FRM EXAM PART I CHANGES

FOUNDATIONS OF RISK MANAGEMENT

Additions
   • Chapter 1. Risk Management: A Helicopter View (Appendix 1.1. Typology of Risk Exposures)
   • Chapter 2. Corporate Risk Management: A Primer
   • Chapter 4. Corporate Governance and Risk Management
2. James Lam, Enterprise Risk Management: From Incentives to Controls, 2nd Edition
   • Chapter 4. What is ERM?
3. “Implementing Robust Risk Appetite Frameworks to Strengthen Financial Institutions,” Institute of International
   Finance, June 2011.
   • Chapter 6. The Credit Crisis of 2007
5. “Principles for Effective Data Aggregation and Risk Reporting,” (Basel Committee on Banking Supervision
   Publication, January 2013).

Deletions
2. “Understanding and Communicating Risk Appetite,” (COSO, written by Dr. Larry Rittenberg and Frank Martens,
   January 2012).

Updates
1. Edwin J. Elton, Martin J. Gruber, Stephen J. Brown and William N. Goetzmann, Modern Portfolio Theory and
   • Chapter 13. The Standard Capital Asset Pricing Model
   • Chapter 10. Arbitrage Pricing Theory and Multifactor Models of Risk and Return

Knowledge Point Changes
The knowledge points are unchanged but have been reordered as follows:
• Basic risk types, measurement and management tools
• Creating value with risk management
• The role of risk management in corporate governance
• Enterprise Risk Management (ERM)
• Financial disasters and risk management failures
• The Capital Asset Pricing Model (CAPM)
• Risk-adjusted performance measurement
• Multi-factor models
• Information risk and data quality management
• Ethics and the GARP Code of Conduct
QUANTITATIVE ANALYSIS

Additions
   • Chapter 11. Correlation and Copulas
   • Chapter 5. Modeling and Forecasting Trend (Section 5.4 only—Selecting Forecasting Models Using the Akaike and Schwarz Criteria)
   • Chapter 7. Characterizing Cycles
   • Chapter 8. Modeling Cycles: MA, AR, and ARMA Models

Deletions
None

Updates
   • Chapter 2. Probabilities
   • Chapter 3. Basic Statistics
   • Chapter 4. Distributions
   • Chapter 6. Bayesian Analysis (New Reading) (Pages 113-124 only)
   • Chapter 7. Hypothesis Testing and Confidence Intervals
   • Chapter 23. Estimating Volatilities and Correlations for Risk Management

Knowledge Point Changes
Knowledge points have been reordered and modified as follows:
• Discrete and continuous probability distributions
• Estimating the parameters of distributions
• Population and sample statistics
• Bayesian analysis (New—Reflects added reading)
• Statistical inference and hypothesis testing
• Correlations and copulas (New—Reflects added reading)
• Estimating correlation and volatility using EWMA and GARCH models
• Volatility term structures
• Linear regression with single and multiple regressors (Subpoints have been deleted)
• Time series analysis
• Simulation methods
FINANCIAL MARKETS AND PRODUCTS

Additions
   - Chapter 1. Introduction
   - Chapter 2. Mechanics of Futures Markets
   - Chapter 3. Hedging Strategies Using Futures
   - Chapter 4. Interest Rates
   - Chapter 5. Determination of Forward and Futures Prices
   - Chapter 6. Interest Rate Futures
   - Chapter 7. Swaps
   - Chapter 11. Properties of Stock Options
   - Chapter 12. Trading Strategies Involving Options
   - Chapter 20. Mortgages and Mortgage-Backed Securities

Deletions
   - Chapter 1. Fundamentals of Commodity Spot and Futures Markets: Instruments, Exchanges and Strategies

Updates
   - Chapter 1. Introduction
   - Chapter 2. Mechanics of Futures Markets
   - Chapter 3. Hedging Strategies Using Futures
   - Chapter 4. Interest Rates
   - Chapter 5. Determination of Forward and Futures Prices
   - Chapter 6. Interest Rate Futures
   - Chapter 7. Swaps
   - Chapter 11. Properties of Stock Options
   - Chapter 12. Trading Strategies Involving Options
   - Chapter 13. Foreign Exchange Risk

Knowledge Point Changes
Knowledge points have been consolidated and modified as follows:
- Structure and mechanics of OTC and exchange markets
- Structure, mechanics, and valuation of forwards, futures, swaps and options (Subpoints consolidated)
- Hedging with derivatives
- Interest rates and measures of interest rate sensitivity
- Foreign exchange risk
- Corporate bonds
- Mortgage-backed securities (New—Moved from Part II—Market Risk Measurement)
- Rating agencies
VALUATION AND RISK MODELS

Additions
   - Chapter 5. Capital Structure in Banks (Pages 170-186 only).

Deletions
   - Chapter 4. Loan Portfolios and Expected Loss
   - Chapter 5. Unexpected Loss
   - Chapter 6. Empirical Approaches to Risk Metrics and Hedges (Moved to Part II—Market Risk)

Updates
   - Chapter 13. Binomial Trees
   - Chapter 15. The Black-Scholes-Merton Model
   - Chapter 19. The Greek Letters

Knowledge Point Changes
Knowledge points have been consolidated and expanded and reordered as follows:
- Value-at-Risk (VaR) (Subpoints deleted)
- Expected shortfall (New Knowledge point)
- Stress testing and scenario analysis
- Option valuation (Subpoints deleted)
- Fixed income valuation (Subpoints deleted)
- Country and sovereign risk models and management
- External and internal credit ratings
- Expected and unexpected losses
- Operational risk
FRM EXAM PART II CHANGES

MARKET RISK MEASUREMENT AND MANAGEMENT

Additions
   - Chapter 1. Some Correlation Basics: Properties, Motivation, Terminology
   - Chapter 2. Empirical Properties of Correlation: How Do Correlations Behave in the Real World?
   - Chapter 3. Statistical Correlation Models—Can We Apply Them to Finance?
   - Chapter 4. Financial Correlation Modeling—Bottom-Up Approaches (Sections 4.3.0 (intro), 4.3.1, and 4.3.2 only)
   - Chapter 6. Empirical Approaches to Risk Metrics and Hedges (Moved from Part I—Valuation)
   - Chapter 9. OIS Discounting, Credit Issues, and Funding Costs

Deletions
   - Chapter 5. Appendix—Modeling Dependence: Correlations and Copulas
   - Chapter 25. Exotic Options
   - Chapter 8. Basics of Residential Mortgage Backed Securities
   - Chapter 1. Overview of Mortgages and the Consumer Mortgage Market
   - Chapter 2. Overview of the Mortgage-Backed Securities Market
   - Chapter 10. Techniques for Valuing MBS

Updates
   - Chapter 20. Volatility Smiles

Knowledge Point Changes
- “Exotic Options” has been deleted.
- “Mortgages and Mortgage-backed securities (MBS)” along with the subpoint of “Structure, markets and valuation” have been consolidated and moved to FRM Exam Part I.
CREDIT RISK MEASUREMENT AND MANAGEMENT

The changes in this section reflect an update to the 2nd Edition of the Jon Gregory book, as well as the chapter on wrong-way risk being re-added to the curriculum.

Additions
None

Deletions
None

Updates

Knowledge Point Changes
The knowledge points have been consolidated to the following:
• Credit analysis
• Default risk: Quantitative methodologies (Risk neutral valuations has been deleted)
• Expected and unexpected loss
• Credit VaR
• Counterparty risk (Subpoints deleted)
• Credit derivatives (Subpoints deleted)
• Structured finance and securitization (Subpoints deleted)
OPERATIONAL AND INTEGRATED RISK MANAGEMENT

Additions
   • Chapter 12. Repurchase Agreements and Financing
   • Chapter 12. Basel I, Basel II and Solvency II
   • Chapter 13. Basel 2.5, Basel III, and Dodd-Frank

Deletions

Updates
None

Knowledge Point Changes
The knowledge points have been consolidated and augmented as follows:
• Principles for sound operational risk management (New)
• Enterprise Risk Management (ERM)
• Modeling operational loss distributions (Consolidation of Operational loss data and subpoints)
• Liquidity risk (including repurchase agreements and funding risks)
• Model risk
• Risk appetite frameworks
• Risk-adjusted return on capital (RAROC)
• Economic capital frameworks and capital allocation (Expansion of Economic Capital knowledge point)
• Stress testing banks (New)
• Evaluating the performance of risk management systems
• Failure mechanics of dealer banks
• Regulation and the Basel Accords (Subpoints deleted)
RISK MANAGEMENT AND INVESTMENT MANAGEMENT

Additions
1. Andrew Ang, Asset Management: A Systematic Approach to Factor Investing
   • Chapter 13. Illiquid Assets (Excluding Section 13.5—Portfolio Choice with Illiquid Assets)

Deletions

Updates
None

Knowledge Point Changes
All subpoints under “Hedge Funds” have been eliminated.
CURRENT ISSUES IN FINANCIAL MARKETS

Additions

Deletions
All previous readings have been deleted.

Updates
None

Knowledge Point Changes
Five new knowledge points have been created to reflect the new readings as follows:
- Role of clearinghouses in limiting systemic risk
- Evolution of high frequency trading (HFT)
- Risk management in an HFT environment
- Current environment for derivatives trading
- Funding value adjustments

An asterisk after a reading title indicates that the reading is freely available on the GARP website.
2015 FRM Committee Members

Dr. René Stulz (Chairman) .........................................Ohio State University

Richard Apostolik ..................................................Global Association of Risk Professionals

Richard Brandt ....................................................Citibank

Dr. Christopher Donohue ........................................Global Association of Risk Professionals

Hervé Geny .............................................................London Stock Exchange

Keith Isaac, FRM ...................................................TD Bank

Steve Lerit, CFA .......................................................UBS Wealth Management

William May .............................................................Global Association of Risk Professionals

Michelle McCarthy ..................................................Nuveen Investments

Dr. Victor Ng ..........................................................Goldman Sachs & Co

Dr. Elliot Noma ........................................................Garrett Asset Management

Dr. Matthew Pritsker ...............................................Federal Reserve Bank of Boston

Dr. Samantha Roberts, FRM .................................Capital One

Liu Ruixia ..............................................................Industrial and Commercial Bank of China

Dr. Til Schuermann ................................................Oliver Wyman

Nick Strange ..........................................................Bank of England, Prudential Regulation Authority

Serge Sverdlov ........................................................Redmond Analytics

Alan Weindorf .......................................................Visa
Creating a culture of risk awareness®

Global Association of Risk Professionals

111 Town Square Place
14th Floor
Jersey City, New Jersey 07310
U.S.A.
+ 1 201.719.7210

2nd Floor
Bengal Wing
9A Devonshire Square
London, EC2M 4YN
U.K.
+ 44 (0) 20 7397 9630

www.garp.org

About GARP | The Global Association of Risk Professionals (GARP) is a not-for-profit global membership organization dedicated to preparing professionals and organizations to make better informed risk decisions. Membership represents over 150,000 Members and Affiliates from banks, investment management firms, government agencies, academic institutions, and corporations from more than 195 countries and territories. GARP administers the Financial Risk Manager (FRM®) and the Energy Risk Professional (ERP®) Exams; certifications recognized by risk professionals worldwide. GARP also helps advance the role of risk management via comprehensive professional education and training for professionals of all levels. www.garp.org.