BEACON POINTE RESEARCH

STYLE RISK – U.S. EQUITY INVESTMENT STRUCTURE
OCTOBER 2002

CONFIDENTIAL – PROPRIETARY

610 Newport Center Drive, Suite 750 Newport Beach, CA 92660
TEL 949.718.1600 FAX 949.718.0601 www.bpadvisor.com

Highlights

- *Background:* Although many fund sponsors understand that asset allocation (allocation among stocks, bonds, and cash) explains over 90% of a fund's returns, they often are not aware of the influential role of investment structure in determining a portfolio's returns.

  A clearly defined investment structure that includes an investment manager team with diverse styles helps the client achieve asset class objectives while minimizing the total portfolio risk (as measured by standard deviation).

  Within the U.S. equity asset class, style is defined as a portfolio's orientation towards both large or small capitalization stocks and growth or value stocks. Style risk is defined as the difference between a portfolio's style and the portfolio's index style. Larger differences in the two styles will lead to a greater variance in returns between the portfolio and the benchmark.

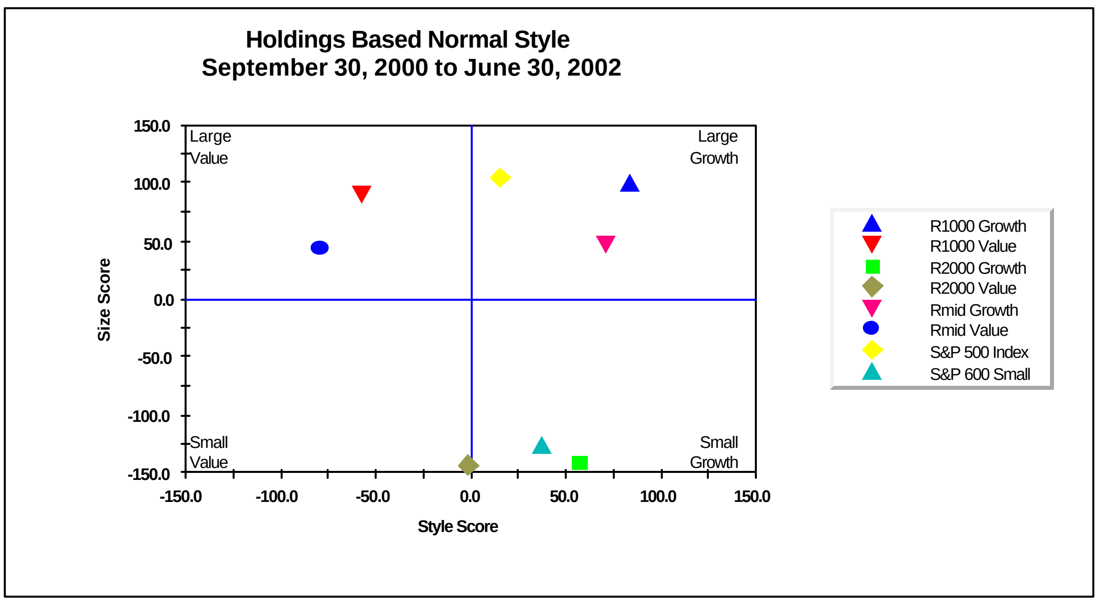
- *Summary:* Studies have shown that attempting to predict future style cycles is a difficult and often an unsuccessful task. Beacon Pointe traditionally recommends clients maintain a style neutral approach to managing style risk for their large cap allocations. For the small cap allocations, however, Beacon Pointe recommends that the client maintain a value style tilt and understands that by having a value tilt, the portfolio will assume a slight style bias.

Style Risk – Large Cap

- Beacon Pointe categorizes investment style for domestic equities into four primary styles: large cap growth, large cap value, small cap growth, and small cap value. Additional styles include large cap and small cap core, mid-value, mid-cap growth, mid-cap core, and micro-cap. The holdings-based style map below (Exhibit 1) presents how the primary indices that represent the various investment styles possess varying degrees of style biases during the past 7 quarters.

- The holdings-based style map in Exhibit 1 is based on holdings-based style metrics. Holdings-based style metrics assign a style and a size score to individual stocks within a portfolio. The *size* score reflects the relative market capitalization of a particular security, while the *style* score indicates a stock's orientation towards value or growth investment strategies based on certain financial characteristics (price/earnings ratio, price-to-book ratio, dividend yield, five-year sales growth, five-year earnings growth, and five-year average return on equity). The overall portfolio style and size scores are calculated by weighting individual security scores by their appropriate portfolio weights.

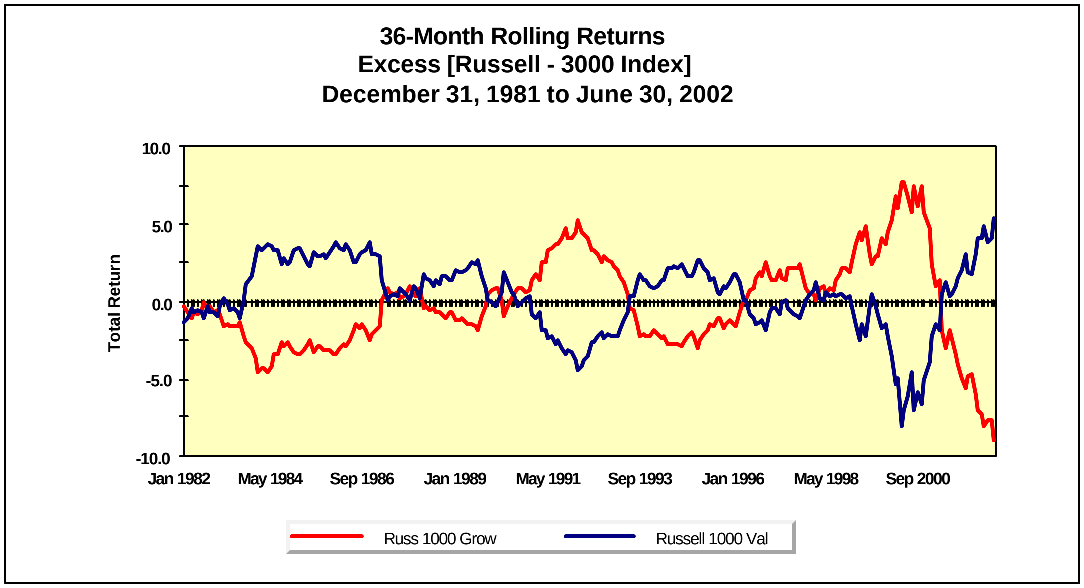
Exhibit 1



- Exhibit 2 on the following page shows that the best performing large cap style changes over time. The rolling performance analysis shows that when a large cap style index excess return plots above zero, the large cap style has outperformed the broad market index for the past 3 years. The opposite is true when the large cap style index's excess return plots below zero—that investment style has underperformed the broad market index for the past 3 years.

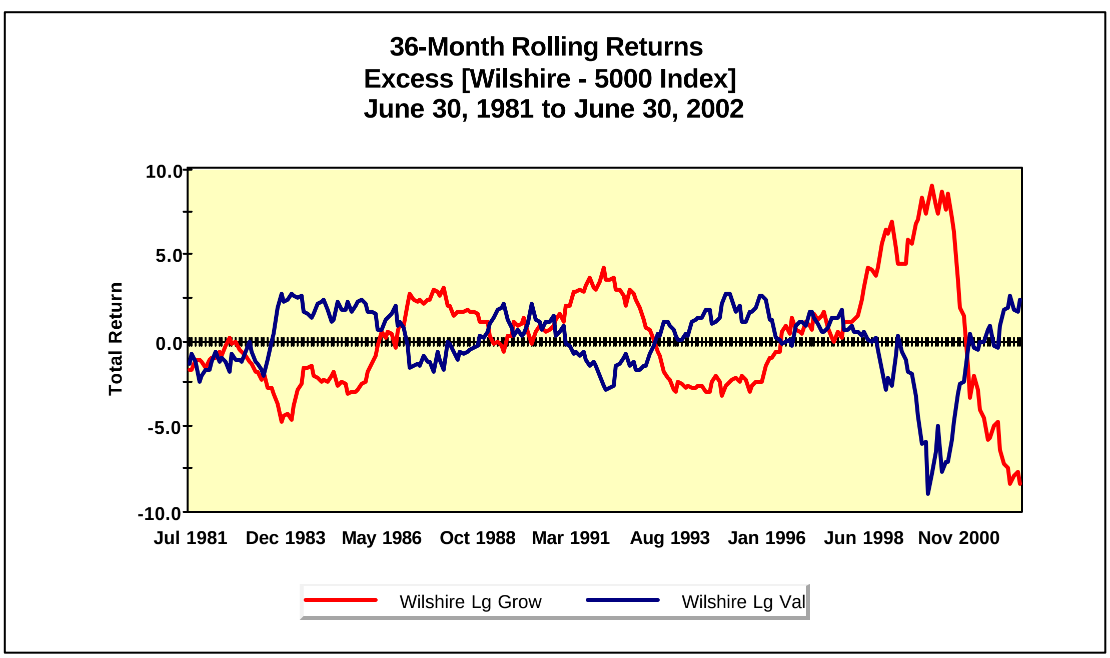
Style Risk – Large Cap

Exhibit 2



- The large cap style cycles (as represented by the Russell 1000 Value and Russell 1000 Growth indices) can account for annualized return differences well in excess of 7-8% over 3 year periods.
- To ensure that there are no index methodology biases, Exhibit 3 below identifies similar results using the Wilshire style indices. This rolling performance analysis plots the excess returns of the Wilshire Large Value and Wilshire Large Growth relative to the Wilshire 5000 index.

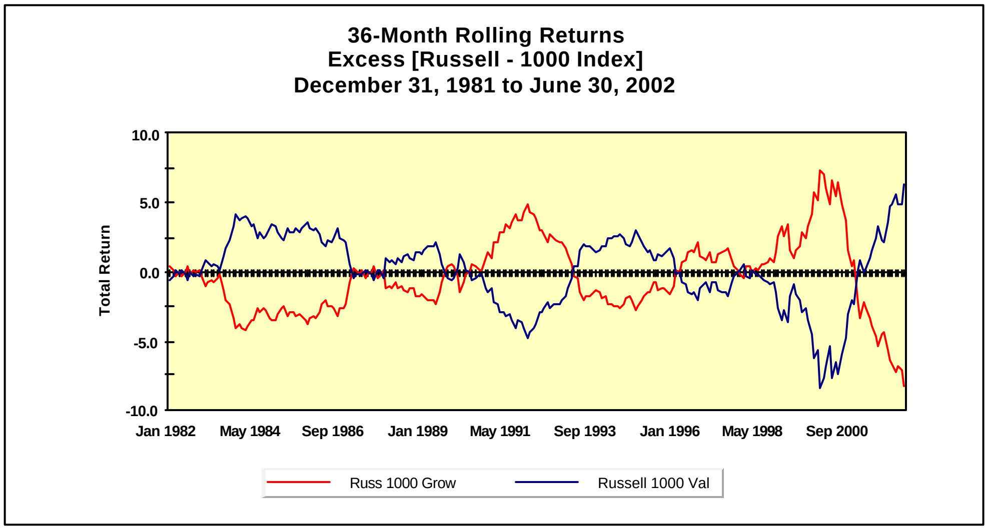
Exhibit 3



Style Risk – Large Cap

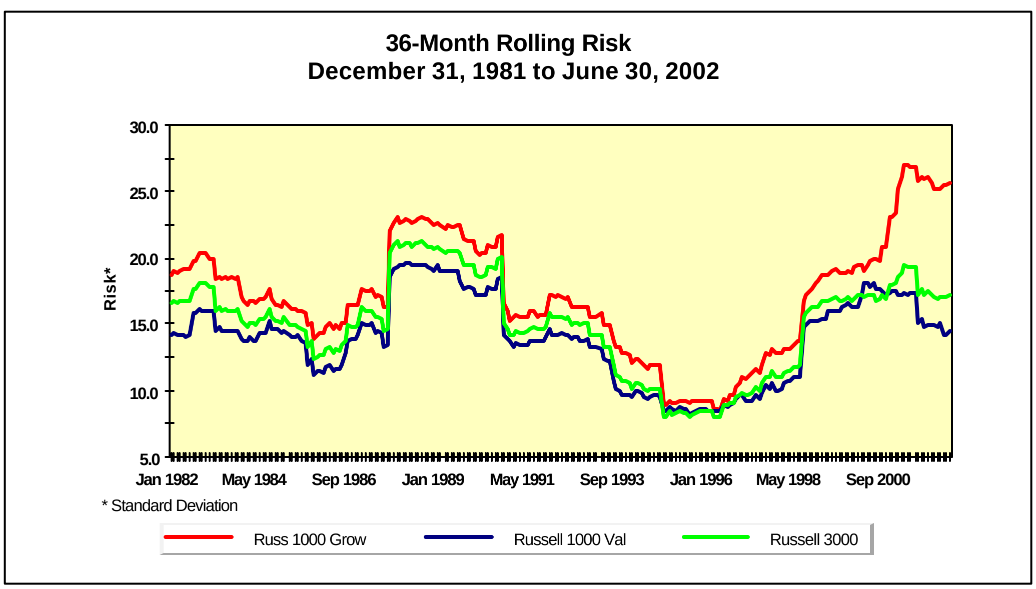
- Exhibit 2 identifies the large cap style cycles of the Russell 1000 Value and Russell 1000 Growth indices relative to the broad general market, the Russell 3000 index. The large cap style cycles are just as prevalent relative to the broad general large cap market, as represented by the Russell 1000 Index (Exhibit 4).

Exhibit 4



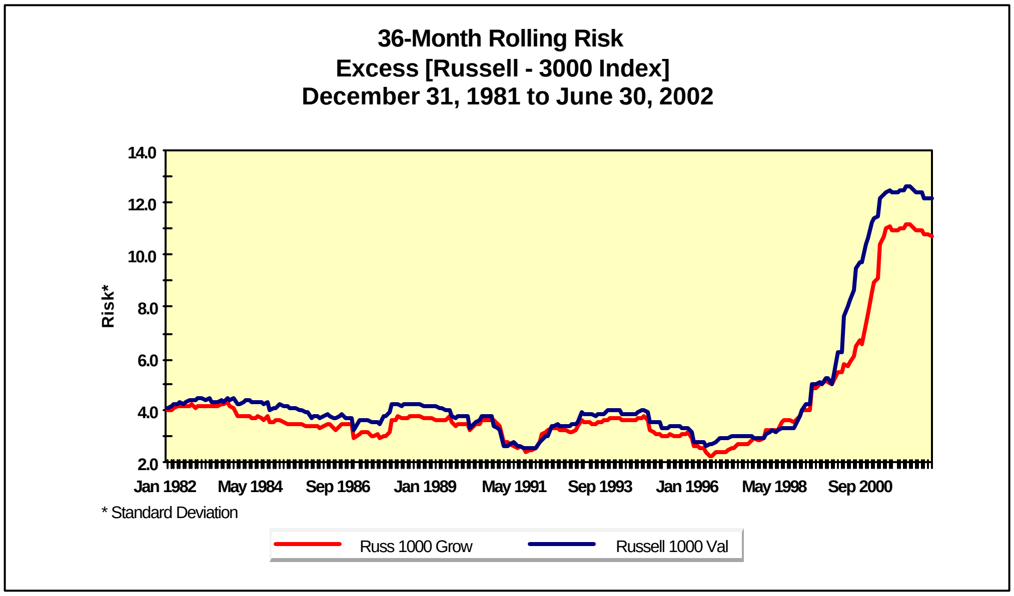
- Although the large cap value and growth indices have different return patterns, the two styles have similar risk characteristics (as measured by standard deviation). Exhibit 5 plots the rolling 3-year annualized standard deviation of the large cap Russell indices and identifies that the Russell 1000 Value and Russell 1000 Growth have historically had similar levels of risk. Only recently, however, have the risk levels of the two styles greatly differed. The recent technology boom and the following market correction played a direct role in this phenomenon.

Exhibit 5



Style Risk – Large Cap

Exhibit 6



- Exhibit 6 identifies a similar conclusion as the Russell 1000 Value and Growth indices have historically had a similar tracking error (standard deviation of excess returns) to the broad market index. Only recently does the Russell 1000 Growth begin to have a higher tracking error.

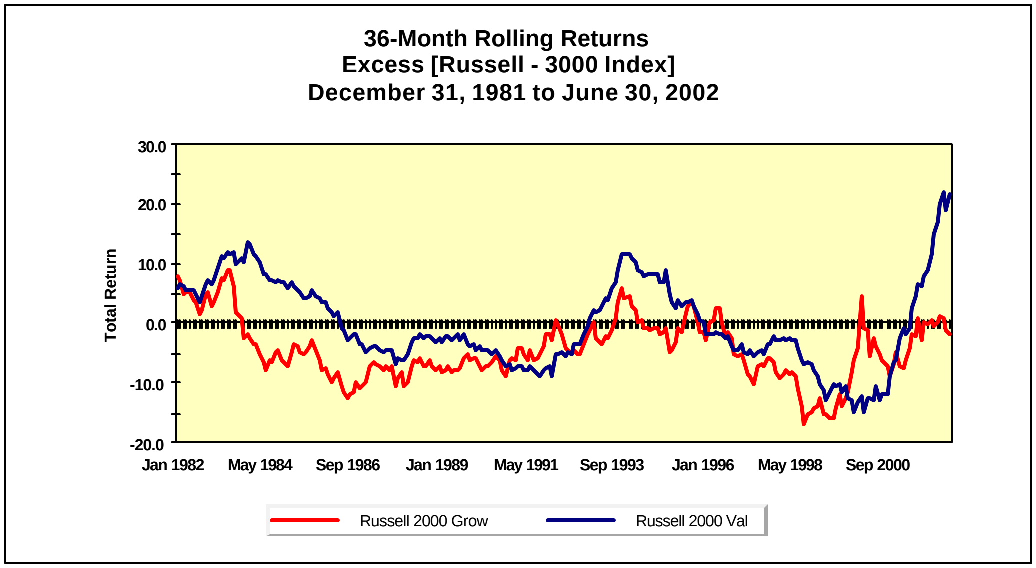
- The large cap analysis shows that the large cap investment styles have had almost *complimentary* style cycles—historically, when large growth is outperforming the broad market, large value is underperforming. The same holds true when the large value style is outperforming— the large growth style is underperforming. Moreover, the two styles historically have had similar risk characteristics, with the exception of the most recent rolling periods.

- Beacon Pointe recommends that clients maintain a style neutral approach for their large cap allocation.

Style Risk – Small Cap

- Exhibit 7 below presents the excess returns of the small cap growth and small cap value styles (as represented by the Russell 2000 Value and Growth indices) relative to the broad market (as represented by the Russell 3000 index). Unlike their large cap counterparts, the small cap styles have not had the *complimentary* excess return cycles.

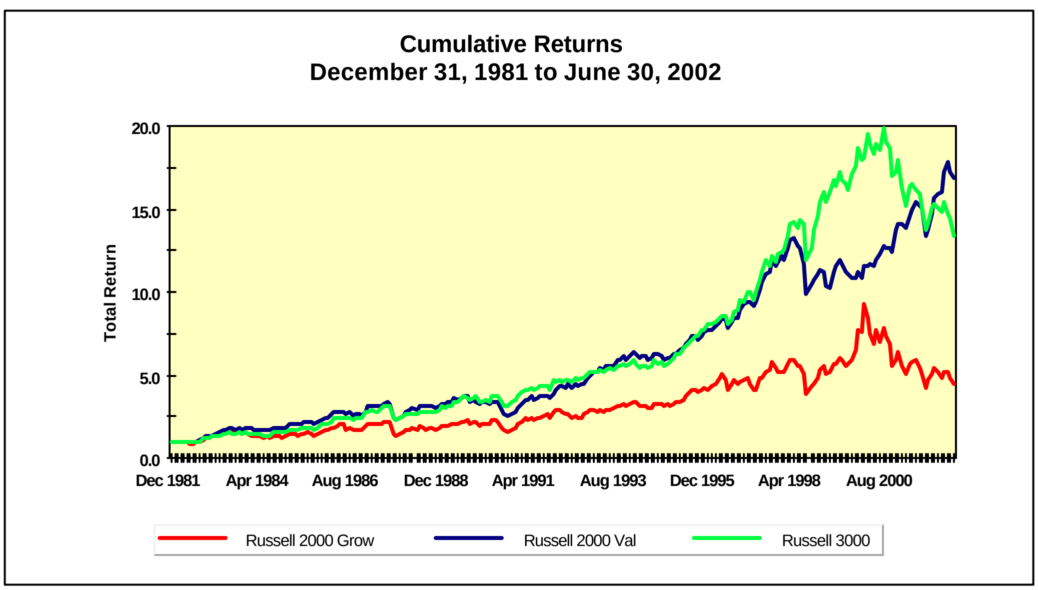
Exhibit 7



- The rolling excess performance analysis identifies that the small cap value style has historically outperformed the small cap growth style.

- Exhibit 8 below plots the cumulative returns of the Russell 2000 Growth and Value indices—supporting the same conclusion.

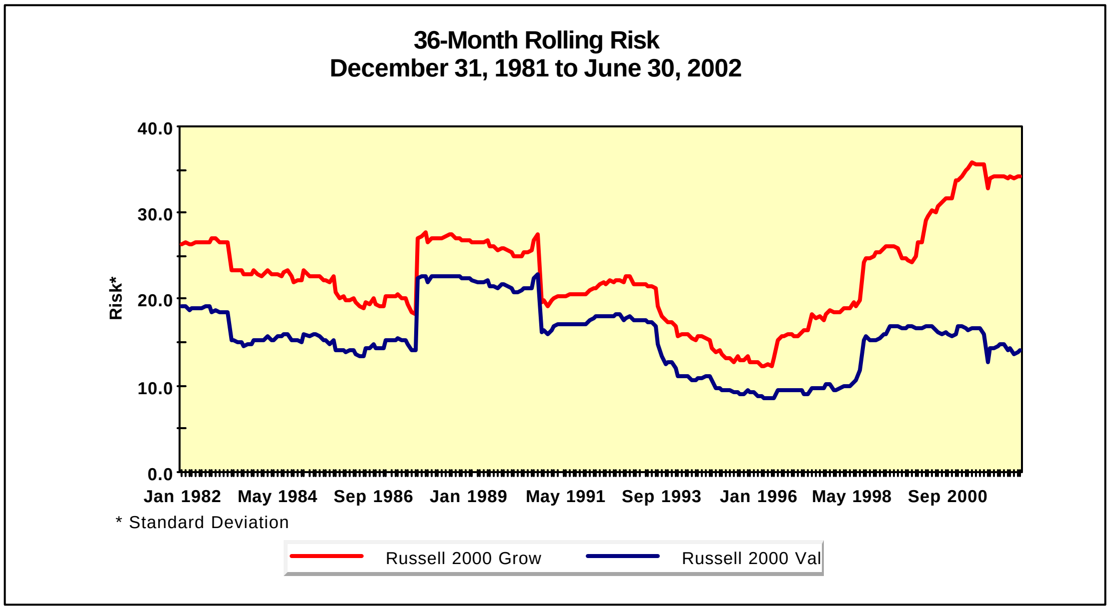
Exhibit 8



Style Risk – Small Cap

- Exhibit 9 plots the rolling 3-year annualized standard deviation of the small cap Russell indices. Although the analysis identifies that there is a high correlation between the risk levels of the Russell 2000 Growth and Value indices, the Russell 2000 Growth has consistently had a higher level of risk. Similar to the risk analysis for the large cap styles, the small cap growth style has assumed a higher risk level with the recent technology bubble and bust.

Exhibit 9



- To ensure that there are no index methodology biases, the following exhibits beginning on the next page present the risk/return analysis over a number of different periods with different small cap value and growth indices. Each time period risk/return analysis supports the argument that the small cap growth style has underperformed and has had a higher risk level relative to the small cap value style.

Risk and Returns – Small Cap

Exhibit 10

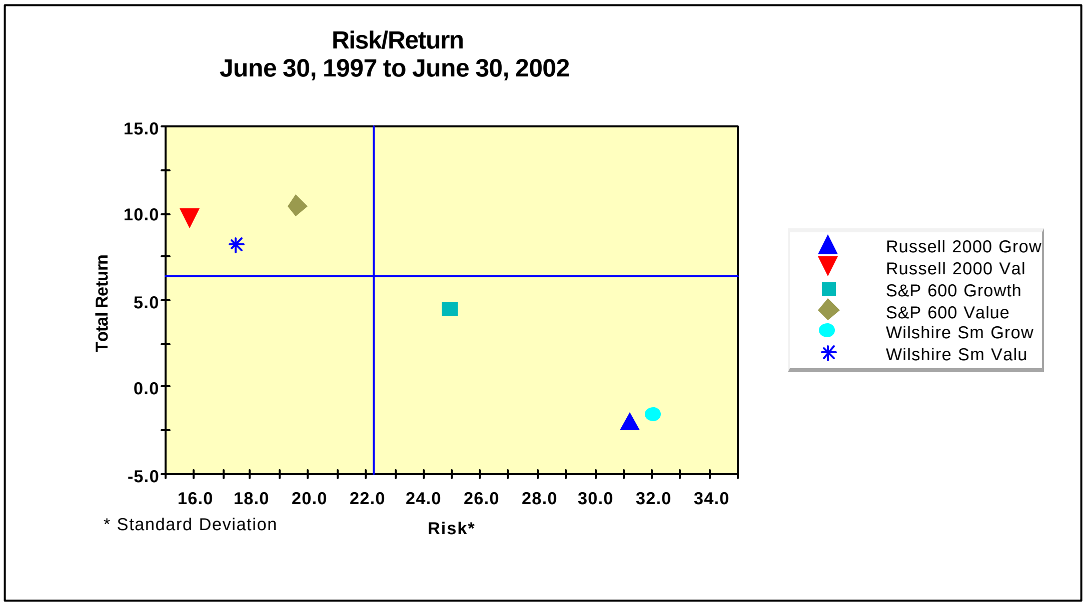
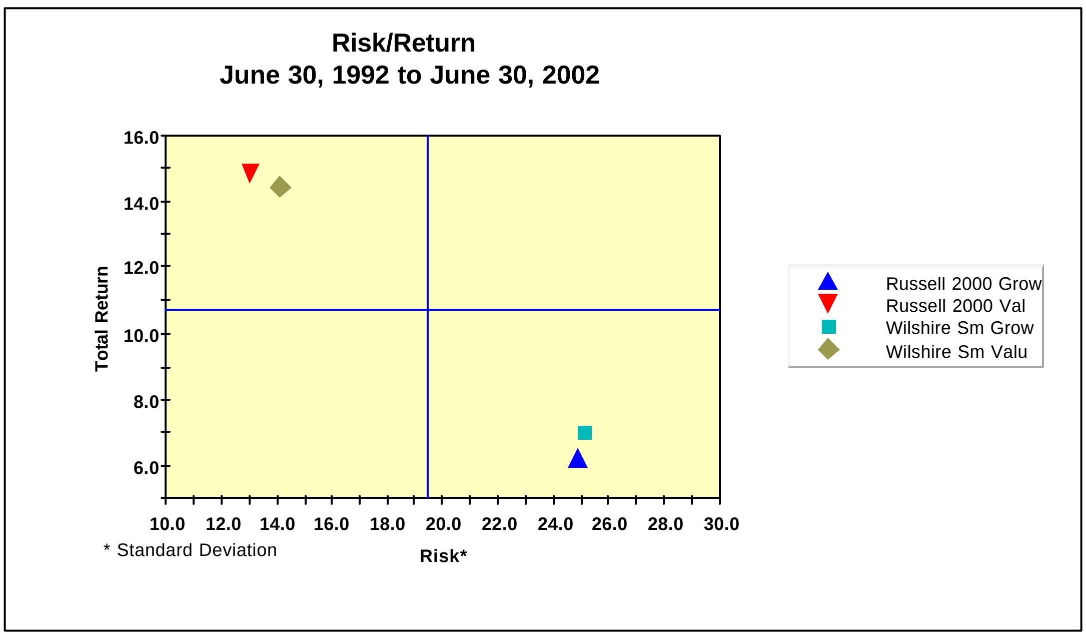


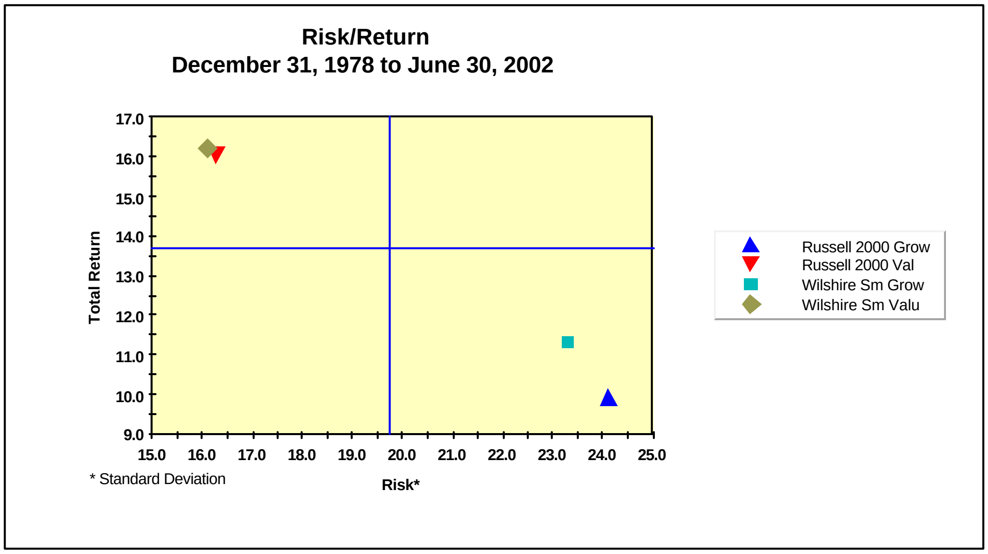
Exhibit 11



- Exhibits 10 and 11 show that over a 5 and 10-year period, the small growth styles have underperformed the small value styles and also have had higher risk levels.

Risk and Returns – Small Cap

Exhibit 12



- Exhibit 12 above shows the annualized risk and return of the Wilshire and Russell Small Cap indices (December 31, 1982: inception date of Russell indices). The Russell 2000 Value and Wilshire Small Value indices have very similar risk and return characteristics over this period.

- The risk-adjusted returns (as measured by Sharpe Ratio) for the small cap style indices are calculated in the exhibit below.

Exhibit 13

	1-Yr Sharpe	3-Yr Sharpe	5-Yr Sharpe	10-Yr Sharpe
Russ 2000 Growth	-0.96	-0.42	-0.22	0.06
Russ 2000 Value	0.32	0.53	0.31	0.77
S&P 600 Growth	-0.42	-0.05	-0.01	-
S&P 600 Value	0.18	0.35	0.29	-
Wilshire Sm Growth	-0.98	-0.44	-0.20	0.09
Wilshire Sm Value	0.04	0.29	0.19	0.68

- The small cap growth indices (Russell 2000 Growth, Wilshire Small Growth, and S&P / Barra 600 Growth) have negative risk-adjusted returns for the 1-, 3-, and 5-year periods. Only at the 10-year period do the small cap indices have a positive risk-adjusted return.

Analysis – Small Cap

- The small growth style has consistently underperformed the small value style—on an absolute and risk-adjusted basis.

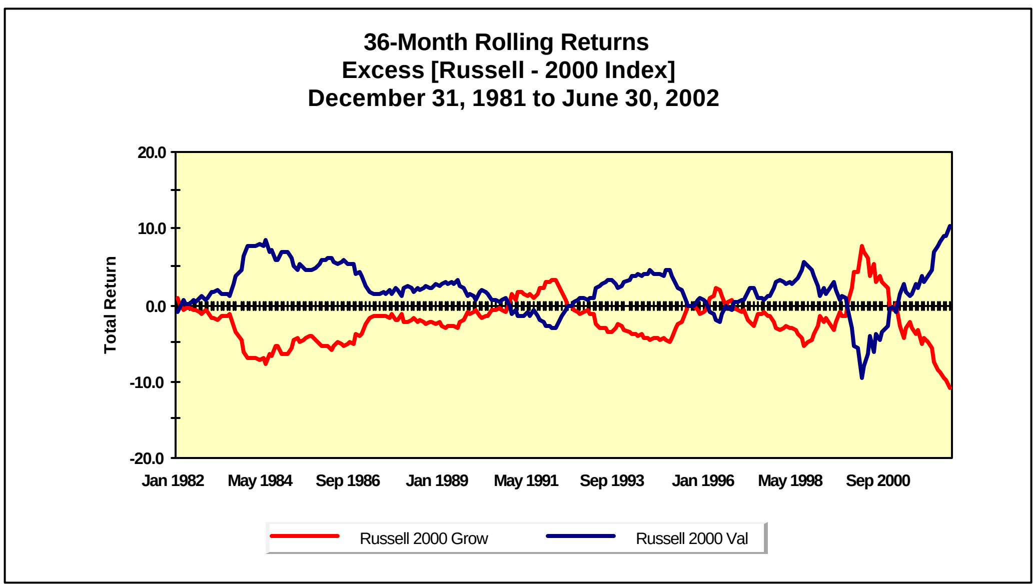
- The small growth style has also assumed a higher level of risk relative to the small value style.

- As shown in Exhibit 7, the small cap growth and value styles have not offered complimentary performance cycles relative to the broad general market, as did the large cap styles.

- Beacon Pointe recommends that clients maintain a value style tilt for their small cap allocations.

- Having separate allocations to the small cap growth and small cap value styles, however, does offer diversification benefits. Although relative to the broad general market (as represented by the Russell 3000 index) the two styles did not have total complimentary cycles. The two styles have different cycles relative to the small cap broad index (as represented by the Russell 2000 index). Beacon Pointe does recommend, when appropriate, an allocation to small cap growth within the U.S. Equity investment structure.

Exhibit 14



Summary

- Studies have shown that predicting future style cycles is difficult and in most cases, unsuccessful. A clearly defined investment structure helps a client achieve consistent results over time. Beacon Pointe traditionally recommends a style neutral approach to managing style risk for a client's large cap allocation. Beacon Pointe recommends, however, that clients implement a value tilt with their small cap allocation. The client will be exposed to style risk with the value tilt. Although the value tilt will lead to an increase in style risk, a value tilt has historically led to lower volatility and higher returns over longer periods of time.

  - The small cap growth style has consistently underperformed the small cap value style over rolling periods.

  - The small cap growth style has consistently had a higher risk level relative to the small cap value style.

  - The small cap styles, as represented by the small cap indices, have slightly positive risk-adjusted returns over the past 10-years compared to the small value styles.

  Small cap growth does, however, offer some diversification benefit (Exhibit 10) and provides investment opportunities not found in the small cap value style. Beacon Pointe does recommend, when appropriate, that clients have a small cap growth allocation. A client-specific asset allocation study will help determine what allocation is appropriate for the client.

  Please feel free to contact your Beacon Pointe consultant if you have any questions.