

An underwater photograph of several dolphins swimming in clear, sunlit blue water. The dolphins are captured in various positions, some swimming towards the camera and others away. Sunlight rays penetrate the water from the top, creating a bright, shimmering effect. The overall mood is serene and natural.

LONG EQUITY

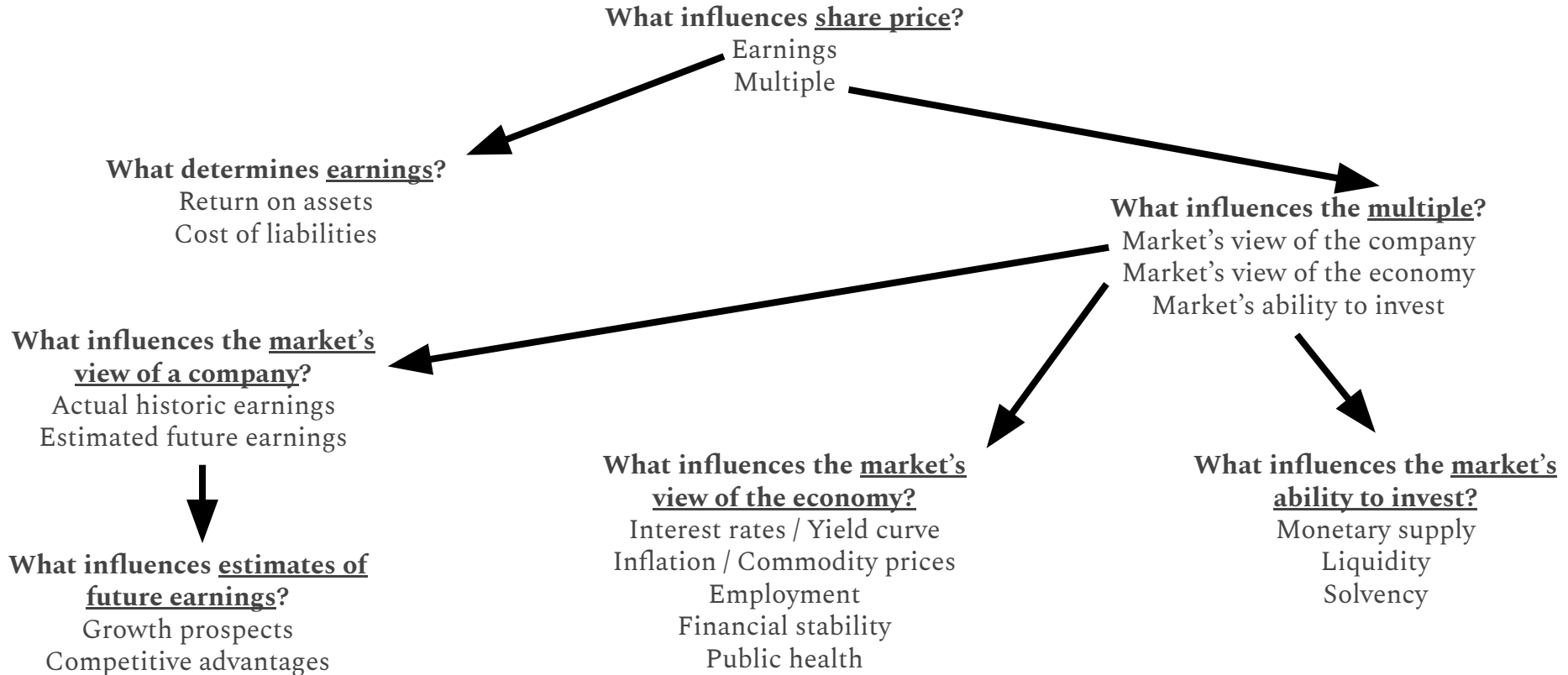
Investor
Mental Models

Long Equity Fund

2022

- Model models allow complex data to be quickly and accurately turned into actionable insights.
 - They provide a thought process for filtering the signal from the noise and for separating out what's important from what's not important.
 - Presented here are a range of 1-page mental models for deciphering a range of concepts encountered in the world of investing.
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What influences share price?



Understanding what drives share price

The three hypothetical companies below demonstrates what drives share price performance. Each company has seen its share price grow 6x over the last decade from \$100 to \$600. However each company achieved their share price growth through different routes: Company A through growing its earnings, Company B through growing its valuation, and Company C through a mixture of both. In reality Company C reflects most multibaggers.

Company A

Earnings growth: 6x
Valuation growth: 1x
Share price growth: 6x

Company B

Earnings growth: 1x
Valuation growth: 6x
Share price growth: 6x

Company C

Earnings growth: 2x
Valuation growth: 3x
Share price growth: 6x

This example demonstrates the important fact that any share price change can be understood by the change in earnings and the change in valuation:

$$\text{Share Price Growth} = \text{Earnings Growth} \times \text{Valuation (P/E) Growth}$$

Four Essential Investing Ratios

Company A and Company B both make **\$1bn** in earnings. Comparing a company's earnings to its invested capital, revenue, historic earnings and market capitalisation reveals four important investing ratios.

	Company A	Company B
Return on capital (Quality) <i>How efficient the company is at investing its capital at high returns</i>	Earnings = \$1bn Invested capital = \$4bn ROC = \$1bn / \$4bn = <u>25%</u>	Earnings = \$1bn Invested capital = \$20bn ROC = \$1bn / \$20bn = <u>5%</u>
Profit Margin (Quality) <i>How efficient the company is at adding value to the supply chain</i>	Earnings = \$1bn Revenue = \$2bn Margin = \$1bn / \$2bn = <u>50%</u>	Earnings = \$1bn Revenue = \$10bn Margin = \$1bn / \$10bn = <u>10%</u>
Earnings Growth Rate (Growth) <i>How efficient the company is at growing its earnings over time</i>	Earnings = \$1bn Earnings 5 years ago = \$0.25bn Growth rate = \$1bn / \$0.25bn = <u>4x</u>	Earnings = \$1bn Earnings 5 years ago = \$0.5bn Growth rate = \$1bn / \$0.5bn = <u>2x</u>
Earnings Yield (Valuation) <i>How attractively the market values the company's earnings</i>	Earnings = \$1bn Market capitalisation = \$20bn Earnings Yield = \$1bn / \$20bn = <u>5%</u>	Earnings = \$1bn Market capitalisation = \$50bn Earnings Yield = \$1bn / \$50bn = <u>2%</u>

Despite earning the same, Company A is a more efficient capital allocator (ROC), has more negotiating and pricing power (margins), has faster growth (growth rate) and is more attractively valued (earnings yield) than Company B.

Not all earnings are equal

Here is a reverse rank of the different types of earnings



5. **Negative** earnings

Expenses > Revenue

4. **Low ROI** earnings

Use billions to make millions

3. **Cyclical** earnings

Airlines, banks, oil, etc.

2. **Leveraged** earnings

Capital intensive, e.g. banks

1. **High ROI, low cyclical, unleveraged** earnings

Value investments by comparing their FCF yields to the investable universe of companies with high ROCs, competitive advantages, low cyclical and low debt.

In corporate finance there are three rules for maximising value:

1. Buy **high return** assets
2. Finance assets with **low cost** debt
3. Only return capital to investors if there are no suitable investments

These principles should guide both how managers run their businesses and how investors find and manage investments.

Maximise the highest possible return by investing in the highest returning assets.

Retain earnings to reinvest

LONG EQUITY

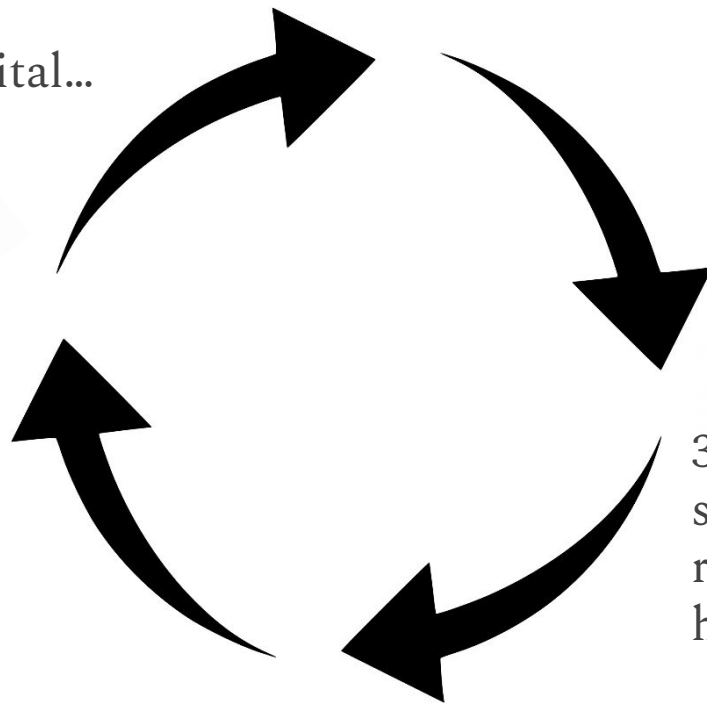
Invest in companies that:

1) Invest capital...



Shareholder distribution

Dividends and share buybacks should be minimised if capital can be reinvested at high returns.



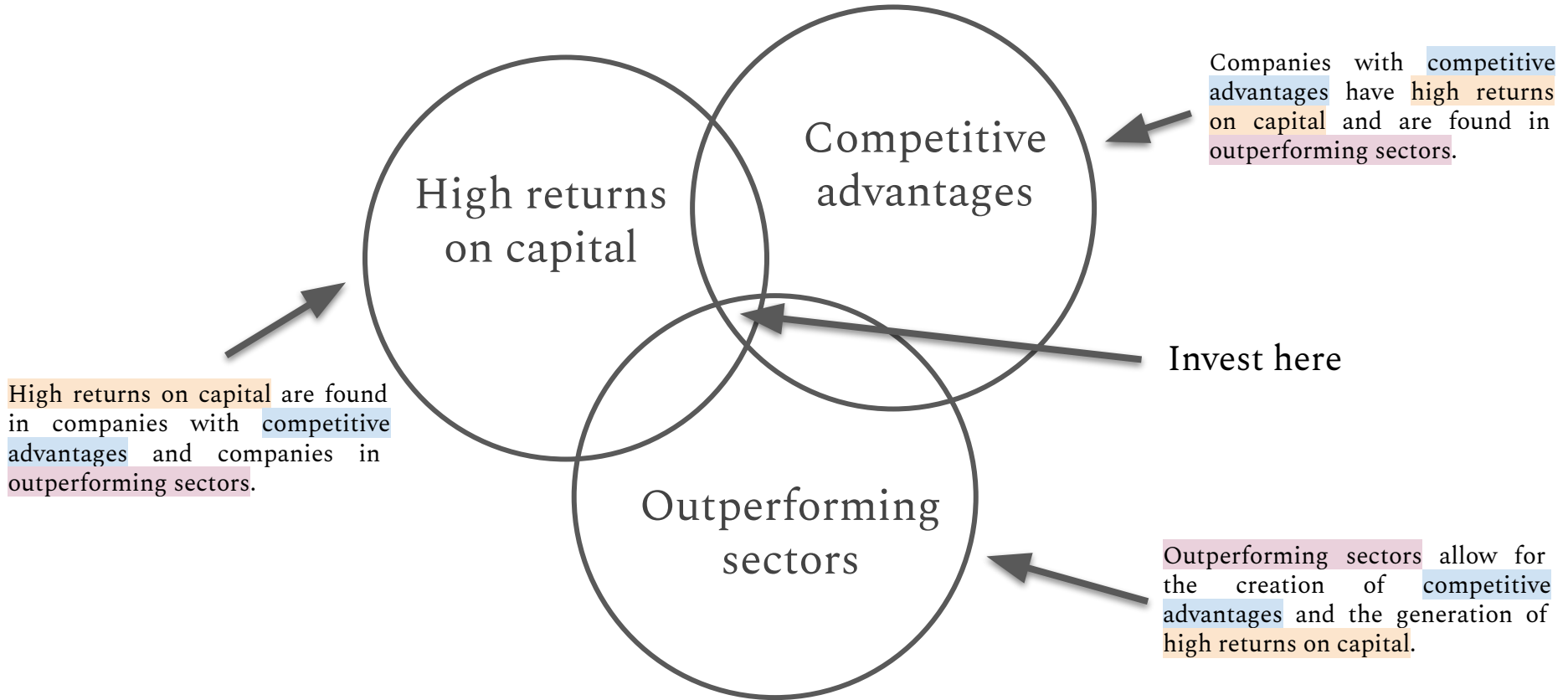
2) ...at high returns...



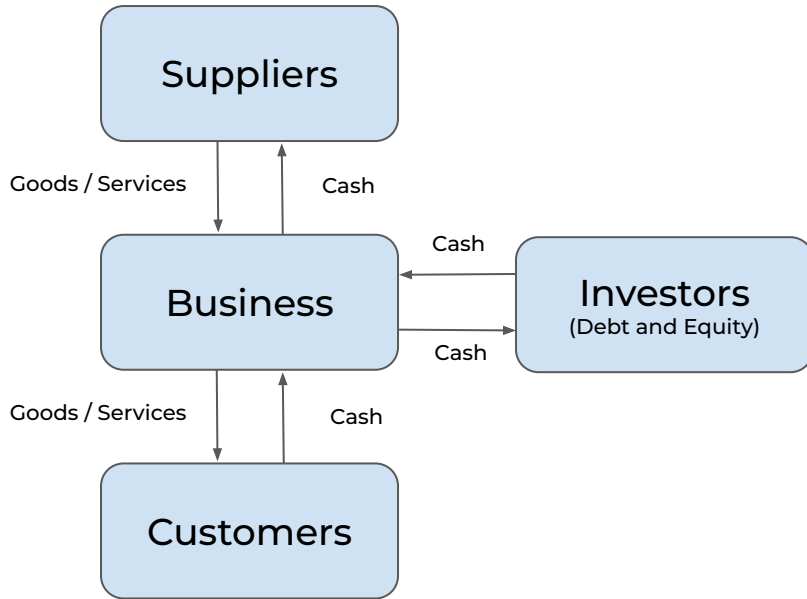
3) ...and retain their earnings so they can continue re-investing their capital at high returns.

**High returns on capital + Durable earnings + Competitive advantages
= Long-term compounding of value**

High ROC and long-term competitive advantages can only be created in specific sectors



Supply chain and investor relations



A company is best understood by its relationship with its investors and supply-chain (suppliers and customers).

Businesses borrow money from investors, exchange it with their suppliers for goods and services, provide goods and services to their customers in exchange for money and return money to their investors.

The higher the return on capital (ROC) the more efficient the business's relationship is with its investors. *A ROC of 20% means that for every \$100 of invested capital the business returns \$20.*

The higher the gross margin the more efficient the business's relationship with its suppliers and customers. *A gross margin of 60% means the business makes something for \$40 and sells it for \$100.*

The Semiconductor Ecosystem

Semiconductor Design Software





Provide software to designers

Cadence 
Synopsys 






Semiconductor Designers

Design only (fabless)

AMD 
NVIDIA 
Broadcom 
Qualcomm 

Semiconductor Manufacturing Equipment

Provide equipment to manufacturers

ASML 
Lam Research 
KLA 
Applied Materials 







Semiconductor Manufacturers

Manufacture only (pure-play foundries)

TSMC 
GlobalFoundries 

Design and manufacture (IDM)

Intel 
Samsung 
Micron 
Texas Instruments 



Semiconductor Consumers

Drivers of semiconductor demand:

- computing/devices,
- the cloud, wireless infrastructure, data centres,
- vehicles
- industrial electronics.