

RISK

New Edition

Quantifying Risk

Course Outline

FORT GREY CONSULTING

Tutor: Dr Quintin Rayer

Fort Grey Consulting Limited is registered with the Guernsey Financial Service Commission - Licence number 2263741.

Overview

Attempting to put numbers to fund or portfolio risks is a challenging task. Measuring, or quantifying, risk is not straightforward. Further, individual risk measures used in the finance sector can have weaknesses if not properly understood.

This course provides an overview of a range of risk measures widely used to analyse fund or portfolio risk including topics such as volatility, value-at-risk, drawdowns, correlation and 'betas'.

Examples are provided throughout to encourage practitioners to be able to explore a number of the concepts themselves after the course.

The estimated time required to complete this course is 3-6 hours.

Target Audience

- Professionals in the financial services sector who wish to improve, or refresh, their knowledge of risk measurement methods for portfolios or funds. This includes staff new to risk functions who wish to gain an overview of the various quantitative methods used to analyse portfolio risk.
- Although risk measurement has the potential to be a mathematically-intensive topic, this course keeps mathematics to a minimum to support those financial professionals without a quantitative background, but who require a strong appreciation of the core concepts.

Course Outline

1. Introduction

Sources of risk – risk & uncertainty, classification – forward or backward looking?

2. Volatility

Volatility and what it looks like – criticisms – population & sample – normal distribution – probabilities of extreme events.

3. Value-at-Risk

What is Value at Risk? – VaR statement – overview of VaR methods – parametric VaR – with pictures – assumptions – non-normality – *animation* illustrating skew and kurtosis – historical VaR.

4. Drawdowns

Drawdowns – in Excel – maximum drawdown.

5. Correlation

What correlation looks like – combining volatilities two assets – tracking error.

6. Regression

Linear regression – CAPM beta – multiple regression – correlation and R^2 – regression & causality? – exploring assumptions.

7. Summary

Overview – contact details.

Tutor



Dr Quintin Rayer

BSc, ARCS, DPhil, CPhys, Chartered FCISI, Chartered Wealth Manager, SIPC

Consultant

- Dr Quintin Rayer is a Chartered Fellow of the Chartered Institute for Securities and Investments, a Chartered Wealth Manager, holds a Physics degree from Imperial College London and a Physics doctorate from Oxford University.
- Quintin has applied knowledge from nuclear and aerospace engineering to areas in finance, working for actuarial and investment consultancy firms as well as a multi-national European bank for nearly ten years.
- Projects have included substantial and innovative development of quantitative fund selection and analysis techniques, risk monitoring and portfolio optimisation, including in-house training for analysts and relationship managers.
- Quintin has completed the Sustainable Investment Professional Certification (SIPC) with the John Molson Business School, becoming this programme's first graduate in the Channel Islands and the second in the UK.

Course Benefits

- Understand how to measure fund or portfolio risk.
- Appreciate the strengths and weaknesses of a range of fund and portfolio risk measures.
- Develop insight into risk measures such as: volatility, value-at-risk, drawdowns, correlation and 'betas'.
- Be able to apply concepts to your own portfolios after the course, by following through the worked course examples.
- Course completion certificate as evidence for meeting Continuing Professional Development (CPD) requirements.

Course Content Includes

- Slides to work through at your own pace.
- Video: narrated slides with explanations of the material covered.
- Video: television presenter style.
- Video animation illustrating key concepts.
- Worked examples.
- Test questions to check understanding.
- Course certificate that can be downloaded as proof of completion.