White Paper No. 31

Reinvigorating the Investment Committee

Greycourt

▸ **Greycourt White Paper**

White Paper No. 31 – *Reinvigorating the Investment Committee: Introducing the Investment Committee Operating Manual*

The Investment Committee, Today

Many families, along with virtually all pension plans, charitable foundations and endowed institutions, use investment committees[1] to provide oversight of the management of their investment portfolios. Unfortunately, history has shown that most investment committees do a poor job of stewarding the assets entrusted to them. There are many reasons why the investment committee has proved to be such an unreliable tool. Let's take a look at some of them.

The origin of the investment committee

The investment committee originated not out of the investment world but out of the world of board governance. Most boards, rather than acting at all times as a "committee of the whole," delegate much of their important activity to committees – smaller groups of board members that are really subcommittees of the "committee of the whole." This process of delegation improves the efficiency and productivity of a board, and has been enthusiastically supported by "good governance" groups such as the Association of Governing Boards of Universities and Colleges (known as the AGB).[2]

The trouble is that the investment committee is fundamentally unlike other board committees. Virtually any board member, no matter what his or her professional background, can be a productive member of such committees as nominating (sometimes called the "committee on trustees"), executive, advancement, buildings and grounds, presidential search, and so on. Our general experience of life and business suit us well for

---

[1] Investment committees, of course, masquerade under many other names: finance committee, advisory board, family council, etc. Sometimes the board as a whole acts as the investment committee, particularly when the board is small.

[2] The AGB publishes a variety of useful information about the management of endowment portfolios. See, for example, John H. Biggs, *The Investment Committee*. The booklet is available on the AGB Web site, www.agb.org. See also *Endowment Management*, by William T. Spitz.

© Copyright 2003 Greycourt & Co., Inc.

service on these committees. Even the finance committee, while more typically requiring some technical knowledge of accounting, bookkeeping and financial statements in general, can be easily mastered by anyone with a desire to do so.

But successful service on an investment committee requires knowledge so specialized and experience so extensive that it will be a rare board that can produce even one or two such people, much less an entire committee-full.[3] This is a point that is usually ill-understood by boards and board chairs, who generally appoint to the investment committee anyone with a generalized background in "finance." Hence, investment committees typically include accountants, attorneys, bankers, investment bankers, brokers and similar professionals, none of whom is likely to possess the specialized skills and experience required to design, implement and effectively monitor an investment portfolio for a substantial pool of capital. That experience would include a sound understanding of modern portfolio theory, asset allocation, manager selection, performance monitoring, and a host of other skills that are very narrowly distributed through the population of any governing board. When families establish investment committees, they tend to follow the institutional model, placing on the committee individuals who are unlikely to possess the appropriate skills.

Hence, the first and fundamental reason investment committees fail is that the demands placed on them are fundamentally incompatible with their capabilities. The demands on investment committees are different than the demands on other board committees, and yet the investment committee is assembled and operated as though it were no different than any other board committee.

Committee dynamics

Anyone who has served on a governing board is familiar with the often-dysfunctional internal dynamics of committees. Virtually all board committees consist of volunteers devoting their time to board work as a philanthropic endeavor. Hence, committees of such boards necessarily operate largely by consensus. No one wants to make waves or offend anyone else. Decisions almost always reflect the "lowest common denominator," because to do otherwise would necessarily offend some committee member. (And that member may be the largest financial contributor to the organization!) Unless the committee chair is highly experienced in managing committees and a good leader, committee meetings will meander here and there, wasting large amounts of time on side issues, running out of time to deal with more pressing matters. Family investment committees operate according to identical dynamics. Indeed, since families don't exactly qualify as charitable enterprises,

---

[3] As we note below, even such a well-endowed institution as Yale University long ago despaired of finding qualified investment committee members among its board membership. Instead, Yale has created a committee of outside experts, each of whom possesses the relevant knowledge and experience to serve effectively on an investment committee, but most of whom are not members of the Yale governing board at all.

© Copyright 2003 Greycourt & Co., Inc.

the challenge of attracting good people and motivating them to do a responsible job is especially perplexing.

In the operation of some committees, this dynamic is something less than disastrous. On the nominating committee, for example, lowest-common-denominator thinking is often the best way to ensure collegiality among board members. Fighting to nominate an individual who is actively disliked by another board member is likely to lead to disruption, not improved productivity. But in other committees the unavoidable process of committee dynamics and decision-by-committee can be devastating, and this is decidedly the case with the investment committee. Successful management of a large pool of capital requires incisive thinking, a willingness to go against the grain of perceived wisdom, an ability to behave counter-intuitively, to avoid acting on the basis of short-term events, to take the long view, and so on.

But, as currently operated, it is virtually impossible for the voting plurality of an investment committee to act in any of these ways, much less all. Instead, investment committees engage in woolly thinking (often because they are not experienced in the management of capital), tend to follow the conventional wisdom in adopting investment strategies, fail to recognize that much of the process of successful investing is counterintuitive, and typically act (usually in at least a mild state of panic) in reaction to short-term market events that will quickly reverse themselves, whipsawing the investment portfolio.

Making an impact

The natural desire to contribute, to make an impact, means that even when investment committee members are acting on the best possible motives, their impact on the performance of portfolio is likely to be negative. Consider, for example, an investment portfolio that has been designed and implemented in a first-rate manner (say, by an open architecture advisor who shall remain unnamed). The best thing an investment committee can do with such a portfolio is to leave it alone, perhaps rebalancing it on occasion. But no member of an investment committee wants to be perceived as lazy or lacking in ideas or motivation. As a result, even if each member of the committee tosses out his or her idea only once a year, the aggregate effect is that the portfolio will find itself constantly being re-jiggered. This is the opposite of a sound approach to portfolio management.

Attempts to Deal with the Problem

Allocation guidelines and investment policy statements

The usual approach to controlling investment committee behavior is for the full governing board or family to adopt asset allocation guidelines and a written investment policy statement, within whose parameters the investment committee is expected to act. Asset allocation guidelines and policy statements are essential tools in the management of capital, but as instruments for the control of investment committee behavior they are

© Copyright 2003 Greycourt & Co., Inc.

wholly inadequate. The reason is simple: whenever an investment committee wants to act outside the constraining bounds of a written guideline or policy the committee simply changes them (or, worse, ignores them). And who is to enforce compliance with these strictures? If the committee simply ignores the restraints, who will know about it? If the committee asks the board to change guidelines or policies, who on the board is going to argue with the investment committee, who are, after all, the anointed experts on such things?

Using outside experts to populate the investment committee

Some large endowed institutions and many wealthy families have given up on the in-house investment committee in favor of an outside investment committee or board of advisors populated by experts selected for their skill and experience in the management of large pools of capital. At Yale University, for example, Chief Investment Officer David Swensen has recruited a sizeable group of experts who serve on what is called the Yale Corporation Investment Committee. Only three of the Investment Committee members need be Fellows of the Yale Corporation, Yale's governing board. There are currently thirteen members of the Investment Committee. In other words, instead of accepting full responsibility – and the associated time commitments – of board membership, these experts focus exclusively on the management of the Yale endowment.[4]

Clearly, Yale and the many families who use boards composed of outside experts believe that this approach is far superior to the more traditional investment committee approach. Unfortunately, experts on the caliber of those used by Yale are few and far between (and typically expensive), making it impossible for smaller institutions and families to mimic the Yale approach.

The separate investment management corporation

Some very large investors – Harvard University, Princeton University, the University of Texas – have abandoned the investment committee approach altogether. Instead, they have established separately incorporated management companies charged with the responsibility of managing the institutions' endowments. These management companies employ many – sometimes, hundreds – of highly compensated[5] investment professionals, and they have

[4] See, for example, *The Yale Endowment 2002,* published by the Yale Investment Office, p. 18. The quality of the Yale Corporation Investment Committee has probably been exceeded over the past decade only by that of the board of directors of The Investment Fund for Foundations (TIFF), which included David Swensen.

[5] Although the investment professionals at these management companies are not typically compensated above levels of their investment peers in private industry, their compensation can seem positively breathtaking when compared to, say, the average salary of a tenured professor. The compensation package of Harvard Management Corp.'s Jon Jacobson, for example, was for many years perennial front-page fodder for the Harvard *Crimson*. This unwanted publicity may

© Copyright 2003 Greycourt & Co., Inc.

typically produced results that are far superior to those achieved by part-time, in-house investment committees. Unhappily for smaller investors, the investment management corporation is not a serious option for anyone managing less than about $5 billion.

The Investment Committee, Tomorrow

Like well-crafted riddles, capital markets events are usually perfectly comprehensible after the fact. But while they are happening there is so much "noise," so much emotional resonance (and dissonance), that we can't make out what will later become clear. Most events in the markets, however important they may seem at the time, are merely noise, and attempting to act in reaction to them is a very sound way to reduce one's returns. Thus, it was perfectly obvious in the late 1990s that equity valuations had become disconnected from reality. The "justifications" for those prices – it's a whole new paradigm; things are different this time – were specious on their face. But there was so much noise and confusion going on, and the short-term pain of missing out on the almost daily price appreciation was so much more intense than the longer term prospect of a market crash, that perfectly sensible people continued to pay higher and higher prices for stocks that were pretty obviously (but retrospectively!) worth only a tiny fraction of those valuations.

Even events that are truly substantive are often not actionable in a way that will improve returns. The valuation disparity between growth and value stocks, for example, became compelling in the mid-1990s, but anyone who attempted to profit from that disparity found themselves hammered by the continued, almost mystical, appreciation among growth and technology stocks. A similar story can be told about the exceptional opportunities in emerging markets equities – a story that has been compelling now for about a decade, without any concomitant return to emerging markets investors.[6] In other words, it is often possible to "know" that valuations in one sector or another are attractive, but it is never possible to know when the value will be recognized.

Thus, the challenge for investment committees is to maintain their discipline and patience when everyone else has long run out of both. Yet, as noted at length above, investment committees are ill-equipped to act in a disciplined manner or to demonstrate patience in the face of capital markets provocations. As we have seen, traditional attempts to control dysfunctional committee behavior – written investment policy statements and asset allocation guidelines – don't work, and alternatives to investment committees – committees of outside experts and separate investment management corporations – are beyond the reach of most families and institutions. So what can be done? One promising option is the investment committee operating manual.

---

have led, in part, to Jacobson's decision to leave Harvard Management and form his own highly successful hedge fund (in which Harvard is reputed to be the largest investor).

[6] With the obvious exception of 1999, when emerging markets stocks rose roughly 70%.

© Copyright 2003 Greycourt & Co., Inc.

Why an investment committee operating manual?

Most families and institutions have little choice but to manage their capital by using the traditional vehicle of the investment committee. Moreover, most families and institutions have little choice but to populate those investment committees with individuals who, however competent in other areas, are likely to have little experience in the management of large pools of capital. The point of using an investment committee operating manual is to build on the strengths of the traditional investment committee – namely, common sense and a desire to contribute to the sound risk-adjusted growth of the portfolio – while avoiding many of the defects of the traditional investment committee approach (see above).

What does an investment committee operating manual contain?

Since the purpose of the operating manual is to enable an investment committee to manage a large pool of capital even though they are not professionals at the job, one important job of the manual is to remind the committee members of what should be on their agenda, why those activities are important, and which kinds of mistakes are typically made in carrying out those responsibilities. Thus, a typical investment committee operating manual will set out a seasonal agenda for the committee to follow and will cover the following subjects:

- The purpose of the operating manual
- The purpose of the investment committee
- Meetings of the investment committee
- The investment policy statement
- Asset allocation strategies
- Portfolio rebalancing
- Manager selection and monitoring
- Asset custody
- Portfolio monitoring
- Portfolio implementation
- Conflicts of interest
- Review and revision of the operating manual

Why does the operating manual approach work?

Operating manuals tend to work because they help investment committee members impose discipline on their deliberations. By referring to the operating manual, following its seasonal agendas for committee meetings, and internalizing its educational messages, investment committees are able to apply a level of stewardship to their portfolios that would do honor to a professional investment consultant. Once an investment committee

© Copyright 2003 Greycourt & Co., Inc.

has a significant amount of experience working with an operating manual, its members will be reluctant to depart from the disciplines that have served them so well.

If we might borrow a technique from David Salem,[7] *il miglior fabbro*,[8] let's listen in on a typical investment committee conversation – pre-operating manual – held in, oh, March of 2000:

> *Mr. Chair*: The Investment Committee meeting will now come to order. I want to thank the committee members for coming out on such a….
>
> *Ms. Stool*: Excuse me for interrupting, Mr. Chair, but I know our time is short and this is important. The stock market has been rocketing upward for years and we haven't been participating as fully as we ought to be. Only 70% of our portfolio is invested in stocks.
>
> *Mr. Chair*: Well….
>
> *Mr. Ottoman*: It's worse than you think, Ms. Stool. Half of that 70% is held by value managers, who have been stinking the place up for years.
>
> *Mr. Chair*: That's all well and good, but….
>
> *Ms. Bench*: I move that we terminate our value managers and transfer half the funds to growth managers and the other half to an S&P 500 index fund.
>
> *Mr. Ottoman*: I second the motion.
>
> *Mr. Chair*: Well, is there any discuss….
>
> *Ms. Stool*: I call the question.
>
> [Motion carries.]

Now let's see how that conversation might have gone had the investment committee had in place an operating manual:

> *Mr. Chair*: The Investment Committee meeting will now come to order. I want to thank the committee members for coming out on such a….
>
> *Ms. Stool*: Excuse me for interrupting, Mr. Chair, but I know our time is short and this is important. The stock market has been rocketing upward for years and we

[7] CEO of The Investment Fund for Foundations.

[8] T.S. Eliot, inscribing *The Waste Land* to Ezra Pound, 1922.

© Copyright 2003 Greycourt & Co., Inc.

haven't been participating as fully as we ought to be. Only 70% of our portfolio is invested in stocks.

Mr. Chair: Thank you for those cogent remarks, Ms. Stool. We will certainly take them up when we review our asset allocation guidelines later in the year. The agenda for today, according to Section III of the operating manual, is….

Mr. Ottoman: But that could be too late! Ms. Stool's point is that….

Mr. Chair: Are you suggesting that you would like to suspend the provisions of the operating manual that has so successfully guided this committee in its deliberations 'lo these many years?

Ms. Stool: Well, er….

Mr. Ottoman: I, that is….

Ms. Bench: Let's get on with the agenda. I've got a plane to catch.

The operating manual versus the policy statement

An operating manual for the investment committee is a fundamentally different document from the investment policy statement. To illustrate the difference, let's imagine that we are thinking of buying an airplane. Working with our aircraft advisors, we can quickly come up with key specifications for the plane: range, capacity, aeronautics, price, safety features, etc. Having done so, we will have a very precise idea of the kind of craft we are looking for. But we will know essentially nothing about how to operate or maintain the plane. It is for this reason that our aircraft will come with manuals telling us how to operate, maintain, and refurbish it.

Unfortunately, investment portfolios don't come with operating manuals. Working with our financial advisors, we can quickly come up with the key design features of our portfolio: asset allocation, risk control metrics (e.g., maximum exposure to individual stocks, minimum credit ratings for bonds), and so on. These design features will be incorporated into our investment policy statement, and anyone reading that statement will have a very good idea of what our portfolio should look like. But, purely by looking at the policy statement, neither we nor any other lay person would likely have much of an idea how to build, operate and maintain the portfolio. What should we do first? Second? Third? The answers to these questions can be found not in the policy statement but in the operating manual.

What about investment emergencies?

The need to change an investment strategy suddenly can arise from time to time because of changes in the *investor*. For example, there may be a key death in the family or the

© Copyright 2003 Greycourt & Co., Inc.

mission of an organization may undergo a substantial change. In such cases, of course, the investment portfolio should be reexamined *ab initio*, and that would include the provisions of the operating manual.

Short of that however, and assuming the portfolio is properly designed and properly advised in the first place, *there is no such thing as an investment emergency*. As noted above, immediate reactions to market events are almost always misguided, for the simple reason that it cannot be known until long afterward whether the event was significant or transient, and for the additional reason that most events that investors believe to be significant are, in fact, transient.[9] Hence, an important purpose of an operating manual is to help members of the investment committee avoid short-term thinking, to avoid reacting to market events that are meaningless.

A sample operating manual

No, we don't expect that all across America investment committees will rush out and adopt operating manuals. But we do hope that the *arguments* for an operating manual will be internalized by investment committees, and that the resulting, more disciplined approach to portfolio management will materially improve investment returns. Given the damage inflicted on family and endowment portfolios by the recent bear markets, the managers of those portfolios will need to do everything right to rebuild them over any reasonable period of time.

We have attached to this paper a sample investment committee operating manual. There is, to say the least, nothing sacred about the organization, language, format or even the substance of the attached manual. It is offered simply as an example. Note that this particular manual has been designed for use by a wealthy family's investment committee. However, the terms can easily be adapted for use by an endowed institution. We hope you find it useful.

We will be happy to discuss this paper at your convenience.

GREYCOURT & CO., INC.
September 2003

(This paper was written by Gregory Curtis, Chairman of Greycourt. Mr. Curtis can be reached at Greycourt & Co., Inc, 607 College Avenue, Pittsburgh, Pennsylvania 15232, (412) 361-0100, fax 412-361-0300, gcurtis@greycourt.com, www.greycourt.com.)

---

[9] Ok, we will concede that there are sometimes *minor* emergencies. If a manager blows up, someone should do something, of course. But except in the case of investments in mutual funds (where taxable investors may need to get out quickly before they are left holding the tax bag), all that needs to be done *immediately* is to revoke trading authority on the account.

© Copyright 2003 Greycourt & Co., Inc.

© Copyright 2003 Greycourt & Co., Inc.

Operating Manual

for the

Prudent Family

Investment Committee

Adopted by the Investment Committee

on September 15, 2003

Contents

Page

I. Purpose of This Operating Manual 1

II. Purpose of the Investment Committee 1

III. Meetings of the Investment Committee 2

IV. The Investment Policy Statement 4

V. Asset Allocation Strategies 4

VI. Portfolio Rebalancing 5

VII. Manager Selection and Monitoring 5

VIII. Asset Custody 6

IX. Portfolio Monitoring 7

X. Portfolio Implementation 7

XI. Committee Membership 7

XII. Conflicts of Interest 8

XIII. Review and Revision 8

I. Purpose of this Operating Manual

The purpose of this operating manual is to set forth policies and procedures to guide the deliberations of the Investment Committee of the Prudent family. Among other things, the manual discusses the purposes of the Investment Committee and the relationship between the Committee and the family; the frequency of Committee meetings; the general agenda for such meetings; the role of the Committee Chair; and the duties and responsibilities of the Committee.

The Committee recognizes that long experience has shown that investment committees frequently make sub-optimal investment decisions. This outcome is an almost inevitable byproduct of the part-time nature of the committee's work, the frequent turnover in personnel assigned to the committee, the tendency of all committees to act according to the "lowest common denominator," and the unstructured nature of most investment committee deliberations.

It is the hope of the Prudent family that the existence of this operating manual and the Committee's determination to be guided by its provisions will help improve the operation of the Committee and redound to the benefit of the Prudent family's investment capital and ultimate wealth.

II. Purpose of the Investment Committee

The purpose of the Investment Committee is to evaluate and make recommendations to the Prudent family with regard to the investment policies and strategies to be followed by the family's investment portfolio, as follows:

1. The Committee will, via its own deliberations and through conversations with the family, determine an appropriate risk profile for the investment portfolio. It is understood that the degree of risk assumed will substantially determine the investment return available to the family.

2. The Committee will recommend investment policies to be followed in the management of the investment portfolio. These policies shall include (a) a long-term goal for the performance of the funds, (b) an asset allocation strategy designed to achieve the long-term goal, and (c) asset classes and types of investments which may be used in the investment of the portfolios.

3. The Committee will prepare and recommend to the family a written investment policy statement.

4. The Committee will prepare and recommend to the family a written spending policy. It is understood that spending by taxable families in excess of 4% - and preferably less – will have an important negative effect on the ability of the family to maintain and grow its wealth.

5. The Committee will prepare and recommend to the family written conflict of interest policies.

6. The Committee will recommend a management structure for the investment management and oversight of the family's investment portfolio. In other words, the Committee will recommend whether the family should engage an investment consultant, should utilize the services of a master custodian, should employ independent managers, should manage the funds in-house, or follow some combination of both.

7. The Committee will monitor the level of expenses incurred in the management of the investment portfolio, including management fees, commissions and other transaction costs, and soft dollar arrangements, if any.

8. If necessary, the Committee will recommend a proxy voting procedure to the family.

In carrying out these important responsibilities the Committee will be guided by the operating procedures set forth in this operating manual.

III. Meetings of the Investment Committee

Unless otherwise determined by the Chair of the Committee, the Committee will meet on a quarterly basis, and at dates and times so established as to ensure that the Committee has access to the most recent performance results for the portfolio. This meeting schedule will enable the Committee Chair to report to the family on any important actions or recommendations of the Committee. In an effort to avoid ad hoc decision-making and/or short-term thinking, the Committee will follow a seasonal schedule of meetings which will be conducted according to the agendas set forth below. Minutes will be taken of the decisions made at each meeting of the Committee.

1st Quarterly Meeting. The first quarterly meeting of the Committee will be convened after performance data is available for the prior calendar year. At the first quarterly meeting, the Committee will:

1. Review and approve the Minutes of the 4th quarterly meeting of the Committee held near the end of the prior calendar year.

2. Review the performance of the overall portfolio funds against the custom benchmark established for the portfolio and, when possible, against the performance of similar institutions.

3. Review the performance of each manager engaged by the family against the benchmark established for that manager and, when possible, against the performance of similar managers.

4. Review the compliance of the family's investments with all guidelines set forth in the investment policy statement.

5. Review the compliance of each of the family's investment managers with the specific guidelines created for that manager.

6. Identify any performance issues with regard to any of the family's managers, such issues to be attended to at the next meeting of the Committee.

2nd Quarterly Meeting. The second quarterly meeting of the Committee will be convened after performance data is available for the first calendar quarter of the year. The purposes of the second quarterly meeting are as follows:

1. Review and approve the Minutes of the 1st quarterly meeting of the Committee.

2. To review (briefly) the first quarter performance of the overall portfolio and the performance of individual managers, it being understood that one quarter of performance is far too short a period of time for meaningful data to be generated about manager performance.

3. To attend to performance issues identified at the first quarterly meeting. In the event that the Committee had identified concerns about the performance of any manager or managers at the first quarterly meeting, that manager or those managers will be invited to attend the second quarterly meeting to discuss the issues with the Committee.

4. In the event that no manager performance issues were identified at the first quarterly meeting, the purpose of the second quarterly meeting (in addition to conducting a brief review of first quarter performance) will be to meet with a manager or managers who are investing in a sector of the market that is of particular interest to the Committee at the time.

3rd Quarterly Meeting. The third quarterly meeting of the Committee will be convened after performance data is available for the first half of the calendar year. The main purpose of the third quarterly meeting is to insure that the members of the Investment Committee continue to learn about the investment process and become ever more skillful at overseeing the family's portfolio. Thus, at each third meeting of the year the Committee will:

1. Review and approve the Minutes of the 2nd quarterly meeting of the Committee.

2. Briefly review the second quarter and first half-year performance of the overall portfolio and the performance of individual managers.

3. Select an area of the investment process or the capital markets to examine in depth, generally with the assistance of an invited expert in the field. For example, the Committee may wish to examine a particular asset class, developments in portfolio design and asset allocation procedures, particular investment styles, the details of performance reporting and monitoring, macro-economic issues, and so on.

4th Quarterly Meeting. The fourth quarterly meeting of the Committee will be convened after performance data is available for the third quarter of the calendar year. The main purpose of the fourth quarterly meeting is to review the asset allocation strategy of the family's portfolio both strategically and tactically. Thus at each fourth meeting of the year the Committee will:

1. Review and approve the Minutes of the 3rd quarterly meeting of the Committee.

2. Briefly review the third quarter and first three-quarter year performance of the overall portfolio and the performance of individual managers.

3. Review the long-term (strategic) asset allocation strategy of the portfolio to determine whether or not changes in that strategy may be merited. Typically, such changes will be appropriate only if (a) there has been a substantial change in the objectives, risk tolerance, or makeup of the family, or (b) the Committee wishes to add or delete approved asset classes, usually as a result of studies undertaken at the third quarterly meeting.

4. Review the tactical asset allocation strategy of the portfolio to determine whether, in light of market conditions and, especially, pricing and valuation considerations, it may be in the family's interest to adjust its asset allocation posture tactically in the direction of assets that appear to be under-priced or where there otherwise appears to be relatively short-term opportunity in the markets. Except in rare circumstances, such

tactical moves should not exceed the pre-set maximum or minimum exposures already established for each asset class.

IV. The Investment Policy Statement

The Investment Committee will prepare and present to the family a written investment policy statement. The purpose of such a written statement is to memorialize the policies, strategies and procedures which will be used in the management of the family's investment portfolio. Over time, the reasons behind even the best-designed portfolio can be forgotten or become confused. This is especially likely to be the case during periods of market turmoil, when the temptation to depart from long-term strategies can seem overwhelming. It is crucial that the Investment Committee not succumb to such temptations. A review of the reasons why long-term strategies were adopted can temper the desire to make ill-considered short-term changes in the portfolio and can offer a measure of comfort during times of stress.

V. Asset Allocation Strategies

The first responsibility of the Investment Committee, and, in terms of long-term risk-adjusted performance, the most important responsibility, is to recommend to the family an overall asset allocation strategy for the portfolio portfolio.

In developing the asset allocation strategy for the portfolio, the Committee will have in mind the tenets of modern portfolio theory, especially (i) the core relationship between risk and return and (ii) the key insight that the existence of imperfect correlations among asset classes enables investors to reduce the risk level of portfolios without a concomitant reduction in expected return. The Committee will also be mindful of the limitations of modern portfolio theory, especially the imprecision of forward-looking estimates for risks, returns and correlations, and the difficulty of translating theoretically compelling strategies into successful real-world strategies.

Thus, the Committee will:

1. Determine, based on its understanding of the risk tolerance of the family and the return and income needs of the portfolio, which asset classes will be included in the asset allocation strategy. In making this decision the Committee will be mindful of the fact that most investors erroneously prize liquidity over return.

2. Identify several possible asset allocation strategies that are "efficient," that is, which are designed to produce the best possible expected return per unit of risk incurred. (Viewed another way, these strategies are designed to incur the minimum possible risk for any desired expected return.)

3. Select, from among the efficient asset allocation strategies, that specific strategy which seems best to meet the return and income needs and the risk tolerance of the family. That will be the "target" strategy to be presented to the family for approval.

4. Determine, for each asset class incorporated in the selected asset allocation strategy, a maximum and minimum exposure for the asset classes. In other words, the portfolio may be permitted to fluctuate between the

minimum and maximum exposures set for each asset class before the Committee will need to consider rebalancing the portfolio. (See "VI. Portfolio Rebalancing," below.) Rebalancing more frequently will tend to increase the investment costs and taxes incurred by the portfolio more than it will add in terms of risk control and enhanced return. The Committee will then present the target asset allocation strategy and exposure ranges to the full family for their review and approval. In the event the members of the family are not familiar with asset allocation exercises, the Committee may wish to make whatever presentations to the family that may be necessary to assist the family members in their understanding of what asset allocation is, why it is important, and how it is done.

5. Develop and present to the family for approval a series of asset class strategies for each asset class to be included in the portfolio. It is understood that each asset class possesses its own peculiar investment characteristics and that, especially for a taxable family, there will therefore be better and worse strategies to follow in gaining exposure to each asset class.

Once an asset allocation strategy and asset class strategies have been approved by the family, the Committee will monitor compliance with the strategy on a quarterly basis and rebalance the portfolio as necessary. (See "VI. Portfolio Rebalancing," below.)

VI. Portfolio Rebalancing

Once an asset allocation strategy has been implemented, it will almost immediately begin to fluctuate with market events. Some asset classes will rise in value, while others fall and still others move sideways. These movements are natural and, given that there is price momentum associated with most capital markets, they are not cause for alarm. However, if the Committee allows the portfolio to drift too far from its target asset allocation policy, it is in effect making a decision to change, sometimes radically, the risk/reward structure of the portfolio. Rather than allow such implicit decisions to occur, the Committee will review the asset allocation structure of the portfolio at the next meeting occurring immediately after any asset class has exceeded its minimum or maximum exposures. At that meeting the Committee will use its discretion to (i) rebalance back to the minimum or maximum exposure, or (ii) rebalance back to the target exposure, or (iii) determine that the costs (especially taxes) associated with rebalancing make the exercise unwise.

VII. Manager Selection and Monitoring

It is an important responsibility of the Committee to select investment managers for the family's portfolio, to monitor the performance of those managers, and to terminate underperforming managers. Regarding manager terminations, experience has shown that most manager terminations are mistakes in the straightforward sense that the replaced manager outperforms the new manager over the following market cycle. This unhappy result tends to occur because of the tendency of investment committees to terminate managers whose investment style has temporarily gone out of favor in the market and to replace that manager with a manager whose investment style has recently been in favor. In effect, committees tend to "sell low and buy high" when making manager decisions. In an effort to avoid this common mistake, the Investment Committee will, in carrying out its manager selection and monitoring responsibilities, typically proceed as follows:

1. Before terminating a manager, the Committee will review the guidelines prepared for that manager to ensure that the manager has been given sufficient time to demonstrate his capabilities. Managers will typically be terminated before the prescribed time period only (i) because of some fundamental change in the manager (e.g., loss of key personnel, overly rapid gain or loss in assets and/or accounts, etc.), or (ii) as the result of a change in strategy on the part of the portfolio.

2. Before engaging a manager in any asset class, the Committee will gather quantitative and, especially, qualitative information about several managers who are believed to be best-in-class in their sector of the market. Typically, the Committee will interview at least two managers before selecting a finalist to be engaged. It cannot be over-emphasized that the engagement of managers who have produced strong recent returns, but who lack the other characteristics of best-in-class managers, will almost always prove to be unrewarding.

3. The Committee will draft and submit to the finalist manager a set of manager guidelines that will be used to monitor and evaluate the manager during the term of its engagement.

4. Before engaging the manager, the Committee will, as appropriate, engage in fee negotiations with the manager. These negotiations may focus on the absolute level of the manager's fee, the structure of the fee, or the minimum account size typically enforced by the manager. As appropriate, the Committee may wish to attempt to structure incentive fee schedules designed to reduce the fee to the family when the manager under-performs and to reward the manager when he outperforms.

5. As noted above (see "III. Meetings of the Investment Committee," above), each manager's investment performance will be reviewed against its benchmark on a quarterly basis. In addition, whenever possible, each manager will be reviewed against a universe of similar managers.

6. The Committee recognizes that individual money managers may be appropriate for carrying out certain strategies in each asset class and may be inappropriate for other strategies. Thus, prior to conducting manager searches, the Committee will settle on optimal strategies in each asset class, having in mind the family's risk tolerance and return objectives, the tax consequences associated with investing in each asset class, the efficiency or inefficiency of the markets through which each asset class is accessed, and the other costs associated with investing in each asset class.

The Committee recognizes, as noted above, that most manager terminations are a mistake and that these mistakes overwhelmingly occur when the manager's investment style is out of favor in the market. In addition, the Committee recognizes that manager terminations tend to be especially costly for family investors, due to the tax consequences typically involved. Consequently, the Committee will proceed with great care in considering managers for termination.

VIII. Asset Custody

The Investment Committee will determine whether or not it is in the interests of the family to select a master custodian to hold the cash and securities owned by the family. If so, the Committee will conduct a search for an appropriate custodian and will recommend a finalist to the family. An asset custodian ensures the safekeeping of the family's investments and also eases reporting and monitoring tasks, and, absent other considerations, using one master custodian is a best practice in the investment management business.

IX. Portfolio Monitoring

The performance of the overall investment portfolio of the family will be monitored and reviewed on a quarterly basis by the Investment Committee, as noted above (see "III. Meetings of the Investment Committee"). To assist the Committee in conducting these reviews, the Committee will create a custom benchmark for the portfolio as a whole. That benchmark will reflect the indices associated with the asset classes contained in the portfolio with each index weighted in accordance with the target asset allocation selected by the Committee.

The Committee recognizes that short-term investment performance is largely "noise" and does not reflect the longer term quality of the portfolio. Consequently, the Committee will have in mind longer term criteria as it reviews the performance of the overall portfolio. Typically, the portfolio as a whole will be expected to achieve its objectives over a complete market cycle, that is, from peak-to-trough-to-peak (or trough-to-peak-to-trough).

In addition to assessing investment performance, the Committee will also review compliance with all guidelines set forth in the family's investment policy statement.

X. Portfolio Implementation

On relatively rare occasions it will be necessary for the Investment Committee to consider how to implement major portfolio changes. For example, if a key advisor has been terminated and the portfolio has been reduced to cash and fixed income, virtually the entire portfolio will have to be re-implemented. Less severe implementations will have to be carried out in the event of significant strategic changes to portfolio strategies or in the event of major rebalancing events.

When a portfolio is being implemented, the Committee must select an appropriate strategy for the timing of the implementation. Possible strategies might include the following:

1. Implement all changes at the same time and immediately.

2. Implement changes on a disciplined basis over time, in order to dollar-cost-average into the markets.

3. Implement those changes first which involve investing in assets that appear to be undervalued or fairly valued, while implementing changes more slowly where they involve assets that appear to be over-valued.

As the Committee considers which of these strategies to use, it will have in mind the family's risk tolerance and the tax and cost impact of each approach.

XI. Committee Membership

The Committee recognizes that institutional memory and experience in the management of the portfolio are important advantages. Therefore, whenever consistent with the overall governance policies of the family,

membership terms on the Committee will be staggered so as to avoid significant turnover in the Committee membership occurring at any one time.

XII. Conflicts of Interest

The Committee recognizes that conflicts of interest can be especially destabilizing to an investment portfolio. Therefore, in addition to any conflicts of interest provisions that apply to the family at large, the following policies shall apply to the members of and the activities of the Investment Committee:

1. No money manager, asset custodian, broker or other advisor may be retained by the family if any member of the Investment Committee is an employee of such firm.

2. The family may employ money managers in which a member of the Investment Committee is also invested, provided that the member shall make full disclosure of the member's interest.

XIII. Review and Revision

The procedures set forth in this operating manual may be reviewed from time to time and may be revised by majority vote of the Investment Committee.

# # #