# *Indirect Valuation*

A business's assets can be valued by summing the market capitalisation of equity (E) and debt (D).

$$V = D + E$$

$$= P_{bond}.n_{bonds} + P_{share}.n_{shares}$$

This works well for listed companies whose stock and debt trade in liquid markets.

We can assume that these markets are efficient and that the traded price is fair, so the price of the firm's assets equals the price of all shares and debt.

# *Direct Valuation*

But for private businesses whose equity and debt doesn't trade in an active liquid market, and for business projects, assets must be valued directly using:

- Discounted cash flows (DCF, same as NPV); or
- Multiples valuation techniques such as price-to-earnings or EV/EBITDA ratios.

We'll focus on DCF since it's more challenging.

The two main difficulties with business and project valuation are:

- Forecasting future **cash flows**. Often, even trying to calculate and classify past historical cash flows can be difficult due to the high level of aggregation in accounting statements.
- Forecasting future expected **required returns** which are related to systematic risk.

In this class we'll focus on **cash flows**, especially how to calculate the cash flows from the firm's assets using accounting statements.

When valuing public companies, most of our figures will come from the income statement and balance sheet which are the publically available reports published by all listed companies.

In a later class we'll discuss different ways to calculate the total required return of an asset which is related to the capital asset pricing model (CAPM) and the weighted average cost of capital (WACC).