



FRM[®] Study Guide Changes



Part I Changes

Foundations of Risk Management

Additions:

1. Markus K. Brunnermeier, 2009. "Deciphering the Liquidity and Credit Crunch 2007–2008," *Journal of Economic Perspectives* 23:1, 77–100.
2. Gary Gorton and Andrew Metrick, 2012. "Getting Up to Speed on the Financial Crisis: A One-Weekend-Reader's Guide," *Journal of Economic Literature* 50:1, 128–150.

Deletions:

1. John C. Hull, *Risk Management and Financial Institutions, 4th Edition* (Hoboken, NJ: John Wiley & Sons, 2015).
 - Chapter 6. The Credit Crisis of 2007

Deleted from Foundations / Moved to Operational Risk:

1. Anthony Tarantino and Deborah Cernauskas, *Risk Management in Finance: Six Sigma and Other Next Generation Techniques* (Hoboken, NJ: John Wiley & Sons, 2009).
 - Chapter 3. Information Risk and Data Quality Management

Updated:

1. Previous version: René Stulz, "Risk-Taking and Risk Management by Banks," *Journal of Applied Corporate Finance* 27, No. 1 (2015): 8-18.
Updated version: René Stulz, "Risk Management, Governance, Culture and Risk Taking in Banks," *FRBNY Economic Policy Review*, (August 2016): 43-59.

Part I Changes

Quantitative Analysis

Additions:

1. Francis X. Diebold, *Elements of Forecasting, 4th Edition* (Mason, Ohio: Cengage Learning, 2006).
 - Chapter 5. Modeling and Forecasting Trend (entire chapter; previously Section 5.4 only)
 - Chapter 6. Modeling and Forecasting Seasonality
2. John C. Hull, *Risk Management and Financial Institutions, 4th Edition* (Hoboken, NJ: John Wiley & Sons, 2015).
 - Chapter 10. Volatility

Deletions:

1. John C. Hull, *Options, Futures, and Other Derivatives, 9th Edition* (New York: Pearson, 2014).
 - Chapter 23. Estimating Volatilities and Correlations for Risk Management

Part I Changes

Financial Markets and Products

Additions:

1. John C. Hull, *Risk Management and Financial Institutions, 4th Edition* (Hoboken, NJ: John Wiley & Sons, 2015).
 - Chapter 2. Banks
 - Chapter 3. Insurance Companies and Pension Plans
 - Chapter 4. Mutual Funds and Hedge Funds

Deletions:

1. Jon Gregory, *Central Counterparties: Mandatory Clearing and Bilateral Margin Requirements for OTC Derivatives* (West Sussex, UK: John Wiley & Sons, 2014).
 - Chapter 1. Introduction
2. John B. Caouette, Edward I. Altman, Paul Narayanan, and Robert W.J. Nimmo, *Managing Credit Risk, 2nd Edition* (New York: John Wiley & Sons, 2008).
 - Chapter 6. The Rating Agencies

Part I Changes

Valuation and Risk Models

Additions:

1. *Stress Testing: Approaches, Methods, and Applications*, Edited by Akhtar Siddique and Iftekhar Hasan (London: Risk Books, 2013).
 - Chapter 1. Governance over Stress Testing
 - Chapter 2. Stress Testing and Other Risk Management Tools

Deletions:

1. Philippe Jorion, *Value-at-Risk: The New Benchmark for Managing Financial Risk*, 3rd Edition (New York: McGraw-Hill, 2007).
 - Chapter 14. Stress Testing

Part II Changes

Market Risk Measurement and Management

Additions:

None

Deletions:

None

Deleted from Market Risk / Moved to Operational Risk:

1. Kevin Dowd, *Measuring Market Risk, 2nd Edition* (West Sussex, England: John Wiley & Sons, 2005).
 - Chapter 7. Parametric Approach (II): Extreme Value

Part II Changes

Credit Risk Measurement and Management

Additions:

1. Giacomo De Laurentis, Renato Maino, Luca Molteni, *Developing, Validating and Using Internal Ratings* (Hoboken, NJ; John Wiley & Sons, 2010).
 - Chapter 2. Classifications and key concepts of credit risk
 - Chapter 3. Ratings assignment methodologies
2. *Stress Testing: Approaches, Methods, and Applications*, Edited by Akhtar Siddique and Iftekhar Hasan (London: Risk Books, 2013).
 - Chapter 4. The Evolution of Stress Testing Counterparty Exposures

Deletions:

1. Arnaud de Servigny and Olivier Renault, *Measuring and Managing Credit Risk* (New York: McGraw-Hill, 2004).
 - Chapter 3. Default Risk: Quantitative Methodologies
2. Allan Malz, *Risk Management: Models, History, and Institutions* (Hoboken, NJ: John Wiley & Sons, 2011).
 - Chapter 6. Credit and Counterparty Risk

Part II Changes

Operational and Integrated Risk Management

Additions:

1. “Standardised Measurement Approach for operational risk—consultative document,” (Basel Committee on Banking Supervision Publication, March 2016).
2. Giacomo De Laurentis, Renato Maino, Luca Molteni, *Developing, Validating and Using Internal Ratings* (Hoboken, NJ: John Wiley & Sons, 2010).
 - Chapter 5. Validating rating models
3. “Guidance on Managing Outsourcing Risk,” Board of Governors of the Federal Reserve System, December 2013.

Added to Operational Risk / Moved from Foundations:

1. Anthony Tarantino and Deborah Cernauskas, *Risk Management in Finance: Six Sigma and Other Next Generation Techniques* (Hoboken, NJ: John Wiley & Sons, 2009).
 - Chapter 3. Information Risk and Data Quality Management

Added to Operational Risk / Moved from Market Risk:

1. Kevin Dowd, *Measuring Market Risk, 2nd Edition* (West Sussex, England: John Wiley & Sons, 2005).
 - Chapter 7. Parametric Approaches (II): Extreme Value

Deletions:

1. “Operational Risk—Supervisory Guidelines for the Advanced Measurement Approaches,” (Basel Committee on Banking Supervision Publication, June 2011). Paragraphs 1-42 (intro) and 160-261 (Modeling) only
 - Paragraphs 1-42. Introduction
 - Paragraphs 160-261. Modeling

Optional Regulatory Readings for Reference

Additions:

1. “Minimum capital requirements for market risk” (Basel Committee on Banking Supervision Publication, January 2016).*

*This reading is available for free on the GARP website.

Part II Changes

Risk Management and Investment Management

Additions:

1. Andrew Ang, *Asset Management: A Systematic Approach to Factor Investing* (New York: Oxford University Press, 2014).
 - Chapter 6. Factor Theory
 - Chapter 7. Factors
 - Chapter 10. Alpha (and the Low-Risk Anomaly)
 - Chapter 13. Illiquid Assets (entire chapter; previously Section 13.5 was excluded)

Deletions:

None

Part II Changes

Current Issues in Financial Markets

Additions:

1. Böhme, Rainer; Christin, Nicolas; Edelman, Benjamin; and Tyler Moor, "Bitcoin: Economics, Technology, and Governance." *Journal of Economic Perspectives*, Vol. 29, No. 2, Spring 2015.*
2. Dudley, William C., "Market and Funding Liquidity—An Overview," Remarks at the Federal Reserve Bank of Atlanta 2016 Financial Markets Conference, Fernandina Beach, Florida, 1 May 2016.*
3. "Chapter 2: Market Liquidity – Resilient or Fleeting?" International Monetary Fund, Global Financial Stability Report, October 2015.*
4. "Algorithmic Trading Briefing Note," Federal Reserve Bank of New York, April 2015.*
5. Morten Bech, Anamaria Illes, Ulf Lewrick, and Andreas Schrimpf, "Hanging up the phone—electronic trading in fixed income markets and its implications," BIS Quarterly Review, 2016.*
6. Linnemann Bech, Morten and Aytex Malkhozov, "How have central banks implemented negative policy rates?" BIS Quarterly Review, March 6, 2016.*
7. Corporate Debt in Emerging Economies: A Threat to Financial Stability?" Committee on International Economic Policy and Reform, Brookings Institution, September 2015.*

Deletions:

All of previous readings.

*This reading is available for free on the GARP website.

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About GARP | The Global Association of Risk Professionals (GARP) is the leading globally recognized association dedicated to the education and certification of risk professionals, connecting members in more than 190 countries and territories. GARP's mission is to elevate the practice of risk management at all levels, setting the industry standard through education, training, media, and events.



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