

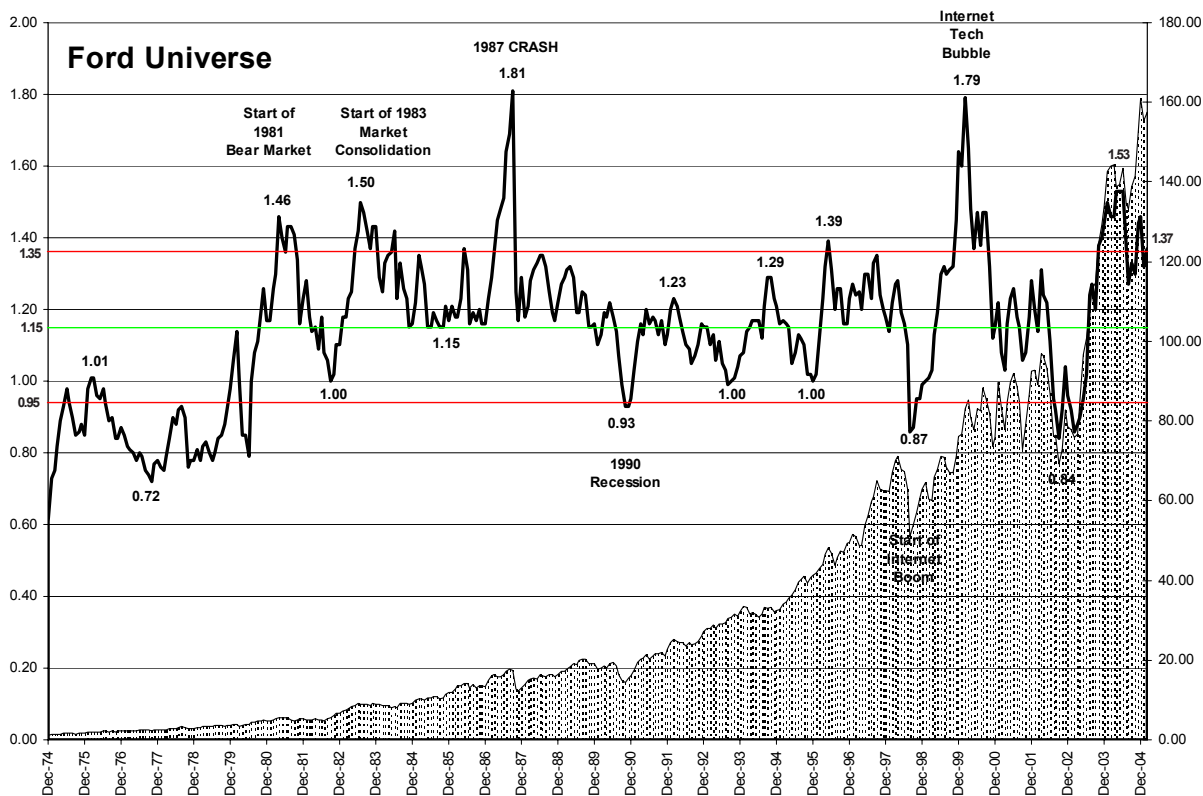


Impact of High Aggregate Price to Value Ratios on Market Performance March 31, 2005

Ford Equity Research has been computing the Price to Intrinsic Value Ratio (PVA) on individual stocks since 1970 and publishing graphs of the average PVA on market sectors and indexes since 1983. The last time Ford published the graphs in a Special Study was March 30, 2001 when the average PVA for the Ford Universe was 0.99. The average PVA declined to 0.84 in September 2002, which marked the bottom in price for the Ford Universe and most market indexes. Since that time, it has climbed back to a high level of 1.54 in April 2004 and since receded to 1.37 at the end of February. In addition to updating the previous work done, this study further examines the implications for intermediate and long term market direction of extreme high levels of aggregate PVA.

PVA is computed by dividing a company's stock price by the value derived from a proprietary intrinsic value model. A price to value greater than 1.0 indicates that a company is overpriced while less than 1.0 implies that a stock is trading below the level justified by its earnings, quality rating, dividends, projected growth rate, and prevailing interest rates.

The following graph shows the average price to value ratio of all the 4,500 stocks that make up Ford's Universe. There were 1,400 companies in the universe at the beginning of the period shown. The average aggregate PVA over the time period is 1.15 and is indicated by the green line. The red lines at the 1.35 and 0.95 levels indicate the areas within one standard deviation above and below the average PVA for the timeframe.



In order to quantify the effect of extreme market valuation as measured by average PVA, we calculated the equally-weighted performance of the Ford universe of stocks for 6-month, 1-year and 2-year periods from the point at which the average universe PVA met the upper one standard deviation band (the upper red line). We also computed the performance from when the universe average PVA met the upper extreme to when it converged with the average over the entire time period (the green line). The table below shows these starting and ending point dates and the corresponding performance figures. The average monthly performance over the complete time range is shown on the bottom for comparison.

Ford Universe

Start date occurs when PVA reaches 1.35, end date when PVA declines to 1.15

<u>Start</u>	<u>End</u>	<u>6 Month</u>	<u>12 Month</u>	<u>24 Month</u>	<u>Total Period</u>
Jan-72	Jan-73	-2.10%	-1.95%	-19.76%	-1.95%
Mar-81	Feb-82	-10.63%	-8.40%	45.66%	-8.13%
Apr-83	May-85	4.21%	2.90%	20.45%	25.86%
Apr-86	Sep-89	-0.17%	15.95%	13.28%	48.57%
Apr-96	Dec-97	1.27%	4.69%	52.96%	34.55%
Oct-99	Oct-00	20.89%	22.35%	18.41%	22.34%
Sep-03	Current	25.87%	20.92%		
Average Ford Univ		7.91%	16.29%	33.69%	

It is apparent that during periods of extreme valuation (as defined by meeting or exceeding one standard deviation above the historical average) the Ford universe tends to produce weaker than average returns in subsequent six and twelve month periods. However, this has not been true in the last two instances. In the 1987 and 2000 periods, the average PVA for the universe of stocks continued to increase for an extended time after it had passed the one standard deviation threshold. This illustrates the difficulty in identifying the peak universe average PVA in real time. In order to compensate for this we made the following adjustment: we still required the PVA to exceed one standard deviation (1.35) and measured to the average (1.15) but also required the PVA reading to drop 5% before measuring performance in hopes of getting closer to the peak PVA reading. In all cases, the requirement of a drop delayed the start dates by 1 to 4 months but created more consistency in predicting poor six to twelve month performance.

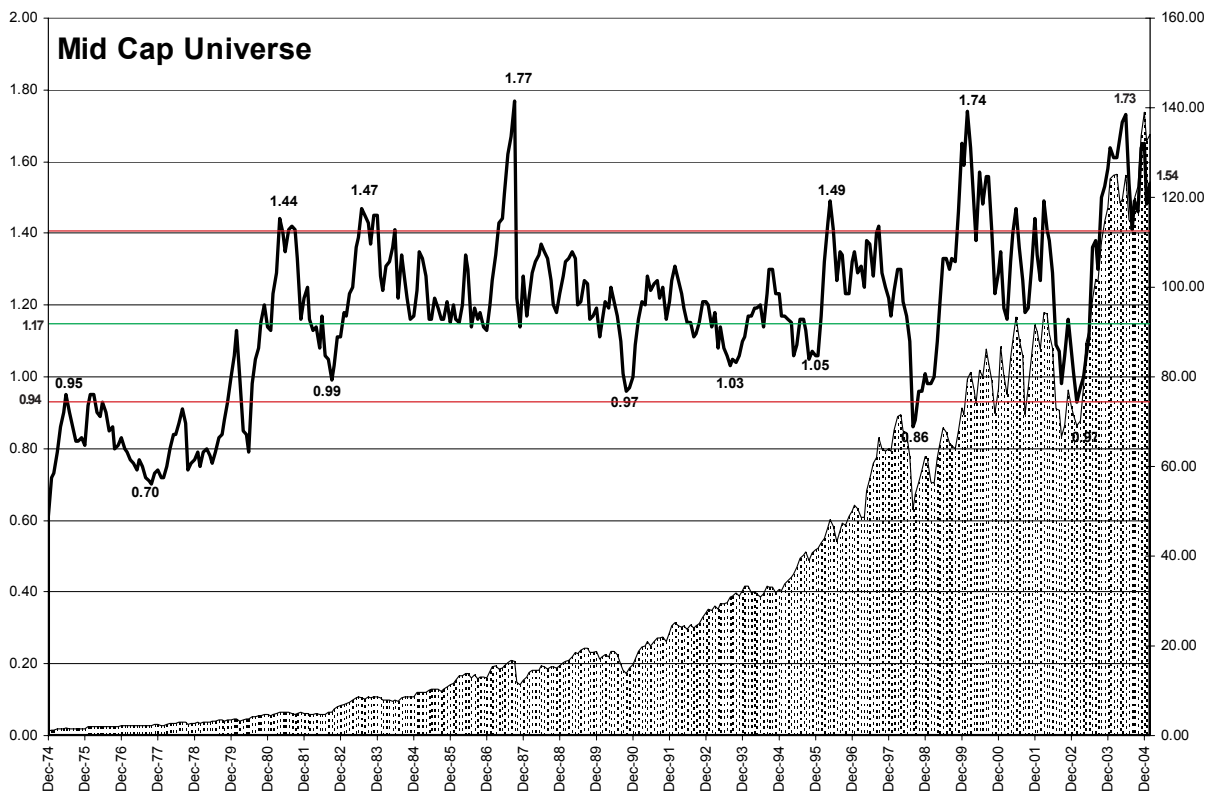
Ford Universe

Start date occurs when PVA reaches 1.35 and subsequently declines by 5%, end date when PVA declines to 1.15

<u>Start</u>	<u>End</u>	<u>6 Month</u>	<u>12 Month</u>	<u>24 Month</u>	<u>Total Period</u>
Feb-72	Jan-73	-1.91%	-10.81%	-21.48%	-4.71%
Apr-81	Feb-82	-5.79%	-4.88%	53.70%	-9.58%
Aug-83	May-85	-3.29%	3.29%	22.84%	19.95%
May-86	Sep-89	-3.43%	11.95%	7.95%	42.59%
May-96	Dec-97	2.05%	11.14%	40.45%	29.50%
Feb-00	Oct-00	6.16%	0.12%	7.19%	-1.56%
Jun-04	Current	12.14%			
Average Ford Univ		7.91%	16.29%	33.69%	

Capitalization sectors were created by dividing the Ford Universe (excluding companies with market capitalizations of \$25 million or less) into small, mid and large cap groups. The average PVA and performance of each group was then calculated.

The average PVA for mid cap companies has been consistent with that of the Ford Universe with the exception of reaching another extreme high valuation of 1.73 in June of 2004 which matched the 2000 and 1987 extreme valuations. The historical average PVA for mid caps is 1.17 with one standard deviation boundaries at 1.40 and 0.94.



Like the Ford universe, mid cap companies had a tendency to under perform for the six and twelve month periods after reaching extreme high valuations. That has not been true of the most recent period which produced only slightly worse than average performance for the 12 month period. Whether the second test requiring the drop in PVA does any better is yet to be determined with one quarter left in the 12 month period ending June 2005.

Mid Cap Universe

Start date occurs when PVA reaches 1.40, end date when PVA declines to 1.17

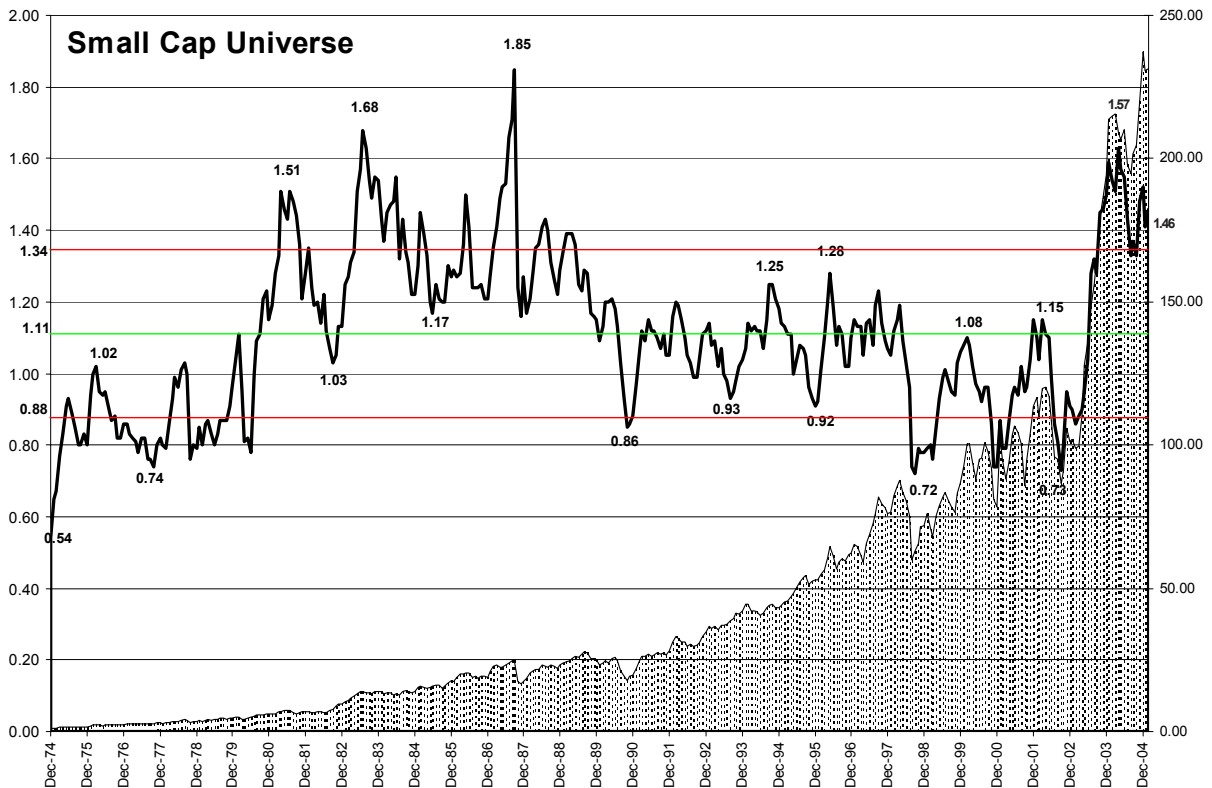
Start	End	6 Month	12 Month	24 Month	Total Period
Apr-81	Oct-81	-5.11%	-4.18%	53.70%	-5.11%
Jun-83	Oct-84	0.38%	-9.23%	19.78%	-0.36%
Mar-87	Oct-87	6.38%	-6.47%	9.12%	-22.56%
May-96	Jun-98	1.84%	13.42%	41.28%	40.40%
Nov-99	Feb-01	9.10%	6.11%	25.37%	18.29%
Apr-01	Jun-02	-7.86%	11.80%	-7.62%	21.24%
Oct-03	Current	7.79%	11.10%		
Average Mid Cap		7.67%	15.77%	32.56%	

Mid Cap Universe

Start date occurs when PVA reaches 1.40 and subsequently declines by 5%, end date when PVA declines to 1.17

Start	End	6 Month	12 Month	24 Month	Total Period
Sep-81	Oct-81	0.98%	23.43%	69.18%	6.50%
Dec-83	Oct-84	-9.58%	1.24%	33.18%	-0.74%
Sep-87	Oct-87	-12.07%	-6.47%	18.64%	-23.04%
May-96	Jun-98	1.84%	13.42%	41.28%	40.40%
Feb-00	Feb-01	8.25%	0.87%	8.19%	0.87%
Jun-01	Jun-02	-1.91%	-7.65%	-3.26%	-6.84%
Jun-04	Current	11.33%			
Average Mid Cap		7.67%	15.77%	32.56%	

Small cap companies which consist of the lowest third of companies by market capitalization in the Ford universe, spent most of the 1980s overvalued, the 1990's undervalued and have just returned to overvalued territory in 2004. The historical average PVA for small caps is 1.11 with one standard deviation boundaries at 1.34 and 0.88.



With small caps trading above average PVA from 1983 to 1989, there were not many instances of average PVA exceeding the upper boundary and declining to the historical average PVA. As the second table shows, in the case of small caps, waiting for a 5% drop did not improve the performance in most periods.

Small Cap Universe

Start date occurs when PVA reaches 1.34, end date when PVA declines to 1.11

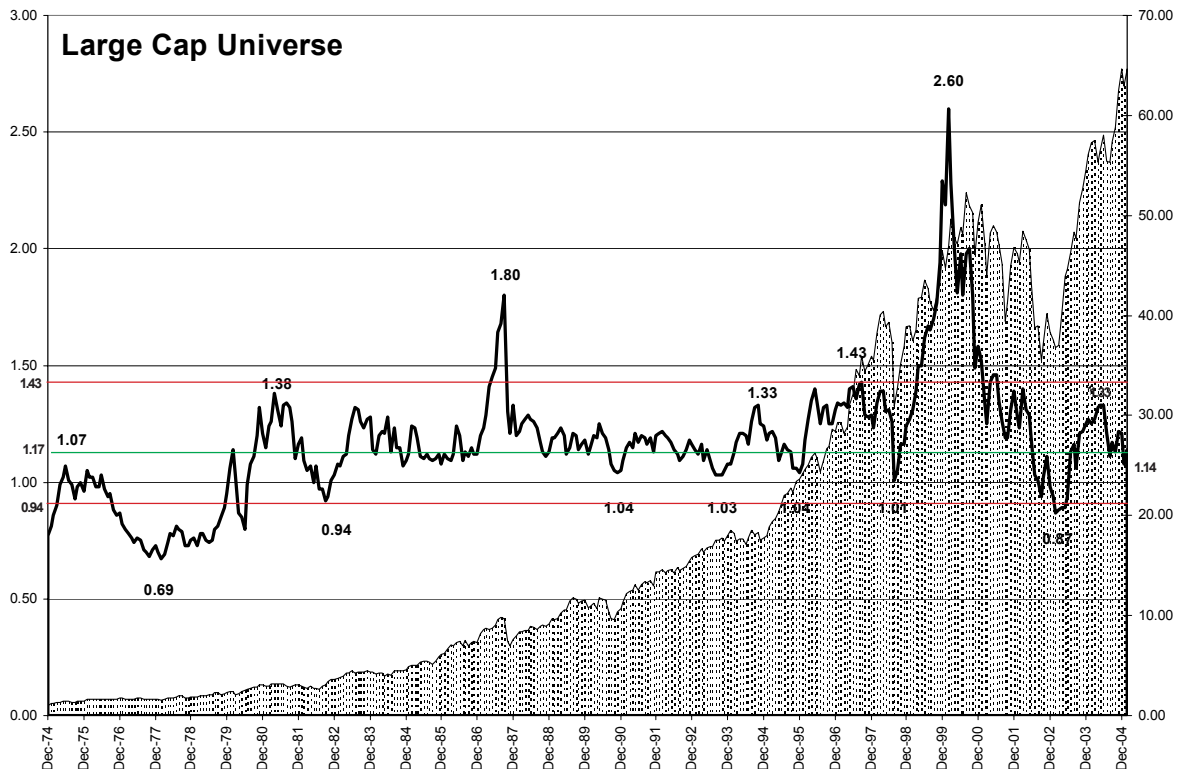
Start	End	6 Month	12 Month	24 Month	Total Period
Apr-81	Jul-82	-6.07%	-1.79%	76.01%	-6.55%
May-83	Dec-89	4.69%	-3.31%	17.18%	89.57%
Oct-03	Current	16.66%	14.26%		
Average Small Cap		8.61%	17.88%	37.30%	

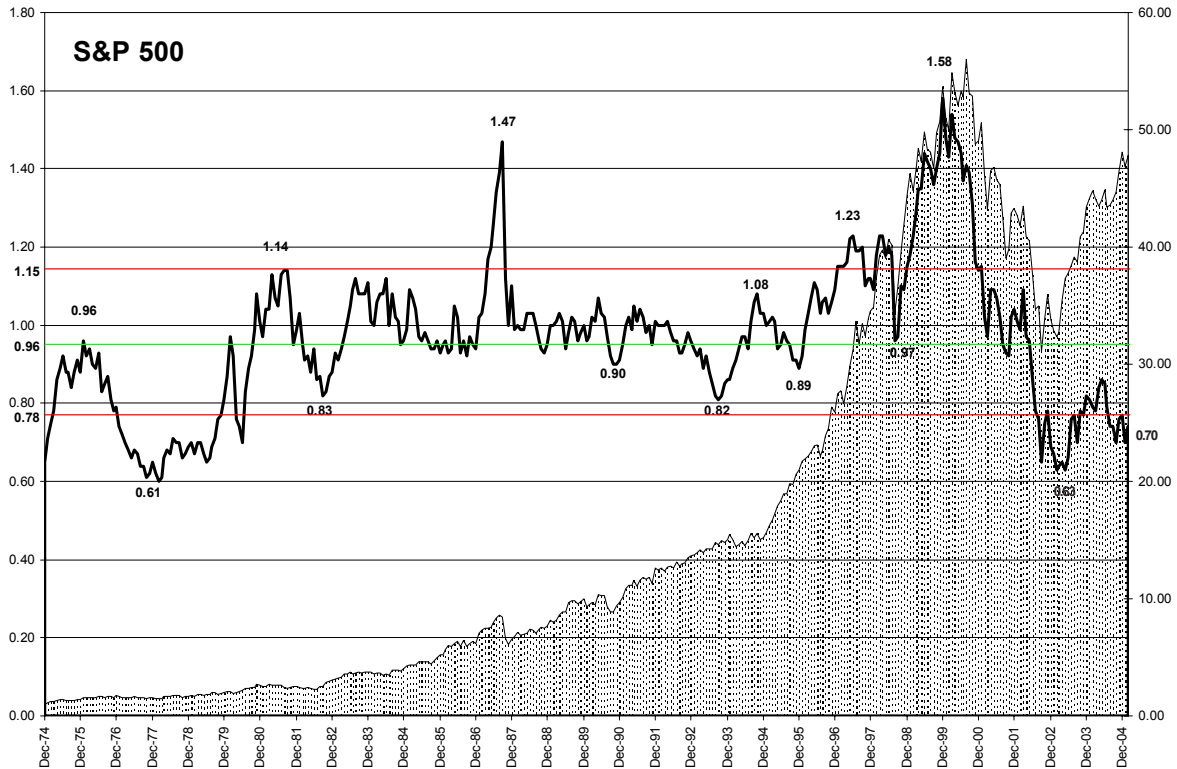
Small Cap Universe

Start date occurs when PVA reaches 1.34 and subsequently declines by 5%, end date when PVA declines to 1.11

Start	End	6 Month	12 Month	24 Month	Total Period
Sep-81	Jul-82	6.33%	22.65%	120.29%	7.14%
Aug-83	Dec-89	-1.71%	4.67%	20.14%	87.76%
Jun-04	Current	12.84%			10.12%
Average Small Cap		8.61%	17.88%	37.30%	

The average PVAs for the large cap universe and the capitalization weighted S&P 500 have tended to remain in a narrower band around their historical average. Large caps had an average S&P PVA of 1.17 with the upper one standard deviation boundary of 1.43 while the S&P averaged .96 with an upper boundary of 1.15. Both universes only traded at or above the upper boundary three times, with 2000 and 1987 registering average PVA peaks that were far higher than one standard deviation above the historical average. It is interesting that large caps did not show the overvaluation in 1983 or in 2004 that was experienced in the small and mid cap sectors. In addition, while average PVAs for small and mid caps are currently at high levels, the S&P 500, with its heavier weighting in large caps, is still showing extreme undervaluation.





Our large cap table shows the same propensity to under perform 6 to 12 months after the average PVA crosses above the upper one standard deviation band. In the case of large caps, the relative poor performance extends as long as 24 months. The S&P 500 did not return to its average valuation in 1998 so it shows a very long period of overvaluation from 1997 to mid 2001. We checked the performance of the large caps during the 1983 to mid 1984 period. Interestingly, large caps experienced poor subsequent 6 and 12 month performance during this period when mid and small caps were exhibiting overvaluation and large caps were not.

Large Cap Universe

Start date occurs when PVA reaches 1.43, end date when PVA declines to 1.17

<u>Start</u>	<u>End</u>	<u>6 Month</u>	<u>12 Month</u>	<u>24 Month</u>	<u>Total Period</u>
Apr-72	Mar-73	1.15%	-7.62%	-17.96%	-3.36%
Apr-87	Sep-88	-13.31%	-1.59%	18.82%	3.82%
Aug-97	Jul-98	12.34%	-9.13%	21.71%	9.88%
Oct-99	Jun-02	13.97%	19.99%	-1.31%	2.48%
Average Large Cap		6.51%	13.35%	27.49%	

Large Cap Universe

Start date occurs when PVA reaches 1.43 and subsequently declines by 5%, end date when PVA declines to 1.17

Start	End	6 Month	12 Month	24 Month	Total Period
May-72	Mar-73	5.75%	-10.63%	-23.47%	-4.51%
Sep-87	Sep-88	-13.51%	-8.02%	20.09%	-8.02%
Sep-97	Jul-98	11.70%	-8.70%	12.71%	4.15%
Feb-00	Jun-02	11.36%	0.75%	-3.41%	-8.38%
Average Large Cap		6.51%	13.35%	27.49%	

Conclusion:

Identifying the extreme high levels of average PVA for a broad universe of stocks or cap sectors can give a good indication of relatively poor performance over a six to twelve month period. However, identifying these extreme levels of PVA while they occur is very difficult to do because they can persist for lengthy periods and continue to increase beyond expected levels. An approach which seeks to identify peak valuation levels of PVA by marking significant valuation declines from extreme levels is a notable help. While not offering pinpoint accuracy, in such periods it makes sense to switch to high quality companies and possibly reduce exposure to common stocks or consider short positions.