



# Financial Econometrics

## Introduction

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- ▶ My name: CHEUNG Ying Lun
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- ▶ My office hour:
  - ▶ Mon 10:00-12:00
  - ▶ Please write an email announcing your concern before showing up in the office.

- ▶ Course title: Financial Econometrics
- ▶ Course website (first part only): <https://cheungyinglun.github.io/teaching/2019-09-financial-econometrics>
- ▶ Language of instruction: English
- ▶ Instructors:
  - ▶ Part 1: CHEUNG Ying Lun
  - ▶ Part 2: Sui LUO
- ▶ Class venue and time:
  - ▶ Mon 08:00-10:00 博学楼 606
  - ▶ Wed 10:00-12:00 博学楼 502

First half (50% of course grade):

- ▶ Class participation: 10%
- ▶ Assignments: 10%
- ▶ Exam: 80%

1. No stupid questions!

## 1. Primer on financial econometrics

- ▶ Price, returns, and compounding
- ▶ Review of statistical methods
- ▶ Value at risk and expected shortfall

## 2. Stationary time series

- ▶ Market efficiency hypothesis
- ▶ Stationarity and ergodicity
- ▶ ARMA model
- ▶ Estimation, inference and model selection
- ▶ Forecasting

## 3. Nonstationary time series

- ▶ Deterministic trends and unit root
- ▶ Unit root tests
- ▶ ARIMA model
- ▶ *Price bubbles (Tentative)*