

MONTEREY INSTITUTE OF INTERNATIONAL STUDIES  
Fisher Graduate School of International Business

**IM 662 – GLOBAL CORPORATE RISK MANAGEMENT – SPRING 2009**

PREREQUISITE : IM 536 (Financial Management) or Equivalent.

INSTRUCTOR : Ako Doffou, Ph.D., CFA

OFFICE HOURS : Mondays **4:00 – 6:00 PM** & Wednesdays **2:00 – 4:00 PM**. Office: **MG 300C**  
Tel (831) 647-4165; Fax (831) 647-6506; E-mail: [ako.doffou@miis.edu](mailto:ako.doffou@miis.edu)

CLASS : Mondays & Wednesdays **8:30 - 9:50 AM**, Monterey Campus, Room **MG 100**

SCOPE & OBJECTIVE:

This course offers the insights and tools of risk management. The course is delivered from the perspective of the corporation or any potential end-user of derivatives, and to a lesser degree from the viewpoint of the dealer (investment bankers and traders in the securities). The focus is not on financial instruments, the complex models developed to price them, and ways to exploit mispricing. The course will make use of some these valuation models, and will focus on how corporations use the insights and models to improve their operations, to increase the value of their assets, or to create the financial flexibility needed to implement their core strategy.

TEXTBOOKS : *Risk Management & Derivatives*, First Edition, by Rene M. Stulz, Thomson South-Western Publishing, 2003. ISBN-10: 0538861010.  
A financial calculator is required in this course. The **HP 12 C** is recommended.

GRADING	: Class Participation	:	10%
	Group Research Project # 1	:	15%
	Group Case Analysis & Presentations	:	15%
	Midterm Exam	:	30%
	Final Exam	:	30%

POLICY : Students are expected to attend all scheduled classes and to read all assigned chapters before classes. *All students are expected to exercise self-discipline and a respect for the rights of other at all times.* Students should refer to specific regulations governing students academic conduct. Assignments that are turned in late will be penalized. **There are no make-up exams.** Absent written medical reasons, exams must be taken when scheduled. If you are unable to take an exam during the scheduled period, you should see me before the exam.

# IM 662 – GLOBAL CORPORATE RISK MANAGEMENT – SPRING 2009

## Dates

## Topics

## Reading Assignments

### **1. Introduction and Overview**

- Weeks: a. Enterprise-wide Risk Management & the Role of the Chief Risk Management Officer; b. Global Security & Enterprise Resilience; c. The Challenges of Risk Management in Diversified Financial Companies. d. Financial Risks & Nonfinancial Risks Facing the Global Corporation. e. Why Risk Management? f. Investors & Risk Management.
- Ch 1 & 2 Handouts*

### **2. Integrated Risk Management and Value Creation**

- Weeks: a. What Does Value Creation Mean? How Can Integrated Risk Management Create Value? b. Mapping the Risks Corporations Face; Is there an Optimal Risk Level? c. Implementing Integrated Risk Management; Rethinking Risk Management. d. How Do we Know that Integrated Risk Management Creates Value?
- Ch 3 Handouts*

### **3. Measuring Risk**

- Weeks: a. Exposure Measurement. b. **Value at Risk** (Definitions; Volatility & Correlations; Riskmetrics Approach; Derivatives and VaR; Delta VaR; VaR and the Collapse of Barings; Full Valuation Monte Carlo Approach; Full Valuation Historical Approach; VaR and Fat Tails; Empirical Evidence on VaR; VaR versus other Risk Measures for Institutional Investors; Risk Management at Goldman Sachs; VaR and Regulatory Capital; VaR in Practice). c. **Beyond VaR** (Measuring Expected Tail Loss; Forecasting VaR in the Presence of Liquidity Risks; Stress Tests; The BIS Survey; Stress Tests at Morgan Chase; Uncovering Black Holes).
- Ch 4 Section 4.1; Ch 13; Handouts*

### **4. Credit Risks & Interest Rate Risks**

- Weeks: a. **Measuring Interest Rate Risks** (Duration & Convexity; Duration VaR; Using Interest Rate Models); b. **Hedging Interest Rate Risks** (Using Swaps; Using Caps and Floors). c. **Measuring Credit Risks** (Estimating Default Probabilities; Merton's Model; Duffie and Singleton Approach, Jarrow and Turnbull Approach; KMV, CreditMetrics<sup>TM</sup> and Credit Risk+; Measuring Default Correlations). d. **Hedging with Credit Derivatives** (CDS, Credit Indices, CDOs).
- Ch 9 & 18 Handouts*

- Week 10: a. **Midterm Exam Review**. b. **Midterm Exam**. Group Research Project # 1 is Due.

### **5. Operational Risk**

- Week 11: a. Definitions; The Top-Down Approach; The Bottom-Up Approach. b. Basel II and Operational Risk; Modeling Operational Risk.
- Ch 19*

### **6. The Practice of Integrated Risk Management**

- Week: a. Measuring Risk at the Firm Level; Measuring the Impact of a Trade. b. Managing a Trading Desk with VaR; Risk Measures and Investment Policy. c. Risk Measures and Performance Evaluation; Risk Measures and Compensation. d. Risk Measures and Intra-Firm Capital Allocation. e. First and Second Generation RAROC Models; Evaluating Strategic Risks.
- Handouts Ch 4 Sections 4.2 & 4.3 Ch 19*

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## AKO DOFFOU

**EDUCATION:** **Ph.D., Finance**, The University of Georgia, Athens, Georgia, USA.  
**MBA, Finance**, INSEAD, Fontainebleau, France.  
**MS, Power Systems Engineering**, SUPELEC, Paris, France.  
**BS, Electrical Engineering**, ESIGELEC, Rouen, France.

**CERTIFICATION:** CFA (Charter # 43322), **CLU & ChFC** Charters; **CFP & CFS** Certifications.

### RECENT PUBLICATIONS:

1. "Information inherent in Implicit Distributions," *Research In Finance*, Volume 18, Summer 2001.
2. "Testing a Jump-Diffusion Stochastic Interest Rates Model in Currency Options Markets," *Advances in Futures and Options Research*, Volume 11, 2001.
3. "Pricing Currency Options Under Stochastic Interest Rates and Jump-Diffusion Processes," *Journal of Financial Research*, Volume 24, Winter 2001.
4. "Testing a Three-State Model in Currency Derivative Markets," *Journal of Risk*, Volume 4, No. 3, Spring 2002.
5. "Insider Trading: a Review of Theory and Empirical Work," *Journal of Accounting and Finance Research*, Volume 11, No. 1, Spring 2003.
6. "Testing for Bubbles in the Internet Stock Market," *Journal of Business and Economic Perspectives*, Volume XXIX, No. 1, Spring/Summer 2003.
7. "A Robust Test for Bubbles in Emerging Stock Markets," *Journal of Financial and Economic Practice*, Volume 3, No. 1, Fall 2004.
8. "New Perspectives in Asset-Liability Management for Insurers," *Journal of Business and Behavioral Sciences*, Volume 12, No. 2, Spring 2005.
9. "Stochastic Interest Rates and Short Maturity Currency Options," *Financial Decisions*, Volume 18, No. 2, Winter 2006
10. "Empirical Tests for Bubbles in the Asian Emerging Stock Markets," *Business Review, Cambridge*, Vol. 7, No 1, Summer 2007.
11. "Periodically Collapsing Bubbles in the Asian Emerging Stock Markets," *International Finance Review*, Vol. 8, December 2007.
12. "American Put Index Options Early Exercise Premium Estimation," *International Journal of Banking and Finance*, Vol. 6, No 1, December 2008.

**RESEARCH INTERESTS:** Derivatives, Asset Pricing, and Risk Management.

### HONORS & AWARDS:

1. 2007 Asian Finance Association Conference Best Paper Prize Award winner, award sponsored by the University Utara Malaysia.
2. 1999 FMA Best Paper Award winner in the area of Futures/Options on Futures, sponsored by the Chicago Board of Trade Educational Research Foundation.
3. 2000 FMA Best Completed Dissertation Grant winner in Investments, sponsored by the American Association of Individual Investors.
4. Selected for membership in *Beta Gamma Sigma*, University of Georgia (04/99).
5. Listed in the Marquis Who's Who in Finance and Industry 28<sup>th</sup> Edition 94/95.
6. Honored Lifetime Member of Madison Who's Who Executive Registry.
7. University of Texas Summer 2000 Research Grant.
8. Comer Fellowship Awards, Board of Regents Merit Awards, Ph.D. Research Awards and Graduate Assistantships at the University of Georgia.

### WORK EXPERIENCE:

1. Visiting Professor of Finance, *Monterey Institute of International Studies*.
2. Associate Professor of Finance, *Sacred Heart University*.
3. Visiting Associate Professor of Finance, *Claremont Graduate University*.

4. Associate Professor of Finance, *State University of New York*.
5. Assistant Professor of Finance, *University of Texas*.
6. President/Founder, *Doffou & Associates*, a registered investment advisory firm, SEC file # 801 – 42836.
7. Assistant Finance Director, *The Electric Energy of the Ivory Coast*, Cote d'Ivoire.
8. Financial Analyst, *Banque Nationale de Paris*, Paris, France.
9. Electrical Engineer, *CGEE Alsthom* and *Merlin Gerin*, Paris & Grenoble, France.

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