

# **Corporate Finance (ECON GU4280)**

## **Lecture 24**

Tri Vi Dang

Columbia University

Fall 2025

November 2025

## I. The theory of corporate finance

I.1. Valuation concepts

I.2. Financial structure decisions

I.3. Taxes and the costs of financial distress

I.4. Financial decisions and conflict of interests

## II. The practice of corporate finance

II.1. Internal finance, corporate control and merger analysis

II.2. Private equity finance

II.3. Business analysis and financial analysis

**II.4. Enterprise valuation**

## Lecture 24

### **II.4 Enterprise Valuation**

#### G. Market Sentiment, Investment and Corporate Finance

## **II.4.G. Market Sentiment, Investment and Corporate Finance**

## **Remark**

High market sentiment is typically associated with high equity valuation.

## **Question**

Is a bubble a “good or bad” thing?

## **Answer**

There are social costs (“wrong” prices leads to excessive investments).

Dominant view focuses on social costs.

It is not so clear whether a bubble only decreases social welfare.

Bubbles could stimulate innovations.

## **Remark**

Venture capitalists tend to have the view that bubbles are good for innovations.

## **As Technology Deals Boom, the Talk Turns to Bubbles**

NYT Dealbook, 11/19/2010

Mr. Doerr said technology was in the middle of a third wave of innovation. (The previous two waves were the PC revolution in the 1980s and the Internet boom in the mid-1990s.) The current wave, he said, is focused on smartphones and social networking — or “social graphs” as he called them.

Mr. Doerr: I prefer to think of these bubbles as booms. I think booms are good. Booms lead to overinvestment, booms lead to full employment, booms lead to lots of innovation. You know, there was a boom when they started the railroads. We’re in another bubble — or boom — and it’s an exciting time.

Mr. Wilson: My friend says that nothing great is ever created without irrational exuberance. That’s totally accurate. This frothy time will finance a lot of great ideas that will become great companies. But we do need to focus that capital on new and different ideas and not retread ‘me too’ ideas, and there’s a lot of that happening.

[http://dealbook.nytimes.com/2010/11/19/as-tech-deals-boom-talk-turns-to-bubbles/?\\_r=0](http://dealbook.nytimes.com/2010/11/19/as-tech-deals-boom-talk-turns-to-bubbles/?_r=0)

## **Electric Carmakers Are in a Stock Market Bubble**

Bloomberg, 11/26/2020

*From a climate perspective, it's great that investors are allocating capital like this. Still, valuations look mighty bubbly.*

*The potential for disappointment is massive, particularly for the newest crop of EV makers that are yet to generate meaningful revenue.*

<https://www.bloomberg.com/opinion/articles/2020-11-27/tesla-nikola-nio-and-fisker-there-s-a-bubble-in-electric-car-stocks>

## **Tesla sales plunge far more than expected**

CNN, 4/2/2024

<https://www.cnn.com/2024/04/02/business/tesla-sales/index.html>

## **Remark**

Many small EV producers faced bankruptcy issues in 2024.

## **Remark**

The following paper conducts an empirical analysis of this question.

Dang and Xu (2018): Market Sentiment and Innovation Activities, *Journal of Financial and Quantitative Analysis* 53, 1135-1161.

<https://www.cambridge.org/core/journals/journal-of-financial-and-quantitative-analysis/article/market-sentiment-and-innovation-activities/90512C13FA41C5C61767E09726BA954D>

This paper shows that high market sentiment (lower cost of equity) leads to more equity issuance and R&D investment of firms by relaxing financial constraint.

More R&D leads to more patents production and higher future stock prices.

In this sense bubbles have some social benefits.

## **Corporate finance and valuation**

A key question in corporate finance is how entrepreneurs and firms can or should raise money to finance investment projects and firms growth.

## **External Finance**

Firm sells cash flow rights backed by its projects to investors.

Both sides of the market (sellers and buyers) have to value cash flows streams.

→ Valuation Concepts

But in reality, it is very difficult to determine the “fundamental” value of a project or even the whole firm as a bundle of projects.

→ Business and financial analysis and growth projections

## **Other factors affecting valuation**

Pricing depends on how financial claims are designed.

→ Debt versus equity

Pricing depends on how and where financial claims are traded

→ IPO versus private equity finance

Pricing and the value of the firm depend on

→ Taxation (Different tax treatment of different claims)

→ Costs of financial distresses and bankruptcy codes

→ Investor protection, corporate governance, regulatory and legal system

## Internal Finance

As an alternative, a firm with retained earnings can use its own cash flow to finance investments.

- Corporate control and governance
- Agency costs of free cash flows

Furthermore, financing decision can affect investment choices and cash flows and thus the value of the firm.

## Remark

On top of all these considerations, corporate investments and finance depend on the macro economy, political environment, geopolitics, and investors' sentiment in financial markets.

Market sentiment (psychology and narrative) is important.

There are feedback effects between finance, investment and economic growth.

Growing economy attracts capital

More capital reduces cost of finance

Lower cost of finance increases investments

More investment increases growth and attract more capital

## **Remark (AI boom)**

A prime example is the AI capex boom and financial market mania for AI stocks where capex spending and burning cash are celebrated rather than profits.

The impact of AI for the economy is absolutely transformative.

Enthusiastic investors pull in massive amount of money for capex spending on AI infrastructure (chips, data centers, algorithms).

AI labeled firms have large amount of money to invest (even in negative NPV projects without commercial value).

Some of the investment will produce innovation (by a few successful AI firms).

Most likely the majority (90%) of AI labeled firms and start-ups will not deliver any AI innovations with commercial value and fail (like EV, fintech, dot.com).

## **Remark (economic versus stock valuation)**

There seems to be a confusion about the fundamental difference between the real economic impact of AI and the financial valuation of AI labeled firms.

Even the best AI company can have an excessively high valuation making it an unprofitable financial investment at that mighty price by common measures.

Many AI labeled start-ups and listed firms have no proven track record that they can produce AI innovations and commercialize them.

No ability to commercialize AI ideas plus heavy competition mean no generation of cash flow to cover investment costs.

The valuation of such firms will converge to zero when fundamentals are realized.

## **Remark (AI winner)**

Alphabet could be the winner in the AI race.

Alphabet has its own AI TPU chips, data centers, leading AI models as well as its own ecosystem with many in house applications and a massive basis of consumers and business users (whole AI supply chain).

Like other firms and hyperscalers, it also borrows from the bond market to fund AI capex but Alphabet has enough internal cash flow to repay because of its two cash cows, cloud unit and marketing revenue from Google (now) AI search unit.

Debt loaded AI firms could go bankrupt before producing and commercializing any AI product because of heavy AI competition and lenders scrutiny.

In addition, Alphabet is leading in quantum computing research which could be the next transformative innovation.

## **Remark (financial skills in AI era)**

Creativity backed by detailed institutional knowledge plus conceptual understanding of complex economic tradeoffs, incentives and strategies can distinguish a human worker from an AI agent in the context of finance.

Fundamental valuation and long term investment are about a deep understanding of businesses, products, industries and thus each part of the supply chain rather than crunching numbers or chasing unsustainable trends.

Pure technical valuation skills (excel) could easily be replaced by AI.

Still DCF and excel presentation skill is a language in finance to communicate ideas and remains important (to evaluate AI outputs) but does not create value.

Value added financial solutions and innovations are generated by the understanding of complex concepts, communication with clients and creativity.

## **Remark (corporate finance course)**

This introductory course provides an overview and discussion of various interdependent aspects in corporate finance.

An objective is to highlight a large set of relevant economic tradeoffs that a decision maker should take into account when making financing and investment decisions.

Theoretical frameworks and practical skills are both important.

Equally important is an understanding of markets and market sentiments.

In order to add value it is essential to understand frictions and demand.

Conceptual thinking about tradeoffs, incentives and strategies are crucial for making critical independent judgments and decisions, especially in the AI era.

## **Remark (students entering the labor markets)**

Contribute a bit more than required.

Be creative but think critically.

Be lucky and have the chance to work with and learn from the smartest people with high integrity.

Then work is fun and a transformative experience.