



# FRM Level 1 Lecture Notes

v. 1.0.0

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## Introduction

The FRM exam

## Key to success

## Foundations of risk management

Overview

## Risk management: a helicopter view



- ▶ International professional certification offered by **GARP** (The Global Association of Risk Professionals).
- ▶ A certificate focus on risk management, 2 levels:
  - ▶ **Part 1**: tools used to assess financial risk : Foundations of Risk Management, Quantitative Analysis, Financial Markets and Products, Valuation and Risk Models
  - ▶ **Part 2**: Measurement and Management of: Market Risk, Credit Risk, Operational and Integrated Risk; Current Issues in Financial Markets
- ▶ Scoring and results:
  - ▶ All multiple choice questions
  - ▶ No penalties for wrong answers
  - ▶ Passing scores determined by FRM committee (~ 50%)
  - ▶ Exam results emailed six weeks after the exam, quartile results



**Table:** Part 1 exam contents and weights

| Book | Knowledge Domains              | Weight | # Questions |
|------|--------------------------------|--------|-------------|
| 1    | Foundations of Risk Management | 20%    | 20          |
| 2    | Quantitative Analysis          | 20%    | 20          |
| 3    | Financial Markets and Products | 30%    | 30          |
| 4    | Valuation and Risk Models      | 30%    | 30          |

<sup>a</sup> 4 hours exam time



## Plan and practice

- ▶ Begin studying early
- ▶ Study plan and stick to the plan
- ▶ **Practice exams**

## Recourses

- ▶ Official books
- ▶ Schweser
- ▶ [bbs.pinggu.org](http://bbs.pinggu.org)



## Concepts

- ▶ **Risk:** uncertainty regarding losses/gain.
- ▶ **Risk management:** Activities aimed to reduce eliminate potential to incur expected losses.
- ▶ **Risk trading:** taking risk → generating incremental gains

## Types of risk

- ▶ Market risk: *e.g.* IR, FX, equity, commodity price, *etc*
- ▶ Credit risk: *e.g.* default, bankruptcy, downgrade and settlement
- ▶ Liquidity risk: *e.g.* funding/trading liquidity risk
- ▶ Operation risk



## Risk management process

1. Identify
2. Quantify and estimate
3. Determine collective effects/cost-benefit analysis
4. Develop risk mitigation strategy
5. Assess performance and amend risk mitigation strategy as needed



## Tools and procedures

- ▶ Quantitative measures: *e.g.* VaR, Expected shortfall, Exposures<sup>a</sup>
- ▶ Quantitative assessment: scenario analysis, stress testing,
- ▶ Enterprise risk management (ERM): integrative approach within an entire entity

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<sup>a</sup>Will re-visit

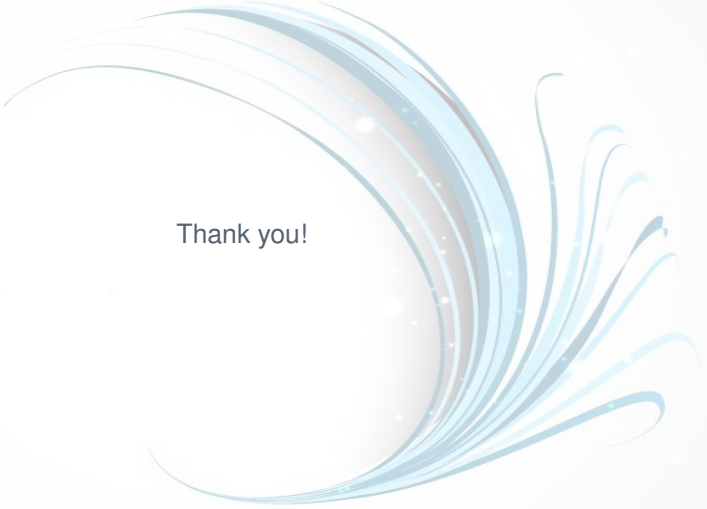
## Expected & unexpected loss

- ▶ Quantitative measures: *e.g.* VaR, Expected shortfall, Exposures<sup>a</sup>
- ▶ Quantitative assessment: scenario analysis, stress testing,
- ▶ Enterprise risk management (ERM): integrative approach within an entire entity

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Thank you!