



Elements to Consider When Choosing an Equity Mutual Fund, Part I

Any Institutional Investor (II) – qualified plan sponsor, defined benefit sponsor, endowment or foundation - faces a number of daunting decisions in the investment selection process. One of the first decisions is which broad asset classes to offer and then within the broad classes which styles or compositions should be offered. A number of papers will be written on various aspects of these processes. Because the domestic equity allocation is normally the most dominant portion of the plan it will be the first class discussed in two papers.

Background

The Morningstar database is a widely recognizable database and will be the definitional and operative database under consideration. Other databases define categories differently.

Domestic equity styles are defined by style categories. Horizontally the categories are divided into the style disciplines (value, core or blend and growth) and vertically by the market capitalization of the stocks in the funds; large capitalization (large caps), middle-capitalization (mid-caps) and small capitalization (small-caps). Two additional size categories are also found, but are included in broader categories. In Morningstar, giant-capitalization stocks account for the top 40% of the capitalization within the style; large caps are the next 30%; mid-caps the next 20%; small caps the next 7% and micro-caps the final 3%. Giant-cap stocks are included in the large-cap group (totaling 70%) while micro-caps are included in the small-cap group (totaling 10%).

As of December 31, 2004 Morningstar defined the capitalizations as: giant over \$49.3 billion; large cap \$8.9 billion to \$49.3 billion; mid-cap \$1.6 billion to \$8.9 billion; small cap \$.5 billion to \$1.6 billion and micro-cap under \$.5 billion. The dollar sizes will slide based upon changing overall market values.

Table 1 displays and summarizes a wide range of data: size and style categories; three and five year rates of return, standard deviation, return/risk; and, Funds A and B to be used in Part II of this discussion.

The Unmanaged Style Categories section shows how an unmanaged portfolio of stocks with a consistent style would have performed. The stocks are weighted according to their free float of shares outstanding.

The Managed Funds by Style Category are the respective Morningstar style categories and represent the results of active management net of fees.

Defining Value and Growth Styles

The distinction between the value and growth styles extends back to the late 1940's and early 1950's. The increase in computerization has provided opportunities for the portfolio manager to develop more sophisticated measures and review more companies to determine value and growth characteristics.

Each stock in a portfolio is assigned to a style. The individual stocks are aggregated to determine the style for the fund on an asset-weighted average based on the style and size scores of the underlying stocks. It is unusual to see a portfolio holding all value or growth stocks. They do exist in limited numbers.

Funds in the "blend" column may be composed of a mix of value and growth or composed of stocks, which do not fit neatly into value or growth categories. Broad market index funds are generally found in the large blend category.

Five value and five growth factors define how stocks fit along the value-growth continuum. The value components include: price/prospective earnings (50% weighting), price/book (P/B 12.5%), price/sales (P/S 12.5%), price/cash flow (P/C 12.5%) and prospective dividend yield (12.5%). Value companies are less expensive or growing more slowly than other stocks. The emphasis is on low valuations, higher dividend yields and slower growth rates in earnings, sales book value and cash flow.



Table 1
Summary Data by Capitalization and Style Category
Rates of Return, Standard Deviation and Return/Risk

Category	Tot Ret Annld 3 Yr	Std Dev 3 Yr	Ret/Risk 3 Yr	Tot Ret Annld 5 Yr	Std Dev 5 Yr	Ret/Risk 5 Yr
Unmanaged Style Categories						
Large Value	6.95	16.44	0.42	4.54	16.40	0.28
Middle Value	14.99	16.40	0.91	14.76	18.22	0.81
Small Value	19.21	19.22	1.00	18.97	19.36	0.98
Large Blend	2.69	15.30	0.18	-0.67	14.15	-0.05
Middle Blend	13.08	17.06	0.77	11.97	18.10	0.66
Small Blend	14.80	19.54	0.76	16.40	20.66	0.79
Large Growth	-4.35	17.27	-0.25	-16.22	24.40	-0.66
Middle Growth	2.93	21.28	0.14	-5.33	29.10	-0.18
Small Growth	3.02	26.30	0.11	-3.50	35.52	-0.10
Managed Funds by Style Category						
Large Value	5.63	16.06	0.35	4.35	16.42	0.26
Middle Value	11.13	16.82	0.66	11.41	18.45	0.62
Small Value	15.53	19.19	0.81	15.81	19.43	0.81
Large Blend	2.93	15.15	0.19	-1.77	16.20	-0.11
Middle Blend	9.81	17.56	0.56	7.18	20.12	0.36
Small Blend	12.51	20.01	0.63	11.84	21.84	0.54
Large Growth	0.01	16.25	0.00	-7.64	19.28	-0.40
Middle Growth	3.68	18.40	0.20	-3.42	26.04	-0.13
Small Growth	4.89	21.41	0.23	-0.55	28.91	-0.02
Actual Funds in Small Value Style						
Fund A	16.56	19.91	0.83	16.16	20.16	0.80
Fund B	15.78	17.16	0.92	18.66	18.53	1.01

Source: Morningstar

Growth stocks are projected to grow faster with higher growth rates for earnings, sales, book value and cash flow along with higher valuations as measured by higher price ratios and lower dividend yields. Growth companies may be found in rapidly expanding industries. The five growth factors include: long-term projected earnings growth (50% weighting), book value growth (12.5%), sales growth (12.5%), cash flow growth (12.5%) and historical earnings growth (12.5%).

A review of Table 2 provides a number of interesting observations. First, note how the value and growth characteristics are reasonably similar within their respective categories. Second, note how value stocks compare to growth stocks when the growth characteristics are applied to them. It clearly shows the lack of emphasis placed on the growth stock elements. Third, while not a component of the definitions for value and growth, note the increase in price to earnings (P/E) when moving down the categories (from large to small) and across the categories (value to growth).



Table 2
Comparison of Value and Growth Characteristics
By Equity Styles

Stocks by Style	Market Cap \$MM	P/E Ratio TTM	P/B Ratio TTM	P/C Ratio TTM	P/S Ratio TTM	Price/Pros Erngs	Pros Div Yield	Long-Term Erngs Growth	Hist Erngs Growth	Sales Growth	Cash Flow Growth	Book Value Growth	
			Value Characteristics						Growth Characteristics				
Lg Value	61,246	16.9	2.7	-	1.8	13.1	2.9	9.0	16.0	2.1	2.5	3.8	
Mid Value	5,731	18.9	2.3	-	2.0	14.0	2.3	8.4	5.6	3.7	1.6	3.5	
Sm Value	1,225	21.3	2.5	-	2.1	15.0	2.4	8.4	2.4	2.0	-3.7	3.2	
Lg Blend	60,191	22.6	4.8	13.5	2.5	18.7	1.3	11.7	11.5	6.3	15.4	10.5	
Mid Blend	4,589	22.7	3.3	12.4	2.3	17.3	1.0	12.4	14.6	5.3	8.8	7.7	
Sm Blend	1,155	27.1	3.3	15.7	2.5	18.1	0.7	14.4	8.2	4.1	5.7	4.7	
Lg Growth	64,376	32.5	5.8	20.8	5.8	23.9	0.7	15.2	8.8	12.9	14.1	14.7	
Mid Growth	4,994	33.4	5.3	21.1	4.7	26.3	0.2	16.6	13.0	11.6	11.1	6.5	
Sm Growth	1,066	35.8	5.0	23.0	5.4	28.0	0.3	19.3	12.3	10.5	21.9	3.7	

Source: Morningstar

Reviewing Table 2 provides a number of interesting observations. First, note how the value and growth characteristics are reasonably similar within their respective categories. Second, note how value stocks compare to growth stocks when the growth characteristics are applied to them. It clearly shows the lack of emphasis placed on the growth stock elements. Third, while not a component of the definitions for value and growth, note the increase in price to earnings (P/E) when moving down the categories (from large to small) and across the categories (value to growth).

Broad Elements to Consider

In selecting funds the II reviews the fund's rates of return, standard deviation of returns and expenses. While these elements provide a strong basis for decision-making, it is also informative to delve into the fund's composition and characteristics, which can help, define its historic performance and potential future performance. By the nature of the search process, all of the funds may have a return greater than the benchmark category and a lower standard deviation than the benchmark category. If sufficient funds are found not meeting the criteria the search is adjusted.

To review additional elements of the funds, tables have been developed for easy comparison of critical factors. The compositional elements of the funds are reviewed along with critical price and growth factors.

When viewing the tested categories it is important to be cognizant of whether the fund being reviewed is appropriately classified. As indicated earlier, it is very unlikely that a fund will contain 100% stocks of the appropriate style category. For example, in the large value benchmark category, the large value component accounts for only 43% of the fund while large blend stocks account for 30%.

In the asset category review process there is an emphasis on designing investment options which "fill the corners" of the equity style table – choosing assets in the large value, large growth, small value and small growth categories rather than funds which are considered blend funds.

Blend funds can be "constructed" by the investor by investing in a mix of value and growth funds. (Some of the blend funds are created in this manner by splitting the fund management between a value manager and a growth manager.) The creation by the investor allows for the creation of any mix of growth and value desired rather than allowing the mutual fund manager to make that decision. The investor can readily adjust the asset mix by changing the percentage invested in the individual funds.



The lack of a definitive percentage distribution within the style boxes presents the II with a dilemma and an opportunity. The II must decide from the range of funds which one is appropriate for investment. At the time the decision is being made, there is not a correct or incorrect answer. Only in hindsight, after several years of performance, does the ultimate decision become clear.

The easy answer to a decision is based upon selecting the highest return, lowest standard deviation, lowest expense ratio, some combination of return and standard deviation (e.g. return per unit of risk) or review the funds to determine who best fits the profile for the style box with a consistent return.

The return per unit of risk concept is a way to combine the return and standard deviation (risk/volatility of returns) numbers. It is difficult to review a large number of varying fund returns combined with a varying range of standard deviations (amounts of risk/volatility) without summarizing the numbers. Table 1 shows the returns/risk.

Two hypothetical funds, X and Y (not Funds A and B in Table 1) might both have five year annualized returns of 9.5%. Fund X has a standard deviation of 30 (return/risk of .32) while Fund Y has a standard deviation of 25 (return/risk of .38). For equal returns, Fund Y's return has a smaller standard deviation (risk). The Fund X investor did not get compensated in his return for the higher units of risk undertaken by the manager. For the same return/risk taken by the Fund Y manager, the Fund X investor should have received a return of 11.4% rather than the 9.5% received.

The Unmanaged Style Categories in Table 1 show the return/risk for the purer stock categories in three and five year periods. For both the shorter and longer time periods the style has mattered. That is, value in each of the size categories provided the highest return/risk. Remember, **the past is no guarantee of future performance**. The table only shows what has occurred and not what may occur in the future.

The Managed Funds by Style Category in Table 1 moves from the pure style categories to look at the results of the funds categorized within the style categories. Reviewing the return/risk on a horizontal basis in the table might indicate that the blend accounts look like they are leaning more toward a value style.

The Table 1 Managed Funds by Style Category are not "pure" style funds. The differences reflect the portfolio management decisions made by all of the managers within that category. Thus, if a manager were a pure small value manager without management fees the expectation would be a return/risk of 1 for three years and .98 in five years. The fund performance of .81 and .81 would imply a style of something other than a pure small value style.

Let's review what has been considered so far. Market capitalization and styles of stocks and funds have been defined and examples given. The types of ratios used for value and growth have been defined and shown how they are used in the style categories. The concept of return per unit of risk has been defined and shown how it plays a part in integrating the concepts of return and standard deviation. In Part II of the paper the discussion will continue and include an example of a fund choice to integrate the concepts considered in this paper.

Pension Consultants, Inc. may be contacted at (417) 889-4918 or www.pension-consultants.com. This paper is one in the ongoing series of white papers written by Pension Consultants, Inc. Our white paper series is aimed at discussing trends and issues of importance to retirement plan sponsors and other industry professionals. Securities offered through Securities Service Network, Inc. Member NASD/SIPC.

For a prospectus containing more complete information including management fees, charges and expenses, please call (417) 889-4918. Please read the prospectus carefully prior to investing. Investors should consider the investment objectives, risks and charges and expenses of the investment company. The contract prospectus and the underlying fund prospectus contain this and other information about the investment company.

The value of securities will fluctuate so that when redeemed, shares or units may be worth more or less than the original cost.

Investing may not be appropriate for all individuals, always consult a qualified professional prior to making any investment decision.

