**Subject matters: Finance**

*Eminent professors explain their subjects*

The finance course examines the ways that individuals and companies raise and spend money—both how they do and how they should—so as to produce the highest expected value from investments in assets.

An asset is an object into which an investment is made with the expectation of uncertain future cash flows. Assets can be “real” (for example, plant and equipment, new products and markets or companies) or “financial” (stocks and bonds). The study of investments in real assets falls under the rubric of corporate finance, while that of financial assets comes under capital markets.

Corporate 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.

The course on capital markets examines 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 behaviour underlie much of finance: that, all else being equal, 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 analysed better? Why do we witness apparently predictable irrational investment decision-making by investors and managers? Why do markets and companies seem prone to herd behaviours? 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.

***Anant K Sundaram:*** *Finance professor at the Tuck School of Business at Dartmouth College*