Introduction to Corporate Finance

Learning objectives

By the end of this course, you will be able to:

Discuss the main capital investment activities and valuation techniques

Explain the process of mergers and acquisitions, and key considerations for the deal

Compare debt financing with equity financing and explain the optimal capital structure

Outline the capital raising process

Explore various career paths in corporate finance

Introduction

Corporate finance overview

The ultimate purpose of corporate finance is to maximize the value of a business through planning and implementing management resources while balancing risk and profitability.

Capital Investments

- Decide what projects / businesses to invest in
- Earn the highest possible risk-adjusted return

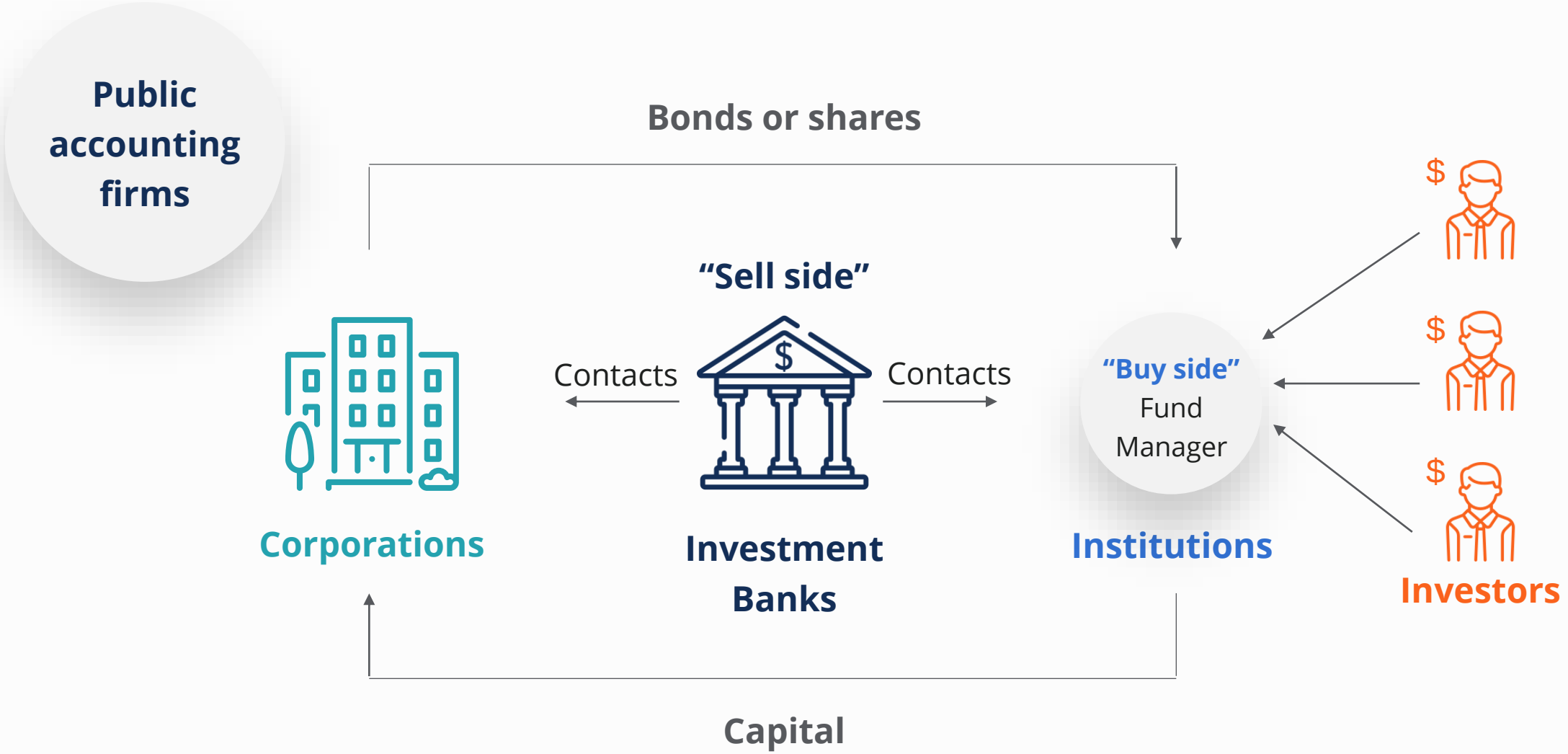
Capital Financing

- Determine how to fund capital investments
- Optimize the firm's capital structure

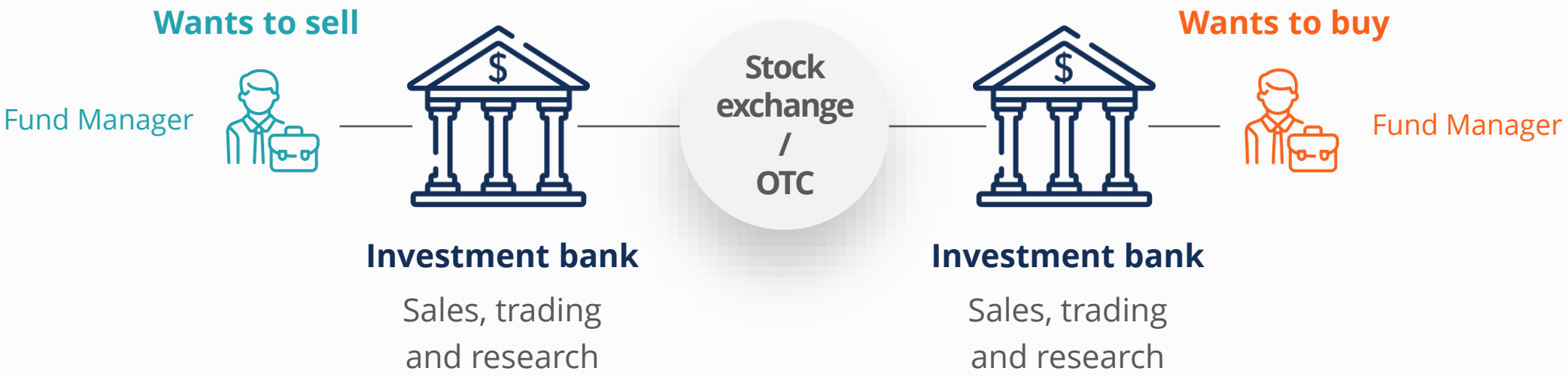
Dividends & Return of Capital

- Decide how and when to return capital to investors

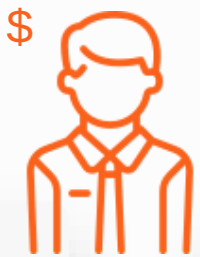
Players in corporate finance – primary market



Players in corporate finance – secondary market



Types of participants



Investors

Retail

- High net worth individuals

Institutional

- Mutual funds
- Pension funds
- Private equity firms
- Venture capital firms
- Seed / angel investors

Corporations

Public

- Traded on stock exchanges

Private

- Owned and traded by a few private investors

Types of transactions

Initial public offering (IPO)

Follow-on offering

Private placement

Mergers & acquisitions (M&A)

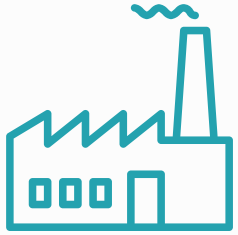
Leverage buyout (LBO)

Divestiture

Capital Investments

What is a capital investment?

Any investment for which the economic benefit is greater than one year.



Opening a new factory

Entering a new market

Acquiring another business

Research and development of new products

Capital investment

Capital investments will **increase the assets** of a company.

Techniques for valuing an investment

Whether such investments are worthwhile depends on the approach that the company uses to evaluate them. A company may value the projects based on:

Net Present Value (NPV): The value of all future cash flows (positive and negative) over the entire life of an investment discounted to the present.

Internal Rate of Return (IRR): The expected compound annual rate of return that will be earned on a project or investment.

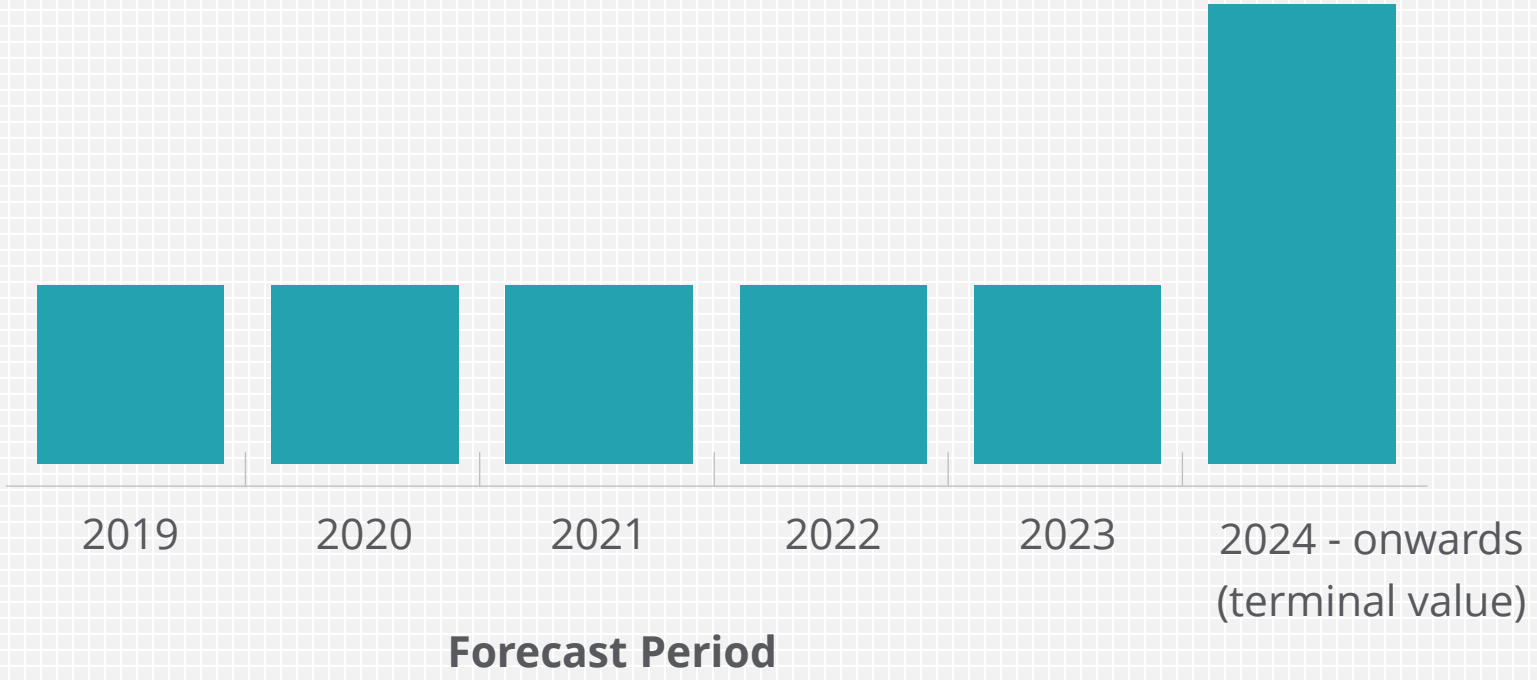
Net Present Value (NPV)

Future Cash Flows	**$100**	**$100**	**$100**	**$100**	**$100**	**$100**	**$100**	**$100**	**...**
	2019	2020	2021	2022	2023	2024	2025	2026	...

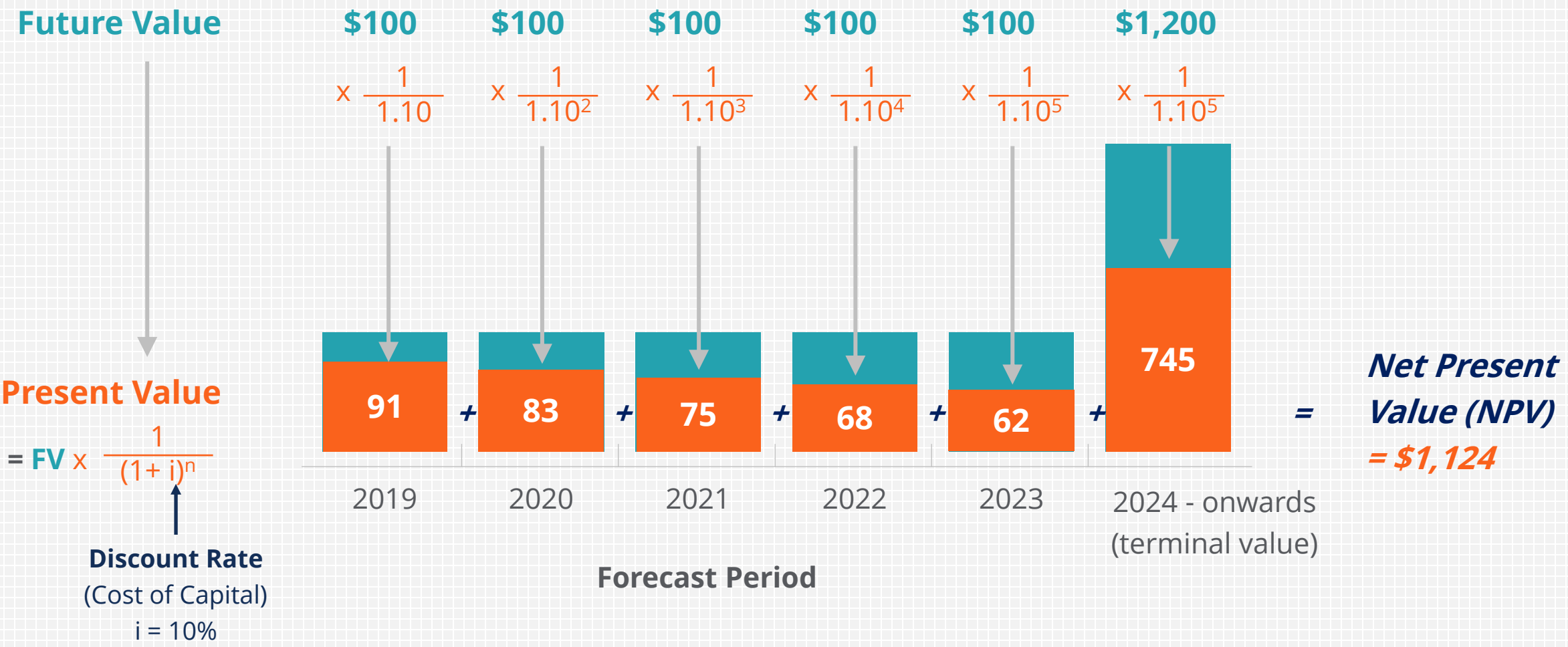
Net Present Value (NPV)

Net Present Value (NPV)

Future Cash Flows	$100	$100	$100	$100	$100	$1,200



Net Present Value (NPV)



Terminal value

Terminal Value: Value of free cash flow beyond the forecast period

Growing perpetuity formula

$$\text{Terminal value} = \frac{\text{Free cash flow} \times (1 + \text{growth})}{\text{Cost of capital} - \text{growth}}$$

Exit multiple formula

$$\text{Terminal value} = \text{Financial Metric (i.e. Earnings, EBITDA, Revenue)} \times \text{Multiple}$$

Terminal value

Terminal value

Perpetual growth

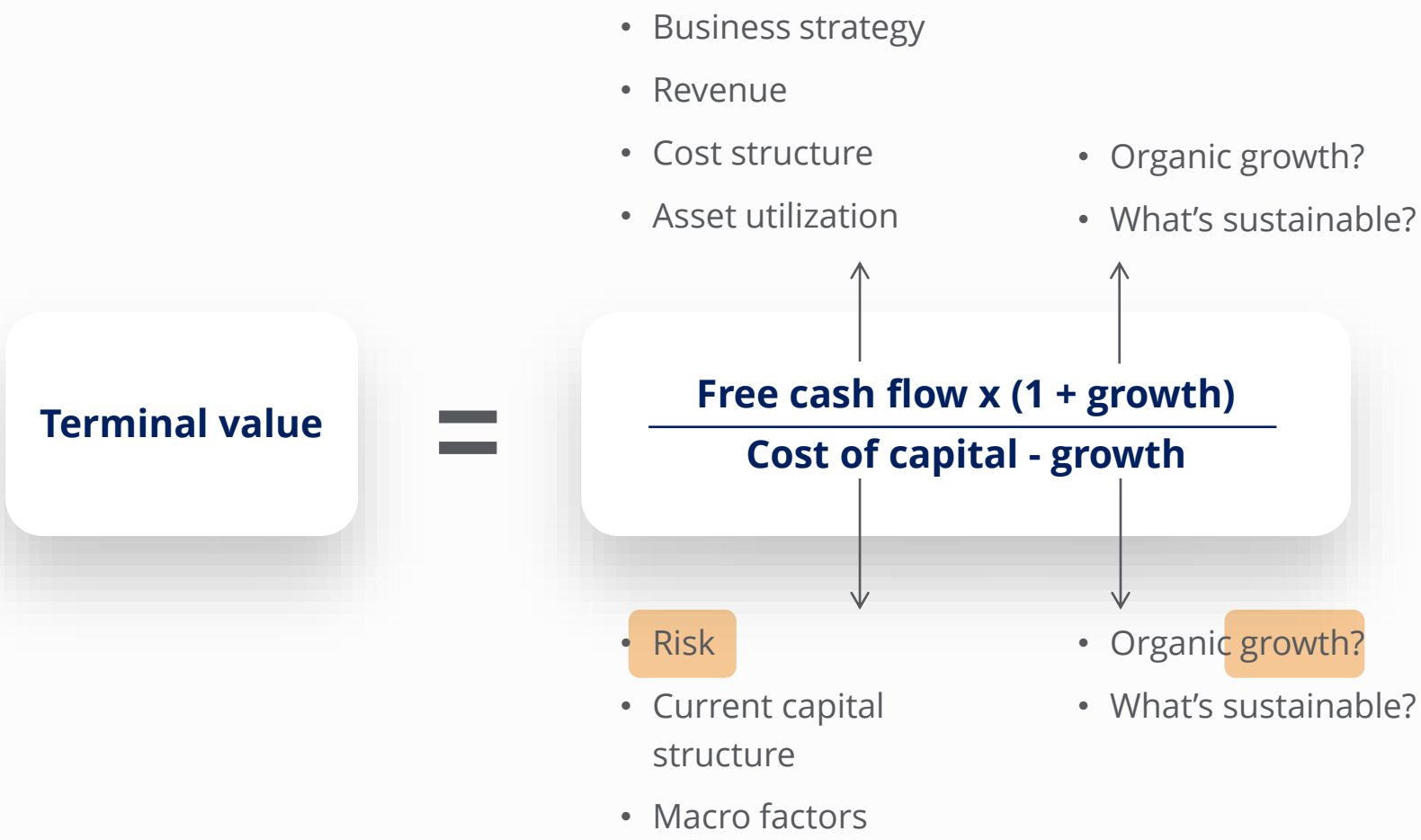
$$= \frac{\$100 \times (1 + 1.54\%)}{10.00\% - 1.54\%} = \$1,200$$

Terminal value

Exit multiple

$$= 12 \times \$100 = \$1,200$$

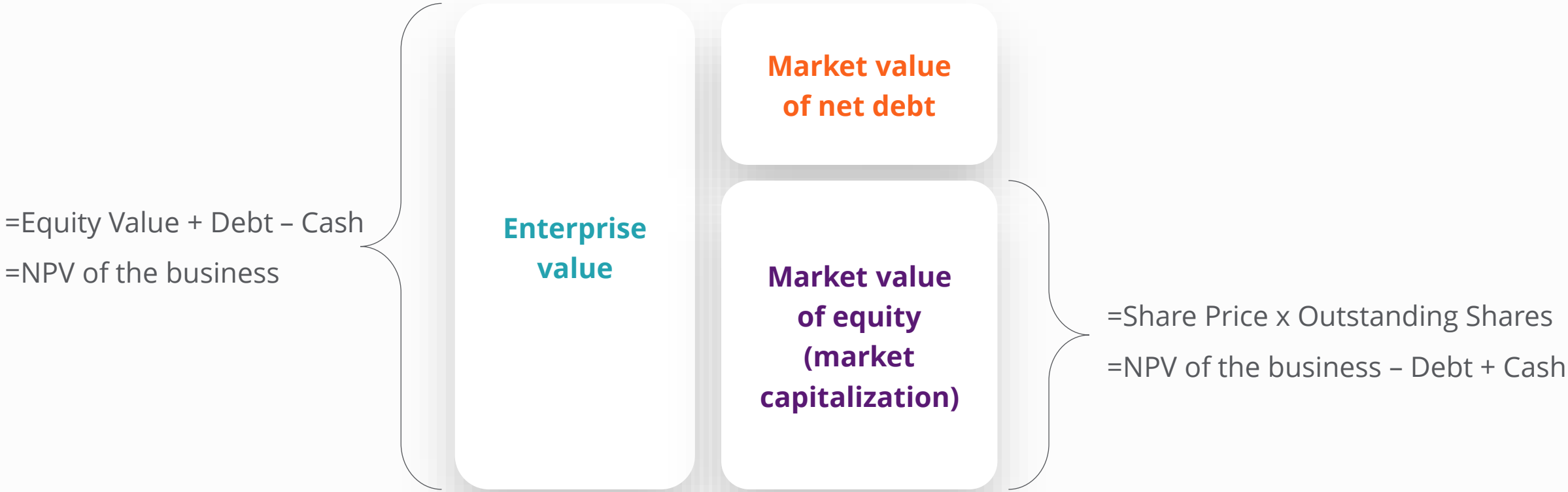
Unlocking the drivers of value



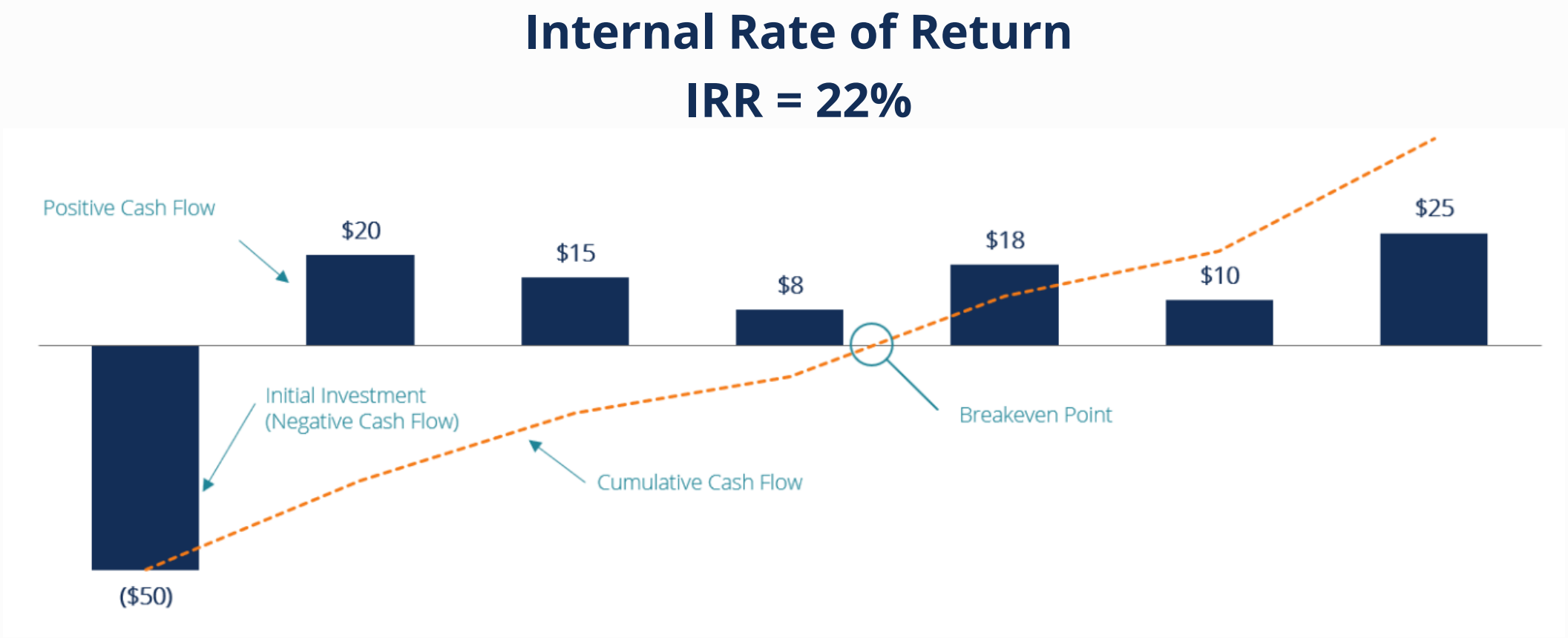
Enterprise value vs. equity value

Enterprise value is the value of the entire business.

Equity value is the value shareholders would receive if the company is sold.



Internal Rate of Return (IRR)



22% IRR is economically equivalent to earning a 22% compound annual growth rate.

Mergers and Acquisitions (M&A)

Mergers and acquisitions is the process of companies **buying, selling, or combining businesses.**

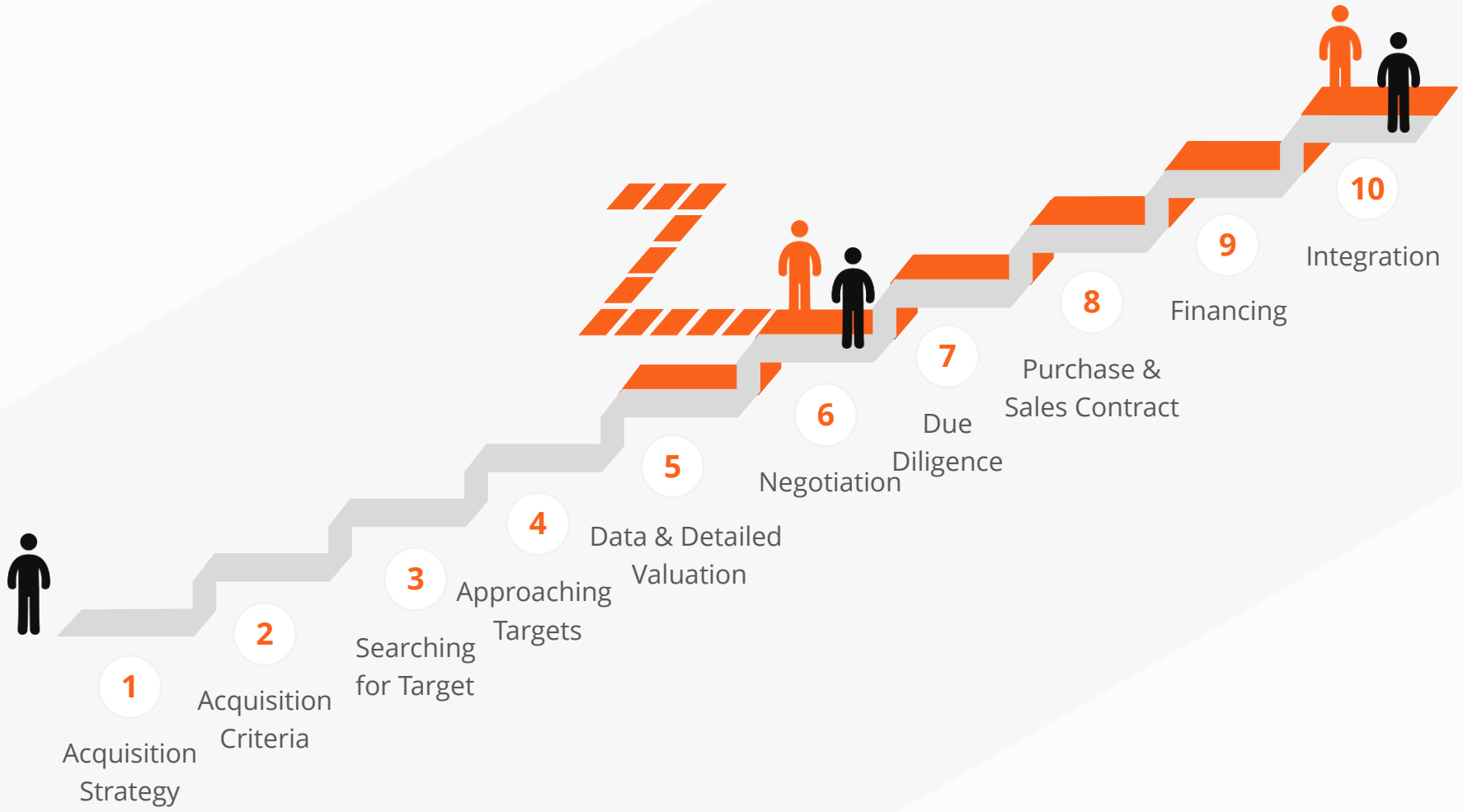
Benefits:

- Cost savings
- Revenue enhancements
- Increase market share
- Enhance financial resources

Potential drawbacks:

- Overpaying
- Large expenses associated with the investment
- Negative reaction to the merger or acquisition

10 step acquisition process



Strategic versus financial buyers

VS

Strategic buyers

- Operating businesses
- Horizontal or vertical expansions
- Involves identifying and delivering operating synergies

Financial buyers

- Private equity (financial sponsor)
- Professional investor (non-operator)
- Leverage for maximum equity returns

Rival bidders

The vast majority of acquisitions are competitive or potentially competitive.

- Companies normally have to offer more than rival bidders
- To pay more than rival bidders, the buyer may:
    - Be able to “do more” with the acquisition
    - Accept a lower expected return
    - Have a different view or forecast for the future

Acquisition valuation process

Strategic Buyer Scenario:

1. Value the target as stand-alone

Enterprise value

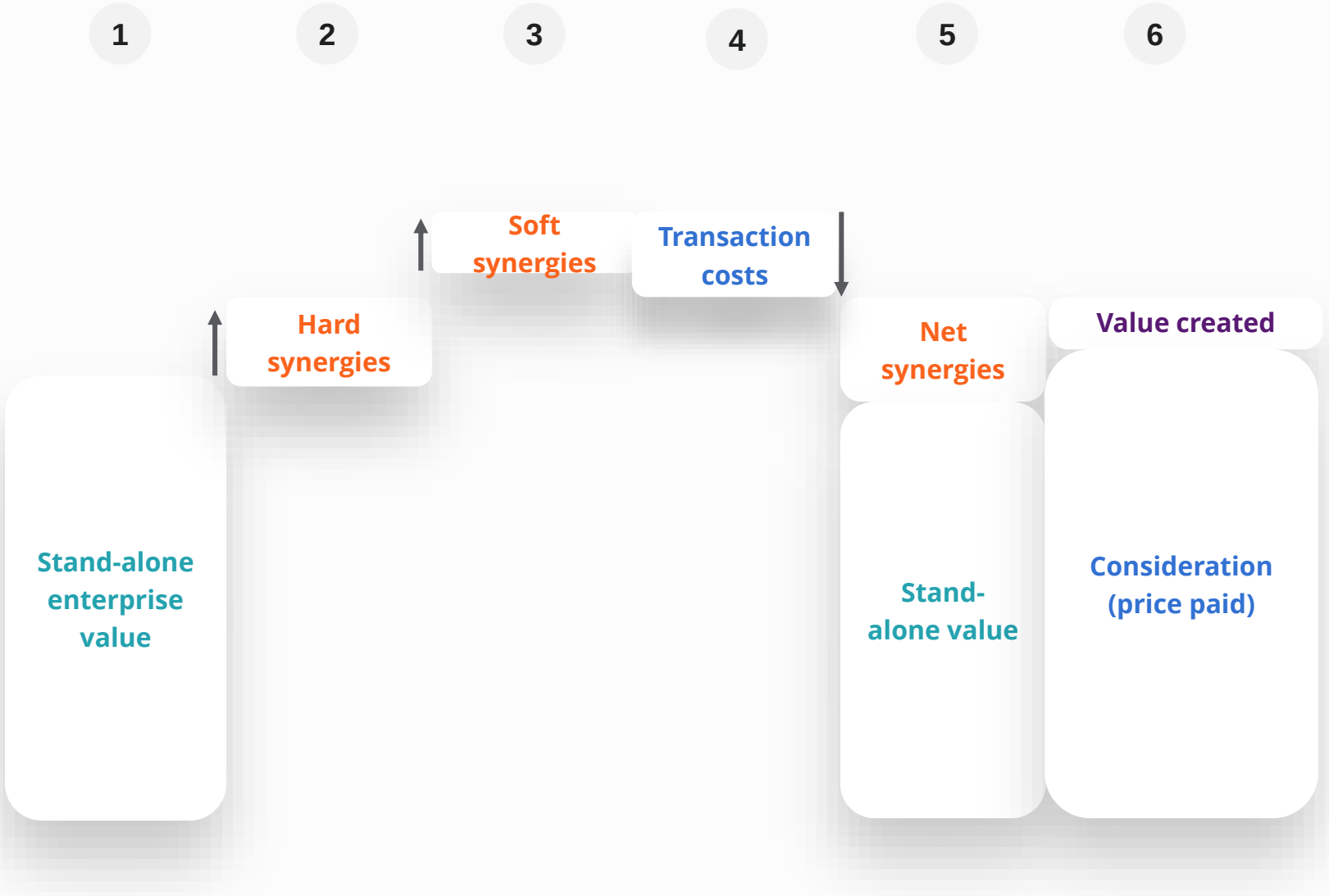
- Sales growth
- EBIT margin
- Operating tax
- Working capital requirements
- Capital expenditures

2. Value synergies

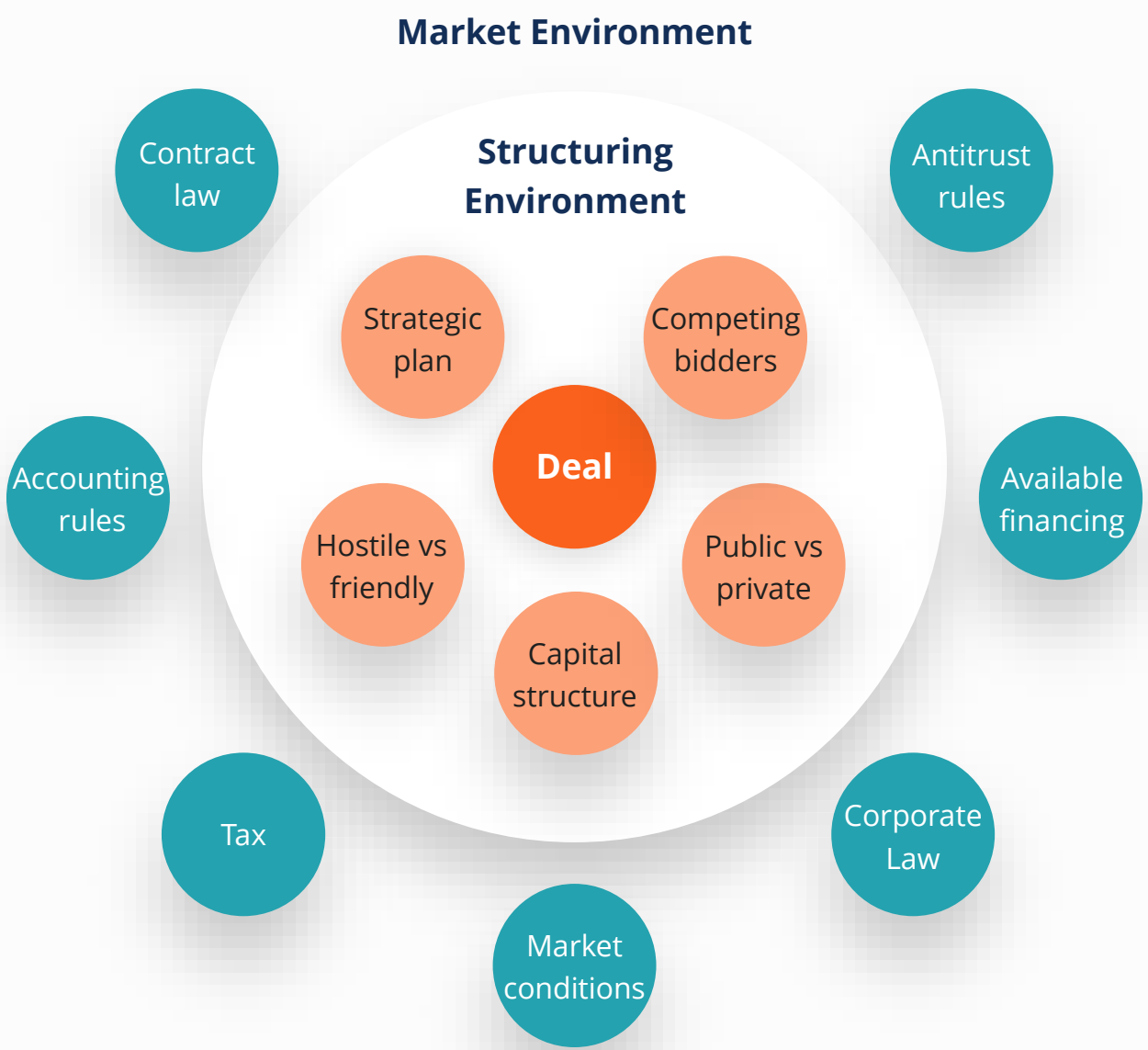
Hard (cost savings) and soft (revenue enhancements)

- Sales (volume & price)
- EBIT margin
  - Product mix
  - Overhead reductions
- Operating tax
  - Tax efficiency
  - Tax losses
- Working capital
  - Vendor relationships
- Capital expenditures
  - Efficiencies

Best practice acquisition analysis



Issues to consider when structuring a deal



Corporate finance overview

The ultimate purpose of corporate finance is to maximize the value of a business through planning and implementing management resources while balancing risk and profitability.

Capital Investments

- Decide what projects / businesses to invest in
- Earn the highest possible risk-adjusted return

Capital Financing

- Determine how to fund capital investments
- Optimize the firm's capital structure

Dividends & Return of Capital

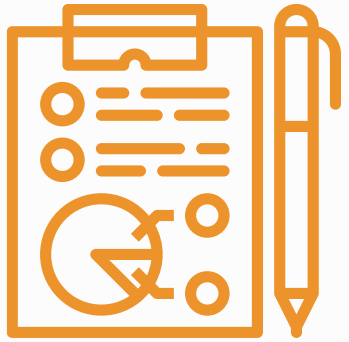
- Decide how and when to return capital to investors

Capital Financing

What is capital financing?

Any type of funding that is used to finance the purchase of an asset/project (an investment).

Equity



Debt

Capital financing

Capital financing will **increase the liabilities and/or equity** of a company.

Capital investment (spending money to purchase assets)

Assets

Debt

Equity

Capital financing (where the money comes from)

Capital financing

Capital financing will **increase the liabilities and/or equity** of a company.

Capital investment (spending money to purchase assets)

Assets

Debt

Equity

Capital financing (where the money comes from)

Capital financing

Capital financing will **increase the liabilities and/or equity** of a company.

Capital investment (spending money to purchase assets)

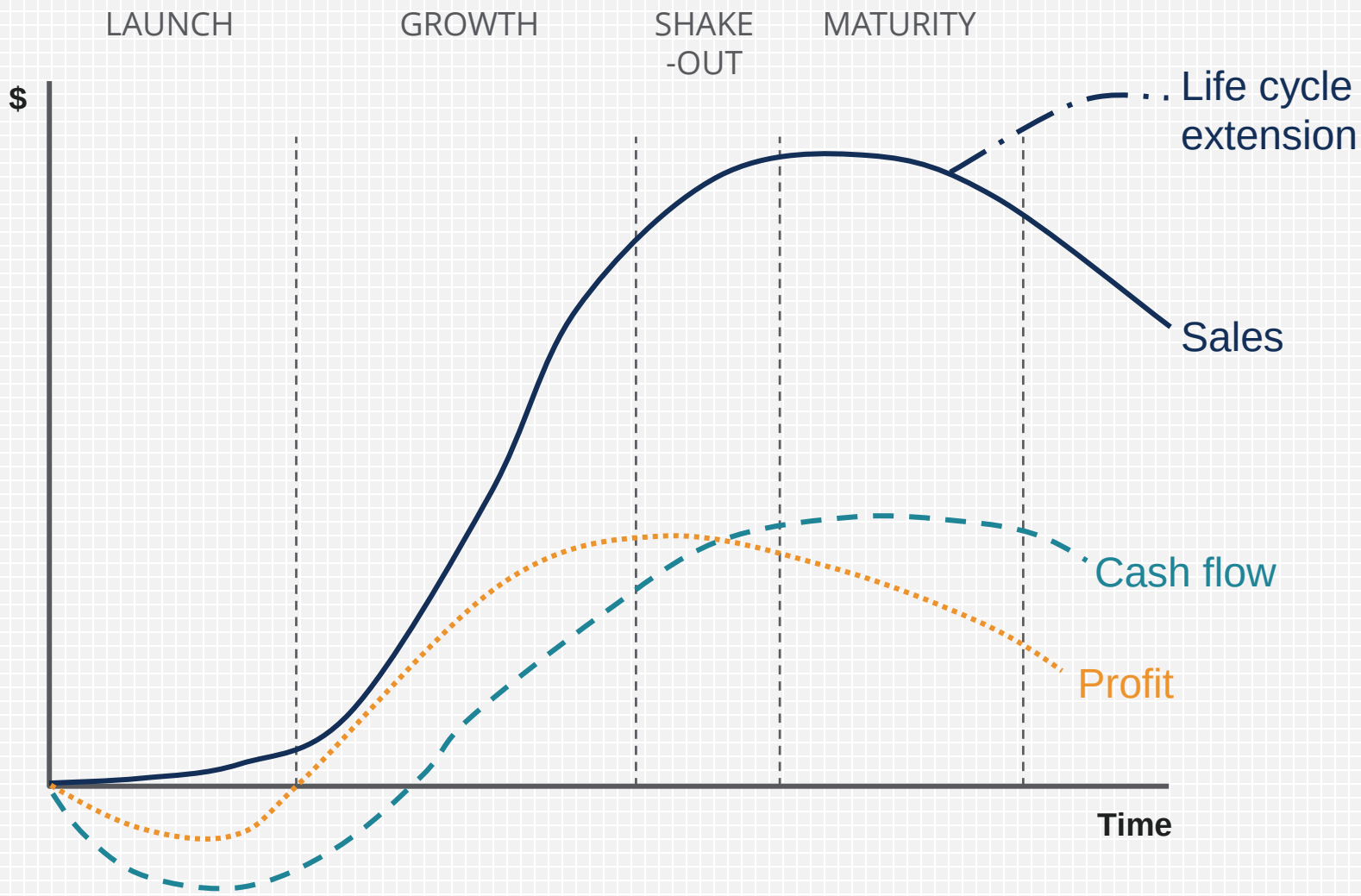
Assets

Debt

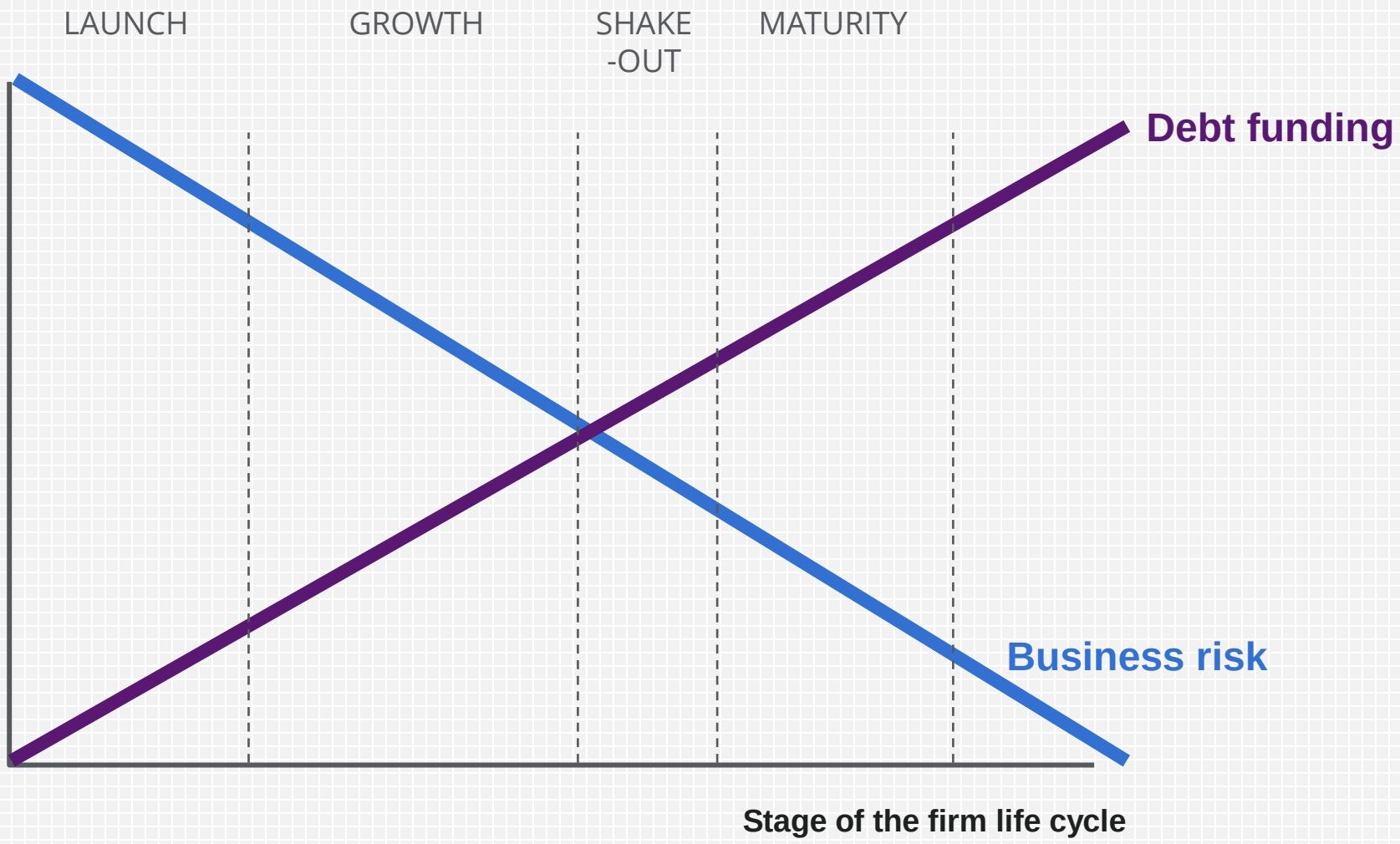
Equity

Capital financing (where the money comes from)

The business life cycle



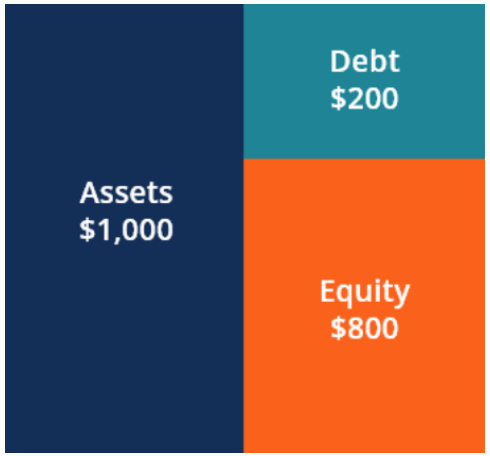
The corporate funding life-cycle



Capital structure

Capital Structure: the amount of debt and/or equity employed by a firm to fund its operations and finance its assets. In order to optimize the structure, a firm will decide if it needs more debt or equity and can issue whichever it requires.

Low Leverage



High Leverage

Optimal capital structure

The equity versus debt decision relies **on a large number of factors:**

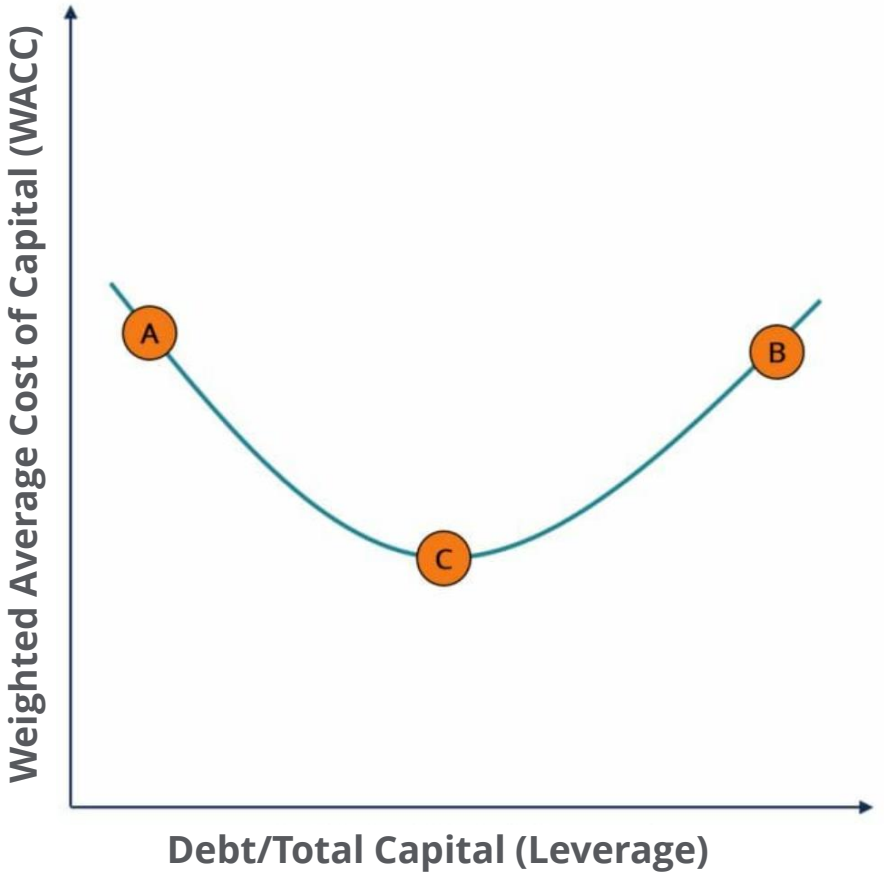
- **The current economic climate**
- **The business' existing capital structure**
- **The business' life cycle stage**

Having too much debt may increase the risk of default in repayment.

Depending too heavily on equity may dilute earnings and value for original investors.

Optimal capital structure

Companies are usually looking for the **optimal combination of debt and equity** to minimize the cost of capital.



Weighted Average Cost of Capital (WACC)

Weighted Average Cost of Capital (WACC) is the proportion of debt and equity a firm has, multiplied by their respective costs.

Cost of Equity:

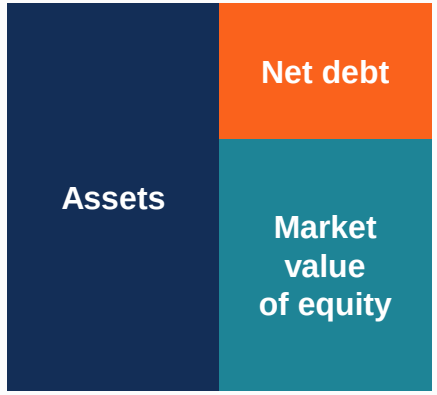
The rate of return a shareholder requires for investing equity into a business

Cost of Debt:

The rate of return that a lender requires given the risk of the business

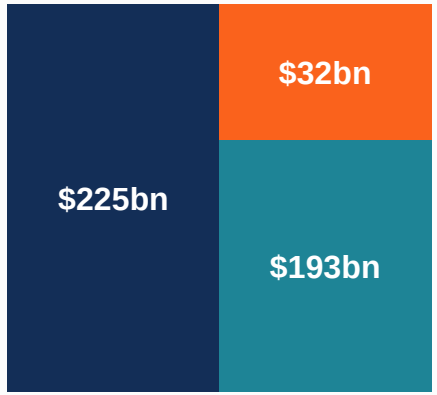
The optimal capital structure of a firm is often defined as the proportion of debt and equity that result in **the lowest weighted average cost of capital (WACC)** for the firm.

WACC formula



% net debt	x	Cost of debt	=	Contribution		
% equity	x	Cost of equity	=	Contribution		
				Cost of capital		

Example

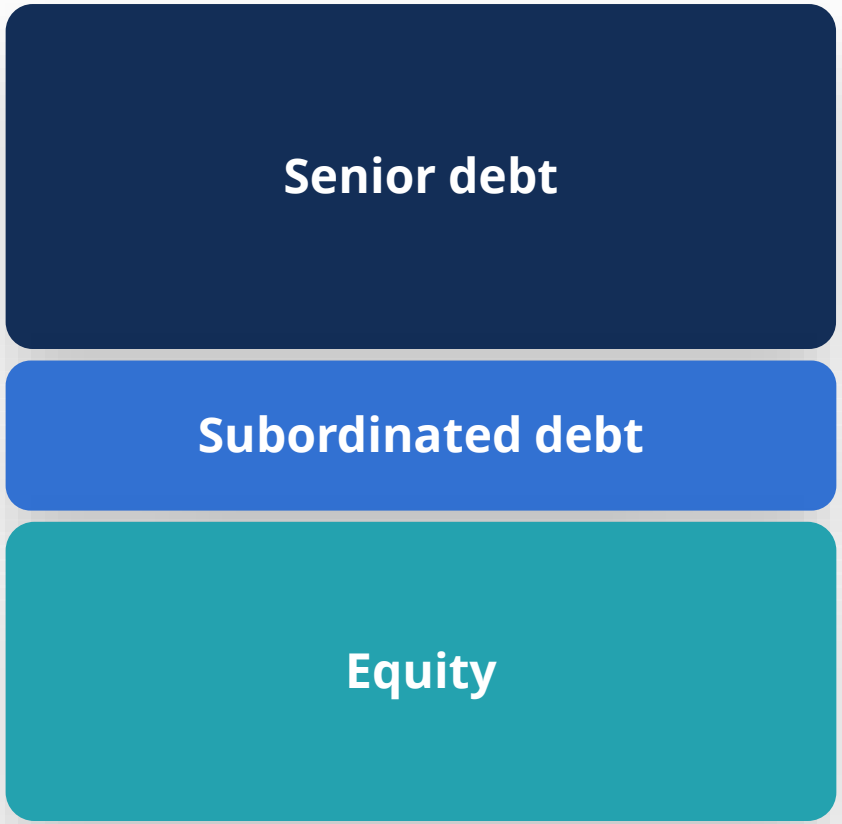


14%*	x	3.5%	=	0.5%		
86%*	x	9.0%	=	7.7%		
				8.2%		

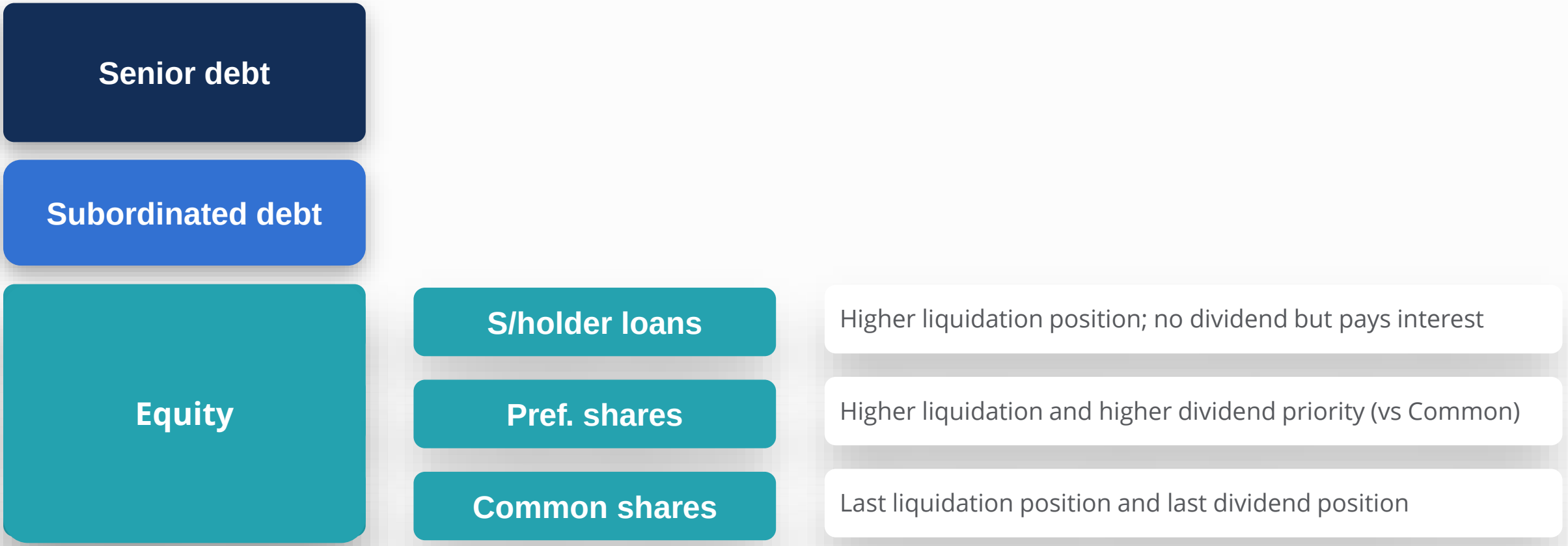
*Rounded for ease of calculation.

Capital stack

How to optimally finance the capital investments through the **business' equity, debt, or a mix of both?**



Types of equity



Common shares

Terms

Typically the majority of a firm's equity capital:

- Proportional share of residual value of the business
- Proportional payment of common dividends
- Voting rights (or not)

Issues

- Last level of priority (highest risk) for investors

Preferred shares

Terms

The ‘norm’ is for private equity to subscribe for preferred shares which are:

- Liquidity preference
- Have a fixed dividend
- Anti-dilution rights

Issues

Preferred shares are becoming less attractive as:

- More costly than Common shares
- Even if company has cash, payment may not be made if lack of distributable reserves.

Shareholder loans

Shareholder loans are a means for private equity houses to invest sufficient equity into a buyout situation, whilst still allowing management a significant equity stake.

Sources of equity

Private equity and venture capital firms

Private equity firms manage funds or pools of capital that invest in companies that represent an opportunity for a high rate of return.

Private equity funds invest for limited time periods. Exit strategies include IPOs, selling to another private equity firm, etc.

Private equity funds are typically split **into two categories:**

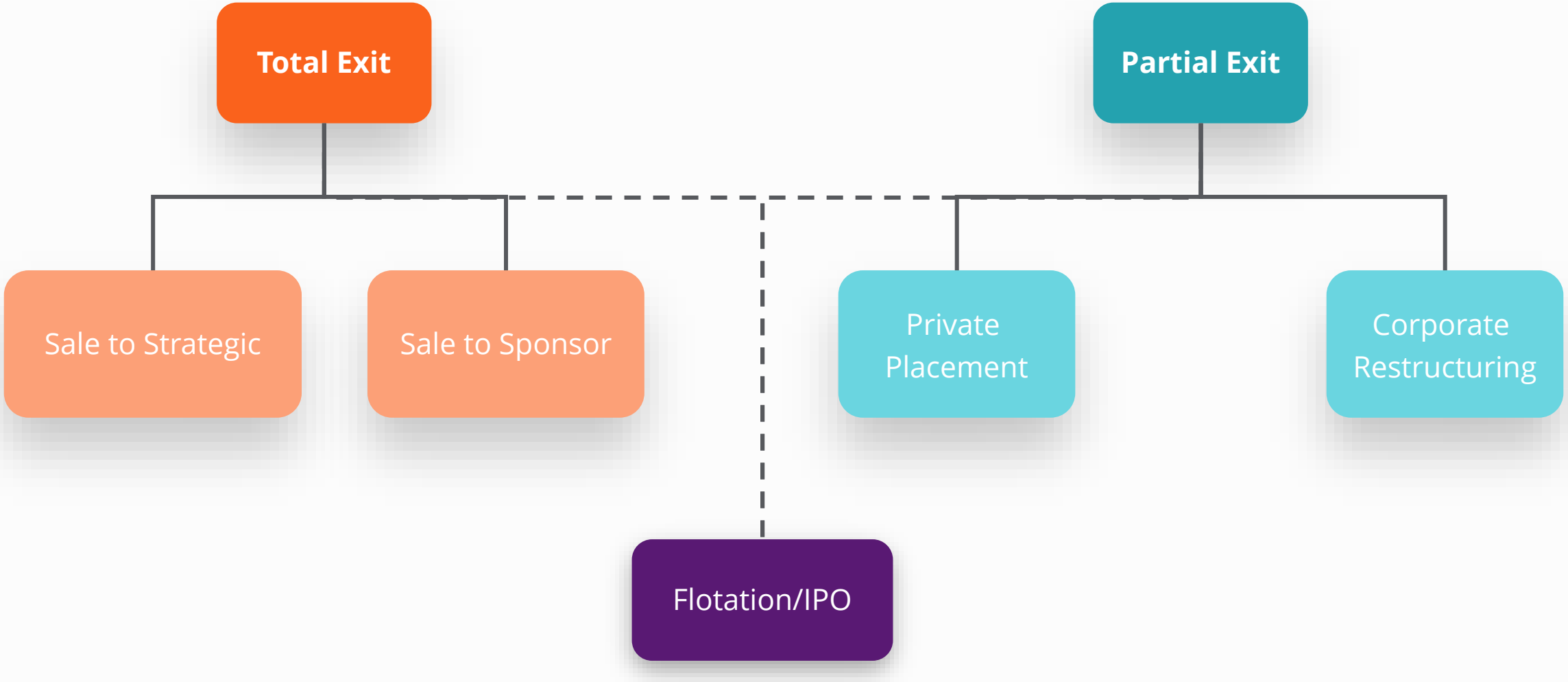
1 **Venture capital funds typically invest** in early stage or expanding businesses that have limited access to other forms of financing.

- Sequoia Capital
- Y Combinator
- Andreessen Horowitz

2 **Buyout or LBO funds typically invest** in more mature businesses, usually taking a controlling interest and leveraging the equity investment with a substantial amount of external debt. Buyout funds tend to be significantly larger than venture capital funds.

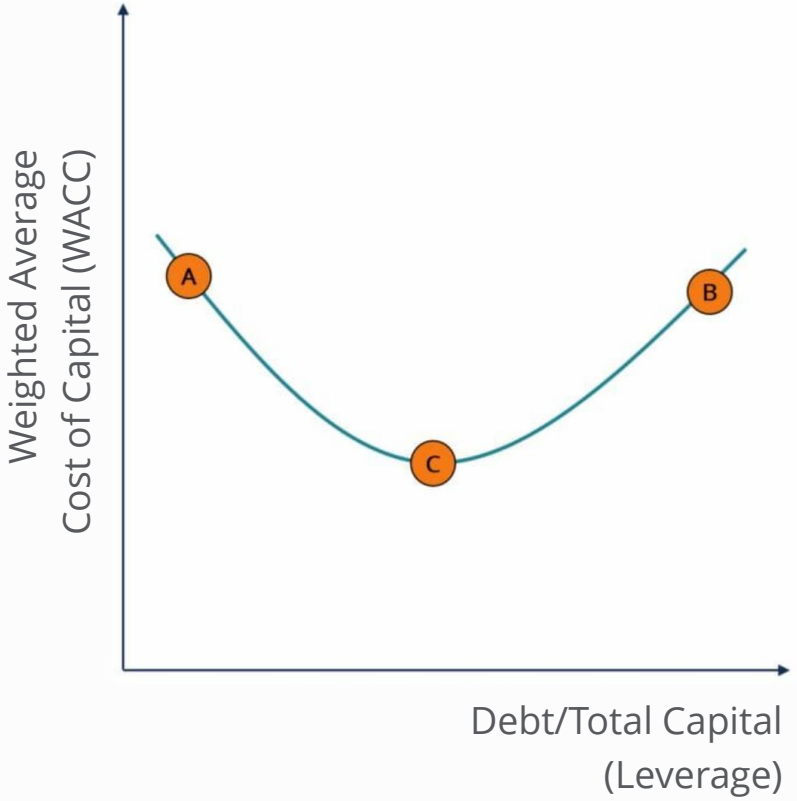
- Blackstone
- KKR
- Carlyle Group

Typical exit routes for private equity

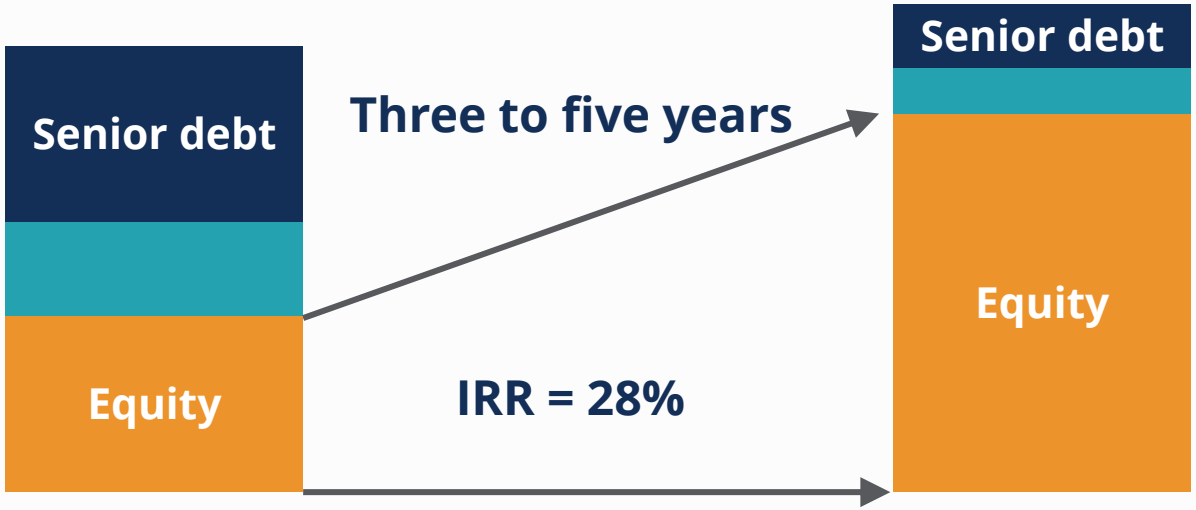


Why use debt

Corporation: (1) to lower the cost of capital, and (2) avoid equity dilution



Investor: to increase their equity return



Assessing debt capacity

General measures

- Level of EBITDA
- Volatility and hence stability of EBITDA
  - Capital expenditures
  - Cyclicality
  - Risk
  - Competition

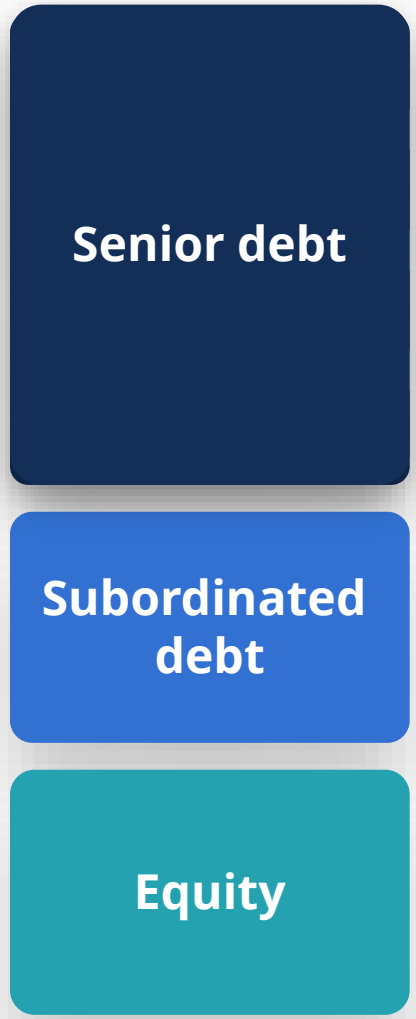
Balance sheet measures

- Debt to equity
- Debt to capital
- Debt to assets
- Etc.

Cash flow measures

- Total debt / EBITDA
- Senior debt / EBITDA
- Net debt / EBITDA
- Cash interest cover
- EBITDA-Capex / interest

Senior debt overview



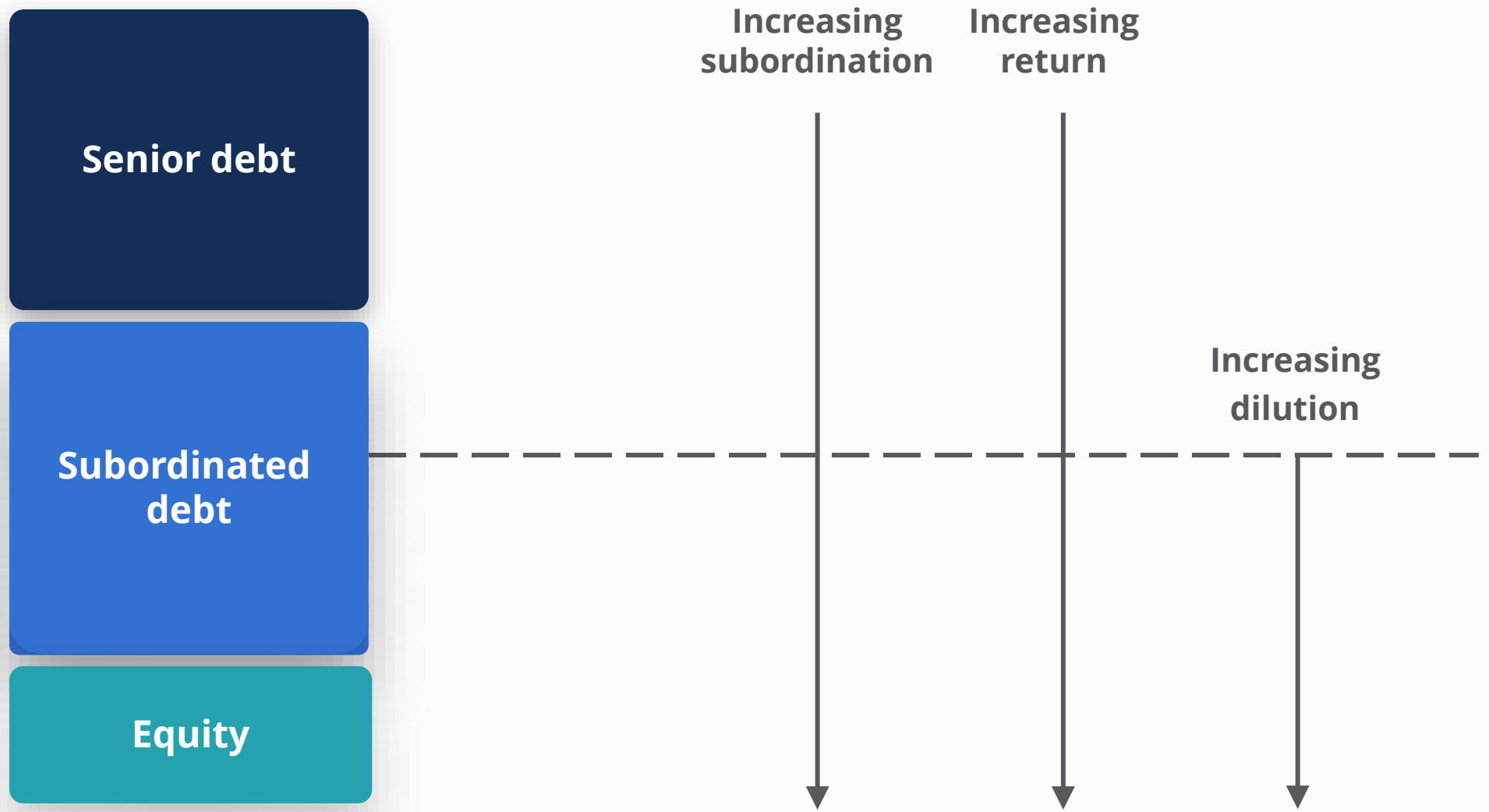
Revolver: Revolving line of credit facility from a bank

Term loans: have a fixed schedule where they repay or are amortized, and have a final principal repayment. Can be stacked.

Senior Debt Capacity:

- Provide 2x to 3x EBITDA
- Require 2x interest coverage
- Typically provided by: commercial banks, credit companies, insurance companies

Types of subordinated debt



Subordinated debt is used to fill the funding gap.

How much subordinated debt?

Subordinated debt holders **will only supply so much debt.**

Total debt / EBITDA ~ 5 to 6 times

xEBITDA / Cash interest ~ 2 times

Equity funding ~ 30% to 35%.

The appropriate financial structure has to be constructed within these constraints.

Credit ratings and high yield debt

Investment grade

- Low risk
- Low return
- Low fees

High yield

- High risk
- High return
- High fees

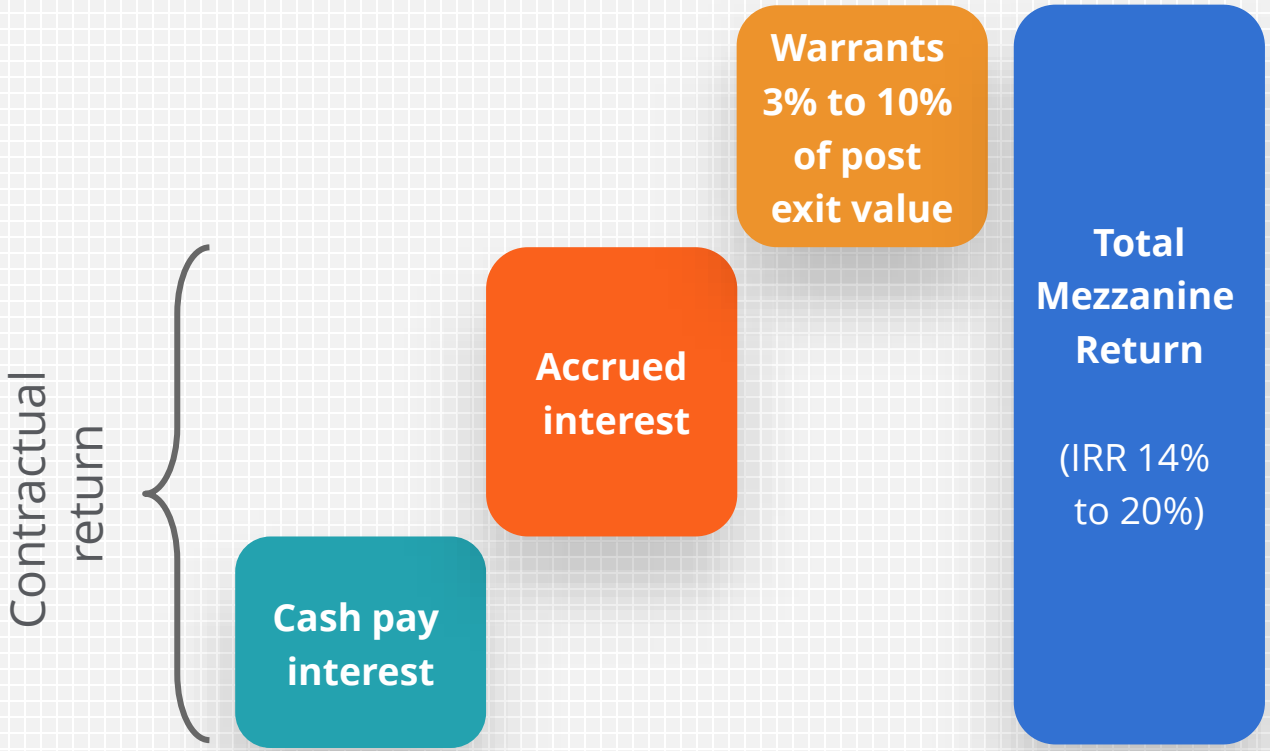
Moody's	S&P	Fitch	DBRS
Aaa	AAA	AAA	AAA
Aa1	AA+	AA+	AA (high)
Aa2	AA	AA	AA
Aa3	AA-	AA-	AA (low)
A1	A+	A+	A (high)
A2	A	A	A
A3	A-	A-	A (low)
Baa1	BBB+	BBB+	BBB (high)
Baa2	BBB	BBB	BBB
Baa3	BBB-	BBB-	BBB (low)
Ba1	BB+	BB+	BB (high)
Ba2	BB	BB	BB
Ba3	BB-	BB-	BB (low)
B1	B+	B+	B (high)
B2	B	B	B
B3	B-	B-	B (low)
Caa1	CCC+	CCC+	CCC (high)
Caa2	CCC	CCC	CCC
Caa3	CCC-	CCC-	CCC (low)
-	D	D	D

Mezzanine debt characteristics

Mezzanine debt:

- Non-traded
- Subordinated to senior debt
- Repaid as a bullet (not amortized)
- Combination of cash and accrued interest built into return
- Can have equity warrants attached
- Debt with warrants, convertible loan stock, convertible preferred shares

Mezzanine returns



Mezzanine returns

Senior Debt

IRR <10%

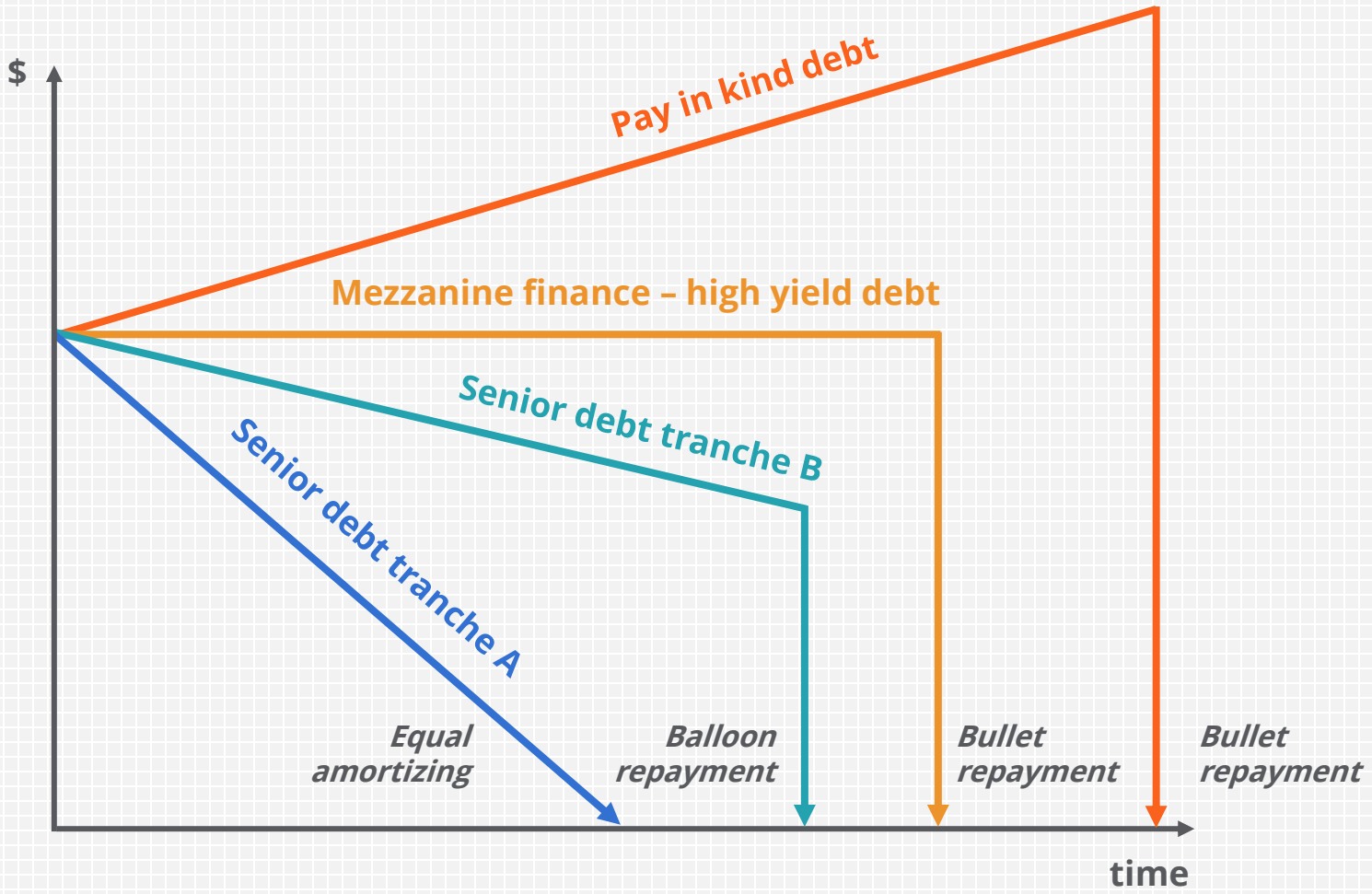
Subordinated Debt

Mezzanine investors
IRR 14-20%

Equity

IRR 20-30%

Debt repayment profiles



Capital Raising Process

Underwriting

The process where a bank raises capital for a corporation, or institution from investors in the form of equity or debt securities.

Underwriting involves conducting research, financial modeling, valuation, and marketing and a deal.

Types of underwriting

Types of underwriting commitment:

Firm Commitment

The underwriter agrees to buy the entire issue and assume full financial responsibility for any unsold shares.

Best Efforts

Underwriter commits to selling as much of the issue as possible at the agreed-on offering price, but can return any unsold shares to the issuer without financial responsibility.

Underwriting advisory services

Planning

- Identify investor themes
- Investment rationale
- Financial modeling & valuation
- Is IPO the best option?
- Size of float and lock-up issues
- Preliminary view on investor demand

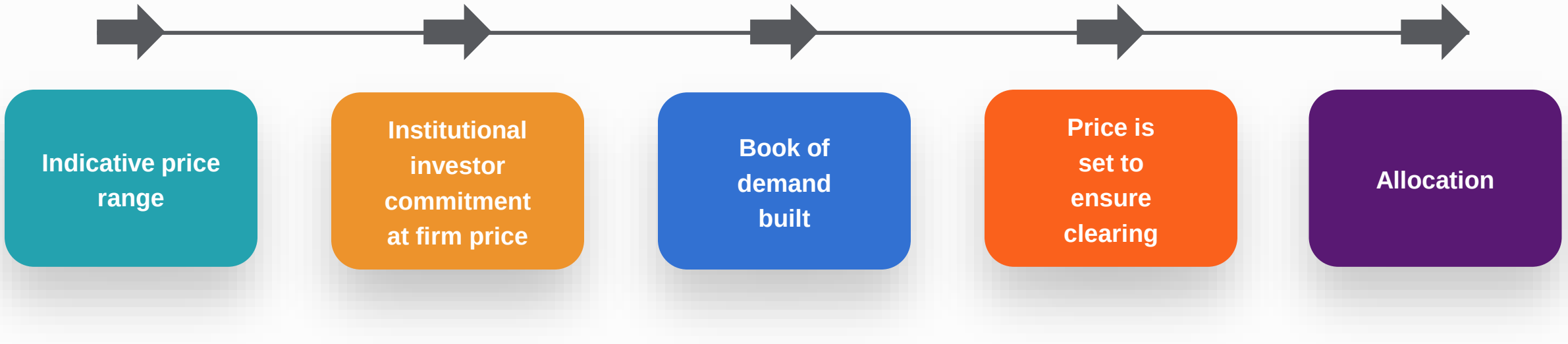
Issue Structure

- Domestic or international
- Institutional investor focus
- Retail investor focus
- Offer for sale
- Intermediaries offer
- Introduction

Timing and Demand

- Hot or cold issue market
- Supported by positive news-flow
- Investor appetite
- Precedents and benchmark offerings
- Pricing

Underwriting - the book building process



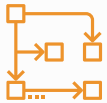
Underwriting - the road show

The roadshow is an opportunity for management to convince investors of the strength of the business cases.

Areas that are critical include:

Management structure, governance and quality

A thorough analysis of the industry/sector



Strategy, both tactical and long-term

Key risks

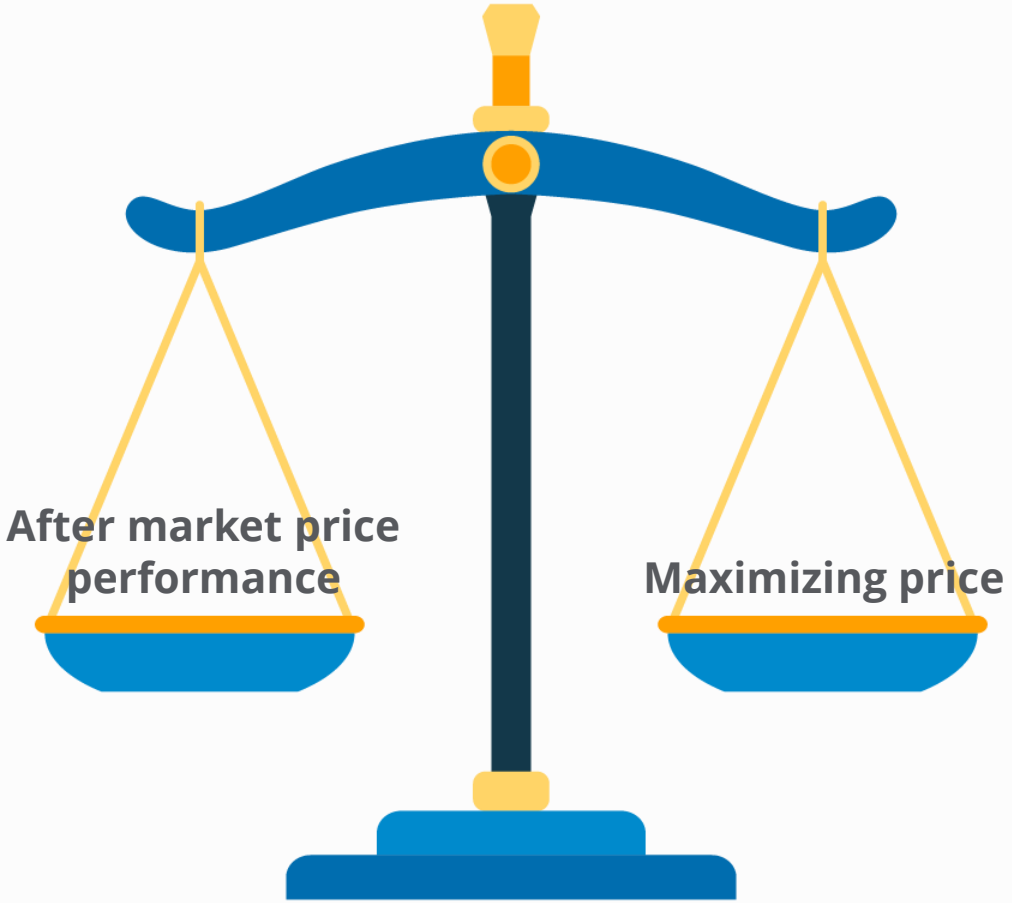
Funding requirements and purpose: Cash in versus cash out

Pricing the issue

Key issues in pricing

- **Price stability**
- **Buoyant after market**
- **Depth of investor base**

Pricing the issue



Under-pricing

There are two costs associated with a flotation:

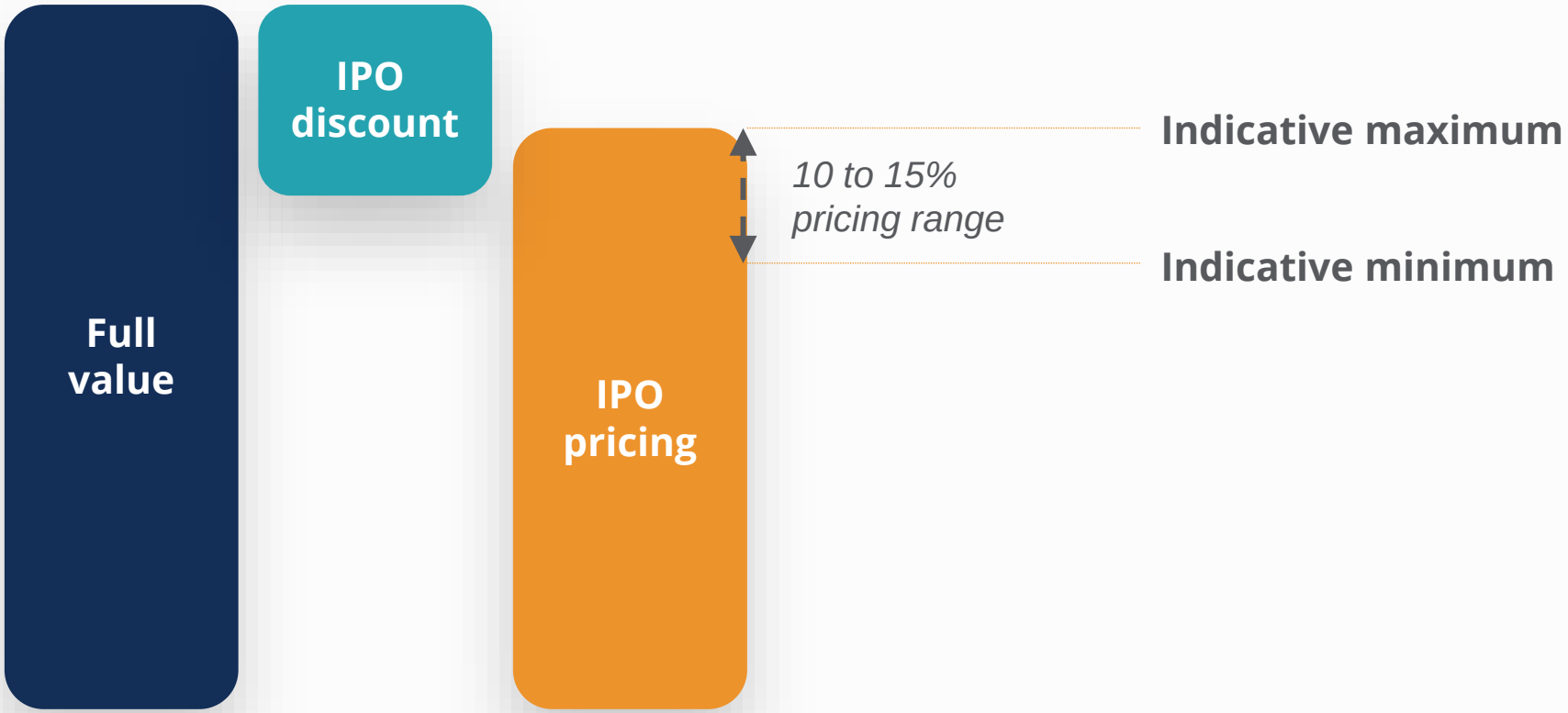
- Direct cost / Fees
- Indirect cost / Under-pricing

There is a temptation for the advising bank to underprice the issue — why?

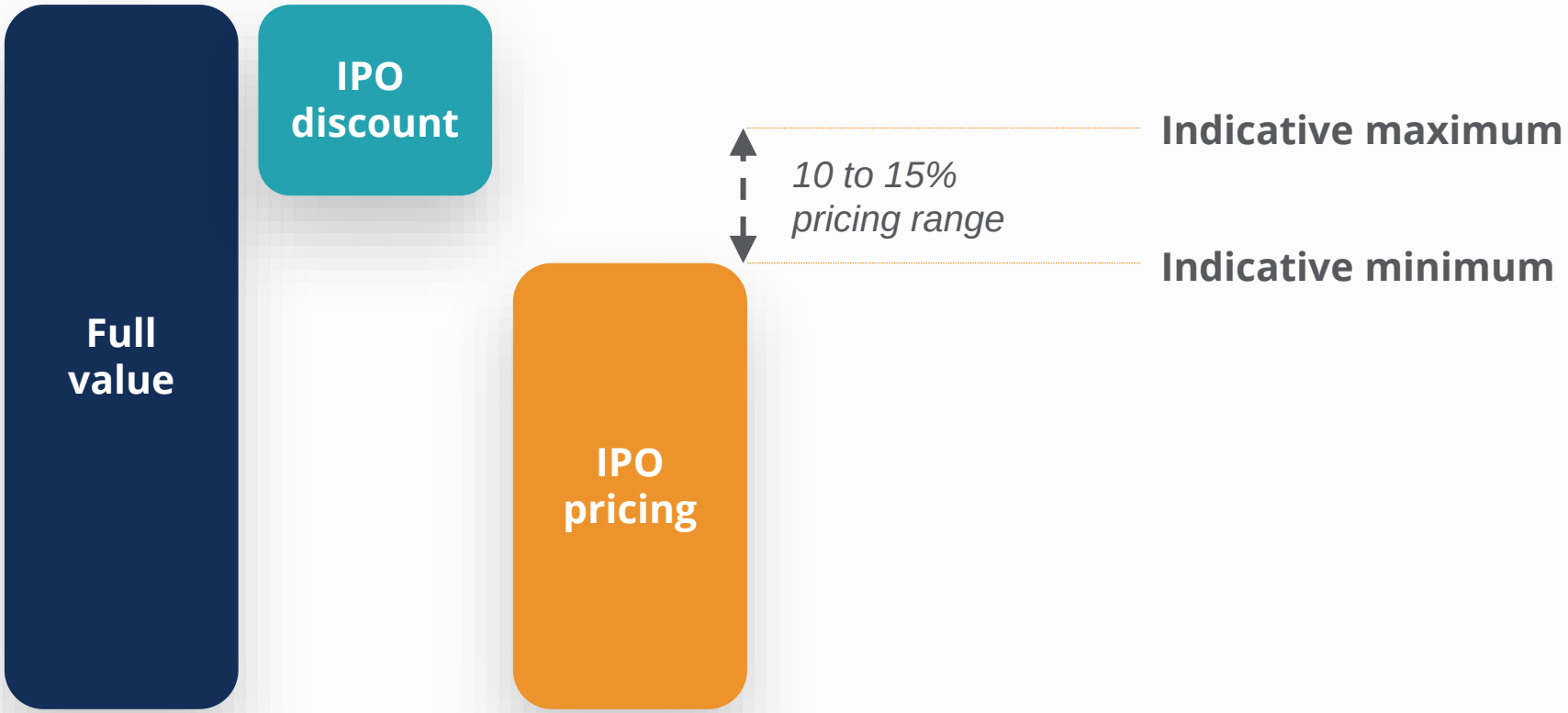
- Reduces the risk of equity overhang
- Ensures after market is buoyant
- BUT this fails to make the best possible returns for the current owners and could lead to profit-taking and hence volatility

The IPO pricing process

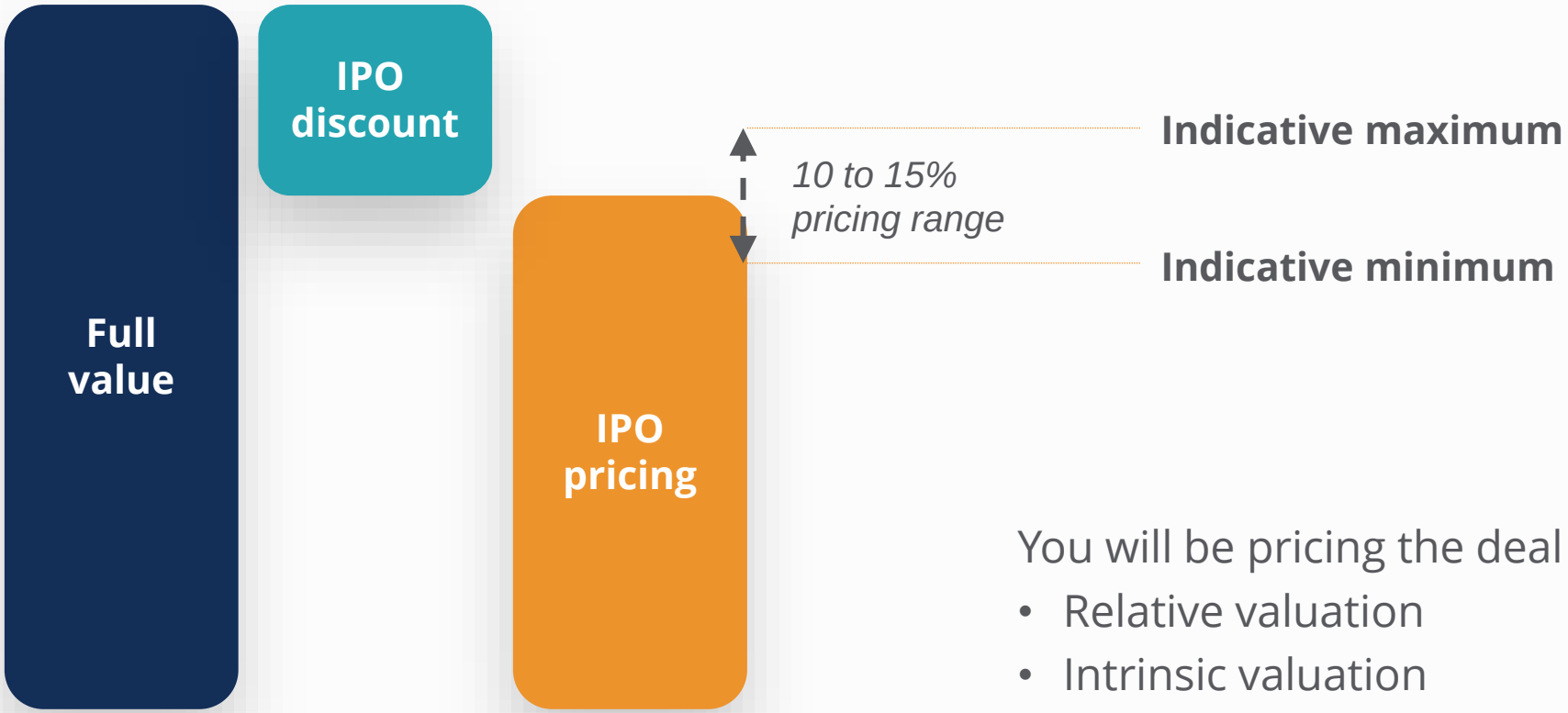
The IPO pricing process



The IPO pricing process



The IPO pricing process



You will be pricing the deal based on:

- Relative valuation
- Intrinsic valuation

Dividends and Return of Capital

Corporate finance overview

The ultimate purpose of corporate finance is to maximize the value of a business through planning and implementing management resources while balancing risk and profitability.

Capital Investments

- Decide what projects / businesses to invest in
- Earn the highest possible risk-adjusted return

Capital Financing

- Determine how to fund capital investments
- Optimize the firm's capital structure

Dividends & Return of Capital

- Decide how and when to return capital to investors

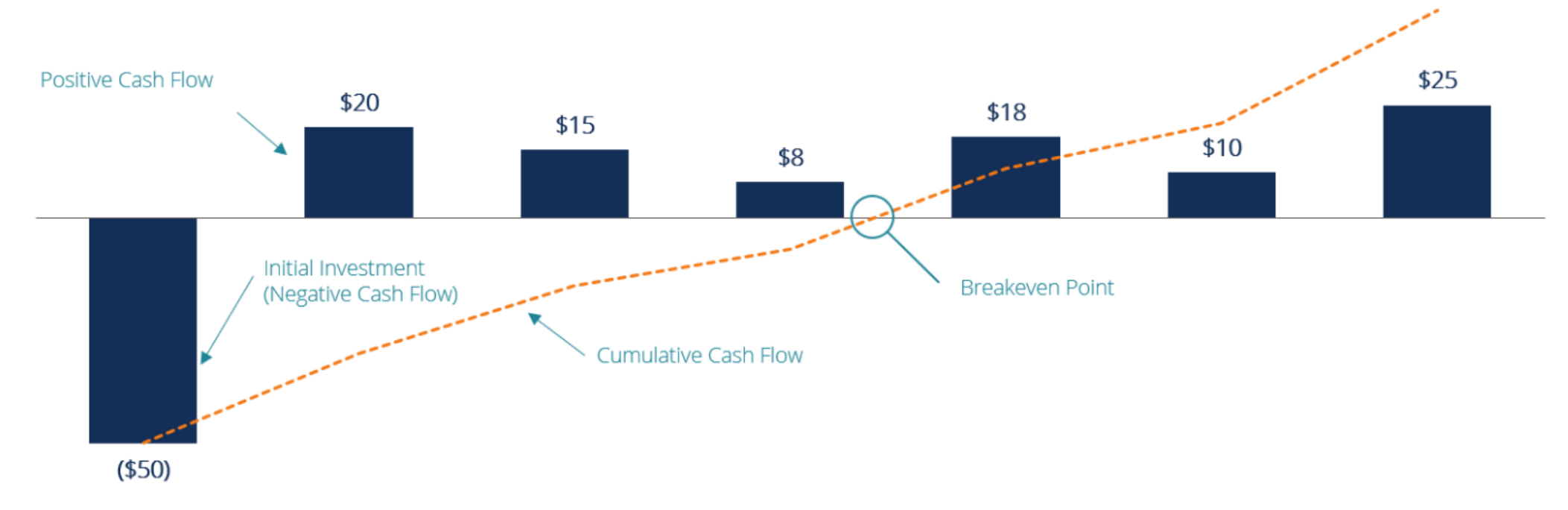
Dividends and return of capital

Corporate managers need to decide to:

Distribute the earnings to shareholders in the form of dividends or share buybacks, OR

Retain the excess earnings for future investments and operational requirements

Internal Rate of Return (IRR)



Internal Rate of Return

IRR = 22% (based on cash flows)

WACC

% net debt x Cost of debt = Contribution

% equity x Cost of equity = Contribution

Weighted Average Cost of Capital

WACC = 28%

Decision

Internal Rate of Return
= 22%

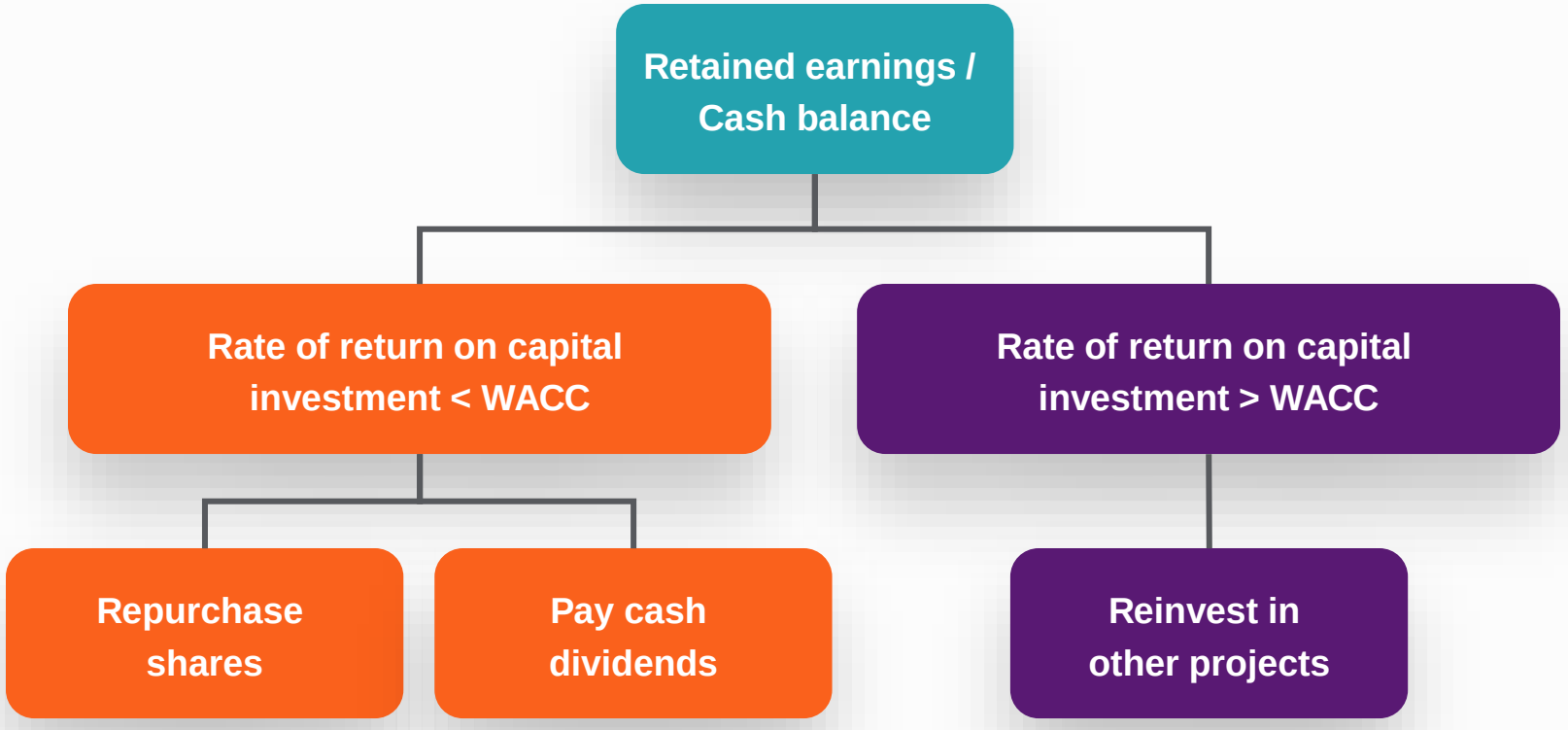
Cost of Capital
= 28%

Return Capital
(Dividend or Buyback)

Retained earnings and excess cash

Balance Sheet					
Assets					
Cash	67,971	81,210	83,715	111,069	139,550
Accounts Receivable	5,100	5,904	6,567	7,117	7,539
Inventory	7,805	9,601	9,825	10,531	11,342
Property & Equipment	45,500	42,350	40,145	38,602	37,521
Total Assets	**126,376**	**139,065**	**140,252**	**167,319**	**195,951**
Liabilities					
Accounts Payable	3,902	4,800	4,912	5,265	5,671
Debt	50,000	50,000	30,000	30,000	30,000
Total Liabilities	**53,902**	**54,800**	**34,912**	**35,265**	**35,671**
Shareholder's Equity					
Equity Capital	70,000	70,000	70,000	70,000	70,000
Retained Earnings	2,474	14,265	35,340	62,053	90,280
Shareholder's Equity	**72,474**	**84,265**	**105,340**	**132,053**	**160,280**
Total Liabilities & Shareholder's Equity	**126,376**	**139,065**	**140,252**	**167,319**	**195,951**

Retained earnings / excess cash decision flowchart



Dividend vs Share Buyback

Dividend

- Can be one-time or ongoing
- Contribute to the “yield” on a stock if ongoing regular dividends
- No impact on shares outstanding or EPS

Buyback (Repurchase)

- Reduces the number of shares outstanding
- Increases EPS

Corporate finance overview

The ultimate purpose of corporate finance is to maximize the value of a business through planning and implementing management resources while balancing risk and profitability.

Capital Investments

- Decide what projects / businesses to invest in
- Earn the highest possible risk-adjusted return

Capital Financing

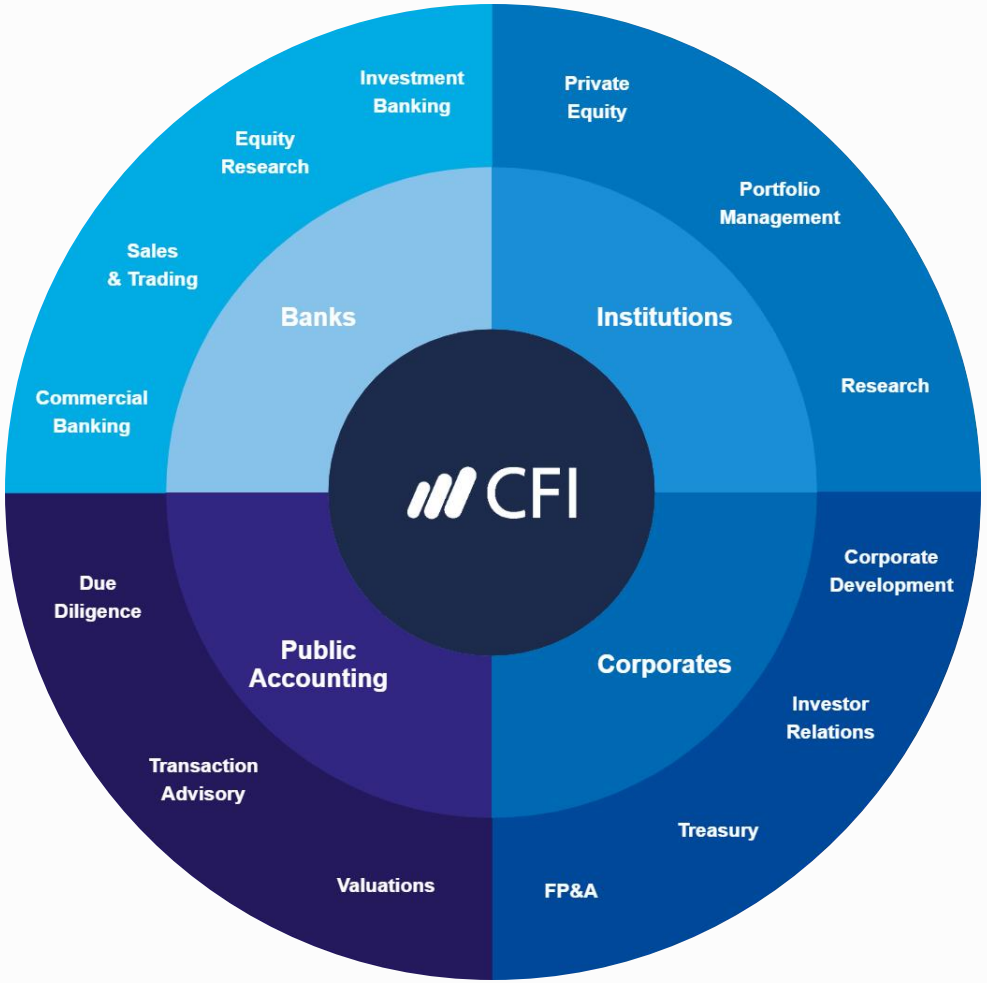
- Determine how to fund capital investments
- Optimize the firm's capital structure

Dividends & Return of Capital

- Decide how and when to return capital to investors

Corporate Finance Careers

Career map


Investment Banking
Equity Research
Sales & Trading
Commercial Banking
Banks
Private Equity
Portfolio Management
Research
Institutions
CFI
Due Diligence
Transaction Advisory
Valuations
Public Accounting
Corporate Development
Investor Relations
Treasury
FP&A
Corporates

Roles in corporate finance

Banks ('Sell side')

- Client facing / sales component
- Capital Markets hire from schools
- Retail hires at various points
- Long hours
- Competitive
- Quick career progression

Public Accounting

- Mix of client or inward focus
- Hire from schools or from other accounting firms
- Long / medium hours
- Competitive
- Clear career path

Institutions ('Buy side')

- More internally focused
- Hire from banks
- Hire grad school students
- Long hours
- Competitive
- Quick career progression

Corporates

- Internally focused
- Hire from banks, accounting firms, institutions and schools
- Hire across all entry points
- Hours vary
- Competitiveness varies by company
- Career progression varies