INTRODUCTION

What is Finance?

Finance examines the ways that individuals and corporations raise and spend money—both how they do and how they should—so as to produce the highest expected value from investments in assets. As highlighted earlier, Finance started out as a field of Business Administration before crossing over and being taken up by Economists. Like every other resource, finance is scarce, has alternative uses, and individuals, corporations and states will never have enough of it (they have insatiable appetite for Finance). Consequently, finance borrows heavily from economics for theoretical and analytical tools.

Finance is divided into a number of fields, the major ones being Corporate Finance and Capital Markets[[1]](#footnote-1).

Corporate Finance or business finance addresses how managers of companies make real investments, raise capital, control risks and return money to investors. Topics of study include;

* Cash flows
* Capital budgeting
* Capital structure and cost of capital
* Business valuation
* Mergers and acquisitions
* Risk management and payout policies

Capital markets examine how financial securities are priced by markets, and how to make decisions concerning investments in portfolios of different types of financial assets. Topics of study include;

* The relation between risk and return
* Pricing of bonds, stocks and derivatives
* Term structure of interest rates
* Allocation of wealth among different types of securities, and
* Institutional frictions that prevent the attainment of optimal prices

A few simple assumptions about investor behavior underlie much of finance: that, all else being equal (Ceteris Paribus), investors prefer more wealth to less, less risk to more, and want their cash flows sooner rather than later. This leads to the idea of a discount rate, the notion that future cash flows are discounted in value to equate to the present, using a factor that reflects a risk-adjusted cost of capital relevant to the asset.

These ideas combine to establish a key rule: we should invest in an asset only if it is expected to generate a return greater than its cost of capital, in other words, if it has positive expected value today (“positive net present value”). Since that judgment requires assessing an asset’s intrinsic value, tools and methods to assess such value are central to finance. Intrinsic value, in turn, is determined by the sum of all expected future cash flows from the asset, discounted back to the present at its cost of capital.

In its theories and practice, the core ideas in finance are founded on a set of logically cogent ideas. There are few disciplines in business schools where academic research and the real world come together as remarkably well as in finance. The ideas that underpin the field not only win Nobel prizes regularly, but they also form the basis upon which billions of dollars change hands every day.

That said there are many questions that finance still continues to grapple with. What causes recurrent financial crises? What is the role of “long tail” risks, and how can they be understood and analyzed better? Why do we witness apparently predictable irrational investment decision-making by investors and managers? Why do markets and companies seem prone to herd behaviors? How can corporate governance and incentives be structured so as to produce value-creating outcomes for the long run as opposed to the short run? What is the right balance between free markets and regulation in enabling the best outcomes for society?

Scholarship in finance continues to make exciting progress on all of these important questions.

What is the course (Finance Theory) about?

How much should you save? And how much risk should you bear? When we think about these questions, it becomes clear pretty quickly that they are of great importance to our overall material well-being. Saving is essential because most of us will retire at some point. From that point onwards, although we will still be consuming, we will receive no more labor income. Moreover, we will all face significant economic risks during our lives—the risk of losing our job, for instance, or—much worse—of becoming unable to work because of illness or other misfortunes. Clearly, the risks we are exposed to can have a huge effect on our future life, and it is therefore essential to make rational decisions about how much risk to bear.

Important as these questions are for each one of us, individuals’ decisions about saving and risk-taking also matter for society as a whole. Total saving determines the amount of investment that the economy as a whole can realize and thus affects future production possibilities. The amount of risk that people are willing to bear determines whether risky projects will be undertaken. Individual decisions in the face of future retirement and risk and the capital requirements of more or less risky investment projects are coordinated through financial markets. If markets work well, risk is allocated to those people who are least hurt by it, impatient people get to consume before they earn (by taking out a loan), and capital is allocated to those projects that generate the most attractive risk-return profile. Finance theory is concerned with the determination of those prices that equalize demand and supply on these markets and with their effect on the allocation of capital and risk across agents in the economy. Finance theory is also useful in interpreting financial market prices in ways that are of interest for public policy and social welfare issues. Robert Lucas

(1987), for instance, has examined the social costs of business cycles. This is obviously important for economic policy making, but it is also important for macroeconomic theory. To learn the answer to this question, we need to know how much people dislike risk, that is, variations in income. More specifically, in order to judge how expensive business cycles are, we need to determine a price that people would be prepared to pay to avoid the income variations caused by business cycles. Modern asset pricing theory allows us—at least in principle—to do just that.

Cornerstones of Finance Theory

Finance relies heavily on Economics for both theoretical and analytical tools. For a proper grasp of Finance, one should be well versed in intermediate microeconomics and intermediate macroeconomics at the very least. In particular, the student should take time to review some of the following areas in Economics.

* General equilibrium theory.
* Macroeconomics.
* Asset pricing.
* Macro finance: a unified general–equilibrium–asset–pricing–business–cycle–theory.

Please refer to Yvan Lengwiler (referenced in the course outline) for an overview of these. After this review any text in economics or internet resources will give some good details in these areas.

Landmarks in the Development of Finance

This subtopic aims at tracing the historical development of finance. The American Finance Association (AFA) has an ongoing project that aims at tracing this history. This will be a class assignment. Students are expected to research and develop a write up on the history of finance. When doing this, please focus only on the major events that have significantly influenced finance theory and practice. Limit your write up to 4 printed pages- or 6 written pages.

1. You will often encounter other fields such as real estate, household, and microfinance that may be separate fields on their own or may fall under either Corporate Finance or Capital Markets. [↑](#footnote-ref-1)