MARKET and LIQUIDITY RISK   Collegio Carlo Alberto 2024/2025

 PURPOSE OF THE COURSE

The aim of the course is to provide a broad introduction to the theory and practice of risk management for Asset Management companies. In the first part of the course the different approaches to modeling scenarios and basic principles of risk management will be examined from a theoretical point of view. In the second part a global review of European legislation on risk control will be discussed. The third part will be devoted to analyzing how to define risk policies for portfolio management, with several example of financial application of risk management techniques.

TOPICS OF THE COURSE

• The basic of risk management: "mark to market" principle, time horizon risk factors.

• Future scenarios: probability density functions, scenario generation (parametric methods,

Historical and Monte Carlo simulation, hybrid methods, e.g. bootstrapping techniques);

• Risk measures: standard deviation (volatility) & tracking error, quantiles (VaR), lower partial

moments and downside risk, worst case, sensitivities.

• Stress testing & Back testing.

• Global review of European legislation on risk control.

• Defining and setting the appropriate risk policy.

• Risk policies for active portfolios

READING LIST:

Lecture Notes

JPMorgan "RiskMetrics – Technical Document" - 1996

MSCI Barra "BarraOne Analitics Guide" - 2011

"StatPro Historical-simulation Method" Dario Cintioli-Marco Marchioro - Yearbook 2005

"VaR without correlations for portfolio of derivative securities" Barone-Adesi-Giannopoulos-Vosper - 1999

"The Hidden Dangers of Historical Simulation" Pritsker - 2001

"Moving Average Models for Volatility and Correlation, and Covariance Matrices" Carol Alexander - 2007

"Integrated Risk Management with a Filtered Bootstrap Approach" Marsala-Pallotta-Zenti - Economic Notes 2002

"Risk Management e Istituzioni finanziarie – LUISS University Press /Risk Management and Financial Institutions Wiley Finance - John Hull"

"Risk policies for active asset managers" Brandolini-Pallotta-Zenti - Journal of Asset Management - 2003

"Backtesting Value-at-Risk Models" Olli Nieppola - 2009

"Backtesting value-at-risk: a comparison between Filtered Bootstrap and Historical Simulation" Brandolini-Colucci - Journal of Risk Model Validation - Winter 2012/2013