

PEG: Will That Dog Hunt? P/E Ratio vs. Growth



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The Problem With PEG.

One of the crucial influences on our stock study results is the forecast for the future P/E ratio.

- **The relationship between P/E and growth (PEG ratio)**
- **As a guideline, OK ... but not really. The reality is one-size-clearly-doesn't-fit-all ...**

Price/Earnings To Growth - PEG Ratio



What Does *Price/Earnings To Growth - PEG Ratio* Mean?

A ratio used to determine a stock's value while taking into account earnings growth. The calculation is as follows:

$$\text{PEG Ratio} = \frac{\text{Price/Earnings Ratio}}{\text{Annual EPS Growth}}$$



Investopedia explains *Price/Earnings To Growth - PEG Ratio*

PEG is a widely used indicator of a stock's potential value. It is favored by many over the price/earnings ratio because it also accounts for growth. Similar to the P/E ratio, a lower PEG means that the stock is more undervalued.

Keep in mind that the numbers used are projected and, therefore, can be less accurate. Also, there are many variations using earnings from different time periods (i.e. one year vs five year). Be sure to know the exact definition your source is using.

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"The P/E ratio of any company that is fairly priced will equal its growth rate. In general, a P/E ratio that is half the growth rate is very positive, and one that is twice the growth rate is very negative." – *One Up On Wall Street*

PEG Ratio	Recommendation
>200% (2.0x)	Expensive
150% (1.5x)	Consider Selling
100% (1.0x)	Fairly Valued
~50% (0.5x)	Attractive

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I calculated the PEG ratio as of March 2003 for more than 1,000 companies. I simply took the P/E ratio in March 2003 and divided it by the actual earnings growth rate from March 2003 through March 2006.

Then I calculated the performance of each stock over the past three years to see whether I could find any correlation between the PEG and stock performance. On average, stocks with a 2003 PEG between 0 and 1 performed much better than the others. Here are the results.

2003 PEG Ratio	Number of Companies (1,316 total*)	Median Return	Average Return
0.00 - 0.99	583	154.1%	225.2%
1.00 -1.50	193	78.4%	92.6%
1.51 - 2.00	102	60.5%	79.0%
More Than 2.00	225	44.4%	69.4%

*Includes U.S. companies trading on major exchanges with market caps greater than \$500 million for which data was available.

fool.com: Joseph Khattab, How Useful is the PEG Ratio? – 4/6/2006

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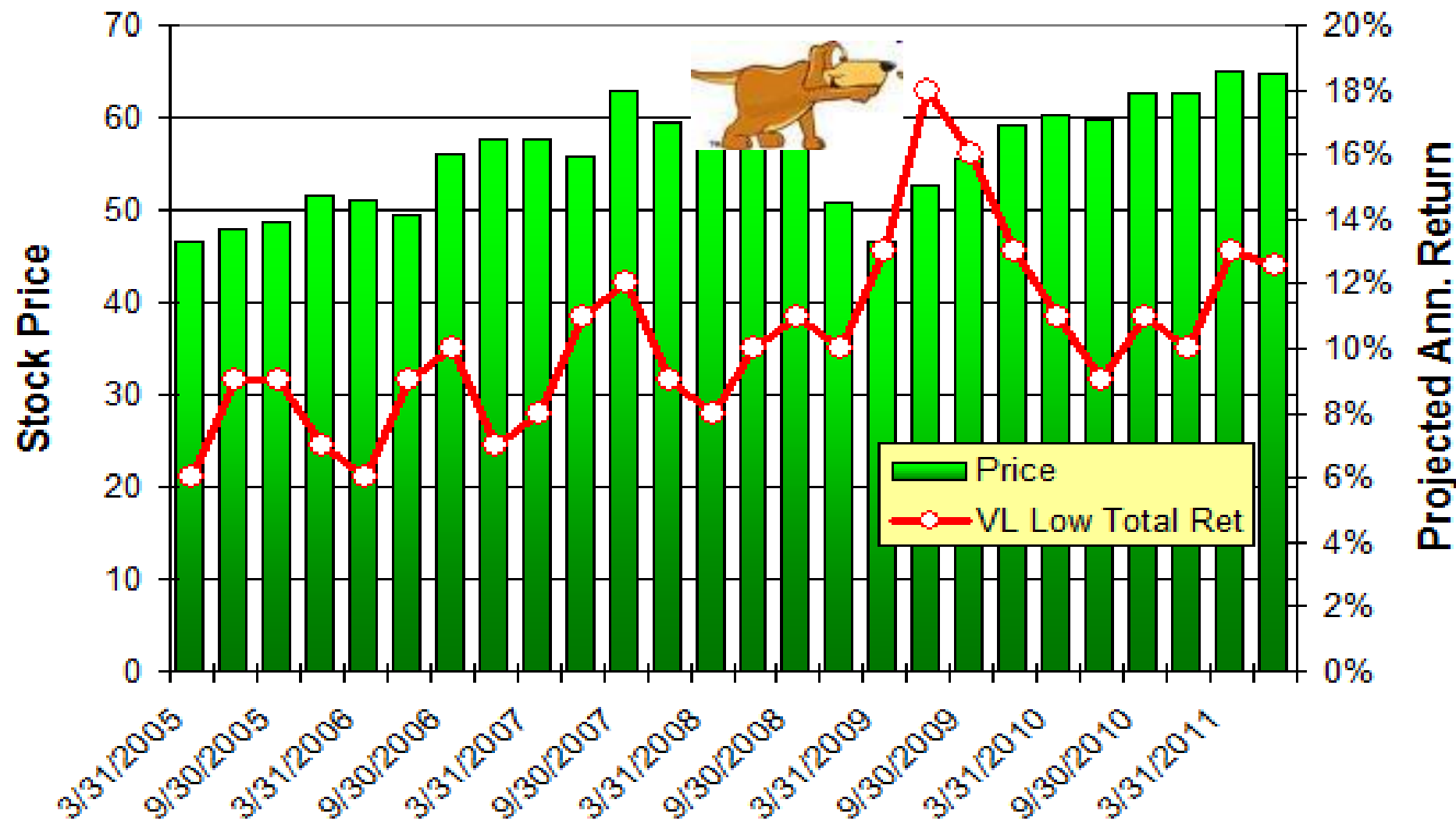
Some things to ponder

Here are a few more interesting tidbits from my study:

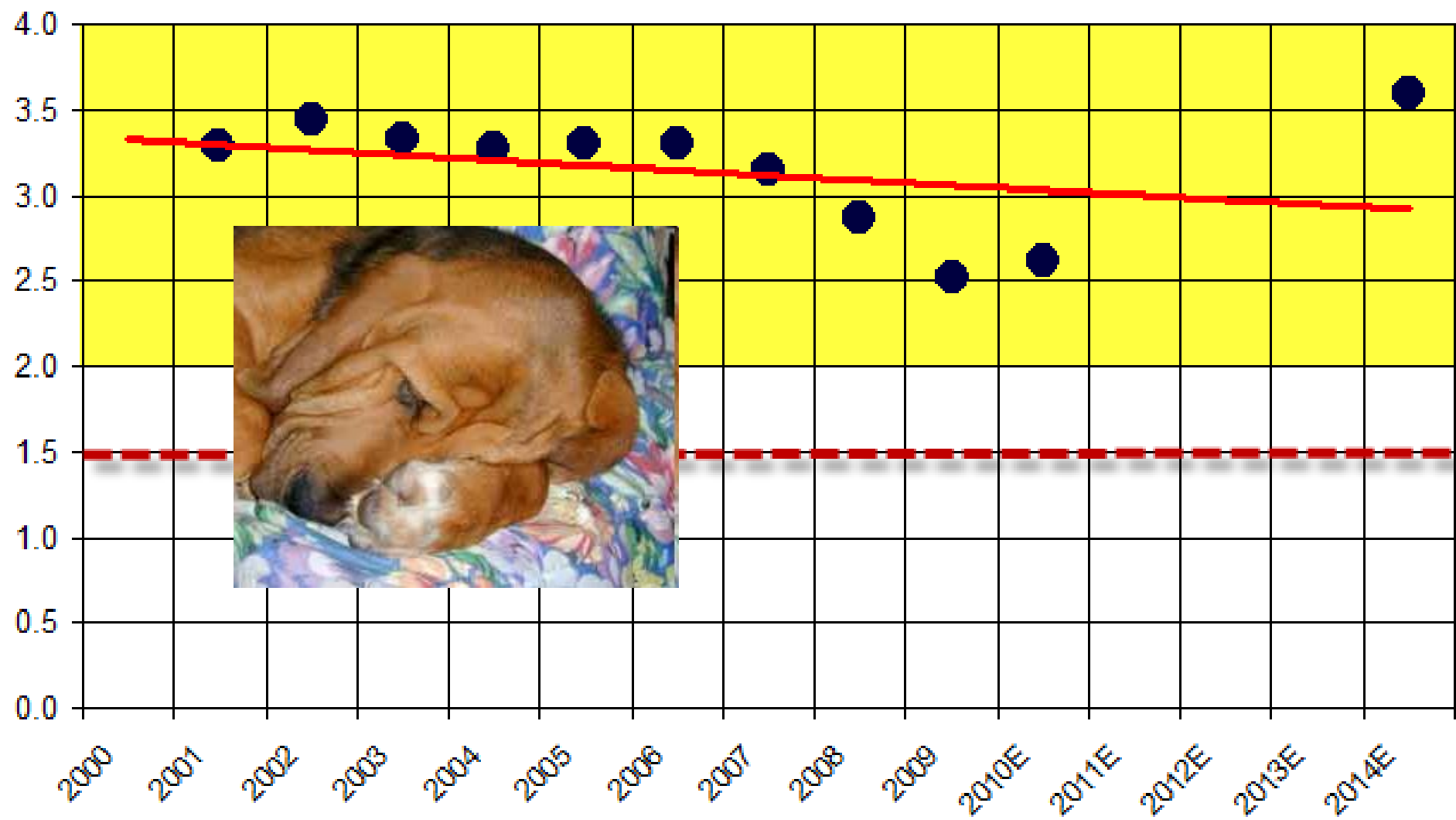
- 92% of companies with PEG ratios of less than 1 beat the market over three years.
- 68% of companies with PEG ratios of between 1 and 2 beat the market.
- 47% of companies with PEG ratios greater than 2 beat the market.
- The best performer was (surprise, surprise) **Hansen Natural** (Nasdaq: [HANS](#)). It had a PEG of 0.08 in 2003 and had gained 5,400% through March.
- The second-best performer was **NutriSystem** (Nasdaq: [NTRI](#)) with a PEG of 0.06 and a gain of 5,200%.
- Despite a PEG of 0.55, **Ford** (NYSE: [F](#)) managed only a 14% gain over three years.
- **Dick's Sporting Goods** (NYSE: [DKS](#)) was "fairly valued" with a PEG of exactly 1, but it still appreciated by 265%.
- A PEG of 8 didn't stop **Select Comfort** (Nasdaq: [SCSS](#)) from appreciating by 266%.

Procter & Gamble (PG)

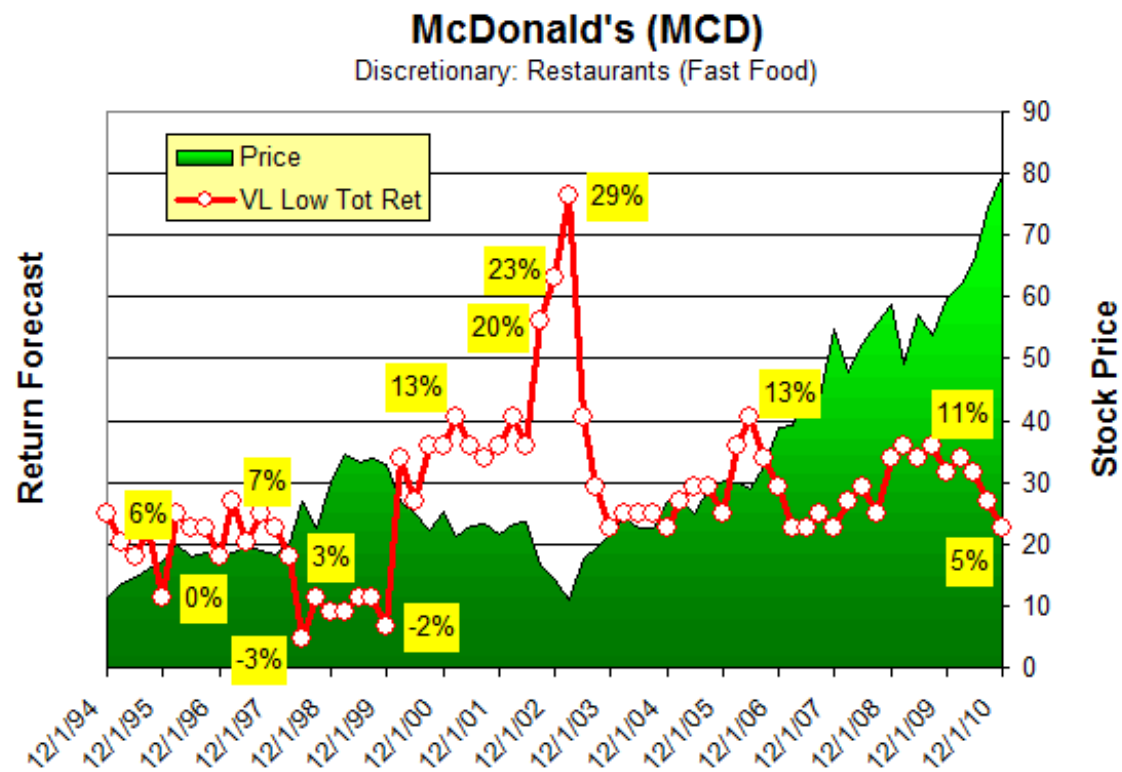
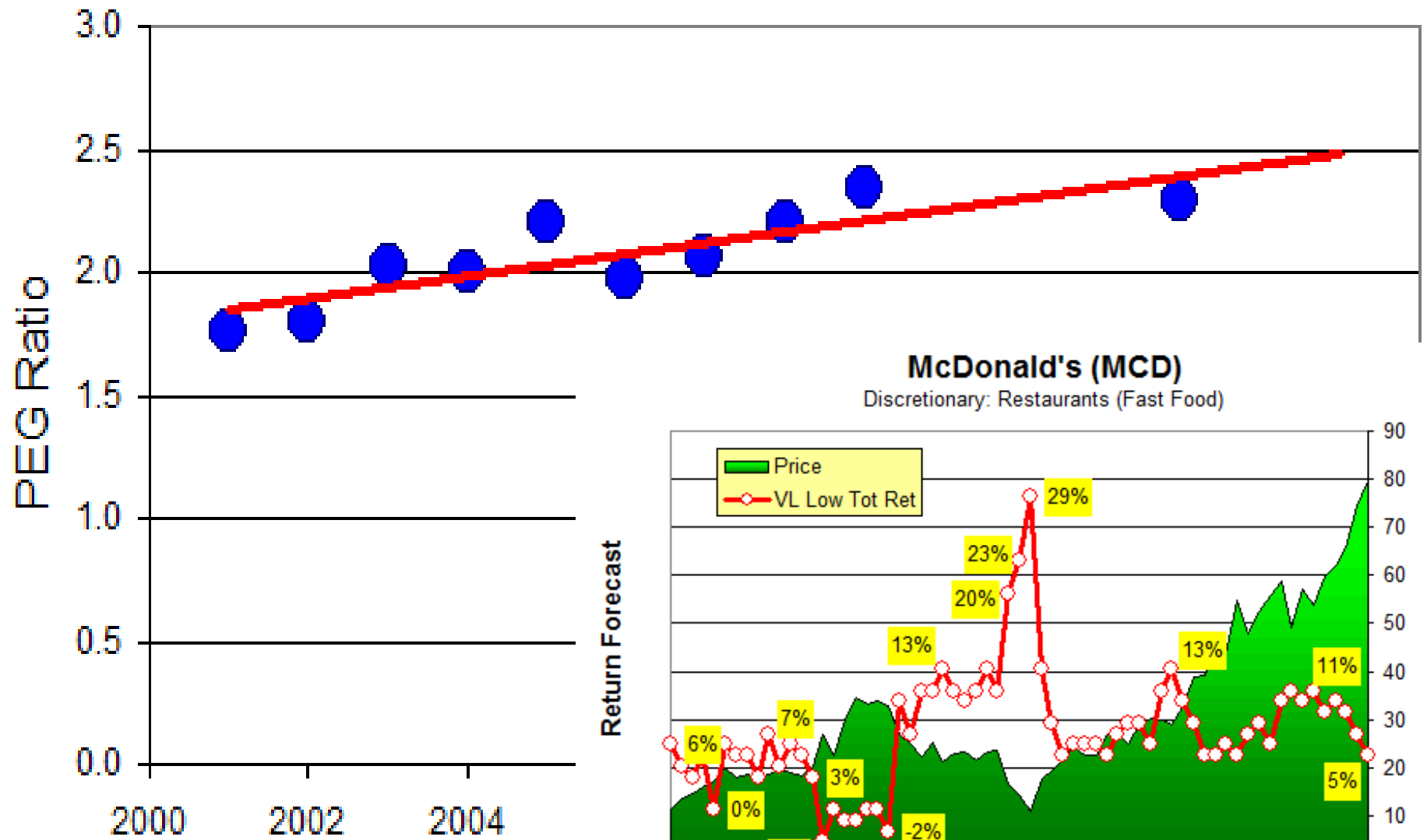
Staples: Household Products



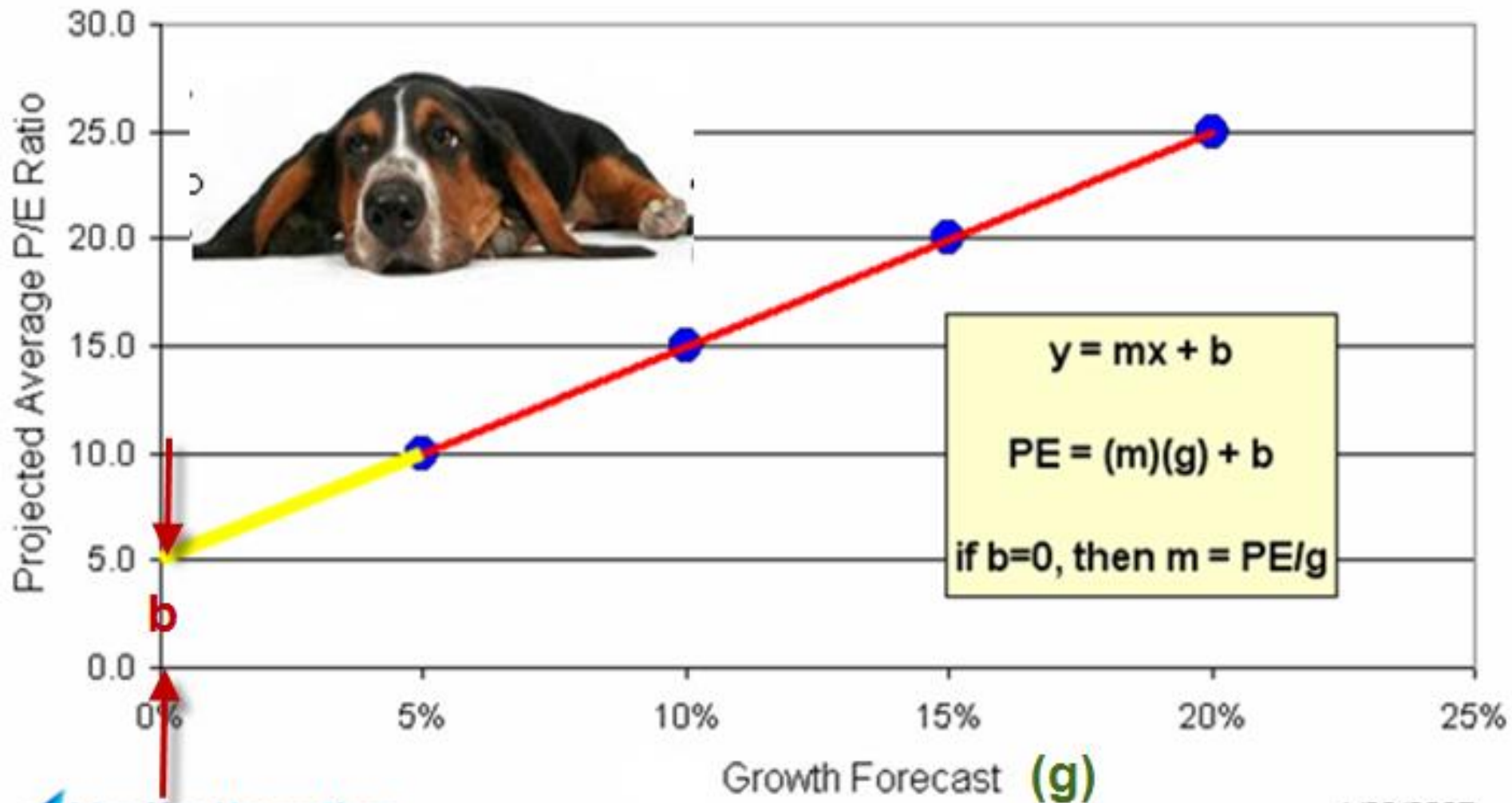
Procter & Gamble (PG)
PEG Ratio History and Trend



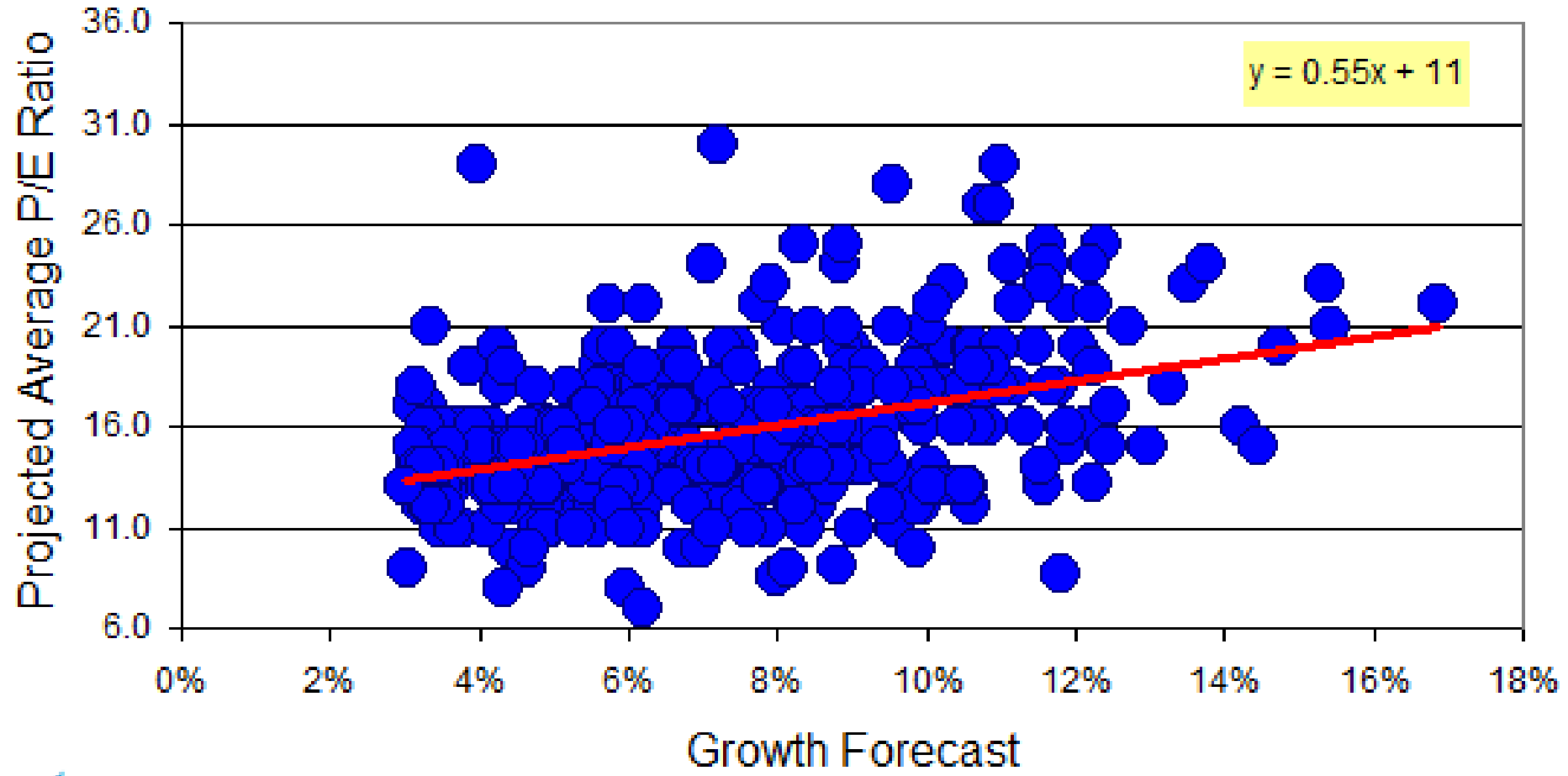
McDonald's (MCD)



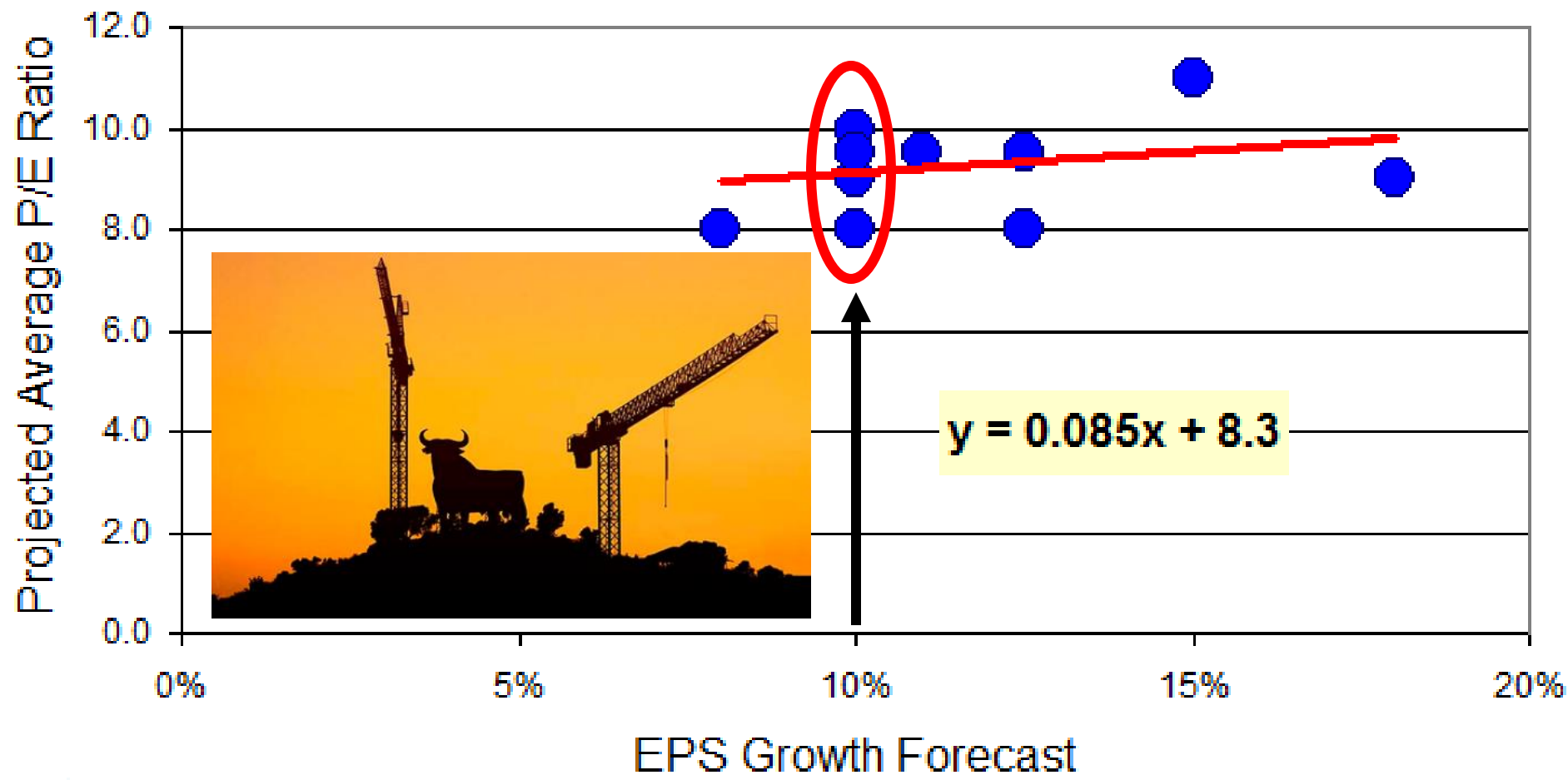
The Relationship between P/E & Growth



General Stock Market (Stalwarts)
P/E vs Forecasted Growth

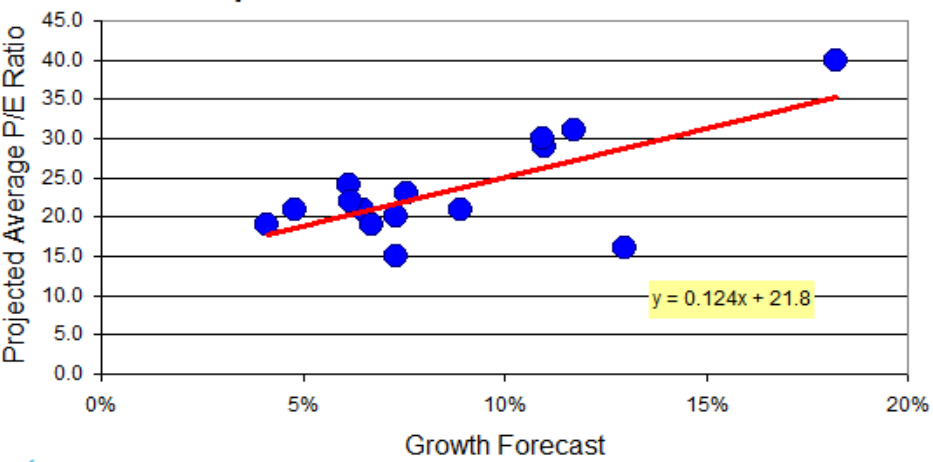


P/E vs Forecasted EPS Growth



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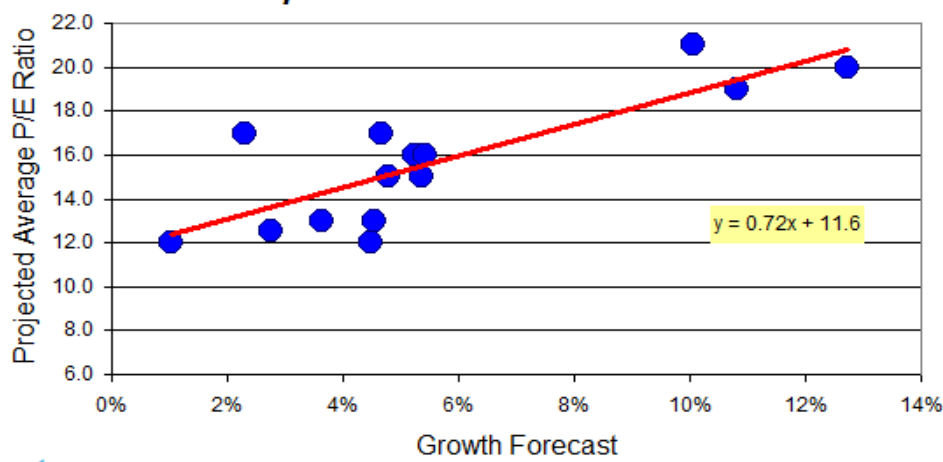
Software (Application)
P/E vs Forecasted EPS Growth



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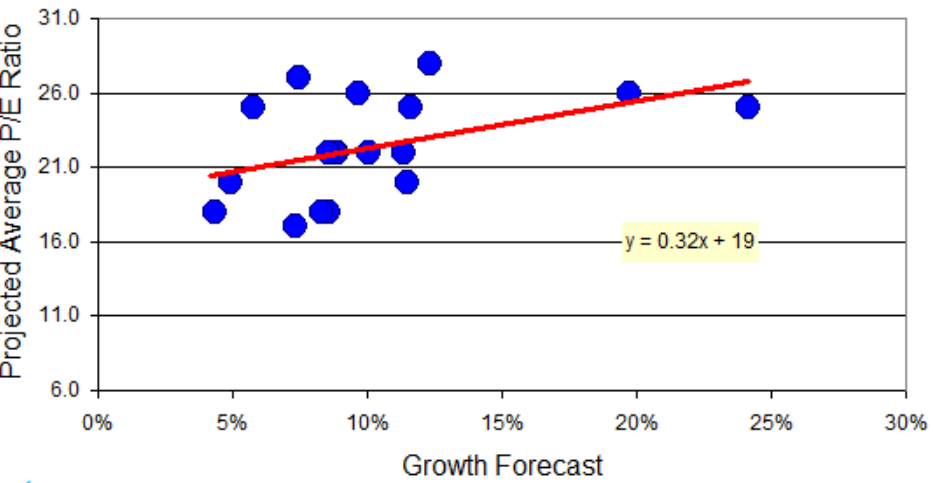
Restaurants (Fast Food)
P/E vs Forecasted Growth



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3/4/2011

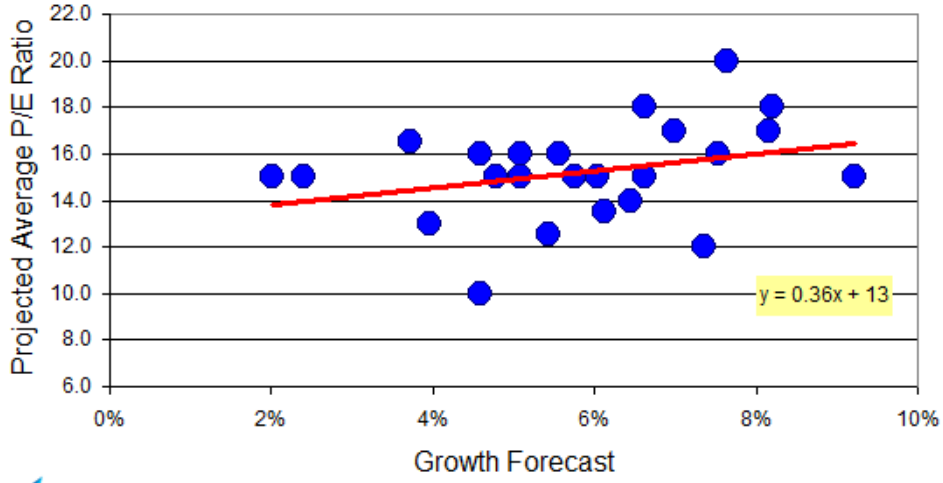
Medical Supplies
P/E vs Forecasted Growth



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2/25/2011

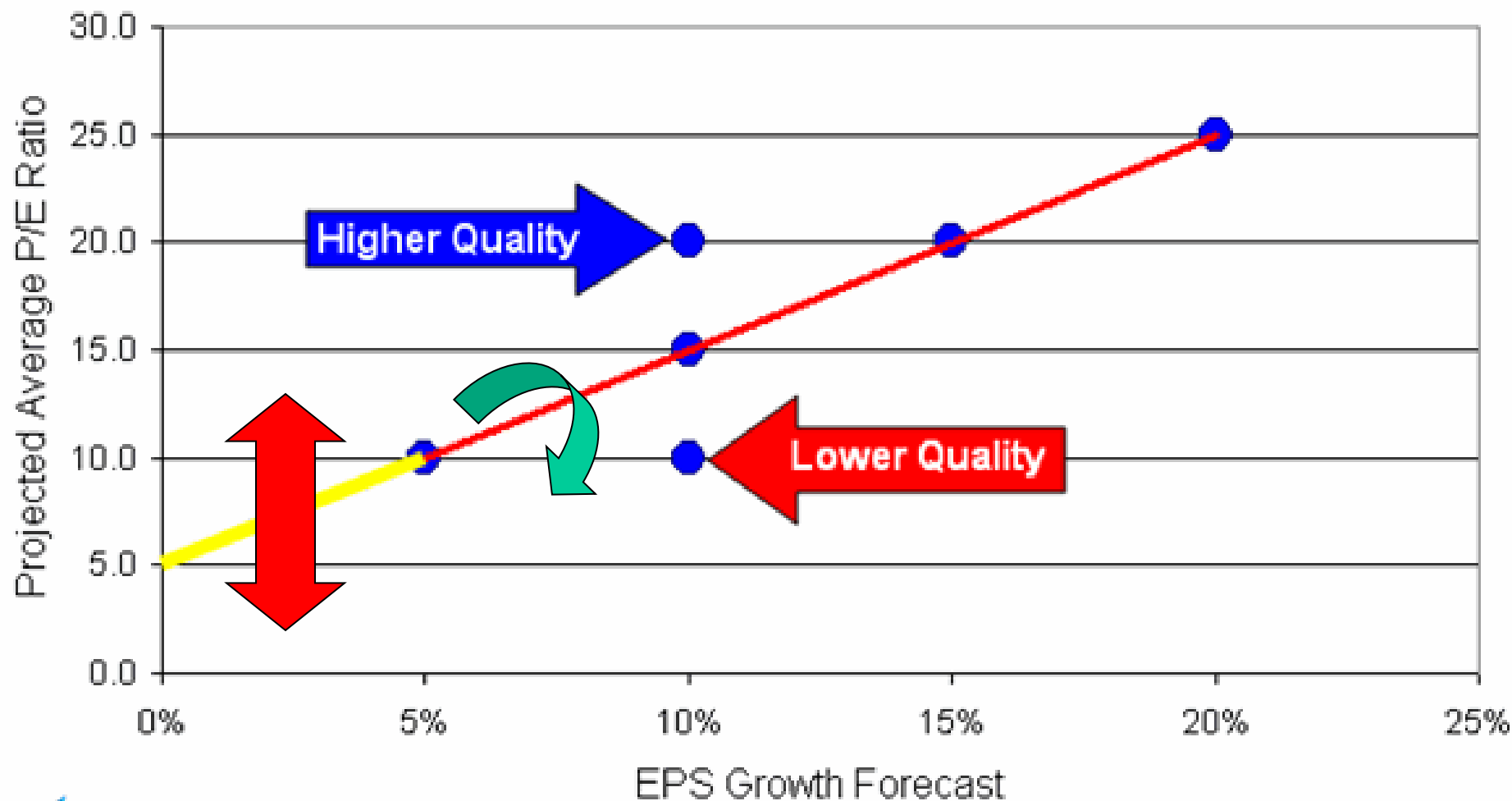
Chemicals (Specialty)
P/E vs Forecasted Growth



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3/11/2011

The Influence of Quality on P/E Ratios



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3 PRICE, PRICE/EARNINGS RATIO and DIVIDEND ANALYSIS

		CURRENT PRICE		53.060	52-WEEK HIGH		56.790	52-WEEK LOW		42.750
	Fiscal Year	High Price	Low Price	EPS	High P/E	Low P/E	Dividend	% Payout	% High Yield	
1	2005	50.0	37.5	2.48	20.2	15.1	1.085	43.8	2.9	
2	2006	49.9	39.2	2.53	19.7	15.5	1.160	45.8	3.0	
3	2007	59.5	48.8	2.82	21.1	17.3	1.270	45.0	2.6	
4	2008	61.1	45.8	3.32	18.4	13.8	1.405	42.3	3.1	
5	2009	57.4	41.3	3.74	15.3	11.0	1.560	41.7	3.8	
6	AVERAGE		42.5		18.9	14.5		43.7		
AVERAGE P/E RATIO		16.7		PROJECTED P/E RATIO		13.0		TTM EPS		3.81
CURRENT P/E RATIO		13.9		PEG RATIO		1.9		FTM EPS		4.08
RELATIVE VALUE		83.2%		PROJ. RELATIVE VALUE		77.9%				

We have been using PEG – as a guide post – for a long time ...



- 1. The PEG ratio relies on the P/E ratio.**
- 2. It looks both ways. P/E in reverse, growth forward.**
- 3. It punishes low-growth stocks.**
- 4. The PEG ratio ignores dividend yield.**
- 5. 5-year [EPS growth] estimates are bunk.**
- 6. Sample sizes (# of rhinos) vary.**
- 7. There is little/no consideration of risk.**

fool.com: Joe Magyer, Dismantling the PEG Ratio? – 9/20/2008

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4 EVALUATING REWARD and RISK over the next 5 years

A FUTURE HIGH PRICE ANALYSIS — NEXT 5 YEARS

Selected High P/E 25.8 X Estimated High Earnings/Share 5.13 = Forecast High Price \$ 132.4

B FUTURE LOW PRICE ANALYSIS — NEXT 5 YEARS

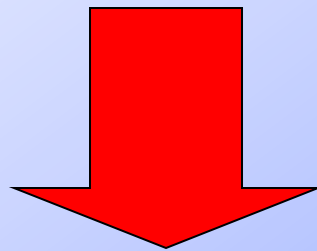
(a) Sel. Low P/E 17.3 X Estimated Low Earnings/Share 2.92 = \$ 50.5
(as adj.)

(b) Average 5-Year Low Price = 44.8

(c) Recent Severe Low Price = 30.7

(d) Price Dividend Will Support = Present Divd. ÷ High Yield = 0.960 ÷ 0.022 = 43.3

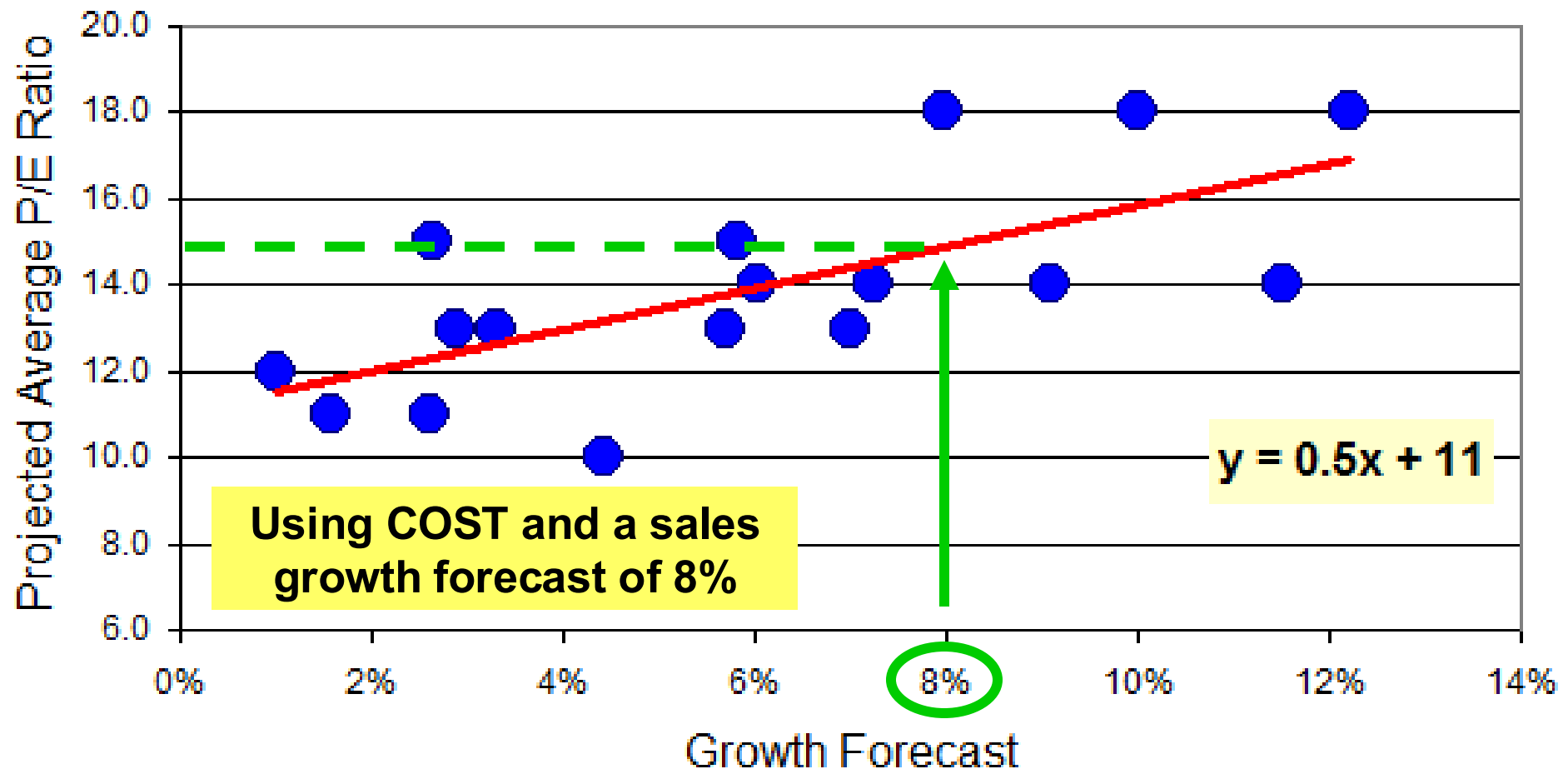
Selected Estimated Low Price = \$ 44.8



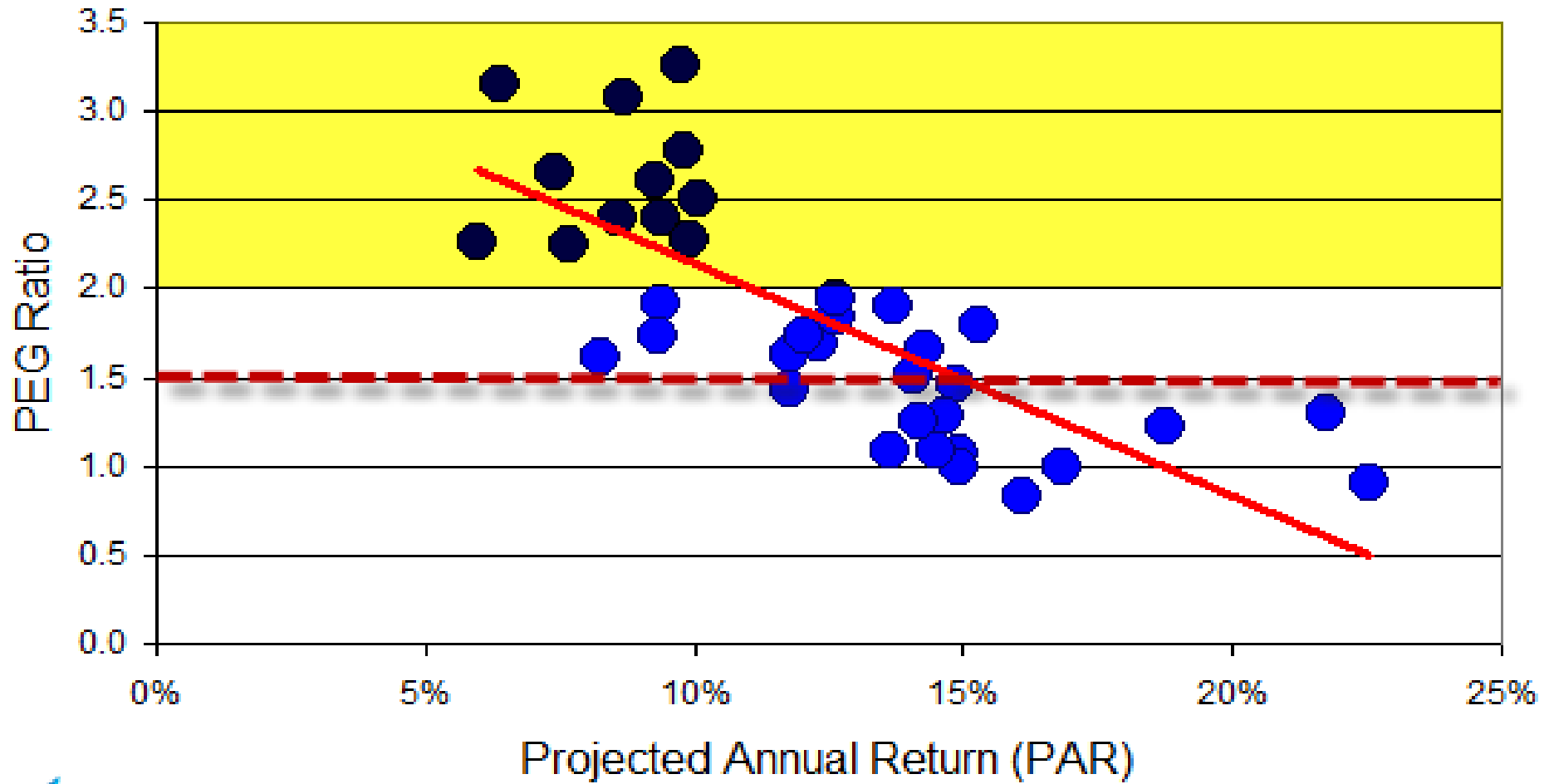
The Bottom Line: 5. Projected Annual Return (PAR)

Your choice of P/E (or the P/E range) has a significant impact on your return forecast for any stock study.

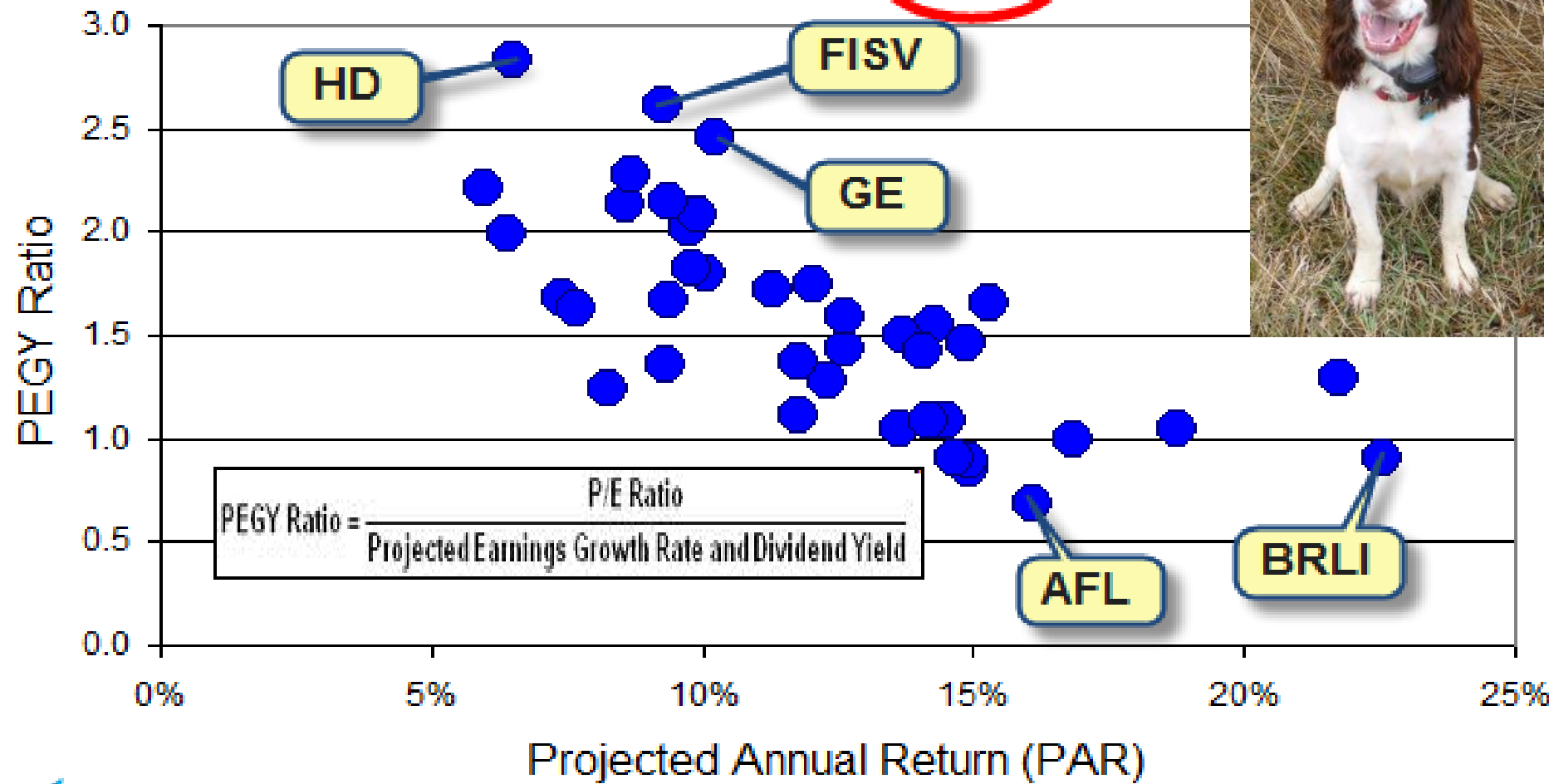
Retail Store
P/E vs Forecasted Growth



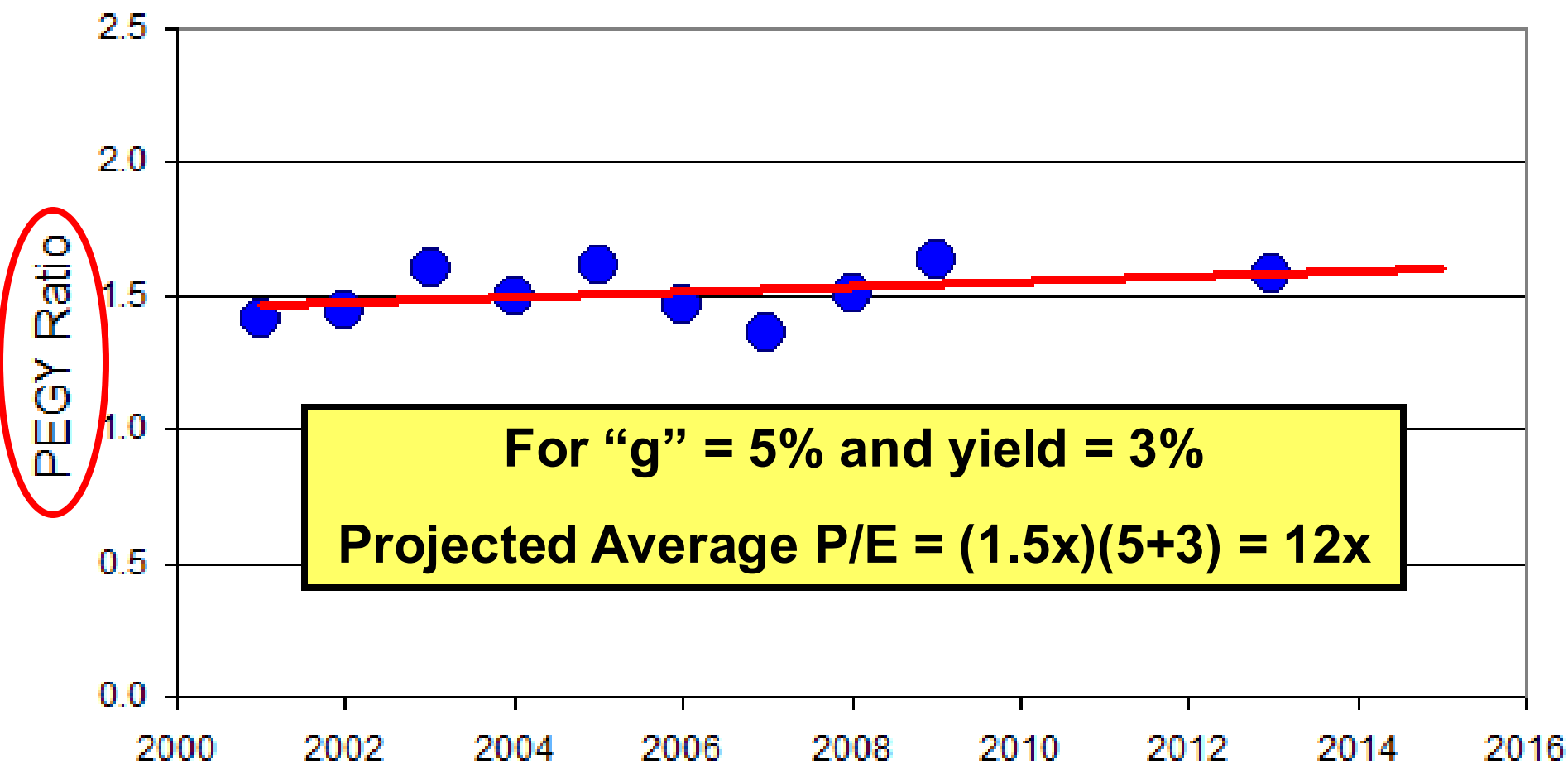
MANIFEST 40 (ex-GE, PFE, HD)
Return Forecast vs PEG Ratio



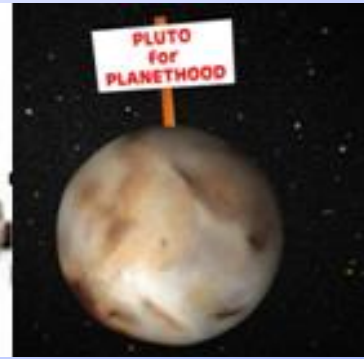
MANIFEST 40
Return Forecast vs **PEGY** Ratio



McDonald's (MCD)



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- 1. It's important to understand the relationship between growth and P/E. When forecasting, consider industry, position in life cycle, quality ... while forming P/E expectations.**
- 2. One size doesn't fit all. Not even hush puppies.**

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Questions?



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