theoretical principles and then applying it to actual market data using EXCEL. This program provides good background preparation for those who are planning on taking the CFA (Certified Financial Analyst) and Financial Risk Manager (FRM) examinations.

## TARGET AUDIENCE

- Risk Managers
- Portfolio Managers, Fund Managers & Money Managers
- Back Office, Audit, Compliance & Control Personnel
- Derivatives Traders/Dealers
- Treasury & Operations Personnel
- Investment Bankers
- Investment and Financial Analysts
- Controllers & Treasurers
- Regulatory and Compliance Personnel
- Candidates seeking the CFA or FRM Certification

## PROGRAM OUTLINE

### INTRODUCTION: THE CREDIT CRISIS OF 2008

- The Growth of the Derivatives Markets
- Securitization
- The MBS and ABS Markets
- The U.S. Housing Market
- Prime, Sub-Prime and the Alt-A Market
- Sub-Prime Mortgage Portfolios, ALT-A Mortgage Portfolios
- The Role of GNMA, FNMA & Freddie Mac
- The U.S. Government Take Over of FNMA & Freddie Mac
- Causes of the Crisis
- Solutions to the Credit Crisis

### CASE STUDY: THE U.S. SAVINGS & LOAN CRISIS OF THE 1980's

### CASE STUDY: THE COLLAPSE OF FANNIE MAE & FREDDIE MAC

### THE SAVINGS & LOAN (S&L) CRISIS OF THE 1980S & ALM

- The Causes of the S&L Crisis & the Failure of ALM
- The Development of ALM as a response to the S&L Crisis
- Financial Institution Balance Sheets: Assets, Liabilities & Equity
- On and Off-Balance Items
- The Banking Book & Trading Book
- Credit Risk, Interest Rate Risk, Equity Risk, FX & Derivatives Risk
- Risk Measures: Duration, Convexity, Beta, Delta and Gamma
- Operational Risk

## **INTEREST RATE RISK MANAGEMENT**

- Valuation & Risk Management
- Financial Engineering & Reverse Engineering
- Risk Decomposition
- Interest Rate Risk of Fixed Income Instruments
- Macaulay Duration, Modified Duration and Effective Duration
- Convexity

## **CASE STUDY: THE BANKRUPTCY OF ORANGE COUNTY**

## **GAP MANAGEMENT, BALANCE SHEET RISK MANAGEMENT & DURATION BASED LIABILITY MANAGEMENT**

- Mechanics & Assumptions of GAP Analysis
- Measuring a Bank's GAP
- Duration of Assets & Liabilities
- Balance Sheet Hedges
- Duration Immunization
- Immunizing Portfolio's against Interest Rate Risk
- Capital Adequacy
- The Basle Guidelines on Capital Adequacy
- BMA Guidelines on Market Risk Capital Adequacy Provisions

## **VALUE AT RISK (VAR)**

- Introduction to VAR: Lessons from Financial Disasters
- VAR for FX Positions, Equity Positions, Bond Positions
- Approaches to Measuring VAR
- Local Valuation Approach: The Delta Normal Method
- Full Valuation Approach: Historical Simulation & Monte Carlo Simulation
- Back Testing & Stress Testing
- VAR Mapping

## **CASE STUDY: THE VAR OF FANNIE MAE**

## **CASE STUDY: THE COLLAPSE OF BARINGS BANK**

## **CASE STUDY: THE COLLAPSE OF LTCM**

## **CREDIT DERIVATIVES, COLLATERALIZED DEBT OBLIGATIONS (CDO's) & THE CREDIT DEFAULT SWAPS (CDS) MARKET**

- The Credit Derivatives Market
- Credit Derivative Structures
- Credit Default Swaps, Portfolio Default Swaps
- Credit Spread Options & Credit Linked Notes
- Total Return Swaps
- CDO Structures
- Balance Sheet CDOs, Arbitrage CDOs, CDO Squared
- Leverage and Credit Derivatives
- The Collapse of the CDS Market

## **CASE STUDY: THE COLLAPSE OF AIG**

## HEDGING & RISK MANAGEMENT

- First Generation & Second Generation Derivatives
- Futures & Options
- Hedging Interest Rate Risk and Equity Risk

## LIQUIDITY RISK & SYSTEMIC RISK

- Market Risk, Credit Risk & Liquidity Risk
- Measuring Liquidity Risk
- Financial Crises & Banking Runs
- The Cost of Banking Crises
- Regulatory Response to the Banking Crises

## CASE STUDY: THE COLLAPSE OF LEHMAN BROTHERS & THE RESCUE OF AIG

## CASE STUDY: ICELAND & SYSTEMIC RISK

## PROFILE OF COURSE PROVIDER

**Sudhakar Raju** currently holds an appointment as Professor of Finance at the Helzberg School of Management in the United States. For the last three years he taught graduate courses in Finance and Quantitative Methods at Harvard University. He has a Ph.D. in Finance and a Master's degree in Public Policy which he received from Harvard University. Sudhakar has conducted programs in Portfolio Modeling, Risk Management, Derivatives Markets, as well as review courses for the Investment Representative Program and Chartered Financial Analyst (CFA) programs in Bahrain, Kuwait and U.A.E. He has been a Consultant to various organizations including the World Bank, United Nations, Chicago Board of Trade and the exotic options desk at Aquila Energy. Sudhakar received the FRM (Financial Risk Manager) designation in 2003. He is a recipient of the Missouri Governor's Award for Excellence in University Teaching. In 2007, he received the Harvard Kennedy School's Teaching Excellence Award.

Fees	<b>BD 400</b> for Levy payers, <b>BD 500</b> for non-Levy payers
Venue	Bahrain Institute of Banking and Finance - ( BIBF )
Duration	( 16 - 19 November 2009 ) & ( 8 - 11 March 2010 )
Timings	9:00 AM - 4:00 PM

# BANKING CRISIS, SYSTEMIC RISK & ASSET LIABILITY MANAGEMENT (ALM)

## REGISTRATION FORM

( 16 - 19 NOVEMBER 2009 ) & ( 8 - 11 MARCH 2010 )

Venue: BIBF, Kingdom of Bahrain

Fees: **BD 400** for Levy payers, **BD 500** for non-Levy payers

Organization Sponsored

Self Sponsored

Name of the participant (s):

1. (Mr/Mrs/Ms):

First Name

Middle Name

Last Name

Position

Department

Nationality

Tel

Email

2. (Mr/Mrs/Ms):

First Name

Middle Name

Last Name

Position

Department

Nationality

Tel

Email

3. (Mr/Mrs/Ms):

First Name

Middle Name

Last Name

Position

Department

Nationality

Tel

Email

Contact Person

(Mr/Mrs/Ms):

First Name

Middle Name

Last Name

Position:

Department:

Organization:

Nationality:

Address:

Telephone:

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Signature & Stamp:

Date:

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The Registrar

The Bahrain Institute of Banking & Finance – BIBF

P.O. Box 20525, Manama, Kingdom of Bahrain.

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**IMPORTANT NOTICE:**

All courses are subject to demand. The Institute reserves the right to cancel or postpone courses at short notice at no loss or liability where, in its absolute discretion, it deems this necessary.

**CANCELLATION AND REFUND OF FEES:**

In the case of cancellations by delegates, fees will only be refunded if a written notice of cancellation is received by the Institute not less than two weeks prior to the commencement of the course/program in question. Course/program fees already paid or invoiced may not be refunded and invoices will be due and payable. Substitute delegates are permitted.

**VISA PROCEDURES:**

GCC nationals and residents do not require a visa for the Kingdom of Bahrain. All others should have an entry visa, which BIBF can arrange. Should you wish that the Institute obtains an entry visa for you, please mail or Fax (+973 17 916420) our Information Desk, a copy of your passport at least 15 days prior to the course/program starting date. Visa costs will be charged to the participant.

**ACCOMMODATION & TRANSPORTATION:**

Hotel accommodation and transportation costs are the participant's own responsibility. Should you wish that the Institute arrange accommodation for you, please Fax (+973 17 916420) our Information Desk or Email [infodesk@bibf.com](mailto:infodesk@bibf.com) for assistance.

# About BIBF

BIBF is a leading professional training Institute in Bahrain and the Gulf Region. It was founded in 1981 to provide training for the banking community in Bahrain. Since then it has evolved into an internationally recognised training and development organization. The Institute provides education and training in Banking, Corporate Finance, Capital Markets, Risk Management and Compliance, Treasury, Insurance, Islamic Finance, Leadership and Management, Accounting and IT. BIBF enjoys strategic relationships with international professional bodies like ifs School of Finance, DePaul University, Bentley College, University of Wales, CFA, PRMIA, ACI, CIMA, CPA, ICA, ACAMS.

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