

Investing in Equities

Equities: A partial ownership in a business

- A stock represents a partial ownership of a business
- A stock has claim on profits of a business
- A stock has claim on net assets of the business

Equities: A partial ownership in a business

Old Chang Kee (FY2008)	S\$'000
Sales	48,437
Less: Operating expenses	(45,162)
Less: Interest expenses	(183)
Profit before tax	3,092
Tax	(858)
Profit after tax	2,234
Outstanding shares	93,400
Earnings per share	\$0.024

Source: Old Chang Kee 2008 Annual Report

Equities: A partial ownership in a business

Old Chang Kee (FY2008)	S\$'000
Non-current assets (PPE, etc)	12,723
Current assets (Cash, inv, AR)	12,031
Less: Current liabilities (ST debt, AP)	(6,712)
Less: Non-current liabilities (debt, etc)	(2,032)
Net asset value	16,010
Outstanding shares	93,400
Net asset value per share	\$0.17

Source: Old Chang Kee 2008 Annual Report

How does a stock derive its intrinsic value?

- *“The value of any stock, bond or business today is determined by the cash inflows and outflows - discounted at an appropriate interest rate - that can be expected to occur during the remaining life of the asset” - Warren Buffett*
- Assume Old Chang Kee makes profits (free cash flow) of \$2.2 million per year
- Value of Old Chang Kee = $2.2 + 2.2 + 2.2 + 2.2 + \dots$ million
- Time value of money: \$2.2 million in 10 years' time is not the same as \$2.2 million today, hence profits in future have to be discounted.
- Risk Premium: Profits in the future might be hit by business downturn, competition, poor management, etc., need to discount further
- Assume discount to factor in inflation of 3%, and “risk premium” of 12%, total discount rate of $3+12 = 15\%$
- Value of Old Chang Kee = $2.2/(1.15) + 2.2/(1.15)^2 + 2.2/(1.15)^3 + \dots$
- If profits grows at 5% per yr, Value = $2.2 \times (1.05)/(1.15) + 2.2 \times (1.05)^2/(1.15)^2 + \dots$
- Mathematical value = cash flow/(discount rate – growth rate), i.e. for Old Chang Kee, = $(2.2 \times 1.05)/(0.15-0.05) = \23 million

Using multiples for valuation

- Theoretical value for a stream of cash flows growing at a annual rate of (g) to perpetuity and having a discount rate of (r) = $\text{Cashflow} \times (1+g)/(r-g)$, i.e. a multiple of cash flow/profit
- Hence an asset can be valued using a multiple of its cash flow/profit
- Price-earnings ratio (p/e) – used to value a stock based on a multiple of its earnings
- Price-earning ratio = price of stock/earnings per share
- Eg. Old Chang Kee 2008 eps \$0.024, if price is \$0.22, $p/e = \$0.22/\$0.024 = 9.2x$
- Another common multiple: Price/Book value (p/b)
- $p/b = \text{Price}/\text{Net Asset Value (or "Book Value") per share}$
- Eg. Old Chang Kee 2008 NAV per shares is \$0.17, if price is \$0.22, $p/b = 1.3x$

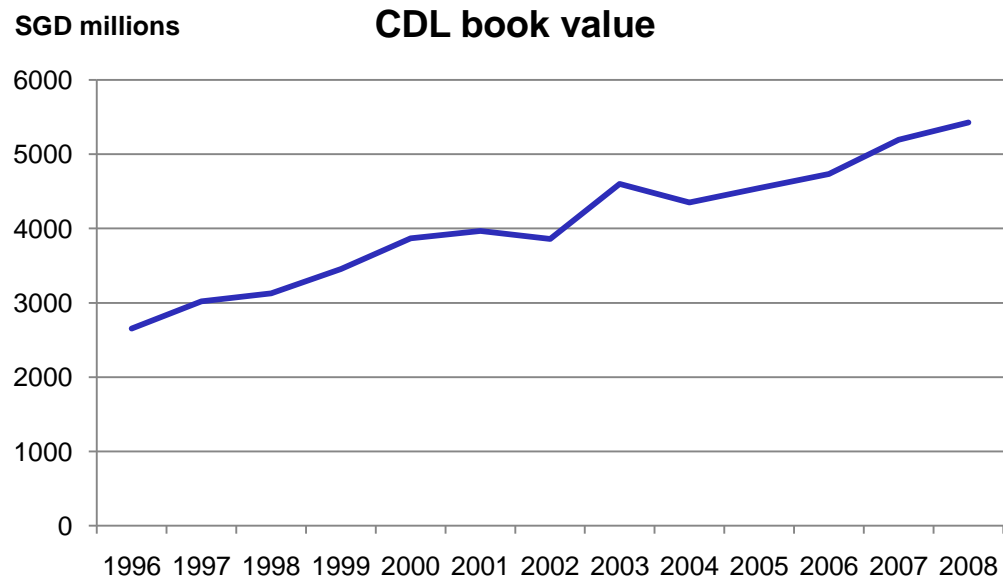
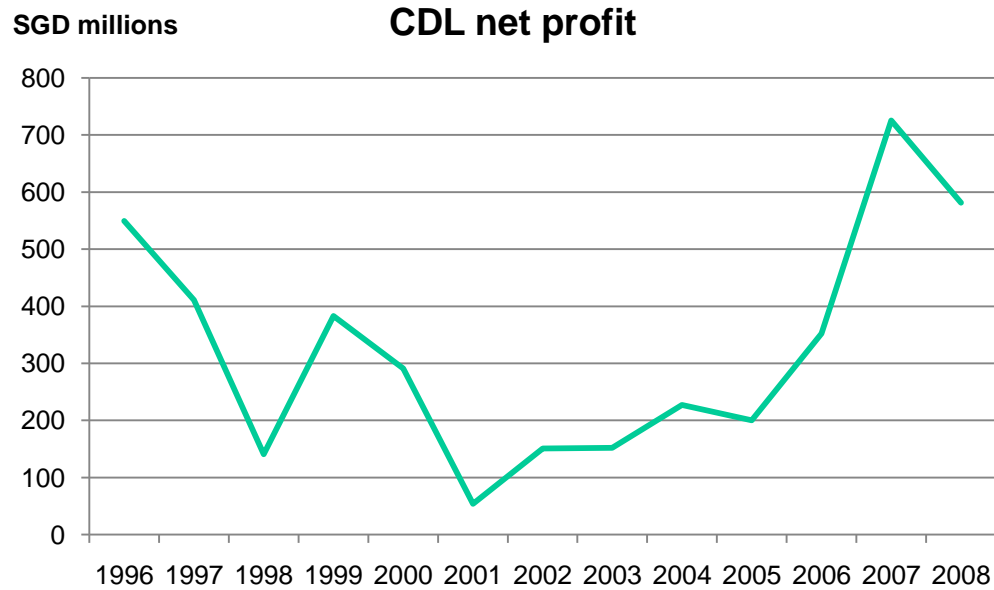
Understand the business

- Sales and cost drivers
- Cyclicalities
- Pricing power, profit margins, return on equity
- Capital expenditure/working capital requirements
- Macroeconomic and industry trends affecting business
- Competitive position, customer and supplier concentration/overdependence

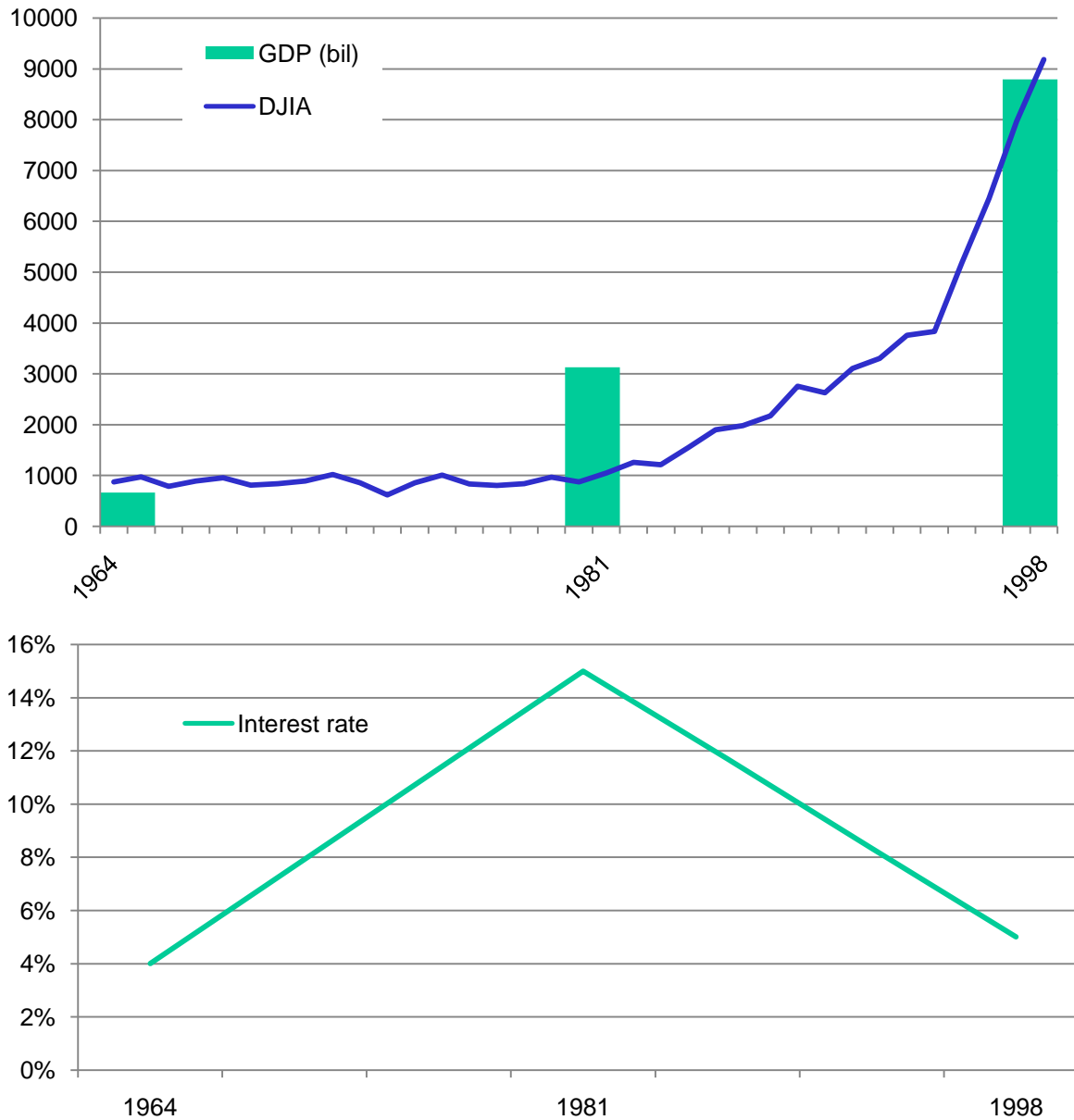
What is a correct multiple to use?

- Based on expected long term growth rates
- Based on comparable companies
- Based on historical range
- Based on nature of business, industry dynamics, geography of operations (related to “risk premium”)

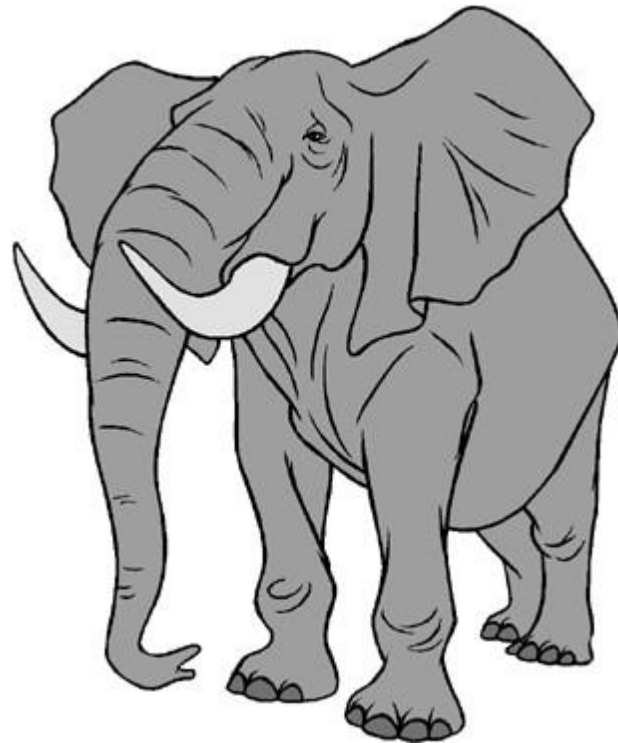
Valuation of cyclical businesses



Valuation and interest rate environment



Don't just rely on any one multiple for valuation!



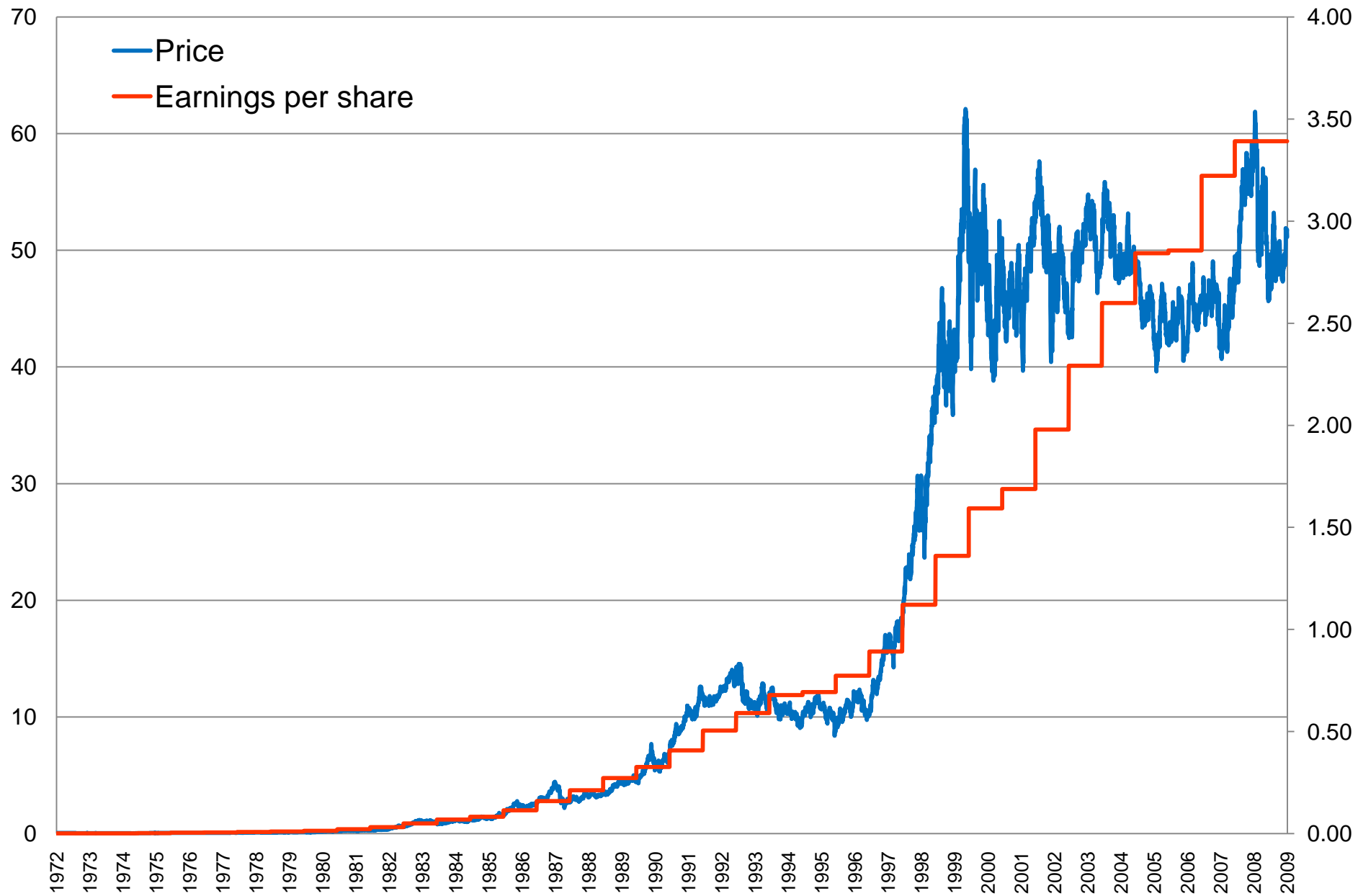
Margin of safety: The most important concept!

- Suppose company ABC's intrinsic value per share is determined to be \$100
- If current price is \$90, do we buy?
- What if we are wrong about the intrinsic value?
- Margin of safety – to buy a stock at a substantial discount to intrinsic value
- Buy at 50% discount to intrinsic value
- i.e. if we believe company ABC's per share intrinsic value is \$100, buy only if the share price drops to \$50
- Having a wide margin of safety ensures substantial upside potential when one is correct, and minimum downside risk when one is wrong
- A good company = a good stock?

Having a long term view

- *"In the short run, the market is a voting machine, but in the long run it is a weighing machine." – Benjamin Graham*

Having a long term view



Form an investment thesis

- Summarise reason for buying stock in 2 or 3 sentences
- Different sources of mis-pricing that can be exploited:
 - Out-of-favour industry
 - Under-researched small caps
 - Accounting policies that may understate true value of assets
 - Holding company discount
 - Merger arbitrage
 - Asset sales, company reorganisation
 - Sum of parts
 - Business turnaround
- Idea, consensus view, variant perception and trigger event

When do you sell?

- When share price hits intrinsic value
- When company is not performing according to what is initially expected
- When a stock with substantially larger upside is found
- “*You never go broke taking a profit*” ?

The stock market

- *"You are neither right nor wrong because the crowd disagrees with you. You are right because your data and your reasoning are right." – Benjamin Graham*
- *"The market climbs a wall of worry"*
- *"Generals always fight the last war"*
- *"What has been will be again, what has been done will be done again, there is nothing new under the sun" Eccl. 1:9 – King Solomon*

Stock analysis: a practical example

- Over the period 1995-2006, OSIM's sales grew 20-fold and PBT grew 27-fold. Established a well-known brand name over the period
- In 2007, hit by imitation products in China and problems with major acquisition in US (Brookstone, Inc.) which incurred losses
- Sales fell 27% over next 2 years, profits turned into losses, share price plunged 98%. Company started restructuring operations
- Profits improved in 2008 due to restructuring, mgt writing off Brookstone. Brookstone's debt is "non-recourse"
- Average EBITDA margin of 13% from 2001-2006, with successful restructuring could achieve pre-crisis margins
- Assume conservative 11% recovery EBITDA margin, and recovery sales level equal to average last 2 yrs sales, keeping depreciation interest and tax at 2008 levels, yields recovery eps of 3.7 cts
- Stock trading in a range of 6 - 9 cts then, or less than 2.5x p/e

Summary

- View buying a stock as owning a piece of a business
- Buy stocks of businesses you understand
- Calculate the intrinsic value of a stock
- Buy at a substantial discount to intrinsic value