

## **The Dynamics of the Prudent Investor Rule and the Impact on Fiduciaries in the Oakland County Probate Court<sup>1</sup>**

The rules of fiduciary conduct involving investment strategies have evolved, especially in the last ten years. In addition, various levels of sophisticated investment products and strategies have become more accessible to the public, whether they are college savings 529 plans, annuities, mutual funds or real estate investments. Courts are increasingly requested to assist with special requests of the fiduciary for asset management and investments.

A method of accountability for such special investment decisions is often necessary. Deciding the relevant factors and information to adjudicate the request can be complex at best. It is hoped that this discussion will highlight essential steps for the Court to use in assessing requests for investing under Minors Conservatorships, balancing of interests in Trusts and dealing with undiversified positions in Adult Conservatorships.

Effective April 2000, Michigan adopted the Prudent Investor Rule with the Estates and Protected Individuals Code as part of a national trend with the Uniform Prudent Investor Act. The Prudent Investor Rule modernized old laws that failed to keep up with the changing world of investments, especially the standard of conduct called modern portfolio theory.

The investment process under the Prudent Investor Rule is based on modern portfolio theory, which considers the total return of investment assets (not investments in isolation) and risk tolerance (not merely risk avoidance). The fiduciary's standards of conduct – duty to exercise reasonable care, skill and caution – boil down to two main processes under modern portfolio theory:

- Sound diversification and
- Properly assessing risk and return.

Key then to fiduciary compliance with the Prudent Investor Rule is an **ONGOING PROCESS OF ASSESSMENT**, involving communication of expectations and needs, assessment of risk/return in light of those needs and **DOCUMENTING** the process.

Specifically, the Michigan Prudent Investor Rule requires the fiduciary to conduct an ongoing assessment of:

- (a) General economic conditions;
- (b) The possible effect of inflation or deflation;
- (c) The expected tax consequences of an investment decision or strategy.
- (d) The role that each investment or course of action plays within the overall portfolio, which may include financial assets, interests in closely-held enterprises, tangible and intangible personal property, and real property.

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<sup>1</sup> By James P. Lampertius, Esq. of Lampertius, Richards & Associates, P.L.C. for Session II of Oakland County Bench Bar Conference, 2006.

- (e) The expected total return from income and the appreciation of capital.
- (f) Other resources of the beneficiaries.
- (g) The need for liquidity, regularity of income, and preservation or appreciation of capital.
- (h) An Asset's special relationship or special value, if any, to the purposes of the fiduciary estate or to 1 or more of the beneficiaries.

MCL 700.1503.

The Prudent Investor Rule sets forth a number of principles to guide fiduciaries. Most of the issues arise in the administration of trusts. However, this Rule applies to all fiduciaries, not just trustees:

- “A fiduciary shall invest and manage assets held in a fiduciary capacity as a prudent investor would...” 700.1502 (1).
- Fiduciary includes “...guardian, conservator, ... plenary or partial guardian as appointed as provided in chapter 6 of the mental health code, ... and successor fiduciary.” MCL 700.1104.

The Prudent Investor Rule has provided more options and protections for fiduciaries following its methods. It is open to innovation, as no single investment is inherently imprudent and the portfolio must be viewed as a whole. It prevents “Monday morning quarter-backing,” of second-guessing decisions after the fact if a prudent investment *process* was followed.

However, failure to follow the investment process involved with the Prudent Investor rule has also become a trap for the unwary, especially those who fail to diversify. In fact, in today's fluctuating markets of equities and real estate, fiduciary actions are easily questioned and difficult to measure with accountability. Routines that satisfied the requirements of earlier law may not protect a fiduciary from complaints of interested parties under the Prudent Investor Rule.

Recent cases involving failure to diversify have sent chills down many a fiduciary's spines:

For example, this is a recent release from Trusts and Estates magazine:

Stock concentration cases against fiduciaries just keep getting scarier.

The latest fright comes from Hamilton County, Ohio. If the New York case of *Dumont* sent chills down advisors' spines, Ohio's *Fifth Third Bank v. Firststar Bank*, No. C-050518, should give them nightmares.

In *Dumont*, the fiduciary had years to diversify a portfolio and failed to do so, despite beneficiary's entreaties. A trial court decision fining the fiduciary sent shock waves through the estate-planning community. Ultimately, though, the fiduciary won on appeal.

Now comes this Ohio case. The fiduciary -- U.S. Bank National Association also known as Firststar Bank -- was a trustee of the charitable remainder unitrust (CRUT) in question for only one year. During that time, Firststar made efforts to diversify the single-stock portfolio. The investment officer

in charge sold when the stock price was up; postponed sales when the price went down. Firststar even had language in the trust document stating that the bank had the right to hold onto the trust's assets even if that meant the assets depreciated in value.

But the investment officer didn't sell quickly enough. And the appellate court found that the trust document's language didn't relieve Firststar of the duty to diversify. The Ohio state attorney general got involved because the trust in question was a CRUT, so he defended the interests of the ultimate beneficiaries, that is to say the charities. Big mess. Result: Firststar now must pay \$1.04 million.

**INVESTMENT POLICY STATEMENT (COMPREHENSIVE FORM)<sup>2</sup>**

**FOR**

**(CLIENT)**

**Approved on \_\_\_\_\_**

It is intended that this investment policy statement be reviewed and updated at least annually, any change to this policy should be communicated in writing on a timely basis to all interested parties.

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This is a sample Investment Policy Statement written by Thomas Cliff for 2001 ICLE 14<sup>th</sup> Annual Estate Planning Conference. <sup>2</sup>

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## EXECUTIVE SUMMARY

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**Type of Client:** Taxable, Individual

**Current Assets:** \$650,000

**Time Horizon:** Greater than 5 years

**Modeled Risk Level:** Modeled loss at –8.4% for a single year  
(Statistical confidence level of 90%)

**Asset Allocation:**

	<u>Lower Limit</u>	<u>Strategic Allocation</u>	<u>Upper Limit</u>
Domestic Large Cap Equities			
Value	21%	<b>26%</b>	31%
Growth	21%	<b>26%</b>	31%
Small Cap	5%	<b>10%</b>	15%
International Equities	0%	<b>5%</b>	10%
Domestic Fixed Income			
Multi-Sector Bond	15%	<b>20%</b>	25%
Global Fixed	0%	<b>5%</b>	10%
Cash Equivalents	0%	<b>5%</b>	10%

**Evaluation Benchmark:** Total return to exceed weighted index returns.

## **BACKGROUND AND PURPOSE**

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This Investment Policy Statement (IPS) has been prepared for John and Mary Client (“Client”), a taxable entity. The assets covered by this IPS currently total approximately \$650,000 in market value, but the Client’s net worth is estimated to be \$1,225,000. Assets not covered by this IPS include: (1) corporate sponsored defined contribution programs where both the husband and wife participate (combined, valued at \$350,000); and (2) a vacation condominium valued at \$225,000.

### **Key Information:**

SSN/EIN: \_\_\_\_\_

Investment Advisor: \_\_\_\_\_

Custodian: \_\_\_\_\_

Accountant: \_\_\_\_\_, CPA

Attorney:

The purpose of this IPS is to assist the Client and Investment Advisor (Advisor) in effectively supervising, monitoring and evaluating the management of the Client’s assets. The Client’s investment program is defined in the various sections of this IPS by:

1. Stating in a written document the Client’s attitudes, expectations, objectives and guidelines in the management of their assets.
2. Setting forth an investment structure for managing the Client’s assets. This structure includes various asset classes, investment management styles, asset allocation and acceptable rates that, in total, are expected to produce an appropriate level of overall diversification and total investment return over the investment time horizon.
3. Encouraging effective communications between the Client and the Advisor.
4. Establishing formal criteria to select, monitor, evaluate and compare the performance of money managers on a regular basis.

## STATEMENT OF OBJECTIVES

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The IPS describes the prudent investment process that the Advisor deems appropriate for the Client's situation. The Client desires to maximize returns within prudent levels of risk and to meet the following stated investment objectives:

**[Advisor lists investment objectives – retire with sufficient assets to support a lifestyle of \_\_\_\_\_, provide college tuition to grand children, etc...]**

### *Risk Tolerances*

The Client recognizes and acknowledges that some risk must be assumed in order to achieve long-term investment objectives, and that there are uncertainties and complexities associated with contemporary investment markets.

In establishing the risk tolerances for this IPS, the Client's ability to withstand short and intermediate term variability was considered. The Client's prospects for the future, current financial condition, and several other factors suggest collectively that some interim fluctuations in market value and rates of return may be tolerated in order to achieve the longer-term objectives.

### *Time Horizon*

The investment guidelines are based upon an investment horizon of greater than five years; therefore interim fluctuations should be viewed with appropriate perspective. Short-term liquidity requirements are anticipated to be minimal.

### *Expected Return*

In general, the Client would like the assets to earn at least a targeted return of 8.0%. It is understood that an average return of 8.0% will require superior manager performance to: (1) retain principal value; and, (2) purchasing power. Furthermore, the objective is to earn a long-term rate of return that is at least 5.5% greater than the rate of inflation as measured by the Consumer Price Index (CPI).

### *Asset Class Preferences*

The Client believes that long-term investment performance, in large part, is primarily a function a function of asset class mix. The Board has reviewed the long-term performance characteristics of the broad asset classes, focusing on balancing the risks and rewards of the following market characteristics:



	<u>Positive</u>	<u>Negative</u>
<b>Treasury Bills</b>	(1) Stable principle value; (2) No default risk.	Susceptible to inflation.
<b>Government Bonds</b>	(1) No default risk; (2) Yields are much higher than Treasury Bills.	(1) Susceptible to inflation; (2) Principal value fluctuates inversely with interest rates.
<b>Corporate Bonds</b>	Yields are higher than government bonds.	(1) Susceptible to inflation; (2) Principal value fluctuates inversely with interest rate; (3) Default risk.
<b>Common Stocks</b>	(1) Expected returns are higher than interest-generating investments; (2) Over long-time horizons, purchasing power of capital is maintained and enhanced.	Substantial volatility of principal value.

History shows that while interest-generating investments, such as Treasury bills, have the advantage of relative stability of principal value, they provide little opportunity for real long-term capital growth due to their susceptibility to inflation. On the other hand, equity investments, such as common stocks, clearly have a significantly higher expected return but have the disadvantage of much greater year-by-year variability of return. From an investment decision-making point of view, this year-by-year variability may be worth accepting, provided that the time horizon for the equity portion of the portfolio is sufficiently long (five years or greater).

The performance expectations (both risk and return) of each asset class are contained in Appendix A. The following six asset classes were selected, ranked in ascending order of “risk” (least to most).

- Short Bond
- Multi-Sector Bond
- Large Cap Value
- Large Cap Growth
- Small Cap
- International Equity

### ***Rebalancing of Strategic Allocation***

The percentage allocation to each asset class may vary as much as plus or minus 5% depending upon market conditions. When necessary and/or available, cash inflows/outflows will be deployed in a manner consistent with the strategic asset allocation of the Plan. If there are no cash flows, the allocation of the Plan will be reviewed quarterly.

If the Board judges cash flows to be insufficient to bring the Plan within the strategic allocation ranges, the Board shall decide whether to effect transactions to bring the strategic allocation within the threshold ranges (Strategic Allocation).

## **DUTIES AND RESPONSIBILITIES**

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### ***Investment Advisor***

The Client has retained an objective, third party Advisor to assist in managing the investments. The Advisor will be responsible for guiding the Client through a disciplined and rigorous investment process. As a fiduciary to the Client, the primary responsibilities of the advisor are to:

1. Prepare and maintain an investment policy statement.
2. Provide sufficient asset classes with different and distinct risk/return profiles so that the Client can prudently diversify the account.
3. Prudently select investment options.
4. Control and account for all investment expenses.
5. Monitor and supervise all service vendors and investment options.
6. Avoid prohibited transactions and conflicts of interest.

### ***Investment Managers***

As distinguished from the Advisor, who is responsible for managing the investment process, investment managers are co-fiduciaries responsible for making investment decisions (security selection and price decisions). The specific duties and responsibilities of each investment manager are:

1. To manage the assets under their supervision in accordance with the guidelines and objectives outlined in the respective Prospectus, Trust Agreement or Contract.
2. To exercise full investment discretion with regards to buying, managing and selling assets held in the portfolios.

3. To vote promptly all proxies and related actions in a consistent manner. The investment manager shall keep detailed records of the voting of proxies and related actions and will comply with all applicable regulatory obligations.
4. To communicate all significant changes pertaining to the portfolio or the firm itself. Changes in ownership, organizational structure, financial condition and professional staff are examples of changes to the firm in which the Client is interested.
5. To use the same care, skill, prudence and due diligence under the circumstances then prevailing that experienced investment professionals acting in a like capacity and fully familiar with such matters would use in similar activities for like Clients with like aims in accordance and compliance with all applicable laws, rules, and regulations.

### ***Custodian***

Custodians are responsible for the safe-keeping of the Plan's assets. The specific duties and responsibilities of the custodian are:

1. To maintain separate accounts by legal registration.
2. To value the holdings.
3. To collect all income and dividends owed to the Plan.
4. To settle all transactions (buy-sell orders) initiated by the Investment Manager.
5. To provide monthly reports that detail transactions, cash flows, securities held and their current value, and change in value of each security and the overall portfolio since the previous report.

## **INVESTMENT MANAGER SELECTION**

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The Client will apply the following due diligence criteria in selecting each individual investment option.

1. *Regulatory oversight:* Each investment manager must be regulated by a bank, an insurance company, a mutual fund organization or a registered investment adviser.
2. *Correlation to style or peer group:* The manager's product must be highly correlated to one of the asset classes listed in this IPS. This is one of the most critical parts of the analysis since most of the remaining due diligence involves comparisons of the manager to the appropriate peer group.
3. *Performance relative to a peer group:* The product's performance must be above median for the peer group for annual and cumulative periods (1, 3, and 5-year returns).

4. *Performance relative to assumed risk:* The product must have above median risk-adjusted performance measured against the manager’s peer group – considering the fund’s Alpha, Sharps, and/or Morningstar risk-adjusted measures.
5. *Minimum track record:* the product’s inception date must be greater than three years and the same portfolio management team must have been in place for at least two years.
6. *Assets under management:* The manager should have at least \$75 million under management within the screened product.
7. *Holdings consistent with style:* The screened product should have no more than 20% of the portfolio invested in “unrelated” asset class securities. For example, a domestic Growth fund should not hold more than 20% between cash, fixed income and/or international securities.
8. *Expense ratios/fees:* The screened product should not be in the top quartile (most expensive) of their peer group.
9. *Stability of the organization:* There should be no perceived organizational problems – personnel turnover; regulatory issues; assets coming in faster than the manager can handle; and an inability to demonstrate “best price and execution” in trading.

## **CONTROL PROCEDURES**

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### ***Monitoring of Money Managers***

The Client acknowledges that fluctuating rates of return characterize the securities markets, particularly during short-term time periods. Recognizing that short-term fluctuations may cause variations in performance, the Client intends to evaluate manager performance from a long-term perspective.

On a timely basis, but not less than quarterly, the Advisor will provide the Client with a review as to whether each manager continues to conform to the search criteria outlined in the previous section: specifically:

- The manager’s adherence to the investment guidelines;
- Material changes in the manager’s organization, investment philosophy and/or personnel; and,
- Any legal, SEC and/or other regulatory agency proceedings affecting the firm.

The Advisor has determined that performance objectives will be established for each investment manager. Manager performance will be evaluated in terms of an appropriate market index (e.g. the S&P 500 stock index for large cap domestic equity manager) and the relevant peer group (e.g. the large cap growth mutual fund universe for a growth mutual fund).

<u>Asset Category</u>	<u>Index</u>	<u>Peer Group Universe</u>
<b>Large Cap Equity</b>		
Value	S & P 500	Large Cap Value
Growth	S & P 500	Large Cap Growth
Blend	S & P 500	Large Cap Blend
<b>Mid Cap Equities</b>	S & P 400	Mid Cap Blend
<b>Small Cap Equities</b>	Russell 2000	Small Cap Blend
<b>International Equity</b>	MSCI EAFE	Foreign Stock
<b>Domestic Fixed Income</b>		
Short Bond	Salomon 1-3 yr Treas.	Short Bond
Intermediate	Salomon 3-7 yr Treas.	Intermediate Term Bond
Multi-Sector Bond	Salomon Broad	Multi-Sector Bond
<b>Global Fixed Income</b>	Salomon World 3-5 yr	International Bond
<b>Real Estate</b>	NAR REIT Equity	Specialty Real Estate
<b>Cash</b>	90 Day T-Bills	Money Market Database

The Client is aware that the ongoing review and analysis of an investment manager is just as important as the due diligence implemented during the manager selection process. Accordingly, a thorough review and analysis of an investment manager will be conducted, should:

- A manager performs in the bottom quartile (75<sup>th</sup> percentile) of their peer group over two or more quarters.
- A manager's 3-year risk adjusted return falls below that of the median manager within the appropriate peer group.

Performance which may require the replacement of a manager include:

- A manager performs below the median (50<sup>th</sup> percentile) of their peer group over three or more years.

- A manager with an alpha below the peer group median over three or more years.

Major organizational changes will also warrant immediate review of the manager, including:

- Change in professionals
- Significant account losses
- Significant growth of new business
- Change in ownership

The performance of the investment managers will be monitored on an ongoing basis and it is at the Client's discretion to take corrective action by replacing a manager if they deem it appropriate at any time. A formal manager evaluation may be initiated if an extraordinary event occurs that could interfere with the manager's ability to fulfill their role in the future, or if a manager fails to achieve agreed upon performance objectives over agreed upon time periods.

A formal manager evaluation may include the following steps:

1. An analysis of recent transactions, holdings and portfolio characteristics to determine the cause for under performance or to verify a change in style.
2. A review of correspondence from the manager or reports from research firms on the manager's under performance.
3. A formal review of gathered information leading to a decision to either: (1) retain the manager in a normal capacity; (2) retain subject to a "watchlist" status; or (3) terminate.

Ultimately the decision to retain or terminate a manager cannot be made by a formula. It is a judgment that turns on the Client's confidence of the manager's ability to perform in the future.

### ***Measuring Costs***

The Advisor will review, at least annually, all costs associated with the management of the Client's investment program, including:

- The manager's attention to trading the portfolio at "best execution";
- Expense ratios, or investment fees, of each investment option against the appropriate peer group;
- Custody fees: holding of the assets, collection of the income and disbursement of payments; and
- The manager's appropriate use of soft dollars.

## ANNUAL REVIEW

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The Client will review this IPA at least annually to determine whether stated investment objectives are still relevant. The Adviser will review the IPS at least annually to determine the continued feasibility of achieving the Client's investment objectives. It is not expected that the IPS will change frequently. In particular, short-term changes in the financial markets should not require adjustments to the IPS.

Prepared: \_\_\_\_\_, 2004

Advisor: \_\_\_\_\_

Approved: \_\_\_\_\_, 2004

Client: \_\_\_\_\_

## APPENDIX A ASSET CLASS PROFILES

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<u>Asset Class</u>	<u>Modeled Return</u>	<u>Modeled Std Deviation</u>	<u>Index Proxy</u>
Short Bond	5.2	4.4	SOLB 1-3 yr Treas
Intermediate Bond	6.0	6.1	SOLB 3-7 yr Treas
Multi-Sector Bond	6.2	7.0	SOLB Broad Index
Global Bond	6.2	12.0	SOLB World
Large Cap Blend	8.9	14.8	S&P 500
Large Cap Growth	8.9	14.8	S&P 500
Large Cap Value	8.9	14.8	S&P 500
Mid Cap	9.0	17.3	S&P 400
Small Cap	9.1	19.8	FRC 2000
International Equity	9.2	23.0	MSCI EAFE
Real Estate	7.5	16.5	NAR REITs



## APPENDIX B      SELECTED INVESTMENT OPTIONS

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**Short Bond:** Also, used as a proxy for GICs, Stable Value Funds and Money Markets. Fixed income funds of investment grade securities that have duration of more than 1.0 but less than 3/5 years or an average effective maturity of more than 1.0 but less than 4.0 years.

**Intermediate Bond:** Fixed income funds of investment grade securities that have a duration of more than 3.5 but less than 6.0 years or an average effective maturity of more than 4.5 but less than 7.0 years.

**Multi-Sector Bond:** Funds that diversify their assets among several fixed income sectors, usually government, corporate and high yield domestic obligations.

**Global Bond:** Funds that invest in fixed income securities, primarily from developed countries around the world, including the U.S.

**Large Cap Blend:** Domestic equity funds that invest in stocks that represent the largest 5% of the top 5,000 U.S. stocks and where the combination of the median stocks P/E and P/B is between 1.75 and 2.25.

**Large Cap Growth:** Domestic equity funds that invest in stocks that represent the largest 5% of the top 5,000 U.S. stocks and where the combination of the median stocks P/E and P/B is greater than 2.25.

**Large Cap Value:** Domestic equity funds that invest in stocks that represent the largest 5% of the top 5,000 U.S. stocks and where the combination of the median stocks P/E and P/B is less than 1.75.

**Mid Cap:** Domestic equity funds that invest in stocks between the largest 5%-20% of the top 5,000 U.S. stocks.

**Small Cap:** Domestic equity funds that invest in stocks that represent the smallest 80% of the top 5,000 U.S. stock.

**International Equity:** Funds that invest in non-U.S. stocks, primarily in developed countries around the world, although most International funds include an allocation to emerging markets as well.

**Real Estate:** Funds that invest primarily in REIT equity instruments. The characteristics of these funds are more representative of small cap stocks than direct investment in a diversified portfolio of real estate comprised of farm, residential and commercial properties.

## APPENDIX C GLOSSARY

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**ADV Part I, II:** Disclosure document required to be filed (and updated annually) by a Registered Investment Advisor with the Securities and Exchange Commission. This form details the advisor's practices, operations, fees and individuals associated with the advisor, if registered as a firm. Part II of the Form ADV is required to be delivered to a client prior to or in conjunction with the entering into an agreement with an advisor (sometimes called the "brochure rule"). The advisor must at least annually offer to provide the client with a copy of this form. Part I is not required to be given to the client but it should be requested since it also contains material information on the advisor.

**Alpha:** This statistic measures a portfolio's return in excess of the market return adjusted for risk. It is a measure of the manager's contribution to performance with reference to security selection. A positive alpha indicates that a portfolio was positively rewarded for the residual risk that was taken for that level of market exposure.

$$\text{Alpha} = \text{Mean of excess returns of portfolio} - \beta (\text{Mean of excess return of the index})$$

**American Depository Receipts (ADRs):** Financial assets issues by U.S. banks that represent indirect ownership of a certain number of equity shares in a foreign firm. ADRs are held on deposit in a bank in the firm's home country.

**Basis Point:** 100 Basis Points = 1%

**Beta:** A statistical measure of the volatility, or sensitivity, of rates of return on a portfolio or security in comparison to a market index. The beta value measures the expected change in return per one percent change in the return on the market. Thus, a portfolio with a beta of 1.1 would move 10% more than the market.

$$\beta = [\text{cov}(\text{excess returns of asset or index}) / \text{variance of excess returns of index}]$$

**Board Room Risk:** The risk that trustees will not ride out short-term volatility (and therefore alter a sound long-term strategy) due to pressure put on them in their role as trustees.

**Correlation Coefficient:** Correlation measures the degree to which two variables are associated. Correlation is a commonly used tool for constructing a well diversified portfolio. Traditionally, equities and fixed-income asset returns have not moved closely together. The asset returns are not strongly correlated. A balanced fund with equities and fixed-income assets represents a diversified portfolio that attempts to take advantage of the low correlation between the two asset classes, a statistical measure equivalent to covariance in that it measures the mutual variation between two variables. The correlation coefficient is bounded by the values  $-1$  and  $+1$ . A value of  $+1$  indicates that the two variables are perfectly related to one another and a value of  $0$  indicates that there is no relationship between the two variables.

## APPENDIX C GLOSSARY, CONT.

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**Dollar-weighted Rate of Return:** Method of performance measurement that calculates returns based on the cash flows of a security or portfolio. A dollar-weighted return applies a discounted cash flow approach to obtain the return for a portfolio. The beginning and ending market values in a given time period are considered to be cash flows. Any other cash flows within the time period, such as a dividend payment, are entered into the discounted cash flow analysis. The discount rate that equates the cash inflow at the end of the period plus any net cash flows within the period with the initial outflow is the dollar-weighted rate of return. This return is also referred to as the internal rate of return (IRR).

**Duration:** A measure of the average maturity of the stream of interest payments of a bond. The value of a given bond is more sensitive to interest rate changes as duration increases, i.e. longer duration bonds have greater interest rate volatility than shorter duration bonds. Duration is always shorter than maturity except for zero coupon bonds.

**Emerging Markets:** Managers who primarily concentrate on investments in newly emerging second and third world countries in the regions of the Far East, Africa, Europe, and Central and South America. These portfolios are characterized by aggressive risk/return profiles that generate high volatility in search of high returns.

**End Point Sensitivity:** The performance of a manager/fund may vary depending on which ending time periods are used to analyze performance. Therefore, it is important to look at performance for a number of market cycles or time periods to gain an accurate assessment of the manager/fund's performance.

**Equilibrium Spending Rate:** Specific to foundations and endowments, the "spending rate" which offsets inflation and additional cost increases.

$$\begin{array}{rcccccc} 9.0\% & - & 3.5\% & - & 1.5\% & = & 4.5\% \\ \text{(return)} & & \text{(inflation)} & & \text{(cost increases)} & & \text{(equilibrium spending rate)} \end{array}$$

**ERISA:** The Employee Retirement Income Security Act is a 1974 law governing the operation of most private pension and benefit plans. The law eased pension eligibility rules, set up the Pension Benefit Guaranty Corporation, and established guidelines for the management of pension funds.

**Fiduciary:** Indicates the relationship of trust and confidence where one person (the fiduciary) holds or controls property for the benefit of another person. For example, the relationship between a trustee and the beneficiaries of the trust.

– Any person who (1) exercised any discretionary authority or control over the management of a plan or the management or disposition of its assets, (2) render investment advice for a fee or other compensation with respect to the funds or property of a plan, or has the authority to do so, or (3) has any discretionary authority or responsibility in the administration of a plan.

## APPENDIX C GLOSSARY, CONT.

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– One who acts in a capacity of trust and who is therefore accountable for whatever actions may be construed by the courts as breaching that trust. Fiduciaries must discharge their duties solely in the interest of the participants and beneficiaries of an employee benefit plan. In addition, a fiduciary must act exclusively for the purpose of providing benefits to participants and beneficiaries in defraying reasonable expenses of the plan.

**Geometric Return:** A method of calculating returns which links portfolio results on a quarterly or monthly basis. This method is best illustrated by an example, and a comparison to Arithmetic Returns, which does not utilize a time link. For example, a \$100 portfolio returns +25% in the first quarter (ending value is \$125) but lost 20% in the second quarter (ending value is \$100). The geometric return over the two quarters then is 0%. The arithmetic calculation would simply average the two returns:  $(+25\%)(.5) + (-20\%)(.5) = +2.5\%$ .

**Guaranteed Investment Contracts (GICs):** Contract between an insurance company and a corporate profit-sharing or pension plan that guarantees a specific rate of return on the invested capital over the life of the contract. Although the insurance company takes all market, credit and interest rate risks on the investment portfolio, it can profit if its returns exceed the guaranteed amount. For pension and profit-sharing plans, guaranteed income contracts are a conservative way of assuring beneficiaries that their money will achieve a certain rate of return.

**Liquidity:** In general, liquidity refers to the ease by which a financial asset can be converted into cash. Liquidity is often more narrowly defined as the ability to sell an asset quickly without having to make a substantial price concession.

**Lost Opportunity Risk:** The risk that through inappropriate Market Timing strategies a fund's portfolio will miss short-term or long-term market opportunities.

**Market Capitalization:** A common stock's current price multiplied by the number of shares outstanding. It is the measure of a company's total value on a stock exchange.

**Market Timing:** a form of Active Management that moves funds between asset classes based on short-term expectations of movements in the capital markets. (Not recommended as a prudent process.) It is very difficult to improve investment performance by attempting to forecast market peaks and troughs. A forecasting accuracy of at least 71% is required to outperform a buy and hold strategy.

**Modern Portfolio Theory (MPT):** An investment decision approach that permits an investor to classify, estimate and control both the kind and amount of expected risk and return. Essential to portfolio theory are its quantification of the relationship between risk and return and the assumption that investors must be compensated for assuming risk. This portfolio approach shifts emphasis from analyzing the characteristics of individual

investments to determining the statistical relationships among the individual securities that comprise the overall portfolio.

## **APPENDIX C GLOSSARY, CONT.**

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**Performance Attribution:** The process of evaluating the factors that contribute to the total rate of return of a portfolio. Performance attribution is most commonly used in the monitoring of common stock portfolio performance, where breakdowns of sector performance are readily available for comparison.

**Quality Rating:** The rank assigned a security by such rating services as Moody's and Standard & Poor's. The rating may be determined by such factors as: (1) the likelihood of fulfillment of dividend, income and principal payment obligations, (2) the nature and provisions of the issue and (3) the security's relative position in the event of liquidation of the company. Bonds assigned the top four grades (AAA, AA, A, BBB) are considered "Investment Grade" because they are eligible bank investments as determined by the Comptroller of the Currency. Rating, whether for stocks or bonds, must be used with care due to a tendency of the rating service to recognize changes in financial condition after they occur rather than as they are anticipated to occur.

**Risk Free Rate of Return:** The return on 90-day Treasury bills, used as a proxy for no risk due to its U.S. Government issuance and short-term maturity. The term is really a misnomer since nothing is free of risk. It is utilized since certain economic models require a "risk free" point of departure. See *Sharpe Ratio*.

**R-squared ( $R^2$ ):** Formally called the coefficient of determination, this measures the overall strength or "explanatory power" of a statistical relationship. In general, a higher  $R^2$  means a stronger statistical relationship between the variables that have been estimated, and therefore more confidence in using the estimation for decision-making.

**Sharpe Ratio:** This statistic is a commonly used measure of risk-adjusted return. It is calculated by subtracting the Risk-free Return (usually 3 Month Treasury Bill) from the portfolio return and dividing the resulting "excess return" by the portfolio's total risk level (standard deviation). The result is a measure of return gained per unit of total risk taken. The Sharpe ratio can be used to compare the relative performance of managers. If two managers have the same level of risk but different levels of excess return, the manager with the higher Sharpe ratio would be preferable. The Sharpe ratio is most helpful when comparing managers with both different returns and different levels of risk. In this case, the Sharpe ratio provides a per-unit measure of the two managers that enables a comparison.

**Soft Dollars:** The portion of a plan's commissions expense incurred in the buying and selling of securities that is allocated through a Directed Brokerage arrangement for the purpose of acquiring goods or services for the benefit of the plan. In many soft dollar arrangements, the payment scheme is effected through a brokerage affiliate of the consultant. Broker-consultants servicing smaller plans receive commissions directly from the counseled account. Other soft dollar schemes are effected through brokerages

that, while acting as the clearing/transfer agent, also serve as the conduit for the payment of fees between the primary parties to the directed fee arrangement.

## **APPENDIX C GLOSSARY, CONT.**

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**Standard Deviation:** A statistical measure of portfolio risk. It reflects the average deviation of the observations from their sample mean. Standard deviation is used as an estimate of risk because it measures typical range of returns. The wider the typical range of returns, the higher the standard deviation of returns, and the higher the portfolio risk. If returns are normally distributed (i.e. has a bell shaped curve distribution) then approximately 2/3 of the returns would occur within plus or minus one standard deviation from the sample mean.

**Systematic Risk:** Attributable to common macroeconomic factors and sometimes referred to as market risk. It is the part of a security's total risk that is related to movements in the market portfolio and therefore cannot be diversified away.

**Time Weighted Rate of Return:** Method of performance measurement that strips the effect of cash flows on investment performance by calculating subperiod returns before and after a cash flow and averaging these subperiod returns. Because dollars invested do not depend on the investment manager's choice, it is inappropriate to weight returns within a period by dollars. Time weighted performance removes the impact of cash flows and as a result is widely accepted as the appropriate method of comparison for investment managers and market index returns. To remove the effect of a cash flow, the value of a security or portfolio must be known on the date of the flow. Using the value on this date, a subperiod return is calculated from the beginning of the subperiod to the end of the subperiod. A subperiod return is then calculated from the cash flow date to the end of the period. The two subperiod returns are linked together to arrive at the full period return.

**Unsystematic Risk:** A risk pertaining to one element in a large environment or system. The risk of one stock is unsystematic, while the risk of the entire market of which it is an element is systematic. See *Systematic Risk*.

## Exhibit C

### Example Illustration of Trust's Risk Tolerance

<b>ASSUMPTIONS</b>	<b>Return Series # 1</b>	<b>Return Series #2</b>	<b>Return Series #3</b>
Starting value:	\$100,000	\$100,000	\$100,000
Annual withdrawals:	(\$17,375)	(\$17,375)	(\$17,375)
ROR compounded:	11.6%	11.6%	11.6%
ROR average:	11.6%	12.5%	12.5%
Standard Deviation:	0.0%	15.1%	15.1%

## **RESULTS**

	<b>Year-End Value</b>		<b>Year-End Value</b>		<b>Year-End Value</b>	
Starting value:		\$100,000		\$100,000		\$100,000
Year 1	11.6%	\$94,199	-10.0%	\$72,625	35.0%	\$117,625
Year 2	11.6%	\$87,726	-5.0%	\$51,619	30.0%	\$135,538
Year 3	11.6%	\$80,504	0.0%	\$34,244	25.0%	\$152,047
Year 4	11.6%	\$72,446	5.0%	\$18,581	20.0%	\$165,081
Year 5	11.6%	\$63,456	10.0%	\$3,064	15.0%	\$172,468
Year 6	11.6%	\$53,425	15.0%	(\$13,851)	10.0%	\$172,340
Year 7	11.6%	\$42,233	20.0%	(\$31,226)	5.0%	\$163,582
Year 8	11.6%	\$29,746	25.0%	(\$48,601)	0.0%	\$146,207
Year 9	11.6%	\$15,813	30.0%	(\$65,976)	-5.0%	\$121,522
Year 10	11.6%	\$268	35.0%	(\$83,351)	-10.0%	\$91,995

**Rate of Return:** The aggregate increase in the value of a portfolio resulting from the net appreciation (or depreciation) of the principal, plus (or minus) the net income (or loss) experienced during the period.

**Standard Deviation:** A statistical measure of the range of a portfolio's performance, the variability of a return around its average return over a specified time period. Approximately 68% of the time, returns of a portfolio are expected to differ from its mean return by no more than plus or minus the standard deviation figure.

**Sharpe Ratio:** A risk-adjusted measure calculated using standard deviation and excess return (portfolio return minus the T-Bill return) to determine reward per unit of risk. The higher the Sharpe ratio, the better the portfolio's historical risk-adjusted performance.

	<b>Return Series</b>		
	<b>#1</b>	<b>#2</b>	<b>#3</b>
Rate of Return	11.6%	11.6%	11.6%
Standard Deviation	0.0%	15.1%	15.1%
Sharpe Ratio	Infinite	0.43	0.43

**Table of Selected Portfolio' Statistics, US Large Cap Equity Universe of 632 Money Managers For the 10-Year Period Ended December 31, 1999**

	<b>Janus Twenty</b>	<b>Phoenix-Engemann Capital Grw A</b>	<b>New England Value Fund A</b>
ROR	26.89%	16.5%	11.41%
Standard Deviation	21.76%	14.11%	15.57%
Sharpe Ratio	1.00	0.80	0.40
Decile Rank Sharp Ratio	1	5	10
Benchmark	S&P BARRA Grw	S&P 500	S&P BARRA Value
Peer Group	US Growth L/C	US Core L/C	US Value L/C

**U.S. Growth/Large Cap Equity** peer group consists of equity products for which earnings growth measures and/or profitability measures are the major determinant in the stock selection process and with a weighted average market capitalization is greater than \$6 billion.

**U.S. Core/Large Cap Equity** peer group consists of market-oriented products for which the investment strategy can best be described as benchmark-driven or indexed and with a weighted average market capitalization greater than \$6 billion.

**U.S. Value/Large Cap Equity** peer group consists of equity products for which price is a major determinant of stock selection, and the focus is on the relative price/earnings ratio, price/book ratio, dividend yield, or asset value and with a weighted average market capitalization greater than \$6 billion.