



John Mauldin's *"Outside The Box"*

Once again we look at one of my favorite analysts and behavioral finance thinker, James Montier of Dresdner Kleinwort Wasserstein in London. James wrote a fascinating book two years ago called "Behavioural Finance: A User's Guide" and puts out ongoing research like the one we will enjoy today. Long time readers will recognize the name because I have discussed many of his ideas in my weekly letter "Thoughts From the Frontline," my book "Bull's Eye Investing" and in "Outside the Box."

This report by James explores value versus growth investing. This is a topic covered in my book and what James finds is that while over time both produce roughly the same returns, picking value winners is easier and comes with less volatility. So while the street wants you to buy the exciting story and high growth name, the safer bet is to stick with value.

Bargain Hunter

By James Montier

Regular readers will know that I am an unabashed value investor. I like to buy cheap stocks. If you don't share this viewpoint, or aren't open to be persuaded of the merits of such an approach, stop reading now for what follows will only distress you. I am also an empiricist at heart. Theories are all well and good, but sadly almost anything is possible in theory. The only way to resolve theoretical impasses is to examine the evidence. I am fond of quoting the words of Conan Doyle's Sherlock Holmes "It is a capital mistake to theorize before one has data. Insensibly one begins to twist facts to suit theories, instead of theories to suit facts" or "The temptation to form premature theories based upon insufficient data is the bane of our profession".

So is there an empirical basis to my obsession with value? The short answer is yes. The long answer takes up the rest of this note. My usual accomplice and compatriot in adventures involving large amounts of data is Rui Antunes, of our global quantitative team. It was with Rui's able help, that I embarked upon an investigation of value strategies.

The methodology

We chose the MSCI indices as our universe. The stocks were ranked first by trailing PE and then by actual reported earnings growth over the next 12 months (as if we could perfectly predict the future). Each sort resulted in the formation of quintiles (with 20% of the universe in each quintile). Given we sorted on two variables, we ended up with 25 portfolios of various combinations of PEs and delivered earnings growth. The performance of these portfolios was then tracked over the next 12 months. A sample of our results can be seen in the table below.

In this particular case, we are examining the global market and measuring total returns¹ relative to the average of the stocks in our universe. The tables for each of the regions we examined are provided in full at the end of this note for reference. Portfolio (5,5) represents the cheapest of the value stocks with the lowest achieved earnings growth. Portfolio (1,1) is the most expensive stocks with the highest delivered earnings growth. Portfolio (1,5) is the cheapest basket of stocks with the highest earnings growth and so forth².

Global, returns relative to market % (1975-2004)

Global		Low	Earnings growth				High	Average
		5	4	3	2	1		
Low	5	-3.0	2.3	9.0	14.1	26.2	9.7	
	4	-3.9	-5.7	-1.8	3.1	11.9	0.7	
PE	3	-5.0	-6.4	-4.1	1.0	8.4	-1.2	
	2	-3.1	-5.8	-3.0	-2.6	9.0	-1.1	
High	1	-11.9	-9.0	-10.4	-9.0	1.0	-7.8	
Average		-5.4	-4.9	-2.1	1.3	11.3		

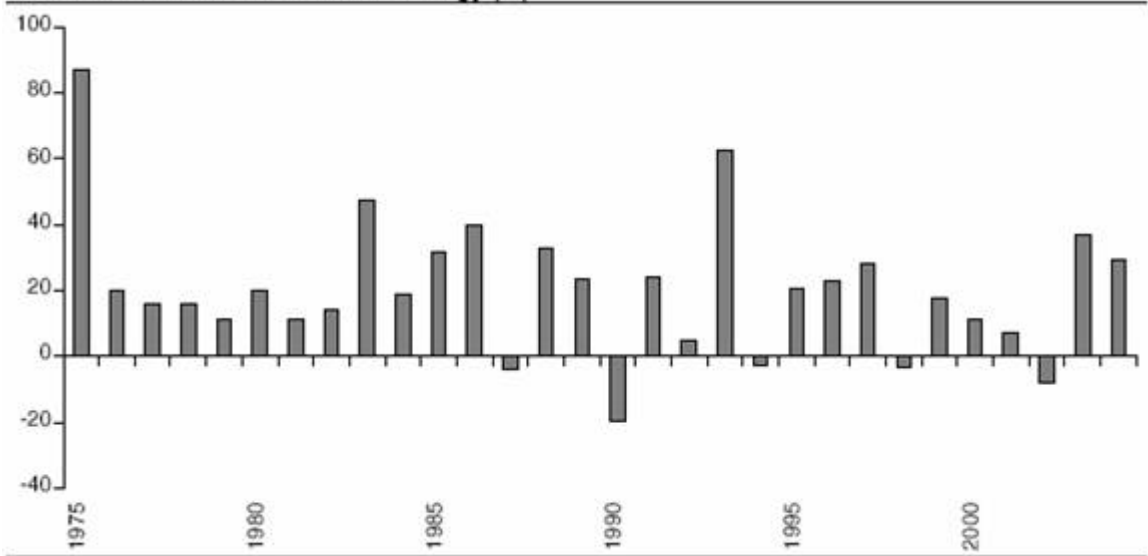
Source: DrKW Macro research

Does value work?

Several findings are apparent from examining the table. First (and of foremost importance to me) is that **buying cheap stocks did indeed outperform**. Simply buying an equal weighted basket (assuming equal distribution of stocks across portfolios) of the lowest 20% of PEs within the MSCI World index generated significant outperformance (9.7% p.a. on average). Such a strategy would have only resulted in absolute losses in only five out of the thirty years in our sample.

However such analysis ignores the fact that firms are not equally distributed across all portfolios. The chart below shows the returns to a low PE strategy in which the returns have been weighted by the actual distribution of earnings in each of the categories. The results of the previous analysis hold. The annual average raw return from a strategy of buying the lowest 20% of the MSCI World index ranked by PE was 20%. This represents a low PE stock outperformance of the market of nearly 6% p.a!

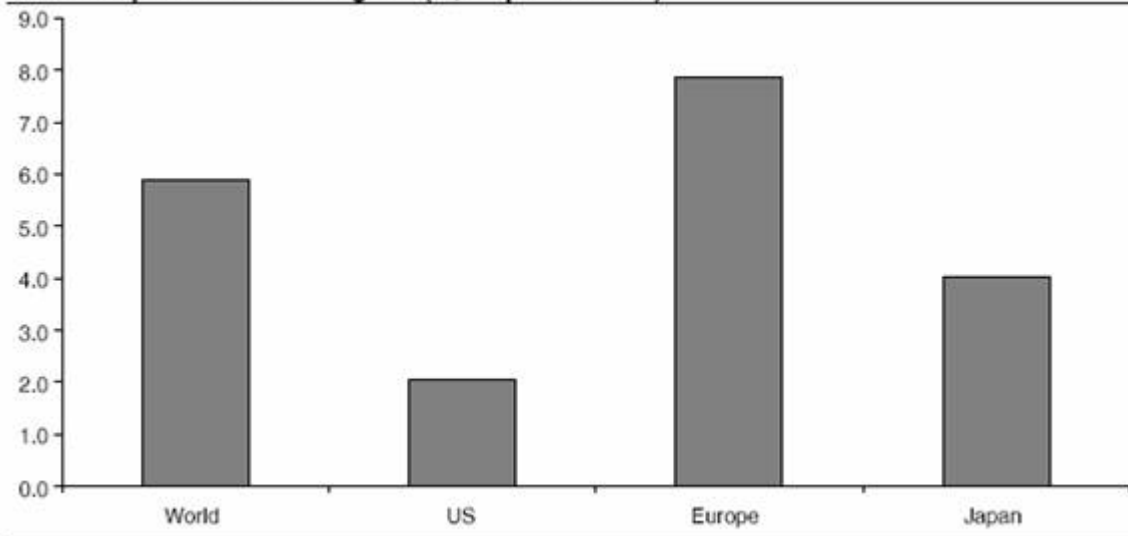
Raw returns to the Global value strategy (%)



Source: DrKW Macro research

Similar patterns were found when we examined the regional breakdowns. The chart below shows the outperformance of buying the bottom 20% by trailing PE in the various markets we examined. There is a **strongly consistent value premium across countries/regions**.

The value premium across regions (% , outperformance)



Source: DrKW Macro research

The anatomy of value

It is also noteworthy that only one of the value portfolios resulted in underperformance (portfolio (5,5)). The table below shows the distribution of firms across the portfolios. At the global level, 31% of the bottom 20% of the MSCI World index end up in the portfolio that generates value underperformance. 6.2% of all stocks ended up in portfolio (5,5), since by design the low PE stocks (portfolios (x,5) are 20% of the universe, we end up with 31% of the value universe in the underperforming portfolio. So the majority of value stocks outperform.

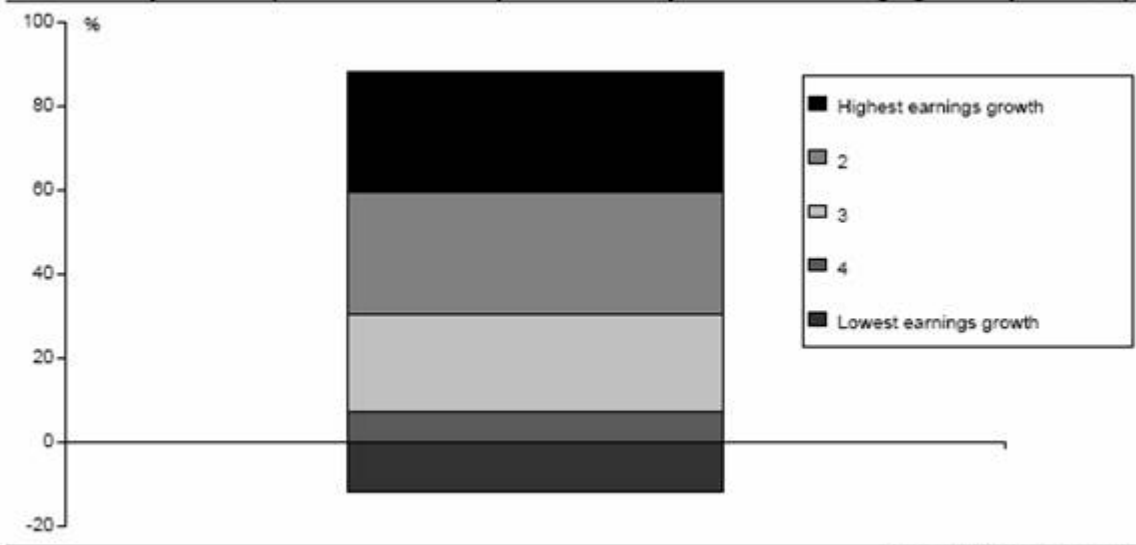
Distribution of firms across portfolio (%) – Global

		Low 5	4	Earnings growth 3	2	High 1
Low	5	6.2	5.1	4.0	3.2	1.7
	4	3.9	4.4	4.6	4.6	2.6
PE	3	3.9	3.7	4.1	4.9	3.4
	2	3.4	3.8	3.9	4.3	4.6
High	1	2.7	3.1	3.4	3.1	7.4

Source: DrKW Macro research

The table below shows the results for all the regions. None of the value portfolios generate a negative absolute return (supporting our hypothesis that value offers protection). However, in general, around 30-35% of the lowest PE stocks seem to generate underperformance. The most extreme case is the US where the value premium comes from a minority of stocks³. **This distribution suggests that value investing can be improved by avoiding losers.**

The anatomy of value (contribution to outperformance by delivered earnings growth quintile, %)



Source: DrKW Macro research

If the underperforming 30% could be identified ex ante then the returns to value investing could be further enhanced. In previous work, we have highlighted the findings of Piotroski (op cit), who uses a simple accounting screen on financial stability to help avoid the value traps. An alternative to this might be to use some measure of quality as our quant team has developed in a series of notes.

The anatomy of value

Region	Underperforming (%)	Negative returns (%)
Global	30	0
US	57	0
Europe	32	0
Japan	35	0

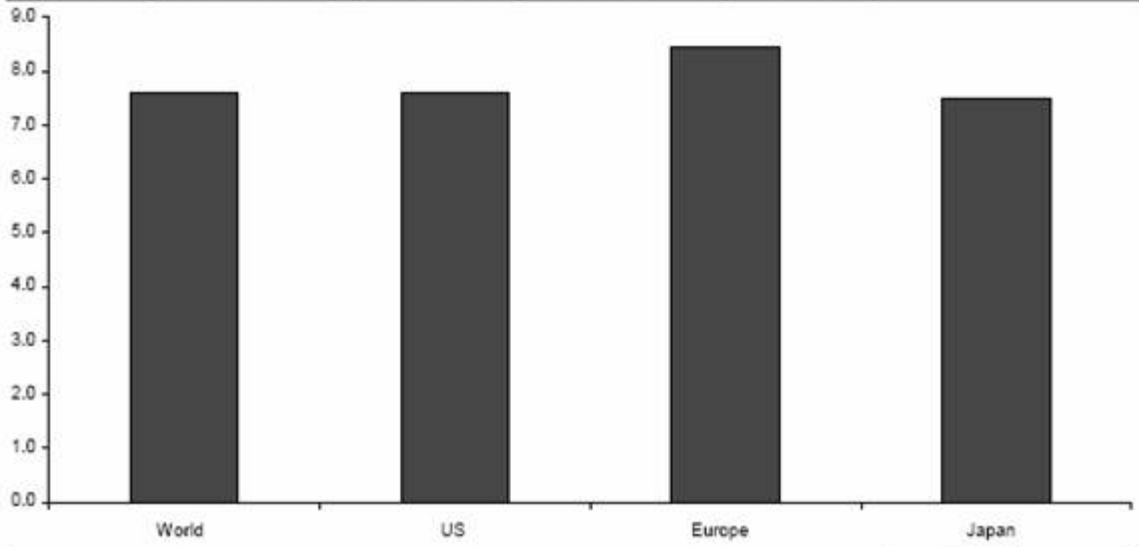
Source: DrKW Macro research

The siren of growth

If you had perfect foresight and knew exactly what earnings growth would be achieved, and you bought the highest growth stocks regardless of valuation, you would have outperformed by 11.3% p.a on average. It is perhaps the hope or belief that investors can identify such equities that sucks investors into growth investing, like sailors to the calls of the sirens. However, the two most common behavioural biases are over-optimism and over-confidence. We are all massively too sure about our ability to predict the future.

The chart below shows the distribution weighted average returns if you had had perfect foresight across the markets. This weighting drops the return from 11.3% to a still very healthy 7.6% p.a. The eternal hope of growth investing is clear. If only the winners could be picked ex ante! Combine this hope of major outperformance with the mental vulnerability to stories that we have outlined before and the lure of growth is obvious for all to see.

The lure of growth investing (perfect foresight returns, % outperformance)

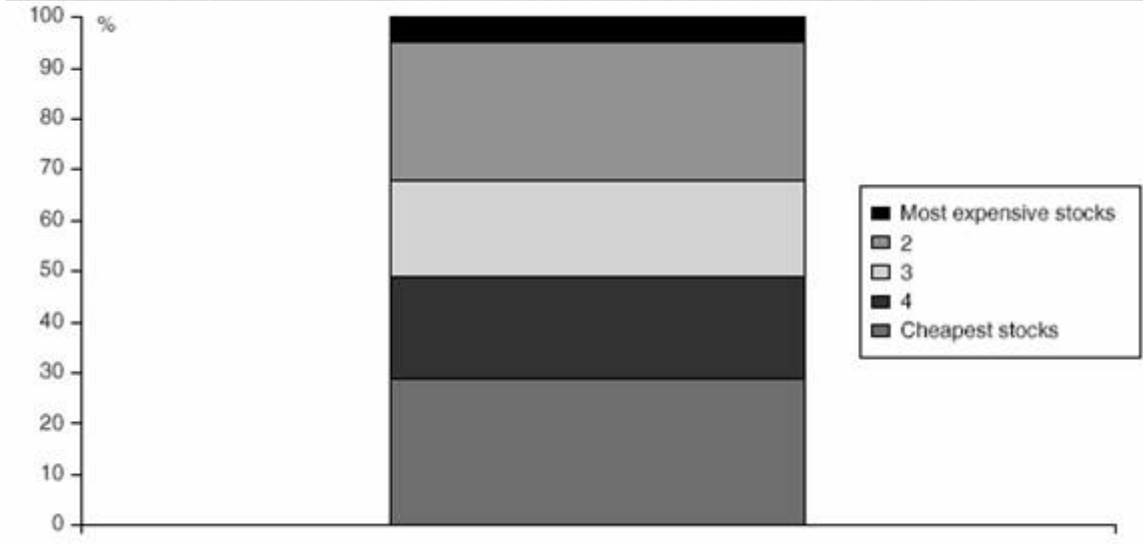


Source: DrKW Macro research

Growth doesn't mean ignoring valuation

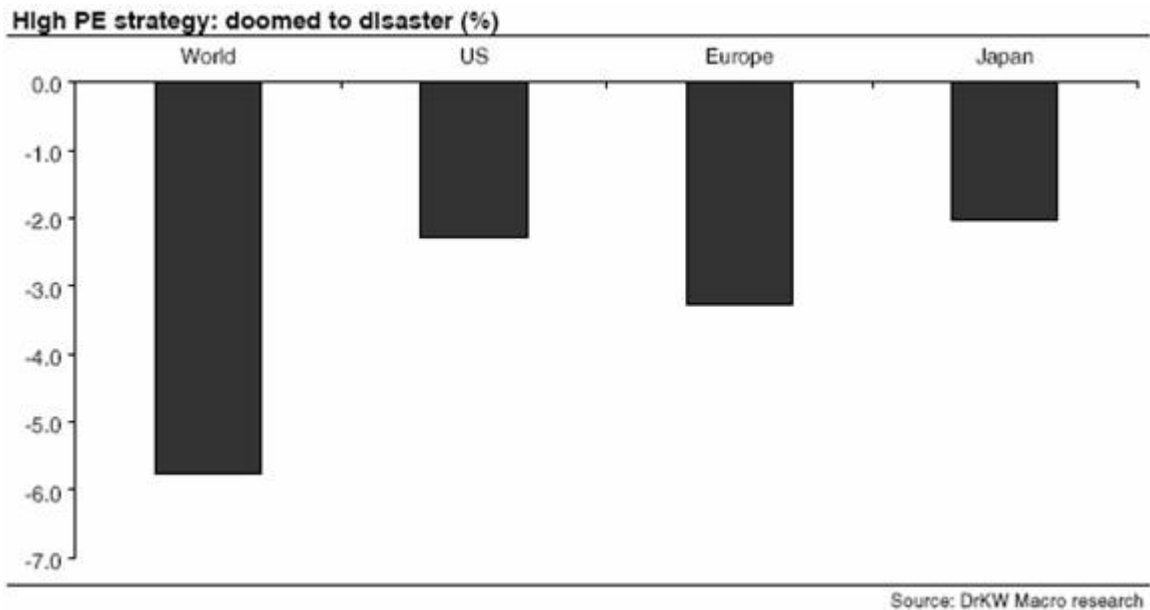
The near monotonically declining performance of the delivered high growth portfolios (column 1 in the table on page 2) should also be noted. That is to say **growth investors shouldn't ignore value. The cheaper the stocks they buy, the better the performance achieved.** Indeed the two lowest PE bands provide over 50% of the total outperformance of the perfect foresight growth premium.

The anatomy of growth (contribution to growth outperformance by PE quintile, %)



Source: DrKW Macro research

All too often, growth-investing amounts to little more than buying highly valued equities. The table above reveals that **buying the high PE stocks would have resulted in significant underperformance.**



It is also interesting to note that to generate any outperformance from buying high PE stocks would require you to pick those stocks that delivered the very highest growth rates (Portfolio 5,1). Even if you could do this, you would only manage to beat the very worst of the value stock baskets. That is to say portfolio (1,1) only manages to beat portfolio (5,5). It fails to beat all the other value portfolios (x,5).

The distribution table on page 3 also shows that within the high PE universe only 37% of the stocks fall into portfolio (1,5). **So growth stock investing as proxied by buying expensive stocks is all about picking a minority of winners.**

It is also worth noting that **buying highly valued stocks also carries an enormous 'torpedo' risk. The worst returns were seen in the high PE stocks with the lowest delivered earnings growth (underperforming by 11.9% p.a. on average!).**

The disappointing reality of growth

Of course, the natural response to these findings is to ask if we can forecast growth. We decided to investigate exactly that. We were forced to reduce the time span of our sample because of the lack of analysts' forecasts going back. However, we were able to start this work in 1988, giving us 17 years worth of data.

Once again, two-way sorts into quintiles were conducted. This time we replaced the PE with the forecast growth rate from analysts. So, we are comparing the forecast of earnings growth with the outturn. And then tracking the returns delivered by each of the portfolios.

The table below shows the global summary of this analysis. Just to be clear, portfolio (1,5) is the portfolio that contains the stocks with the highest actual earnings growth but that were expected to have the lowest earnings growth, and so forth.

Unsurprisingly, the best stocks were the ones that had the lowest expectations but delivered the highest outcome (portfolio 1,5), outperforming by nearly 11% p.a. The worst were those with the highest expectations and the lowest outturns (portfolio 5,1), underperforming by nearly 12% p.a on average.

Global, total returns relative to market % (1988-2004)

		Earnings growth					Average
		Low 5	4	3	2	High 1	
Low	5	-0.6	3.5	6.4	3.7	10.8	4.8
	4	-8.3	-2.1	2.7	9.2	16.9	3.2
EPS growth forecasts	3	-12.3	-4.7	-1.5	4.0	5.8	-1.8
	2	-9.8	-11.4	-5.9	1.6	4.9	-4.1
High	1	-11.7	2.3	-3.6	-4.5	2.6	-2.5
Average		-8.8	-2.5	-0.4	2.8	8.2	

Source: DrKW Macro research

Neither of these findings is likely to shock anyone. However, **the table also shows the difficulty of picking growth stocks ex ante.** If you had invested an equal amount into the **20% of stocks with the highest forecast earnings growth then you would have underperformed by 2.5% p.a. on average!**

In contrast, if you had invested in **the 20% of stocks with the lowest growth expectations then you would have outperformed by 4% p.a. on average.** The role of expectations in this process couldn't be much clearer. **It is far easier to surprise on the upside if the expectations are low in the first place.**

Analyst accuracy?

Of course, using these simple averages assumes an equal distribution of stocks within each portfolio. That is akin to saying that analysts are completely useless at forecasting the earnings growth. That strikes even me as slightly harsh (and I am certainly not known as an apologist for analysts as those who have seen one of my behavioural finance presentations can attest).

But, we can also use our data to get some insight into the forecast accuracy of analysts. The table below shows the distribution of forecasts and outturns for the MSCI World index. Effectively the diagonals represent the points where analysts were correct. The good news for analysts is that the majority of forecasts are in the same quintile as the outturn. For instance, there is a 75% overlap between those firms that analysts forecast to have the highest earnings growth, and those that actually do have the highest earnings growth.

Distribution of firms across portfolio, %

		Earnings growth				
		Low 5	4	3	2	High 1
Low	5	14.0	4.5	0.7	0.4	0.4
	4	3.0	10.3	5.0	1.1	0.6
EPS growth forecasts	3	1.3	3.0	10.3	4.5	0.9
	2	0.8	1.4	3.3	11.4	3.0
High	1	0.9	0.8	0.6	2.6	15.1

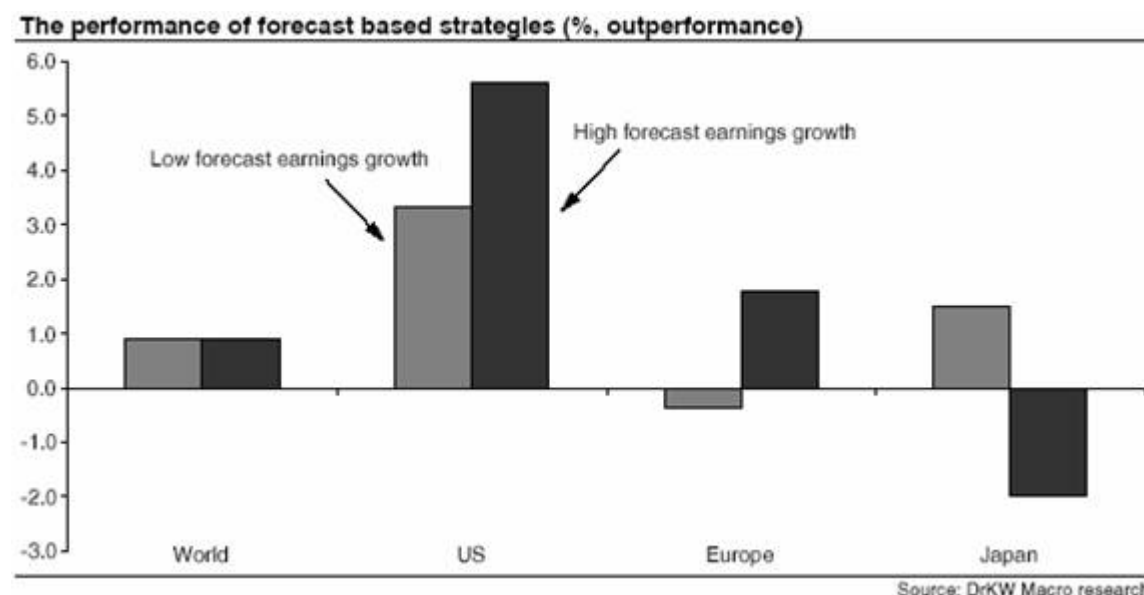
Source: DrKW Macro research

Sounds impressive doesn't it? But it still means that one in four of their forecasts is off the mark. More importantly, the table on page 4 shows that the outperformance generated by those firms with high expected and delivered growth is relatively small at 2.6% p.a. Whereas the 25% of firms the analysts say are going to have the highest earnings growth, but don't deliver have an average return of -3.7% p.a. The combined effect is that the **weighted average return on the high growth forecast portfolio is an outperformance of 0.9%.**

What about the low growth realm? There is a 70% overlap between those firms that the analysts think will have the lowest earnings growth, and those that do indeed have the lowest earnings growth. Indeed if we weight the returns by the distribution accuracy of analysts,

those with low forecasts generate an outperformance of 0.9%. This is not statistically different from the high growth result. So effectively **analyst forecasts can't tell us very much at all! They certainly can't help us identify growth stocks as a source of significant outperformance.**

The chart below shows the regional breakdowns of the weighted performance of forecast growth portfolios. In Japan you could have made money by shorting the stocks with high forecast earnings growth! Elsewhere, following the forecasts of analysts would have generated positive returns on average.



An alternative way to evaluate the power of following the forecasts is to ask how much the forecast strategy would have managed to capture of the idealised strategy of knowing exactly what growth was actually going to be delivered. The table below shows the percentage of the maximum attainable return that was actually achieved if one had bought the 20% of stocks with the highest growth forecasts from analysts.

Percentage of possible growth captured by following the high growth forecasts

Region	%
World	24
US	70
Europe	41
Japan	-220

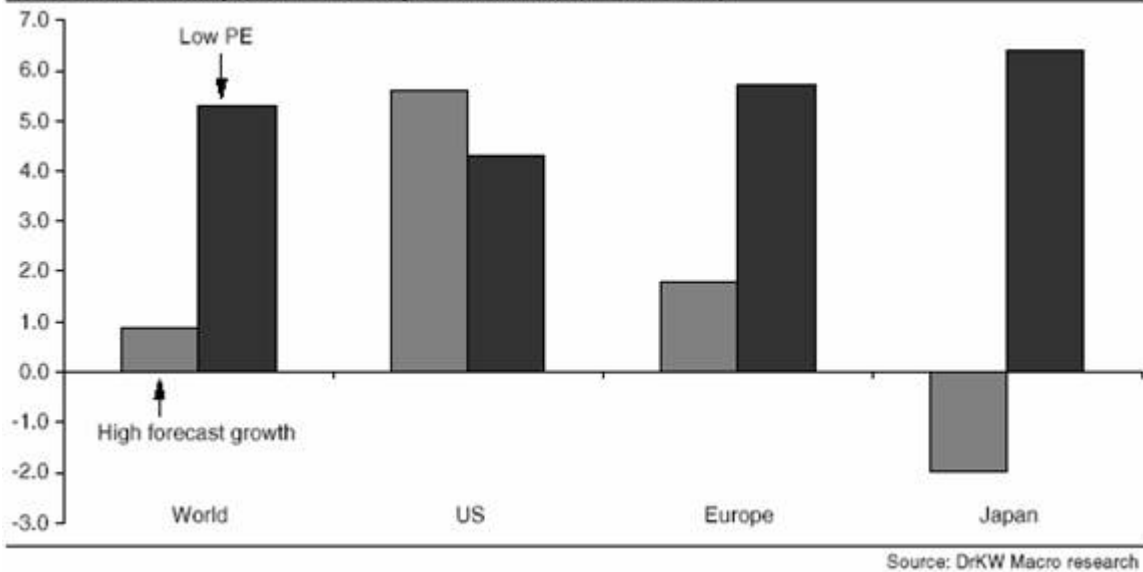
Source: DrKW Macro research

With the exception of the US, the results are sobering. At the global level, following the analysts' forecasts of growth would have captured just 24% of the total growth premium available. In Europe this improves to 40%, still not an impressive performance. In Japan, the forecasts are actually a better contrarian indicator than having any value in their own right! In the US, the strategy of following the analysts did much better, delivering 70% of the total possible return to the perfect foresight premium.

Value vs. Growth

So to the crucial question...value or growth? The chart below shows the weighted total return outperformance figures for the value and growth forecast strategies for the regions since 1988.

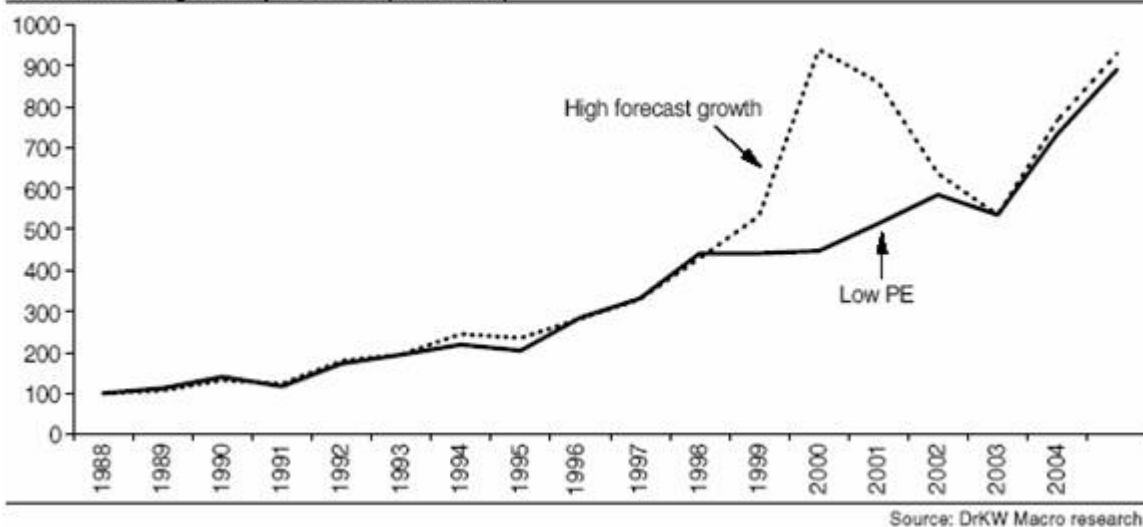
Value vs. Growth (total return outperformance, %, 1988-2004)



In general the results show the massive superiority of being a 'bargain hunter'. Ben Graham's concept of a margin of safety is still sound today. Buying cheap stocks offers significant protection against any potential bad news.

Only in the US does the return on following the analyst's growth forecasts exceed the return from buying cheap stocks. However, the chart below shows the time path of the two portfolios. The impact of the bubble years becomes immediately obvious.

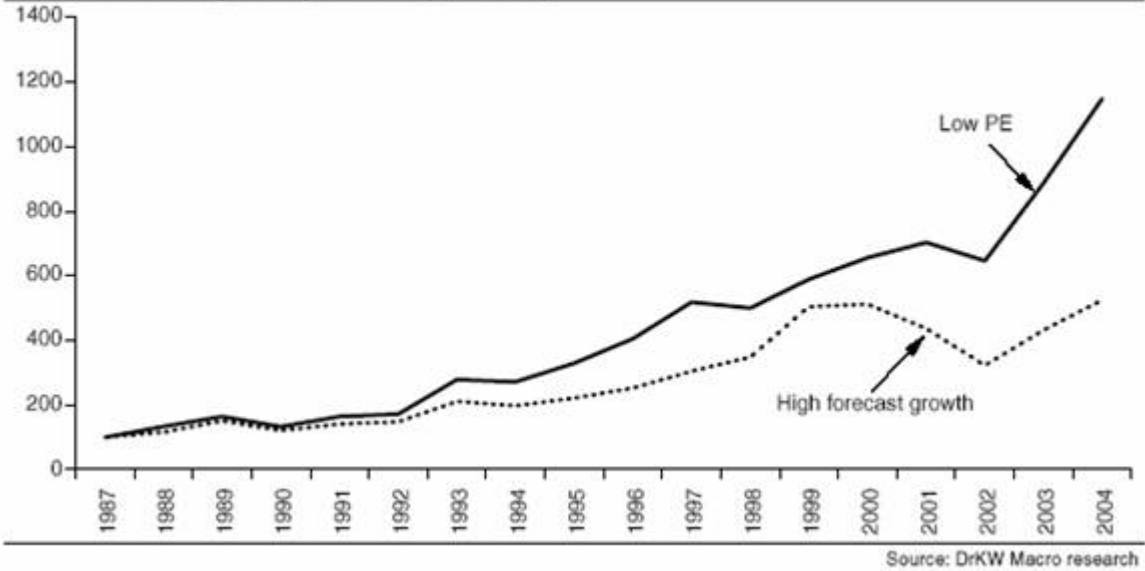
US value and growth portfolios (1987=100)



The US value and growth portfolios have actually generated very similar returns. The value portfolio has a CAGR of 13.7%, and the high forecast growth portfolio has a CAGR of 14.0% since 1988. Effectively there has been little to choose between the two strategies. Although it should be noted that the value portfolio has a markedly lower standard deviation of returns (17.7% for the value portfolio, against 25.1% from the growth portfolio). Thus on a risk adjusted measure value would have significantly outperformed growth. So much for value stocks being riskier!

The chart below shows the portfolio returns from the global portfolios, the performance of the low PE portfolio alongside the high forecast earnings growth portfolio. The high forecast earnings growth portfolio earns a 10.2% CAGR p.a., whilst the low PE portfolio generates a 15.4% CAGR p.a.

Global value and growth portfolios (1987=100)



¹ The analysis was done in terms of both price and total returns. The results were invariant to the specification used.

² The portfolio labels always go across the table (columns) and then down the rows.

³ Consistent with the findings of Piotroski (2000) Value Investing: The use of historical financial information to separate winners and losers, The Journal of Accounting Research, Vol 38

I have always been a big fan of value investing and James has given me even more research to back up my conviction.

Your always looking for value analyst,

John F. Mauldin

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