

# **Session 1: Introduction**

**Foundations of Finance**  
**Spring 2026**

# Outline

- Practical Information about the class:
- Overview of class:
  - Outline of topics covered
  - The axioms underlying finance
  - The main insights of finance
- Some words about fintech

# General information

- Class Times:
  - Monday (17:00 - 18:20 p.m.)
  - Wednesday (17:00 - 18:20 p.m.)
- Office Hours:
  - Monday (16:00 - 17:00 p.m.) & Wednesday (16:00 - 17:00 p.m.)
  - Or by appointment
- Prof. Luis Garvía,
  - 28 sessions to get to know each other
  - [lg139@nyu.edu](mailto:lg139@nyu.edu) (questions)
  - +34 671 035 094 (appointments )
  - <https://www.linkedin.com/in/garvia/>

# General information

WhatsApp Group:

**NYU Finance Spring 2026**

Grupo de WhatsApp



<https://chat.whatsapp.com/LOV41gje0NmIWy5D8rMuBv>

# Resources

- Recommended Readings:
  - Bodie, Kane and Marcus (BKM), “Essentials of Investments,”
  - Ross, Westerfield, and Jordan (RWJ), “Essentials of Corporate Finance,”
- The Web Page on NYU BrightSpace will contain:
  - the slides
  - the problem sets and **their solutions**
  - the handouts,
- Calculators:
  - You need a calculator for problems and exams (e.g. ln, exp).
  - Having a financial calculator is an advantage, but not an absolute requirement.
  - Start familiarizing yourself with the calculator ASAP.
  - Exams will be solvable with standard calculator...

# Problems

- Solving lots of problems is *crucial!*
- 6 problem sets
  - Hand in individual assignments
  - You may collaborate, but you need to state it at the top
  - Checked, not graded
- Suggested problems from BKM on class

We will deal with so many *languages*: English / Spanish, Maths, Accounting, Excel, Programming... and Finance itself. *Practice is the only way.*



# Co-curricular activities

Students are required to submit the **15<sup>th</sup> April** a report, including a photographic report.

- The report must be uploaded as a post in the BrightSpace Forum (1 hour per response/post).
- Additionally, each student is required to comment on one or two reports from other students (1 hour per response/post).

- 1) The student must have participated in at least one of the following activities from the "Mapping Madrid" series:
  - Money Heist, with Professor Luis Garvía - Friday (2 hours)
  - Food Cultures and the City's Markets, with Professor Ellen Gordon - (2 hours)
  - One Person's Trash is Another Person's Treasure: Exploring El Rastro (Flea Market), with Professor Luis Garvía - Sunday (2 hours)
- 2) Visit to the Madrid Stock Exchange - **TBD** (4 hours)  
From 11:00 to 15:00.  
Palacio de la Bolsa. Plaza de la Lealtad, nº 1. 28014-Madrid.

# Grades

- Participation 5%
- Co-curricular activities 10%
- Problem sets 10%
- Midterm 30%
- Final 45%

## Participation

- During Class:
  - Interactive!
  - Slides and white board – take notes!
- Before class: readings (see Syllabus, see last slide).
- After class: Review your notes, handouts, and readings

## Midterm & final

- Cumulative
- Format:
  - Closed book
  - 1 sheet of notes plus formula sheet
  - Multiple choice questions and short problems from problem sets, lectures and text

# Prerequisites

- Some knowledge of the basics of finance, although the course is self-contained.
- Because of the nature of modern practical finance, the course is heavily quantitative:
  - Calculus and algebra in class and in problems.
  - Statistics: mean, variance, correlation and regression analysis (read **Statistics Review**).
- Knowledge of how to use a calculator and excel
- Stay up to date: FT, WSJ, Economist

# The Course Outline

1. Market Structure: Financial Instruments and Markets
2. Performance Measures: Time Value of Money
3. Valuing Financial Assets:

- Portfolio Selection
- The Capital Asset Pricing Model
- Market Efficiency, Frictions, and Anomalies
- Equity Valuation
- Arbitrage
- Fixed Income Securities
- Derivative Securities

Learn to add

Return and risk

Can we predict the future?

Stocks

Bonds

Options

Futures

SWAPs

Derivatives

# **Finance is Based on Simple Axioms**

## **1. Investors prefer more to less**

- Example: \$100 is better than \$10.

## **2. Investors are risk averse**

- Example:
  - A) \$1 million for sure
  - B) 50/50 gamble \$0/\$2 million

## **3. Money paid in the future is worth less than the same amount today**

- Example: \$100 today is better than \$100 next year

## **4. Financial markets are competitive; no arbitrage**

- Example: There should not be a stock that people agree is under-priced

# Price vs. Value

- Are price and value the same thing?
  - Price: Is objective (there is only one)
  - Value: Is subjective (each one has its own)
- Equilibrium models, efficient markets and no arbitrage hypothesis.
- Rational investors vs. irrational investors
- It is reasonable apply valuation models based on equilibrium when talking about technology?



How much would you pay for Whatsapp?

**WhatsApp Free For All Users After App Removes 99 Cent Subscription Fee**

**Facebook \$22 Billion WhatsApp Deal Buys \$10 Million in Sales**

[Bloomberg 2014](#)

# Nobel-Prize-Winning Insights



Harry  
Markowitz



William  
Sharpe



Myron  
Scholes



Robert  
Merton



Eugene  
Fama



Lars  
Hansen



Robert  
Shiller

- Harry Markowitz (1990): Optimal portfolio selection.
- William Sharpe (1990): Capital Asset Pricing Model. In equilibrium, riskier assets have higher returns
- Robert “Bob” Merton, Myron Scholes (1997): No arbitrage and pricing of derivatives
- Gene Fama (2013): efficient markets
- Robert Shiller (2013): irrational markets
- Lars Hansen (2013): statistical methods
- Jean Tirole (2014): market power and regulation
- Richard Thaler (2017): nudge theory
- Nordhaus and Romer (2018): Climate change and Tech
- Banerjee, Duflo and Kremer (2019): poverty



Jean  
Tirole



Richard  
Thaler

# Some words about Fintech

- 1452 – Printing press
- 1661 – First bank note (200 years later)
- 1776 – Adam Smith (100 years later)
  - .... Ricardo (1817), Malthus (1798), Ramsey (1928), Young (1934), Schumpeter (1934), Keynes (1936), Hayek (1941), Domar (1946)...
- 1990 – Internet
- 2008 – Bitcoin or 2020 Digital Yuan (30 years)

# Conclusions

- Things happen quickly: do not relax and enjoy
- Simple ideas become complex by aggregation. The more you work at the beginning the easier it will be at the end.
- Next class we will continue working on simple ideas.

# Next Session Assignments

- Read the syllabus
- Skim BKM Chap 1-3