Valuation

Presented by Sneh

What is Valuation ?

Valuation is a quantitative process of determining the fair value of an asset, investment, or firm. Its a subjective process and varies from person to person. What may be fair for you may not be fair to others.
But why do we need it ?

Need of Valuation

How would you justify your investment? Is investing in your education worth it?
Your friend made a fortune in Bitcoin, should you invest too?
The answer to all these questions lie in the core of valuation.
Only by evaluating different circumstances, probabilities, different models and scenarios you can understand a business.
Although its flawed and problematic, but it works like a charm during decision making.

VALUATION IS AN ART AND NOT A SCIENCE AND MORE PRECISELY ITS AN INFORMED SCIENCE

Two Alternative Valuation Methods

Although there are numerous methods of valuing an asset depending upon its nature, but we would focus mainly on the business valuation. Its broadly classified into 2 categories.

01. Multiples

Also known as the company comparables. The companies are compared based on some standard industry multiples

02. DCF Valuation

Discounted Cash FLow Method is the Gold standard used in the industry. It uses free cash flow for valuing a compnay.

Balance Sheet

Representative balance sheets

Assets: What a company owns	**Liabilities and shareholders' equity: how assets are financed**
Current assets	Current liabilities
Cash	Accounts payable
Accounts receivable	Other current liabilities
Inventories	Noncurrent liabilities
Other current assets	Long-term debt
Noncurrent assets	Other liabilities
Property, plant, and equipment	
Intangibles and other assets	**Shareholders' equity**
	Retained earnings
	Other equity accounts
Total assets	**Total liabilities and shareholders' equity**

A Balance Sheet is a screenshot of a company's assets and liabilities at a given point of time in a year.

Assets = Liabilities + Equity

Income Statement

Amazon.com Inc.'s income statement, 2014 ($ millions)	
Sales	$88,988
Cost of sales (*including $4,746 in depreciation*)	–62,752
Gross margin	**$26,236**
Operating expenses	–26,058
Operating income (EBIT)	**$178**
Interest expense	–289
Tax expense	–167
Nonoperating income	37
Net profit (loss)	**–$241**

Income statement report a company's financial performance over a specific accounting period.

EBITDA Equation

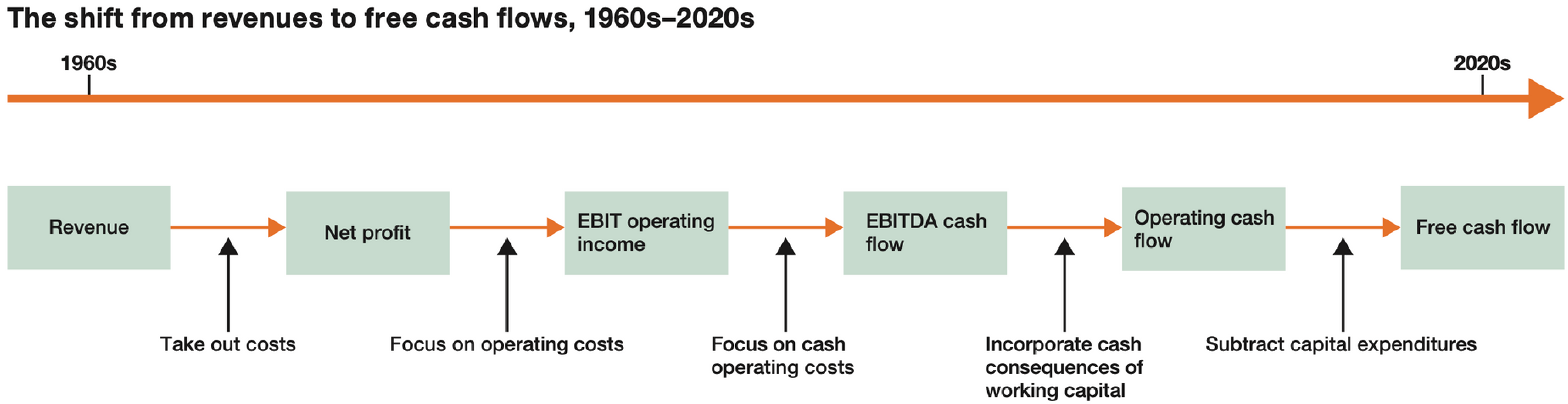
Net profit
+ interest
+ taxes
+ depreciation
and amortization

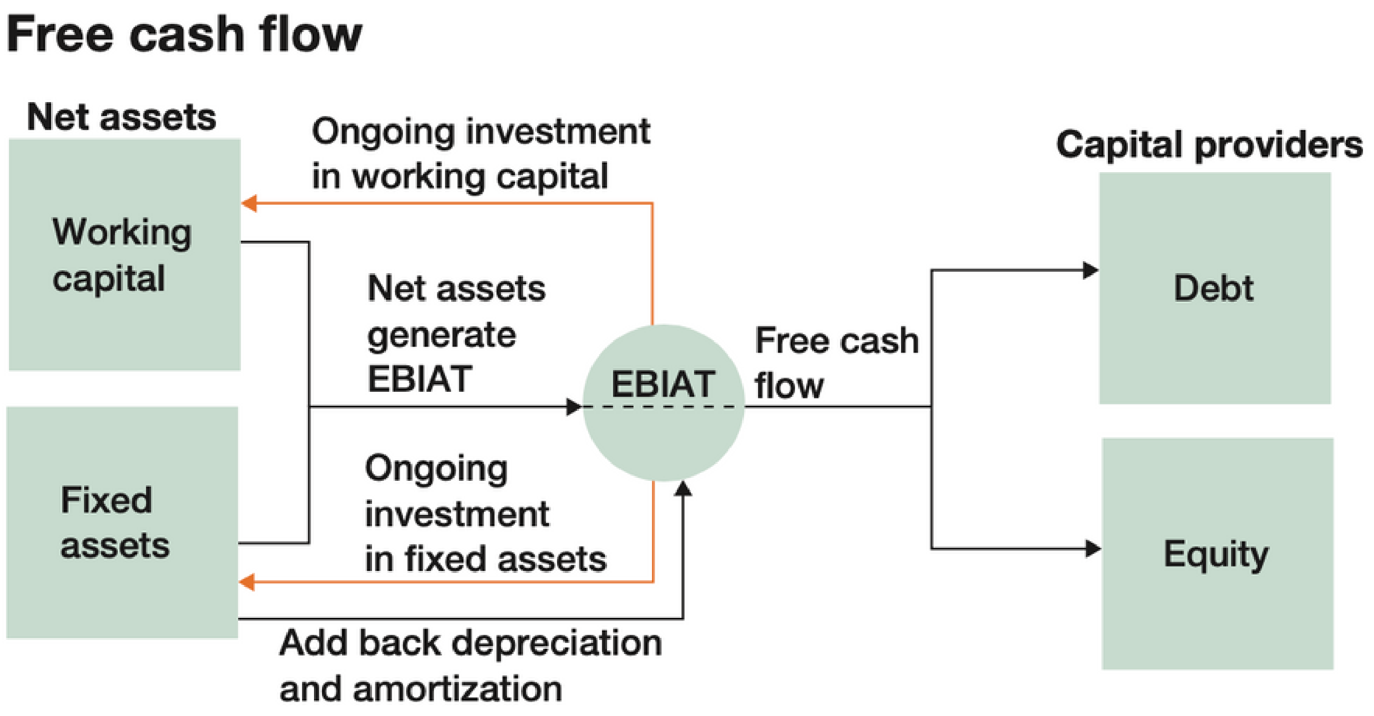
EBITDA

The income statement has 4 key components:

- **Revenue**
- **Expense**
- **Gains**
- **Losses**

Free Cash Flow





Free Cash Flow Equation

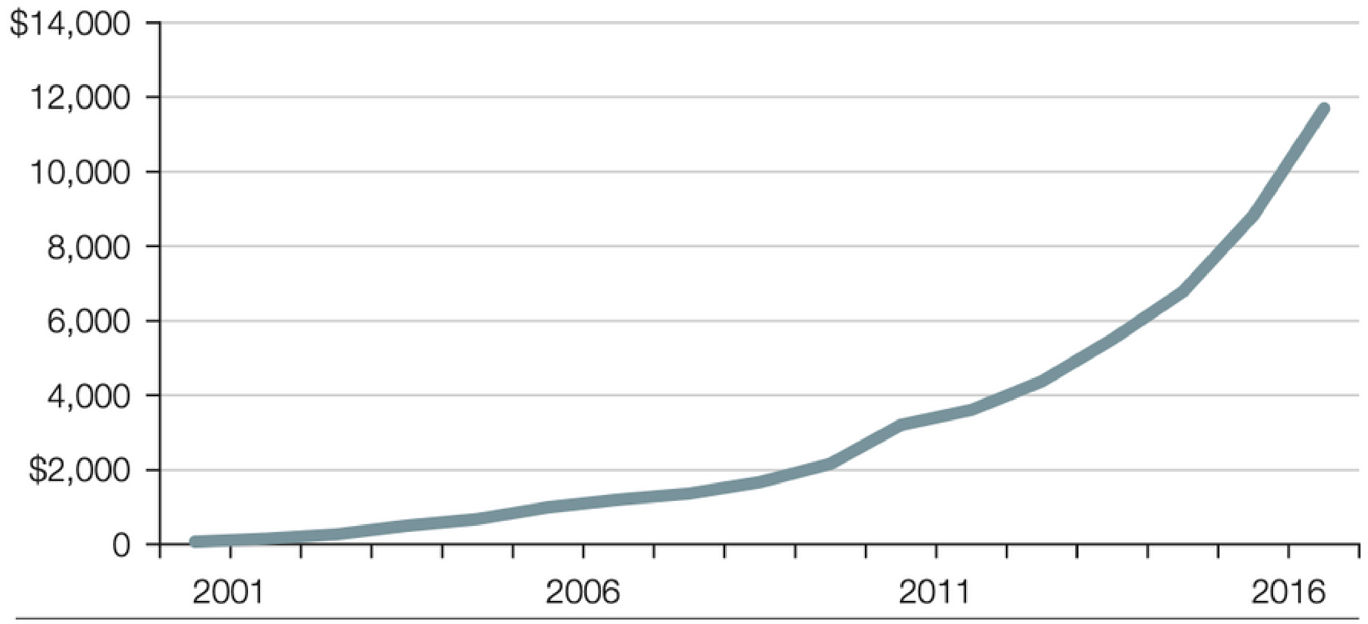
EBIT
− taxes
= EBIAT
+ depreciation and amortization
± changes in working capital
− capital expenditures

Free cash flow

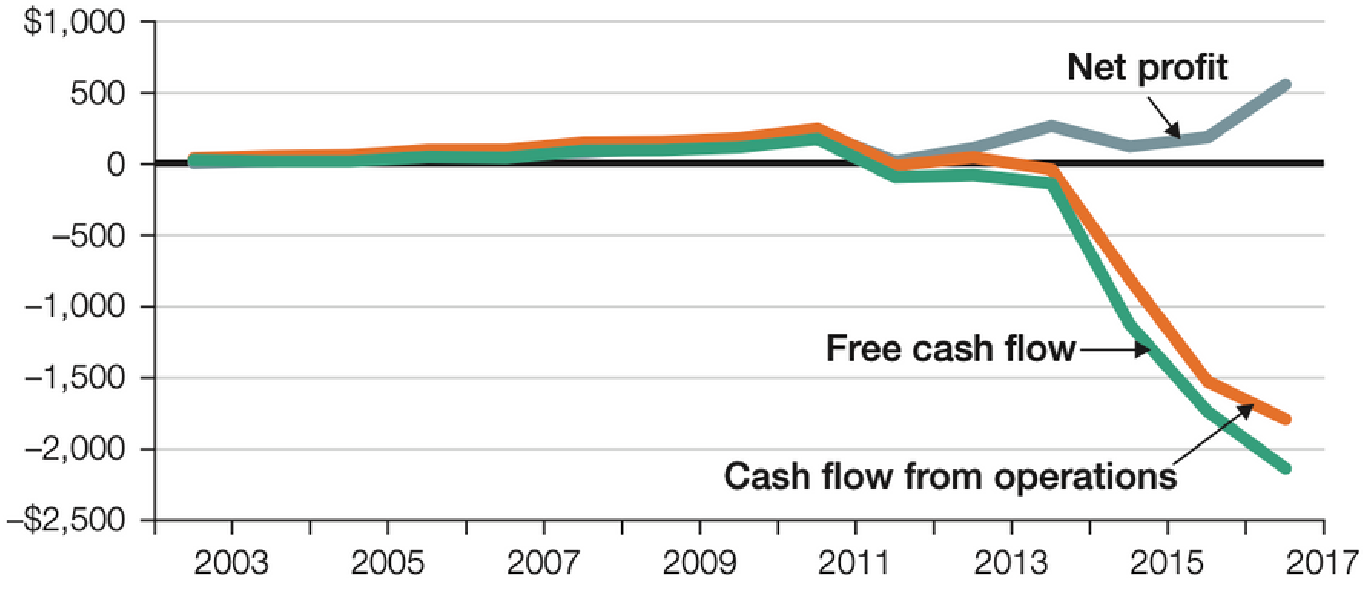
A cash flow statement summarizes the amount of cash and cash equivalents entering and leaving a company.
The main components of the CFS are cash from three areas: Operating activities, investing activities, and financing activities.

Case Study

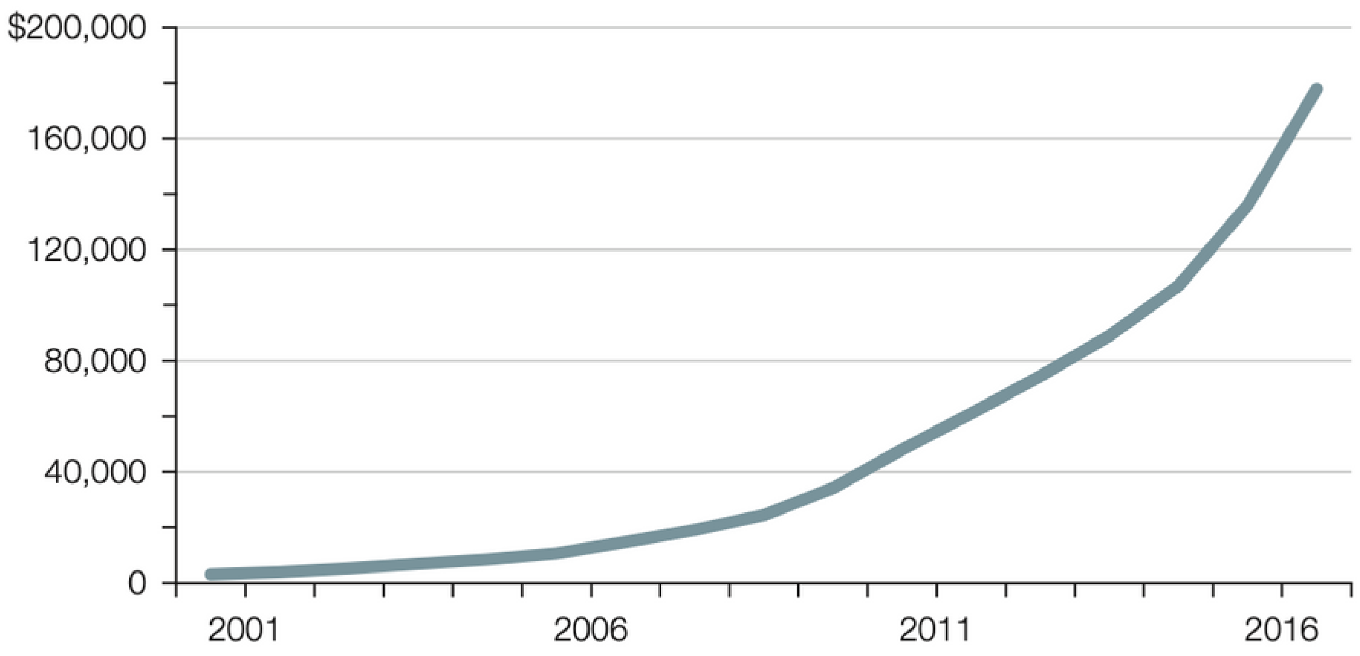
Netflix's total revenue, 2001–2017 ($ millions)



Netflix's profits and cash flows, 2003–2017 ($ millions)



Amazon's total revenue, 2001–2017 ($ millions)



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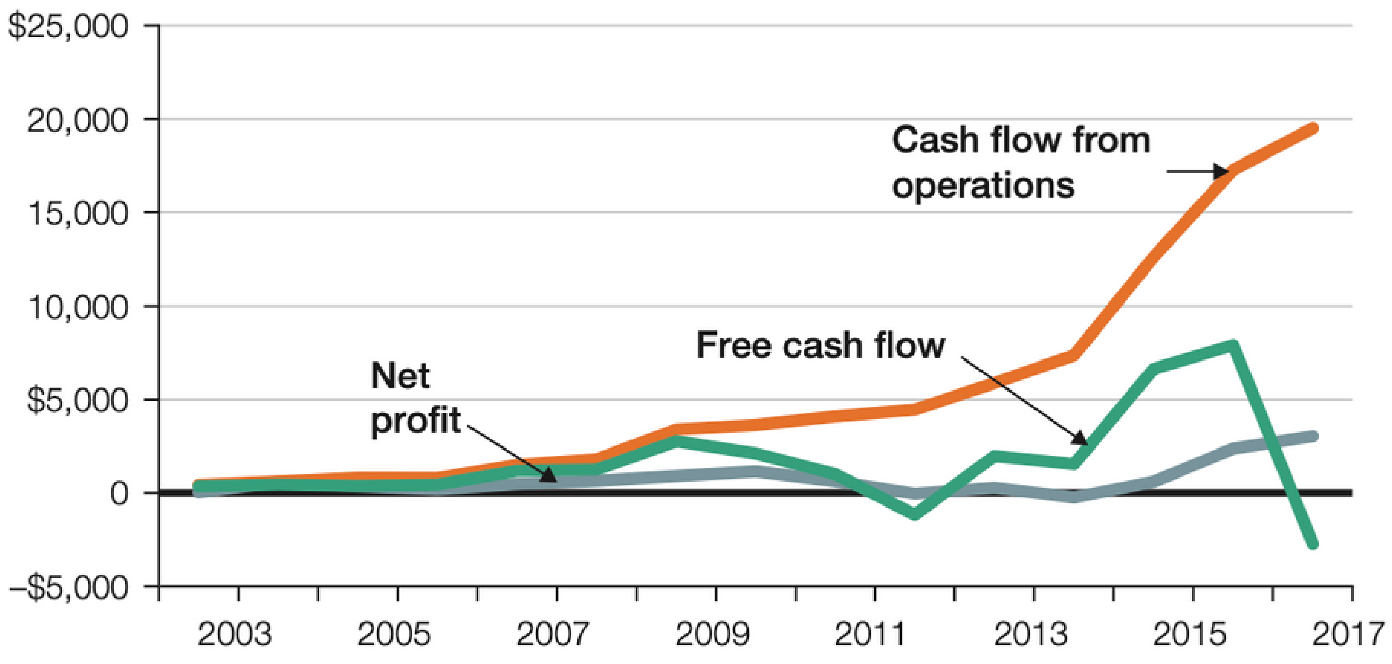
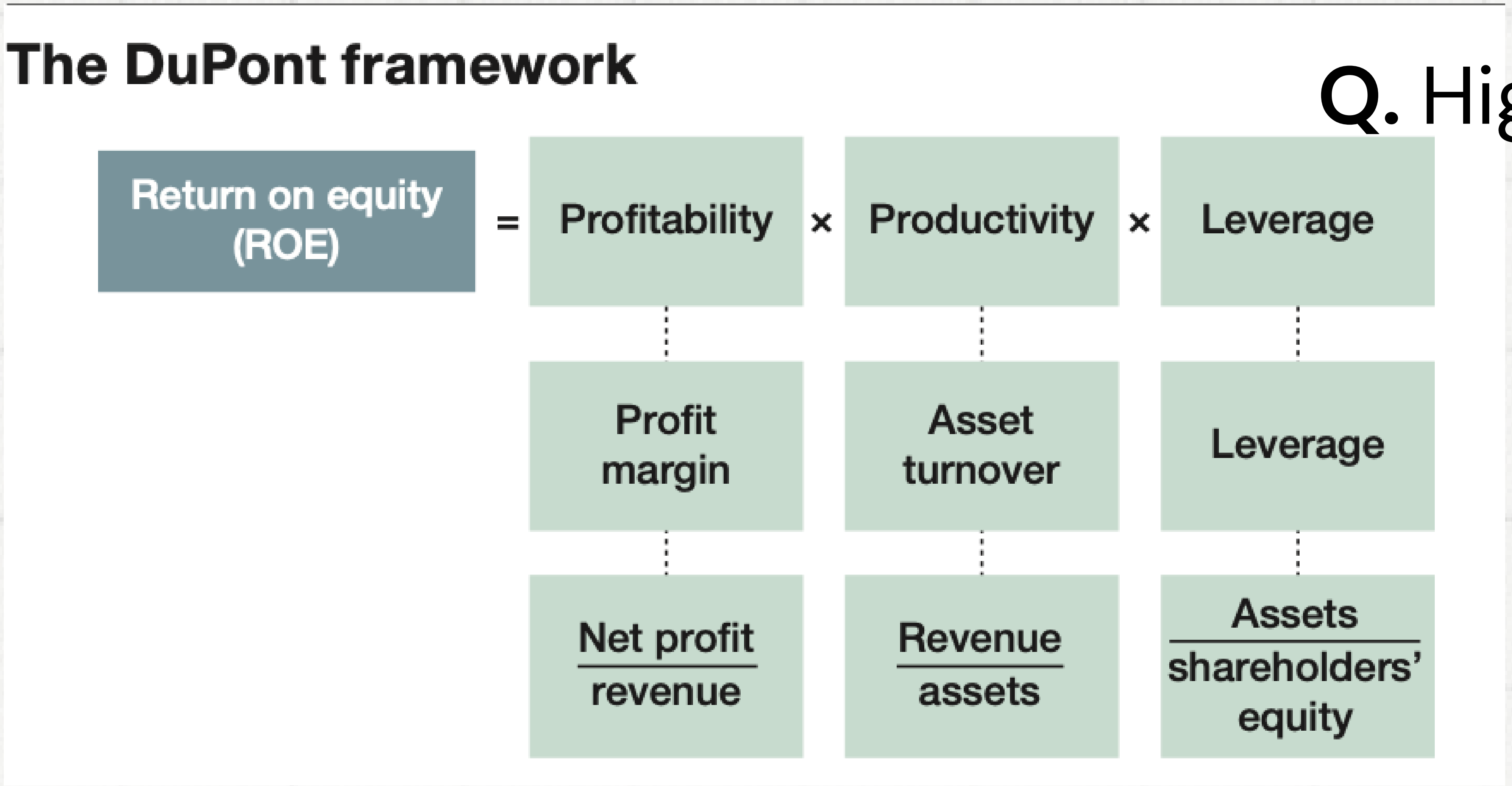


- If you would have looked just at the revenue of the 2 companies you would not have been able to tell the difference between the two companies as they have the same growth rate.
- Netflix has higher profit margin than Amazon. But this doesn’t tell whats going on inside the company.
- But when looked at the cash flow you would have been able to tell different stories for both
- Amazon needs to manage its cash conversion cycle for performing its operations conviniently whereas netflix is hinging on acquiring more and more content to run its business.
- At first the operating cash flow between may seem worse for Netflix, but when looked at the free cash flow, the number seems to be less worse than the Amazon.
- This is because Amazon has huge capital expenditure as its an e-commerce company while Netflix is just a tech company which dont need any huge working capital and has been acquiring more content to drive its business which is leading to drain in its operating cash

The Most Important Ratio

ROE – Return on Equity

According to DuPont framework, ROE can be broken down into product of 3 different ratios.



Q. High ROE is always a good thing.
True or False?

Time Value of Money

- Finance is forward-looking while accounting is backward-looking
- We need to discount our projection to its present value.
- Is 1$ today worth more or less in future? This is the fundamental Idea of Finance
- This is done by comparing the present value of the future 1$ to the current 1$.

Discounting Formula

$$\frac{\text{Cash flow}}{(1 + r)}$$

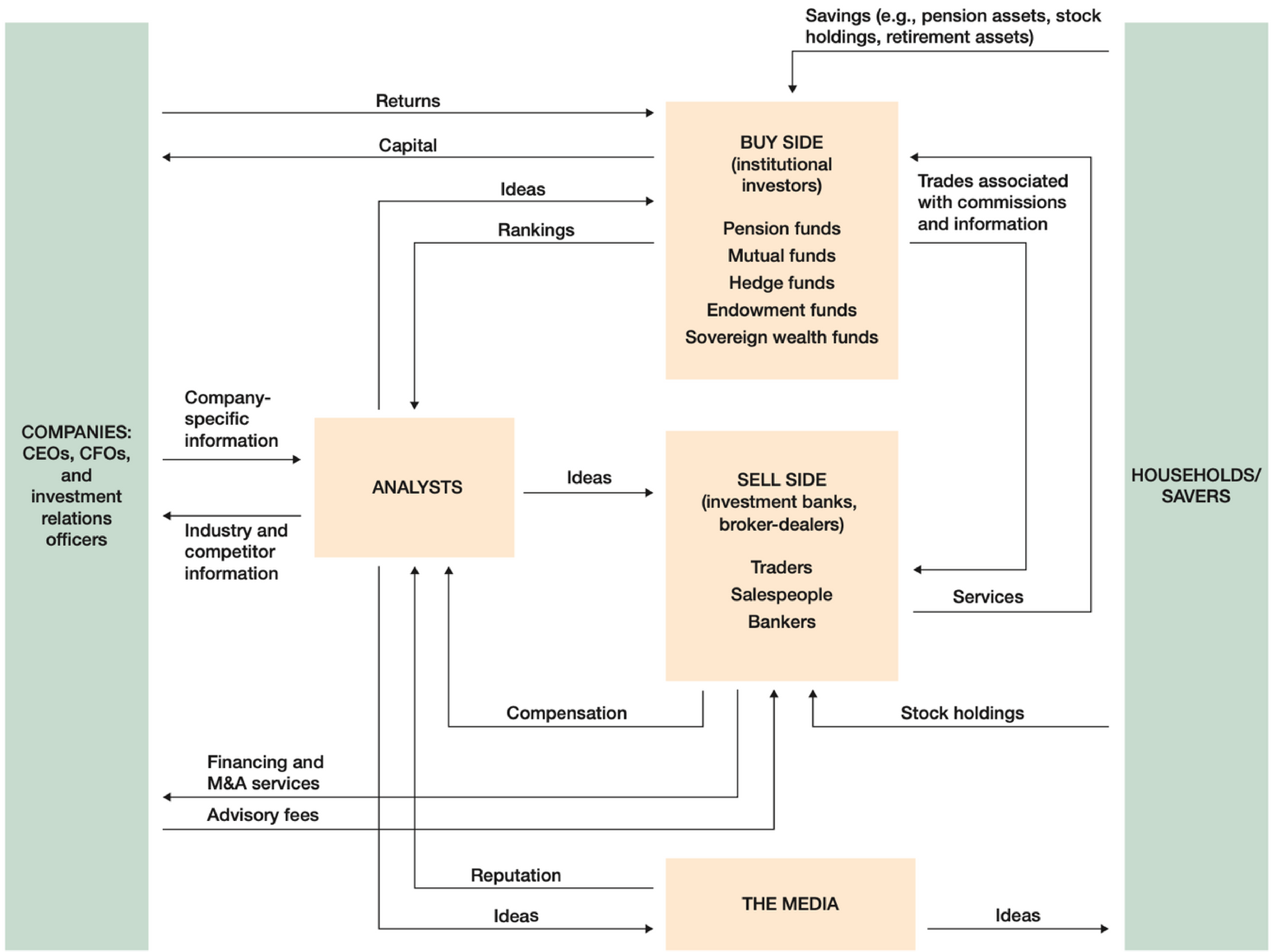
r = discount rate

Discounting Formula for Multiple Years

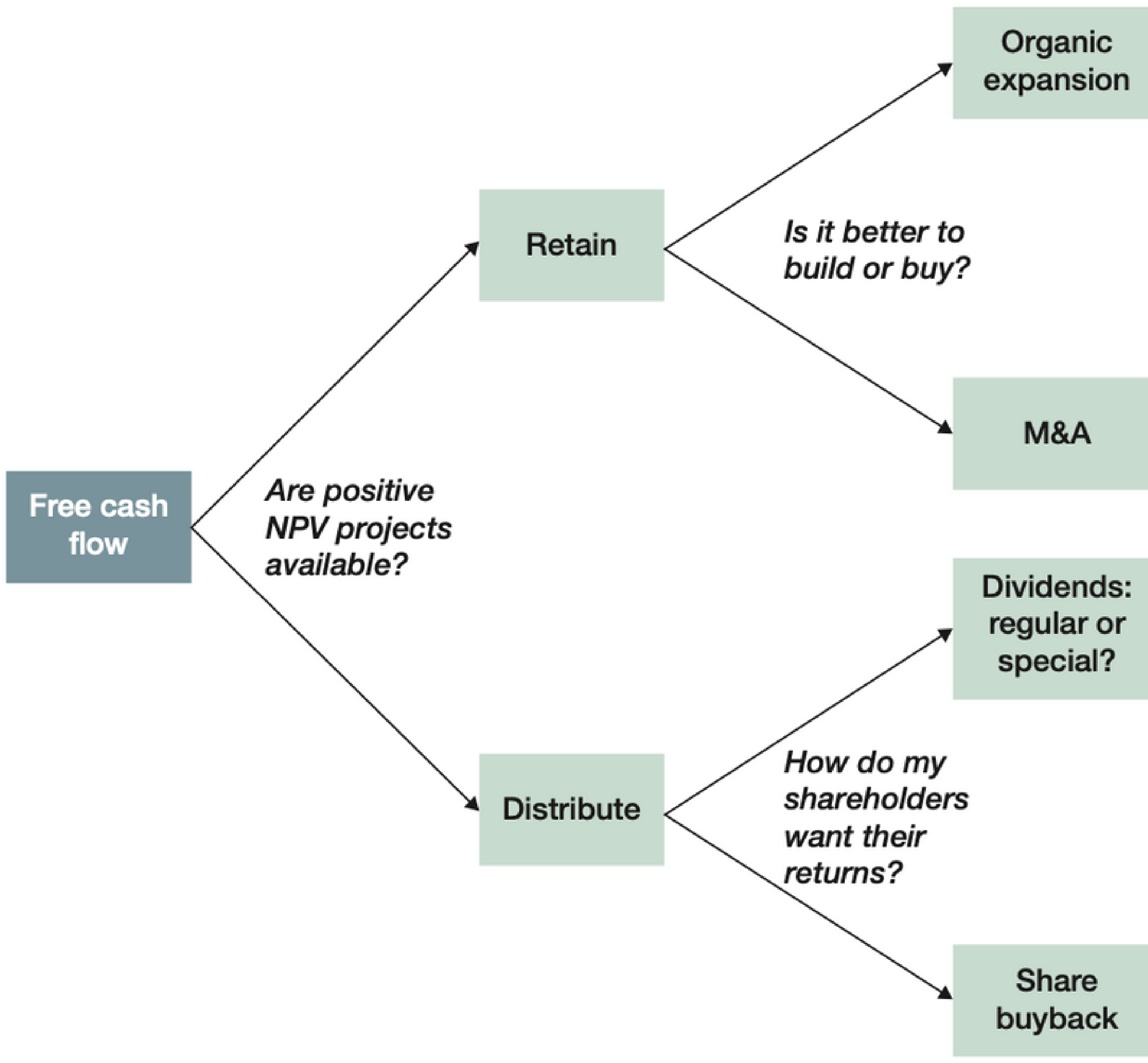
$$\frac{\text{Cash flow}_1}{(1 + r)} + \frac{\text{cash flow}_2}{(1 + r)^2} + \frac{\text{cash flow}_3}{(1 + r)^3} \ldots$$

Thank you !

he reality of capital markets



The capital allocation decision tree



'he cash conversion cycle