

Finance in Business Decisions

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1 Introduction

Within a corporation, the *Chief Financial Officer* (CFO) is usually the most important person below the CEO.

Why?

The finance function has two important roles:

- Providing capital, both for the day to day operations, and for capital investments.
- Deciding on the merits of all the firms investments, through an estimation of the *value* implications of the investment.

In this course focuses on Finance's role in practical business decision:

Quantification that lets the decision maker ask: Does a proposed investment *add to firm value*?

or (in finance terms), is it a *positive net present value project*?

The basis for any decision on a project/investment opportunity:

- *Quantification* of cash flow implications of the project → a *forecast* of future cash flow (often highly uncertain).
- *Quantification* of the *risk* of the project → a risk-adjusted cost of capital
- → *Evaluation*: Is this a positive NPV project?

Two alternative ways of implementing:

- Evaluate the project on its own (standalone).
- Calculate how the project affects total firm value.
 - Calculate the value of the firm without the proposed change.
 - Calculate the value of the firm after the proposed change.
 - Is the second value higher?

2 Building blocks

Some building blocks from a bachelor education in business that is called upon when making finance decisions.

- From Accounting: Inflows and outflows, basis for *cash flow forecasts*
- From Economics: Understanding of demand and supply. (Forecasting sales)
- From Marketing: Manipulating demand (forecasting sales)
- From Strategy: Consequences of major strategic decisions (e.g. market expansion). Cash flow consequences?
- From Finance:
 - The mechanics of *discounting* – tools for estimating present values
 - The mechanics of *risk adjustment* – A more risky investment demand a higher return. Tool: The Capital Asset Pricing Model – Risk is measured by *beta*
 - Pricing stocks (equities) – Estimating the required return for the firm's equity financing.
 - Pricing bonds (debt) – Estimating the cost of the firms borrowing.
 - *Project evaluation* methods
 - * Net present value
 - * Internal rate of return
 - * Payback

For these topics, there are some reminders as separate lecture notes. There is also a number of exercises useful to remind you of how to attack finance problems. (Solutions will be provided at the end of the two finance weeks).

3 Valuation of a company

At the corporate level, decisions made through the lens of a *corporate valuation*

- Framework
 - Detailed forecasts for a short horizon
 - Long horizon simplified growth assumption
 - Corporate cost of capital

How to generate cash flow forecasts?

- Understand your project, project sales, costs, etc.

- From accounts forecast to cash flow forecast

How to estimate a given company/investment project's costs of capital?

- Using equity market data to estimate a company's equity risk.
- What is the cost of a company's borrowing?

From those inputs: Discounting the expected cash flows at the cost of capital:

What is the *value* of the project, either as

- Total value, or
- Added value

Valuations as decision support A company's valuation: Decision input to the company itself.

A company need to maintain a "living" spreadsheet: What is our current value?

A proposed new investment: How does it change the current spreadsheet? What is the added value?