

2A – CTG - PE Ratios: “Why are there so many different ones?”  
Gary Ball

## PE (Price-Earnings) Ratios




“Why are there so many different ones?”  
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**BETTERINVESTING**  
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## What is a stock's PE ratio?

- A measurement of how much investors are willing to pay for each dollar of company profits.
- Useful for determining whether a stock is inexpensive or expensive.
- Similar to price per pound in the grocery store

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## How is PE ratio calculated?

- P/E ratio =**  
**Stock price ÷ Earnings per share**
- but.....
- What 'stock price'?
- What 'earnings per share'?

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## How is PE ratio calculated?

- Depends on what PE you desire
  - Annual high PE ratio
  - Annual low PE ratio
  - Average high PE ratio
  - Average low PE ratio
  - Average PE ratio
  - Trailing PE ratio
  - Projected PE ratio
  - Current PE ratio

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## Annual High PE Ratio

- Equals “highest stock price” for the year divided by the “year-end earnings per share”
- Found in column D of section 3 on the SSG
- Highest PE ratio of the year

Fiscal Year	High Price	Low Price	EPS	High PE
2004	58.9	43.8	2.30	25.6
2005	58.4	48.3	2.79	20.9
2006	75.3	54.0	3.26	23.1
2007	89.2	69.1	3.63	23.3
2008	88.2	47.2	4.23	20.9

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### Annual Low PE Ratio

- Equals “lowest stock price” for the year divided by the “year-end earnings per share”
- Found in column E of section 3 on the SSG
- Lowest PE ratio of the year

Fiscal Year	High Price	Low Price	EPS	High PE	Low PE
2004	58.9	43.8	2.30	25.6	19.0
2005	58.4	48.3	2.79	20.9	17.3
2006	75.3	54.0	3.26	23.1	16.6
2007	89.2	69.1	3.83	23.3	18.0
2008	88.2	47.2	4.23	20.9	11.2

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### Average High PE Ratio

- Average of the previous 5-year’s annual high PE ratios
- Found at the bottom of column D in section 3 of the SSG
- Tells investors what this stock traded for on average when the stock was ‘up’ or the market was ‘up’ or it was fully priced or expensive

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### Average Low PE Ratio

- Average of the previous 5-year’s annual low PE ratios
- Found at the bottom of column E in section 3 of the SSG
- Tells investors what this stock traded for on average when the stock was ‘down’ or the market was ‘down’ or it was cheap

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### Average PE Ratios

Fiscal Year	High Price	Low Price	EPS	High PE	Low PE
2004	58.9	43.8	2.30	25.6	19.0
2005	58.4	48.3	2.79	20.9	17.3
2006	75.3	54.0	3.26	23.1	16.6
2007	89.2	69.1	3.83	23.3	18.0
2008	88.2	47.2	4.23	20.9	11.2
AVERAGE		52.5		22.8	16.4
AVERAGE P/E RATIO	19.6				

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### Average PE Ratio

- Average of the Average High PE ratio and the Average Low PE ratio for the previous 5 years
- Can be thought of as the PE ratio paid by investors when investors did not overpay (Avg High PE) or underpay (Avg Low PE)
- Most important PE ratio in section 3 on the SSG

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### Significance of Average PE Ratio

- You should never pay more than the Average PE ratio for a stock!
- Paying above Average PE ratio is biggest mistake for most investors!
- Is the historical average PE ratio a relevant ratio for the future?
  - Is the company growth rate slowing?
  - Is the stock market acting normally?
  - Are there earnings outliers?

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### Trailing PE ratio

- Equals Current Price divided by last (trailing) 4-quarters earnings
- PE ratio of a stock when looking in the rear-view mirror
- Investors don't buy stocks based on last year's earnings!
- Relative value (on SSG) =  
$$\text{Trailing PE} \div \text{Average PE}$$

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### Projected PE Ratio

- Equals current price divided by projected earnings in the future
- Value line uses two quarters into the future and two historical quarters
- Analysts use estimated earnings at the end of the fiscal year
- For me, I look 4-quarters ahead

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### Calculating Projected PE

- Assume trailing earnings are \$1.00
- Assume growth rate is 15%
- Earnings 4 quarters in the future would be 1.15 times \$1.00 or \$1.15
- This is how SSG calculates it by default

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### Calculating Projected PE

- Assume we are in June 2010
- Analysts estimates for earnings
  - Dec 2010 \$1.25
  - Dec 2011 \$1.75
- We want to know the earnings in June 2011, which is half way between December 2010 and December 2011
  - June 2011 \$1.50

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### Projected Relative Value

- Projected Relative Value =  
$$\text{Projected PE} \div \text{Average PE}$$
- Remember, investors buy stocks based on future earnings, not what happened last year

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### Current PE Ratio

- Equals Current Price divided by current earnings (trailing earnings on the SSG)
- On Value Line, it equals the Current Price divided by earnings looking two quarters into the future.
- You always need to know what earnings are being used in the calculation

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### What things affect PE ratios?

- **Company growth rates**
  - Higher growth = higher PE
- **Quality of company**
  - Higher quality = higher PE
- **Industry**
- **Interest rates (inflation)**
  - Higher interest rates = lower PE
- **Investor enthusiasm**
  - More enthusiasm = higher PE

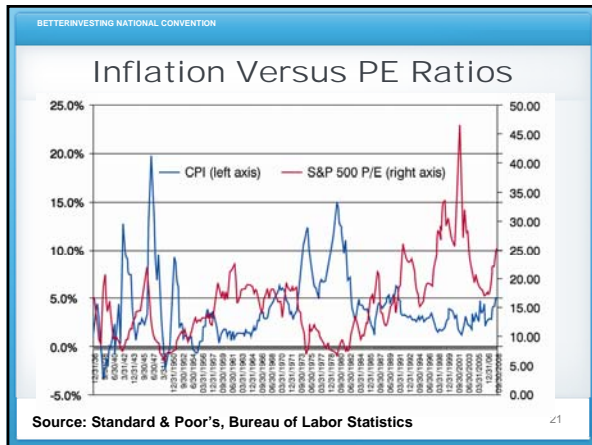
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### Growth Rates vs. PE Ratios

- **Measured by PEG ratio =**  
$$\text{PE ratio} \div \text{Growth rate}$$
- **Historical valuations**
  - PEG < 1 usually represents a good buy
  - PEG > 1.5 has usually been expensive

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### Example of “investor enthusiasm”

YEAR	EPS	PRICE RANGE		P/E RATIO		5 YR AVG P/E RATIO		
		HIGH	LOW	HIGH	LOW	HIGH	AVG	LOW
2000	0.18	11.3	5.3	63.6	30.0			
2001	0.23	12.8	6.7	55.8	29.3			
2002	0.28	12.9	7.1	46.7	25.7			
2003	0.34	15.5	9.8	46.2	29.3			
2004	0.48	24.2	14.4	50.9	30.3	52.6	40.8	28.9
2005	0.61	32.1	22.3	52.7	36.5	50.5	40.3	30.2
2006	0.72	39.9	24.9	55.4	34.5	50.4	40.8	31.3
2007	0.87	40.0	25.2	46.0	29.0	50.2	41.1	31.9
2008	0.71	26.9	13.3	37.9	18.8	48.6	39.2	29.8
2009	0.81	20.9	7.1	25.9	8.7	43.6	34.5	25.5
10 Year Avg.				48.1	27.2		37.7	

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### Questions?

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