

What is Corporate Finance?

Includes any decisions made by a business that affect its finances

Three major decisions:

- Investments: Where should a firm invest its (scarce) resources?
 - project analysis
 - security analysis
- Financing: How should the firm raise (additional) resources?
 - equity/debt/hybrids
 - long/short term
- Dividend decision: What should the firm do with excess resources?
 - reinvest in business
 - distribute as dividends/return on capital

Corporate Finance – a balance sheet perspective

Balance Sheet

Current Assets

Cash
Accounts Receivable
Inventory

Fixed Assets

Tangible
Intangible

Total Assets

Investment decisions

Current Liabilities

Accounts Payable
Notes Payable

Long-term Debt

Shareholder's Equity

Common Stock
Retained Earnings

Total Liabilities & Equity

Financing decisions

Two separate decisions

The objective of the firm

Why do we need an objective function?

- How do you pick amongst alternatives?
(e.g. NPV rule for projects)
- Single/multiple objectives – if multiple, how do you *weight* objectives, or prioritize?
(e.g. man serving many masters!)

What's a good objective function?

- clear and unambiguous
(should not vary from case to case and person to person)
- measurable, in a clear and timely manner
(“social welfare” – how do you measure it?)
- no side costs
- should benefit firm's long-term health and value

What are some common candidates for the objective function of a corporate firm (and hence the financial manager?)?

The Corporate Objective

- In traditional corporate finance , the objective of the firm is to *maximize the value of the firm*.
- A narrower objective is to *maximize stockholder wealth*. When the stock is traded and markets are viewed to be efficient, the objective is to *maximize the stock price*.
- All other goals of the firm are intermediate ones leading to firm value maximization, or operate as constraints on it.

This *does not* imply that:

- The objective is incompatible with meeting employee needs/objectives
 - Firms that maximize stock price are generally firms that have treated employees well
- Customers are not critical to success
 - In most businesses, keeping customers happy is the route to stock price maximization
- The company has to be a social outlaw!
 - e.g. tobacco companies

Why traditional finance theory focuses on stockholder wealth maximization

- Stock price is easily observable and constantly updated, unlike other performance measures
- If investors are rational (?), stock prices reflect the wisdom of short and long term decisions, instantaneously
 - As per valuation principles, the stock price of the firm summarizes the timing, riskiness, and size of expected future after-tax cash flows.
- The objective of stock price performance provides some very elegant theory on
 - how to pick projects
 - how to finance them
 - how much to pay in dividends

The big picture of corporate finance

The real world – what can go wrong?

Stockholders hire managers to make decisions for them (separation of ownership and management), and borrow money from lenders who cannot monitor perfectly how the money is being used.

Divergence between theory and practice – the incentives of each group are different.

Three additional stakeholders in the firm further complicate matter:

- Employees: often have secondary interest in maximizing stockholder wealth – more interest in wages/benefits/job-security.
- Customers: want the best product at the lowest price!
- Society: the interests of the society may conflict with the interests of the stockholders (tobacco!!).

The real world conflicts

1. Stockholders – Managers:

Assumption: Stockholders hire/fire managers and control their compensation, thereby exercising control and aligning interests.

Reality: stockholders' control over managers is often diluted, hence managers would put their interests over stockholders'.

2. Stockholders – Bondholders

Assumption: Bondholders are fully protected against stockholder actions that expropriate wealth from bondholders, by covenants or reputation considerations.

Reality: Covenants cannot cover all possible scenarios, leaving loopholes. Markets have short memory (?). Stockholders may increase leverage, dividends, accept risky projects.

3. Managers – Financial Markets

Assumption: Managers convey information to the markets in the truthful and timely manner, and the markets efficiently impound information into stock prices.

Reality: Information may be delayed or misleading (can you trust accounting numbers?), markets make mistakes and over react. Managers can manipulate information; insiders can manipulate market prices.

4. Firms – Society

Assumption: In the process of maximizing stockholder wealth, the social costs are either trivial, or can be traced and charged to the firm like any other cost item.

Reality: Sometimes, social costs cannot be traced to the firm (Hollywood?). Or, social costs may not even be known until later (asbestos manufacturers in the 1960s).

Traditional corporate finance theory breaks down when....

- The interests/objectives of the decision-makers in the firm conflict with the interests of stockholders.
- Bondholders (lenders) are not protected against expropriation by stockholders.
- Financial markets do not operate efficiently, and stock prices do not reflect the underlying value of the firm.
- Significant social costs can be created as a by-product of stock price maximization.

When traditional corporate finance theory breaks down, the solution is....

- To choose a different mechanism for corporate governance (e.g. Germany/Japan).
- To choose a different objective function (maximize earnings, revenues, firm size, market share, EVA)
- To maximize stock price, but reduce the potential for conflict and breakdown:
 - making managers (decision-makers) and employees into stockholders.
 - by providing information honestly and promptly to financial markets.

So what do you think?

At this point, the following statement best describes where I stand in terms of the right objective function for decision making in a business:

- ❑ Maximize stock price or stockholder wealth, with no constraints
- ❑ Maximize stock price or stockholder wealth, with constraints on being a good citizen.
- ❑ Maximize profits or profitability
- ❑ Maximize market share
- ❑ Maximize revenues
- ❑ Maximize social good
- ❑ None of the above

The Modified Objective Function

- For publicly traded firms in reasonably efficient markets, where bondholders (lenders) are protected:
 - *Maximize stock price: this will also maximize firm value.*
- For publicly traded firms in inefficient markets, where bondholders are protected:
 - *Maximize stockholder wealth: this will also maximize firm value, but might not maximize the stock price.*
- For publicly traded firms in inefficient markets, where bondholders are not fully protected:
 - *Maximize firm value, though stockholder wealth and stock prices may not be maximized at the same point.*
- For private firms, maximize stockholder wealth (if lenders are protected) or firm value (if they are not).

The Tools of Corporate Finance

- Present Value
 - The value of any asset is the present value of its expected cash flows. For this, we need expected cash flows and a discount rate (cost of capital).
- Financial Statement Analysis
 - The “numbers” come from financial statements.
 - Cash income is different from accounting income.
 - Need to understand financial ratios.
- Risk and Return
 - Investors and firms taking higher risks should be compensated with higher expected returns.
 - How should we measure risk?
 - How should risk be rewarded (risk/return models like CAPM, APT)?
- Option Pricing
 - How is it useful in Corporate Finance?
 - projects may have option to delay, expand or abandon,
 - securities may have embedded options, e.g., warrants, convertibles, callable bonds, etc.
 - debt and equity are contingent claims
 - useful in firm value determination.

Real Options Analysis - The Cutting Edge of Corporate Finance

The value of managerial flexibility:

- Comes from the ability to respond to information that may be received in the future.
- It allows the manager to appropriately alter the course of the project *after* it has been accepted.
- Therefore, this option must have value.
- The greater the ability of the manager to respond, greater the value of the option.
- The greater the likelihood of receiving new information in the future (high uncertainty), the more valuable the option.
- The value of this flexibility is greatest when the project's value is close to break even - when the project is neither obviously good nor obviously bad, the flexibility to change course is more likely to be used and therefore is more valuable.
- In these conditions, using traditional project evaluation tools (like net present value, ROA) can substantially distort the project value.

Some examples:

- Cancelable operating leases on aircrafts.
- Switching options in mining.
- Multiphase investments, like real estate projects.
- Exploration and development of energy sources.