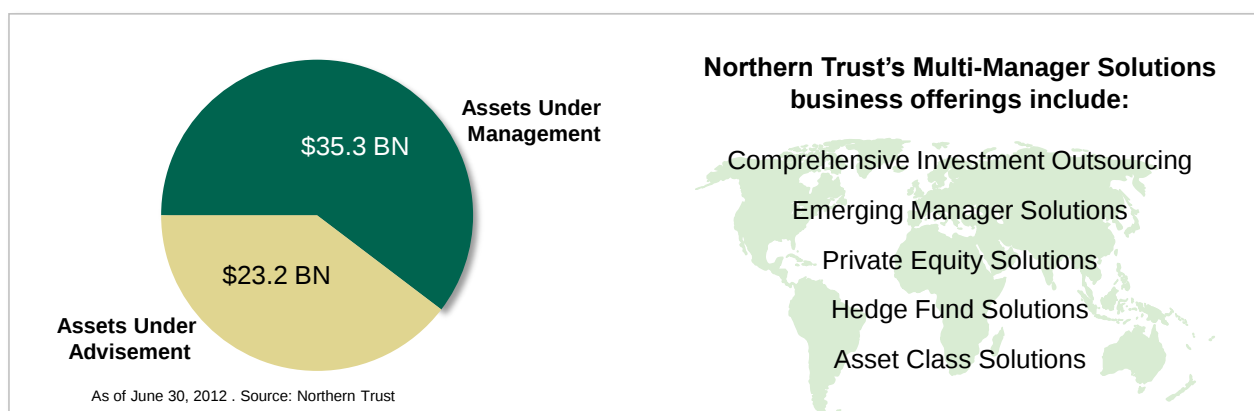




E. Discretionary Fiduciary Investment Management Services

1. Describe your firm's background and experience serving as both a discretionary and non-discretionary investment advisor in evaluating, selecting and monitoring investments on behalf of pension fund investors – and specifically ERISA investors.

Northern Trust is a pioneer in multi-manager solutions, having launched our first program in 1979. We managed over \$35.3 billion assets under management in multi-manager solutions programs, in addition to assets under advisement of \$23.2 billion as of June 30th, 2012. We have a highly dedicated and experienced team of 103 investment professionals, and we currently utilize over 250 external managers in client programs. Our experienced Investment Program Managers are equipped to deliver practical solutions that address real needs of defined benefit, foundation and endowment plans, Taft-Hartley plans and wealth management clients. In addition, we have a highly skilled and experienced research team that maintains a vast network of contacts and provides access to top tier investment talent.



- A pioneer in multi-manager solutions launching **first program in 1979**
- **Highly experienced and dedicated team** of 103 investment professionals and research staff
- More than **250 managers** currently used in client solutions
- Research team **leveraging a global organization**

Northern Trust can assume fiduciary responsibility with respect to:

ASSET ALLOCATION

For our outsourcing clients, Northern Trust would act as a Functional Fiduciary as defined under ERISA section 3(21) (a) with respect to assisting the client in developing an Investment Policy Statement and an asset allocation strategy, including asset-liability analysis.

INVESTMENT MANAGEMENT

Northern Trust would act as an Investment Manager as defined under ERISA section 3(38) with respect to 1) manager hiring and firing and 2) maintaining asset allocation weights in processing cash flows and performing rebalancing.



The single most crucial investment policy issue for DB plans is to manage the risk to the plan of paying for the benefits promised to participants. Ideally, this risk management process will consider not only the risk associated with assets under a range of capital market conditions, but also net expected cashflows from the plan. To analyze net cashflows, one must understand the demographics and ratio of contributing employers/employees to benefiting participants plus be able to effectively model events such as changes to: negotiated contribution rates, number of contributing participants, and payout profile due to plan provision changes. We use stochastic modelling as well as deterministic stress testing to help determine appropriate asset allocation. For corporate defined benefit plans we perform full stochastic asset-liability studies, generally stressing the benefits of duration matched fixed income exposure. Since multi-employer plans do not use corporate bond based liability discounting methodology, liability driven investments does not particularly apply and our asset-liability modelling would instead stress the benefits of asset class diversification.

Northern Trust's Investment Program Manager will take the lead in setting asset allocation, determining appropriate benchmarks, rebalancing and navigating liquidity for benefit payments.

The following additional issues have also increased in importance with the trend towards total investment program outsourcing:

- Performance reporting is being continually enhanced to produce "board-ready" reports that meet all the needs of a plan sponsor. Increasing emphasis has been given to review of capital markets as a whole and analysis of total plan performance versus the policy benchmark and peer universes.
- Client servicing expertise has also grown in importance. Many institutions choose to outsource because they cannot justify the expense of a full-time investment staff (which will typically expect to be supported by an outside investment consultant). We expect that the Investment Program Manager that we assign to a plan sponsor will understand the broader responsibilities and objectives of the plan's Investment Committee and senior officers; and expect that our program managers will present information and make recommendations to help achieve these broader objectives.

2. Describe how your firm would approach planning and implementing a discretionary investment program for the Board. How would your firm develop an appropriate asset allocation for each Fund? What unique client factors would your firm consider in establishing the Fund's asset allocation? What are the steps your firm would take to execute this plan? Explain your philosophy and methodologies for developing asset allocation for a Multi-Employer Defined Benefit Plan.

We begin the asset allocation process by working with our clients to understand their specific objectives, constraints and risk tolerance. For a pension plan, this begins with understanding the status of the plan - whether it is open, closed to new participants, or frozen - and whether this plan status may change in the coming years. Also of interest for multi-employer plans are the levels of expected future contributions, anticipated benefit payments, and any significant changes to the contributing population. On the asset side we consider projected rates of return and historical measures of risk and correlation as inputs to the process.

The return, risk and correlation assumptions used in the asset allocation modelling process are developed annually by Northern Trust's Investment Policy Committee (IPC), which is comprised of senior investment professionals throughout Northern Trust.

We utilize these capital market assumptions, along with asset class level constraints that are based upon client objectives and policy requirements to develop a range of asset allocation models across the efficient frontier for consideration. We would consider all of the client's defined benefit assets. We then run a series of simulations to analyze the impact of various return and risk scenarios for each asset allocation model, taking into consideration projected cash flows and funding levels to understand the potential impact on your client's ending portfolio value as well as the ability to meet your client's cash flow needs. Statistical analysis of the probabilities of these different



scenarios is used to express the potential magnitude of losses and gains, and to estimate how much time it could likely take to recover from potential losses. Based upon this analysis, we work with you to determine the asset allocation policy that best fits your client's needs.

The Investment Program Manager and key members of the client's staff would discuss current asset classes and potential new asset classes to be considered in the program design and portfolio construction process, including the following steps:

- Review effectiveness of asset classes historically employed in the client's investment policy and portfolio.
- Discuss potential new asset classes that might increase the probability of the client's objectives, with particular emphasis on how use of an additional asset class can improve hedging of plan liabilities or offer a higher level of risk-adjusted return on assets.
- Review historic and projected measures of return and risk for each asset class.

Northern Trust also offers an interactive modelling tool for client use in performing scenario tests of pension outcomes (such as higher or lower rates of return or higher or lower liability discount rates). This tool can reside on the client's desktop and is easy to use. Our consulting actuaries will help populate this tool for the client. This tool can help a plans sponsor make decisions by showing multi-year pension metric impacts due to changes in asset allocation, discount rate, and actual return.

For further details, please reference our response to Question 14.

3. Describe your firm's experience in serving as a discretionary fiduciary on behalf of collectively bargained multi-employer defined benefit pension plans. Describe your experience in working with clients who have established either "Funding Improvement Plans" or "Rehabilitation Plans" as required by the Pension Protection Act.

Northern Trust currently acts as a discretionary fiduciary for approximately \$9 billion in assets on behalf of collectively bargained multi-employer defined benefit pension plans as of June 30th, 2012. For these clients, Northern Trust sets asset allocation policy, or assists the client in setting asset allocation policy. We are responsible for identifying, selecting, monitoring and terminating the investment managers, funds or other investment vehicles used in our clients' programs. Northern Trust monitors managers on a daily, weekly, monthly and quarterly basis. Northern Trust meets with trustees as frequently as desired, and keeps them informed of events occurring at all levels of activity. Select clients have asked us to monitor other aspects of their investment programs (e.g., commission recapture).

We do have clients on "Rehabilitation Plans", but to date the Rehabilitation Plans have primarily targeted liability reduction via plan provision changes and the impact has not been significant enough to sway the asset allocation. However, we have worked extensively with defined benefit clients with a wide range of funding levels to strategize on the asset allocation and implementation of their plan assets. As are detailed below, these discussions are always careful to keep in mind adherence to any policies/regulations the plan requires as well as planning for cash flows associated with benefit payments or other plan expenses.

For defined benefit clients, Northern Trust employs a full asset-liability study to analyze the plans' liabilities. This stochastic asset-liability study incorporates the actual liability structure of the plan including actuarial data for the plan. (Such a stochastic model is more useful than simpler deterministic approaches which provide sensitivity analysis for a number of specified scenarios using annualized average returns for both likely and extreme favorable and unfavorable market scenarios.) As with the asset allocation analysis, more than one thousand scenarios are typically simulated. In this asset/liability study, statistical probabilities are now used to demonstrate how funding levels would change under varying market conditions for a range of potential asset allocations.

Inputs to this asset/liability study will include:



- Detailed actuarial data that would be provided by the client's actuary;
- The current asset allocation strategy; and
- A range of alternative asset allocation strategies

The end result will be a board-ready report summarizing both more likely and more extreme results of each potential asset allocation strategy for a variety of measures including projections of funding ratios and minimum required cash contributions given an expected contributions from current employers.

4. Provide at least two (2) examples of your firm's quantitative and qualitative analyses used to support decisions regarding asset allocation on behalf of ERISA defined-benefit plans. In each case, describe the client's investment objectives and how your asset allocation decisions were determined.

EXAMPLE #1

Client Case Study:

Developing a Customized Pension Risk Management Solution

Take advantage of expert help tailoring and executing a pension risk management solution for your specific needs.

SITUATION

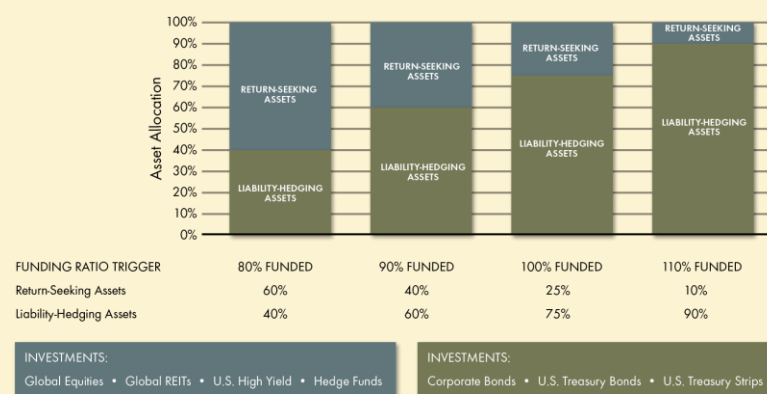
- After spin-off, a U.S. manufacturer needed a strategy for managing a pension plan that would be hard-frozen in five years
- Company's new treasury staff sought a strategic partner with expertise in pension risk management, manager selection and investment program implementation

SOLUTION

- Northern Trust used asset-liability analysis to design a dynamic glidepath strategy
- Implemented the strategy using leading external managers
- Continue to monitor the funding ratio, asset allocation and external investment managers

DYNAMIC GLIDEPATH DE-RISKING STRATEGY

Result: Two de-risking shifts implemented over the past few years



As funding ratio improves, the pension plan is designed to be systematically de-risked by:

- Reducing exposure to return-seeking assets
- Increasing exposure to liability-hedging assets.

The case study presented is intended to illustrate products and services available at Northern Trust. It does not necessarily represent experiences of other clients, nor does it indicate future performance. Individual results may vary.

EXAMPLE #2

Northern Trust was hired as a discretionary fiduciary for an (approximately) \$50 million Taft Hartley plan in 2009. Northern Trust worked with the Plan's Actuary and the Investment Committee to develop an asset allocation that optimized their expected returns given their risk appetite. The Plan was significantly under-funded, and the Investment Committee wanted to extend the life of the plan while assuming low risk. Northern Trust then reviewed



their existing managers, recommended changes to the Investment Committee, and implemented those changes when the Investment Committee approved our recommendations. To assist in the smooth transition to the new asset allocation Northern Trust received bids from several independent transition managers and ultimately selected one that gave the best execution and the lowest cost with minimal market impact to the portfolio.

Northern Trust continues to monitor the managers on a daily, weekly, monthly and quarterly basis along with monitoring the liabilities to ensure the asset allocation is appropriate. Northern Trust meets with trustees as frequently as desired, and keeps them informed of events occurring at all levels of activity. In the last few months, Northern Trust recommended changes to the target allocation (approved by the Investment Committee) to take advantage of the relative attractiveness of the US equity markets relative to the International Developed equity markets. These changes have resulted in plan out-performance relative to their original benchmark.

5. Describe in detail the process by which your firm would identify, evaluate and select appropriate investments within the following asset classes. What are the critical features or terms your firm looks for in evaluating the attractiveness and risks associated with prospective investment strategies and products within these asset classes?

MANAGER RESEARCH – TRADITIONAL ASSET CLASSES

- **US Equities**
- **Non-US Equities**
- **Global Equities**
- **Fixed Income**

Northern Trust's Multi-Manager Solutions practice is founded on the philosophy that qualitative understanding of a manager's investment beliefs, process and professionals is the key to identifying and selecting of successful managers. In providing Multi-Manager Solutions since 1979, we have identified several qualitative factors that are most useful in identifying managers that are positioned to achieve superior long-term results:

- Independent thinking,
- Unencumbered decision-making,
- A repeatable investment process,
- Dedicated commitment to the business, and
- Demonstrated success in specific areas of the market

Our research process emphasizes manager discovery through networking and the experience of our senior executives in addition to use of manager databases. A clear differentiator in our manager research process is our emerging manager focus. Our research team works to identify strong emerging managers for dedicated emerging manager programs as well as across our broader multi-manager business. We believe that working closely with emerging managers throughout our programs allows our clients to access sources of alpha often overlooked by other outsourcing providers.

Northern Trust's skill in selecting and combining managers is key to helping our clients meet their investment objectives. Our approach involves the application of both qualitative and quantitative criteria. The qualitative assessment is of primary importance. We use our expertise in evaluating a manager from the description they give of their investment philosophy and decision-making processes to determine if they have the potential to provide favorable investment results. This is done through in-depth discussions with the key investment people and an examination of the firm's actual operation. This familiarization process enables us to understand the dynamics of a manager's approach, so that in designing a multiple manager investment program we have a sense from a qualitative standpoint of how the managers' "styles" fit together before we test the combinations statistically.



Our manager evaluation process begins with the review of the proprietary questionnaire which all firms under consideration are required to complete and includes:

- The firm's organizational structure,
- Backgrounds of key professionals,
- Investment philosophy and process,
- Portfolio holdings, and
- Performance data.

We then conduct management interviews including on-site reviews to gain a more thorough understanding of the firm, its people and its investments. For managers that meet our criteria, an in-depth analysis will include more extensive statistical analysis of performance and actual portfolio holdings over time. For all managers in our database, we continue to monitor their organizations and results through periodic contacts, portfolio review and analysis of performance provided to us on a quarterly basis. Before an investment firm is approved for our program, our research staff has generally completed four to six separate interviews or visits with the investment firm. We will always visit a manager's offices at least once before funding, and will revisit funded managers' offices once every 12 months (or more frequently if appropriate).

The quantitative criteria are reviewed in-depth only after a manager meets our qualitative criteria. Historical performance data is not a predictor of future success and can be misleading. The appropriate way to use historical performance data is to understand what investment decisions enabled the performance to be good (or bad). The qualitative assessment of the people, investment approach and decision-making process can then yield a judgment as to whether past trends may be continued. We assess a team's alpha drivers using quantitative analysis to confirm the team's historical success.

ASSET CLASS CONSTRUCTION

Our asset class construction process combines and weights managers to avoid directional biases such as Growth-Value tilts or market cap tilts. We expect that the majority of portfolio alpha is generated by our managers' security selection expertise.

Northern Trust employs multidimensional analysis to identify the best combination of investment managers to be employed in each asset class. This technique considers both returns-based and holdings-based analysis, as well as stress tests for multiple market scenarios.

Returns-based Analysis

- Our returns-based analysis is done on an absolute basis, as well as relative to a benchmark. We will gauge historic portfolio volatility to target a risk level consistent with our client's investment objectives. Additionally, we analyze volatility at the manager level, and conduct analysis to understand how each manager's returns correlate to mitigate or increase the overall risk in the portfolio.
- We measure tracking error (standard deviation from the benchmark) and the information ratio (excess returns over the benchmark relative to the tracking error) to understand how the Multi-Manager portfolio correlates and performs relative to the benchmark. Although deviation from a benchmark is an indication of risk in a portfolio, our objective is to minimize this risk while still leaving room for excess returns through our manager's security selection. We additionally analyze down-side return deviation to limit the potential for negative portfolio fluctuations from the benchmark.
- In addition to fundamental analysis, Northern Trust performs top down analysis to consider various macroeconomic impacts. This analysis will ensure that our portfolio is consistent with stated market assumptions, and help to understand the portfolio's sensitivity to fluctuations in macroeconomic variables such as interest and inflation rates.



Holdings-based Analysis

- Northern Trust also analyzes the portfolio from a holdings perspective. Since our managers span all sectors, market capitalization, and style, we must understand the exposures and style trends exhibited by the underlying securities. Our objective in constructing a Multi-Manager portfolio is to minimize the risk deriving from these exposures, and instead realize returns through our manager's stock selection. We utilize a robust database of financial information on underlying securities to understand the fundamentals of the holdings in our managers' portfolios.
- While we seek to maximize risk from security selection, we are cognizant of manager-specific risk both at the organizational and portfolio level and want to be mindful of these trade-offs. Depending on the strategy and the firm, this may or may not be acceptable from a risk perspective. We may be willing to reduce the amount of risk from stock selection – but better diversify the manager concentration risk – by moving to a more balanced manager allocation.

Stress Tests

We use the information obtained through returns-based and holdings-based analysis to understand how the portfolio would perform under a variety of market scenarios. We execute stress tests to analyze performance in different market cycles (e.g. bull markets, value markets) and market shocks. We will run scenario analysis to consider portfolio performance under a variety of extreme market conditions. Dynamic analysis of the portfolio helps us to limit downside potential, neutralize undesired market exposures, and realize excess returns based on the expertise of our managers.

MANAGER RESEARCH – ALTERNATIVE ASSET CLASSES

- **Real Estate**
- **Private Markets**
- **Hedge Funds**

REAL ESTATE

Northern Trust has established relationships with experienced providers of private real estate options so that our clients can access real estate markets. Northern Trust is responsible for researching, selecting, performing due diligence and continued monitoring of each real estate manager. We are able to provide clients with custom real estate solutions based on a number of factors such as global/regional exposure, public/private markets, and single/multi-manager combinations.

Our real estate solutions blend specialist managers from a broad universe of external global real estate managers to provide diversified exposure to the asset class. In seeking to create an optimal portfolio, we often focus on three principal styles intended to complement each other: Growth at a reasonable price (GARP), core and opportunistic. In all instances, managers act independently from each other and utilize their own distinct investment style in selecting securities while seeking long-term capital appreciation and current income.

PRIVATE MARKETS

Northern Trust's private equity investment approach is to realize long-term returns in excess of the public equity markets by using a disciplined investment process to locate top-tier managers, while limiting risk through diversification and providing superior customer service. We believe that substantial returns can be generated through manager selection. Our approach is to identify managers who are the best at adding value to their portfolio companies through active involvement in those companies. Based on the private equity team's investment experience both with funds-of-funds and direct investments, we have found that consistently superior returns are most often



generated by firms which focus on adding value to their portfolio companies via improved cash flow. The Funds which primarily engage in financial engineering, such as over-leveraging their companies and relying on multiple arbitrage do not tend to produce upper quartile returns. Based on this belief, we prefer to invest in funds that focus on small and middle market buyouts and earlier and middle stage venture capital deals. We believe it is easier to improve the operations of small and middle market companies and add more value to entrepreneurial companies in the earliest stages of development rather than in the later stages.

Northern Trust offers diversified private equity funds of funds as well as custom solutions for clients.

HEDGE FUNDS

We utilize an established process for identifying exceptional hedge fund managers. Hedge funds that meet our qualitative and quantitative standards are eligible for inclusion in our portfolios. Hedge fund managers are continuously monitored to compare results to the investment objectives and expectations.

Hedge fund portfolios are constructed through a top down, bottom up process. Strategic asset allocation parameters are first determined in order to meet our diversification objectives. Portfolios are managed according to the guidelines set by the Northern Trust Hedge Investment Committee, utilizing sophisticated models to construct active manager allocation strategies and guidelines.

Our hedge fund programs provide investors access to top tier hedge fund managers, many of whom are closed or otherwise inaccessible to investors. We have over 20 years of experience in manager research and due diligence, and looking for specialized niche investment strategies. Northern Trust's hedge fund programs differ from those of other providers in that Northern has established rigorous procedures that focus on risk control and capital preservation. Risk management is the cornerstone of our investment process. Key features of our program include:

- Robust transparency of underlying hedge fund managers to Northern Trust
- Independent pricing and valuation of underlying funds
- Positions analyzed for potential risk
- Private investigator retained for manager background checks
- Comprehensive risk metrics and VAR analysis

Independent valuation allows us to monitor performance on a weekly basis. In addition, Northern Trust monitors all positions of our hedge fund managers weekly for:

- Adherence to style
- Gross, net, sector and regional exposures
- Levels of leverage and derivatives
- Overlapping positions among managers

Northern Trust offers multi-strategy, sector and custom hedge funds programs.

6. Describe the extent to which your firm normally uses active vs. passive management in the publicly-traded asset classes noted above.

We believe that active management can add value over the long term. However, for clients interested in reducing the variability of returns relative to its benchmark and level of investment management expense, Northern Trust can consult on the relative attractiveness of using passive strategies for specific asset classes. US Large Cap Equity is a frequent choice due to its relative efficiency. Our analysis of the increasing challenges that actively managed US Core Fixed Income Strategies face in adding value after their investment management fees in certain market environments has led us to identify this as another potential asset class to be managed using passive strategies.



Northern Trust's Multi-Manager Solutions practice for ERISA investors does not employ Northern Trust affiliates for any actively managed investment strategies. Multi-Manager Solutions practice's use of investment strategies managed by Northern Trust is strictly limited to passive and short duration investment strategies provided by Northern Trust Global Investments' Quantitative Management business, a proven market leader with \$321.2 billion in assets under management as of June 30th, 2012. We also use external providers for passive investment strategies, if preferred by the client.

7. In making rebalancing decisions, describe the extent to which your firm tactically rebalances portfolio assets to take advantage of short term market movements or makes rebalancing decisions solely focused on maintaining the long term asset allocation targets.

While we recommend a strategic approach to asset allocation, we believe that the asset allocation should change as market environment and plan needs change. For a Defined Benefit plan, funded status is the relevant measure of the plan's needs and is also tied to the market environment. We believe that the strategic asset allocation should evolve over time as the funded status of the plan changes.

Program managers rely on the forecasts from the Northern Trust Investment Policy Committee, which provide a view on both tactical and long term asset class assumptions. Northern Trust's Investment Policy Committee (IPC) closely scrutinizes the economic and market environment to establish both a strategic and tactical asset allocation strategy. The IPC consists of senior investment officers located globally, representing a variety of markets, client groups and areas of expertise. These senior investment officers have an average of 25 years in the investments industry and over 11 years at Northern Trust. Collectively, the members of the IPC are dedicated to a balanced assessment of the current market environment and formulation of sound, risk adjusted asset allocation strategies. Given this information, Investment Program Managers work with each client to tailor the appropriate asset allocation policy and continually monitor as the market environment changes.

Lastly, a disciplined rebalancing process is required to maintain strategic asset allocation of multi-asset client portfolios as returns to various asset classes and strategies vary over time. Northern Trust generally recommends rebalancing on either a quarterly or monthly basis, depending upon client preferences.

8. Discuss your firm's tracking system for prospective investments. What asset classes continually evaluated? How many investment opportunities and managers are tracked? What quantitative and qualitative criteria are maintained? How many in-person meetings did the firm conduct in 2010 and 2011?

Philosophy

Northern Trust believes that selection from a range of potential asset allocation strategies should be based in large part on how funded status and resulting pension contribution and expense vary as a range of market conditions result in both varying asset returns and changing valuation of pension liabilities. We therefore employ asset/liability modeling when helping a pension plan sponsor develop an asset allocation strategy. Our pension allocation strategies employ a liability-driven analysis, even though a plan sponsor may not select a liability-driven strategy that reduces variability of funded status if another strategy offers a higher rate of expected asset return or is inconsistent with a plan sponsor's tactical views such as future interest rate changes.

Our methodology for retirement plan investing begins with a review of the plan's liabilities and related objectives regarding funded status and future contributions, addressing a wide range of subjects including the following questions:

- What is the demographic make-up of retirees and employees entitled to benefits under the plan?
- How are liabilities of the plan expected to change over time as benefits are paid out, plan provisions change and as any additional liabilities are accrued?
- What is the current funded status of the plan?



- What levels of contribution have been incurred in recent years, and are projected for coming years?

The program manager and key client contacts would discuss current asset classes and potential new asset classes to be considered in the program design and portfolio construction process, including the following steps:

- Review effectiveness of asset classes historically employed the client's investment policy and portfolio.
- Discuss potential new asset classes that might increase the probability of the client's objectives, with particular emphasis on how use of an additional asset class can improve hedging of plan liabilities or offer a higher level of risk-adjusted return on assets.
- Review historic and projected measures of return and risk for each asset class.

Once plan status, investment objectives and asset classes to be considered have been discussed, the client team will perform a detailed asset-liability study which uses each plan's actuarial data and projected return, risk and correlation to project for a range of more than 1,000 market scenarios how each plan's expected funded status would change. Results of this study are summarized and discussed with the client. This discussion will consider not only the more likely outcomes, but also the more extreme cases where funded status would decline more sharply.

Expected returns are forecast by a team comprised of economists and specialists in US equities, international equities and fixed income. Actual historical risks and correlations are used. Constraints are customized based on each client's investment policy and investment objectives, including relative importance of asset returns or measures of overall plan status which also incorporate liability projections. More than one thousand market scenarios are simulated. Statistical analysis of the probabilities of these different scenarios is used to express the potential magnitude of losses and gains.

Implementation

Northern Trust maintains an in-house database of investment managers. There are over 5,000 investment managers in our broad database. We closely observe approximately 500 and classify 250 managers in our "active universe."

Through Northern Trust's Multi-Manager Solutions approach, we maintain a roster of more than 50 managers for our U.S. Institutional clients who have already been selected and actively funded with money from more than 400 clients. Ongoing client use of these pre-approved managers enables us to pool many clients' assets and provide excellent managers at a more attractive price than any single client could obtain as a direct investor with that manager. We add managers to our database based upon Investment Policy Committee recommendations, changes to the market environment, client requests and through day-to-day dealings with firms.

At a firm level, our database contains investment information, business composition, investment professionals, and extensive notes. On a fund level, the database includes capitalization, country, characteristics, commentary, regional, risk, sector and various fundamental characteristics.

Northern Trust conducts over 300 on-site visits with investment managers each year. In addition, Northern Trust has more than 700 additional face-to-face visits with managers who visit Northern Trust's offices in Stamford, Connecticut; Chicago, and Toronto. We maintain even more frequent contact with managers employed by our clients through both formal quarterly reporting processes and ongoing dialogue. We will always visit a manager's offices at least once before funding, and will revisit funded managers' offices once every 12 months (or more frequently if appropriate).

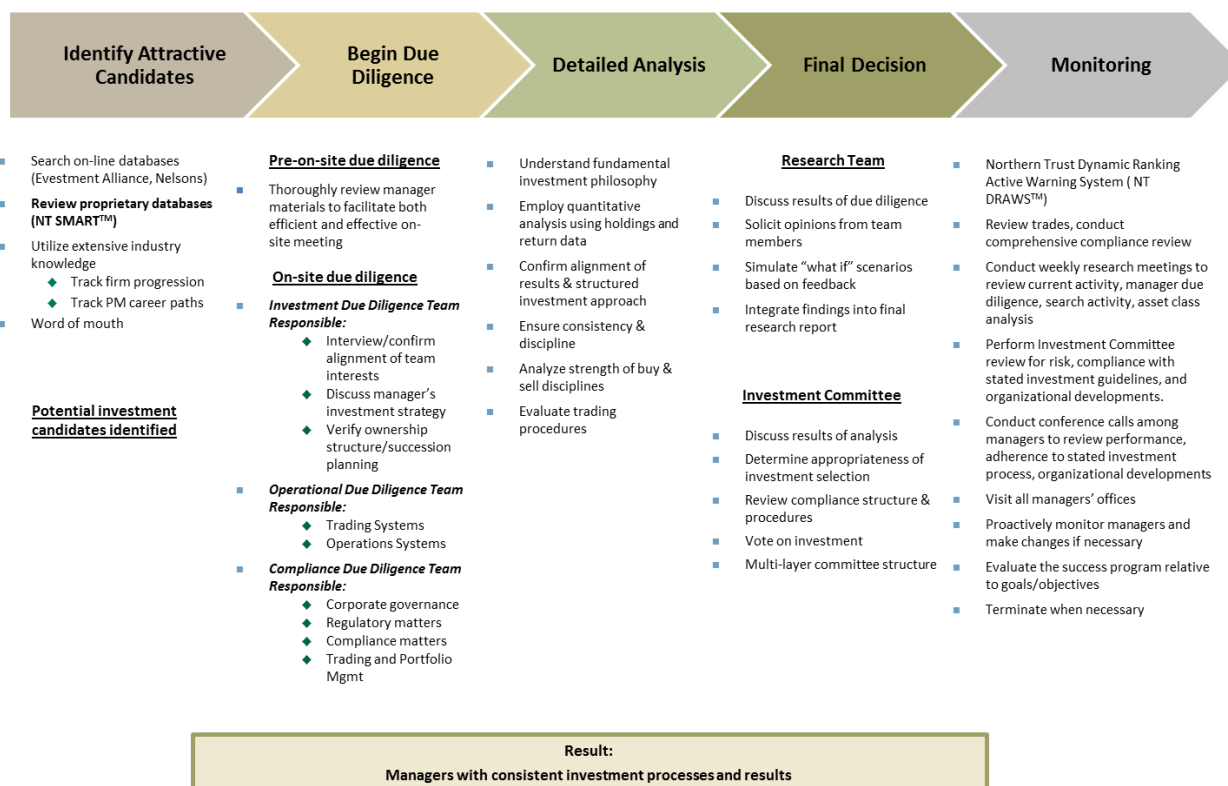


9. Please describe your firm's approach to the investment selection/due diligence process. What are the most important criteria? Who is involved in the decision-making process? How many investment opportunities did the firm screen in 2011? How many investment opportunities did the firm perform in-depth due diligence upon in 2011?

Our best in class processes for manager due diligence and asset class construction allow us to add value for clients and give us a unique competitive advantage. Our due diligence process relies equally on quantitative and qualitative review of investment managers. In addition to the quantitative review of performance and characteristics, our manager research analysts focus on the firm's business model, ownership, people, philosophy & process. These efforts minimize the risks of unexpected surprises that might come with the use of active management. We look at portfolio theory and quantitative tools as important inputs, but keenly understand the weaknesses and limitations of those tools.

Extensive evaluation using a disciplined approach is fundamental to achieving consistent results. The following graphic summarizes our manager review process which is described in detail following the graph.

Unlike consultants, Northern Trust's Manager of Managers practice does not screen investment opportunities, but is continually meeting with managers to both build bench strength and evaluate new strategies. For our Institutional Multi-Manager Solutions business in 2011, we performed in-depth due diligence on 32 managers, 15 of whom we funded.

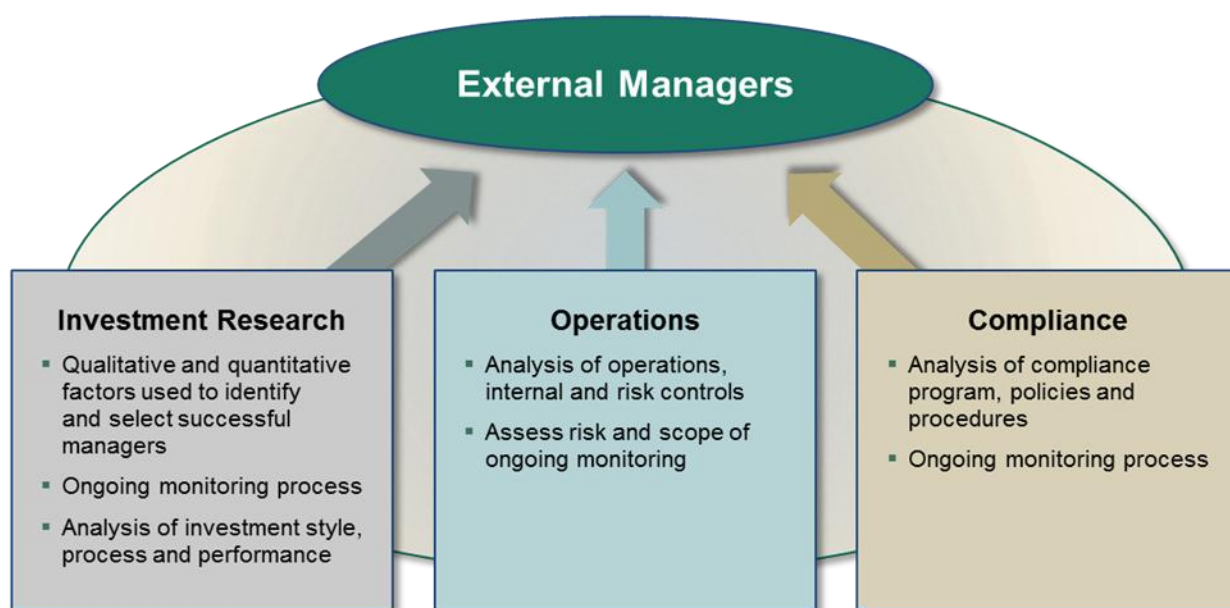


MANAGER DUE DILIGENCE

Our manager monitoring process relies on three distinct groups of investment professionals who conduct separate reviews on each manager. As shown below, this three-pronged approach provides a comprehensive review of each



manager and all findings are presented separately to investment committee for approval before a manager is used in a client program.



Investment Research

Verify and evaluate performance track record

When requesting data, we will seek gross monthly returns of a composite of all accounts with investment guidelines matching those we intend to apply. These should be shown in a manner compliant with the standards of GIPS and of the appropriate regulatory authorities with respect to computation, presentation, and portability of track record. If any of these requirements cannot be met, we will require and scrutinize full disclosure of any shortcomings, which are factored into our assessment of the risks involved in hiring the manager. We prefer audited data, and do not give significant consideration to back tested or model portfolio performance. Quantitative investment processes are viewed with an extra dose of skepticism.

Our most important guides in evaluating performance data are common sense and experience. Returns that look too good to be true are usually not true or not sustainable. The level and pattern of value added should match with our understanding of the manager's investment process, our knowledge of market history, and our review of portfolio risk characteristics. Any deviations will cause us to go back to the manager with additional questions until we are satisfied. Combining performance with portfolio data in a risk or performance attribution analysis can be especially helpful at this stage as well as the use of peer or style group comparisons. If we find any reason to believe that we have been provided with inaccurate data, we will terminate our consideration of the manager.

From a purely quantitative standpoint, however, we will review performance data for the level, consistency, and pattern of value added against both common and style-adjusted or custom benchmarks. We use a combination of commercial and proprietary tools to perform statistical analysis of absolute and relative performance risk, and to evaluate how well a specific manager fits in with combinations of other managers.

Assessing a firm's trading capabilities

Proper assessment of trading capability varies for each firm and is highly dependent on the firm's investment process (buy/sell discipline and portfolio turnover) and product (high liquidity vs. illiquid). For example, managers with quantitative broad market products may require technology for program trading capabilities whereas Small/Micro Cap managers require access to a network of market makers for specific securities. Our process is to first determine what trading requirements are necessary to implement the firm's specific investment process. We then evaluate whether



the firm has adequate infrastructure (trade order systems and technology) in place and experienced personnel dedicated to the trading function.

Assessing a firm's risk management capabilities

Northern evaluates a manager's compliance program to assess its regulatory risk. In this regard, we review a manager's policies and procedures, regulatory filings and compliance resources to understand a firm's culture of compliance. We also take a broad view of risk management and evaluate other factors such as firm ownership and succession planning, growth plans, infrastructure support and other operational factors in assessing a manager.

Compliance

Assessing a firm's compliance capabilities

Northern Trust's investment review process is composed of daily, monthly and quarterly compliance monitoring, including the receipt and review of daily trades. We monitor each manager's trading practices for prohibited investments as well as to determine compliance with both the expected trading cost range and the list of approved brokers. In addition, we monitor position sizes, sector/industry weights and other portfolio characteristics for compliance. We also require managers to certify annually whether or not they are in compliance with guidelines.

Compliance and Regulatory Framework

- Firm's Regulators
- Compliance Reporting Structure, Resources and Systems
- Filings and Disclosure, Regulatory Reporting
- Firm Compliance Monitoring Program
- Compliance Policies and Procedures
- Regulatory Matters, inc. Regulatory Exams
- Code of Ethics, Personal Trading monitoring
- Conflicts of Interest
- Proxy Voting Policies & Procedures
- AML and KYC Policies and Procedures
- Record Retention, inc. Review of Email
- Investment Guideline Monitoring Procedures and Controls
- Affiliated Broker/Dealers
- Soft dollar practices
- Marketing Materials, Review Process inc. Performance Presentation
- Insurance Coverage, inc. D&O, ERISA Bonds

Investment Risk Oversight

- Firm's Risk Management Governance - Roles and Responsibilities
- Use of Leverage and Risk Controls
- Derivatives Exposure and Risk Controls (Process and Controls)
- Counterparty Exposure, Approval and Monitoring Process, Rating and Limits

Material Third Party Relationships and Outsourced Services

- Policies and Procedures for Outsourcing and Managing Outsourced Relationships
- Third Party Performance Monitoring and Relationship Management



- Scope of engagement and relationship, historical changes
- Administrators
- Accountant/Auditor
- IT - vendors/consultants
- Pricing vendors

Operational Due Diligence

The Operational Due Diligence team conducts an independent analysis of every manager in our programs. This review will cover a comprehensive range of operational issues including, but not limited to, the following items:

Technology and Infrastructure (review of systems and capabilities)

- Communication Systems
- Portfolio Management Systems
- Order Management/Trading Systems
- Risk Management (Risk Systems and Controls)
- Reconciliations
- Pricing and Valuation
- Accounting
- Disaster Recovery

Finance and Accounting

- Financial Reporting
- Restatement of Financials (if applicable)

Internal Processes and Controls

- Policies and Procedures Governing all Trading Activities and Cash Movements
- Subscriptions and Redemptions Processes (HF)
- Trade Implementation (from trade initiation to trade reconciliation)
- System Access
- Internal Audit's Role, reports
- External Audit (SAS 70/AAF6)

Investment Administration and Controls

- Trade Confirmation Process
- Cash, Positions and Portfolio Market Value Reconciliation
- Cash Controls
- Pricing and Valuation Process and Policy
- Illiquid Securities - Pricing Methodology
- Portfolio Market Value Calculations and Sign-off
- Segregation of Duties

INVESTMENT COMMITTEE OVERSIGHT

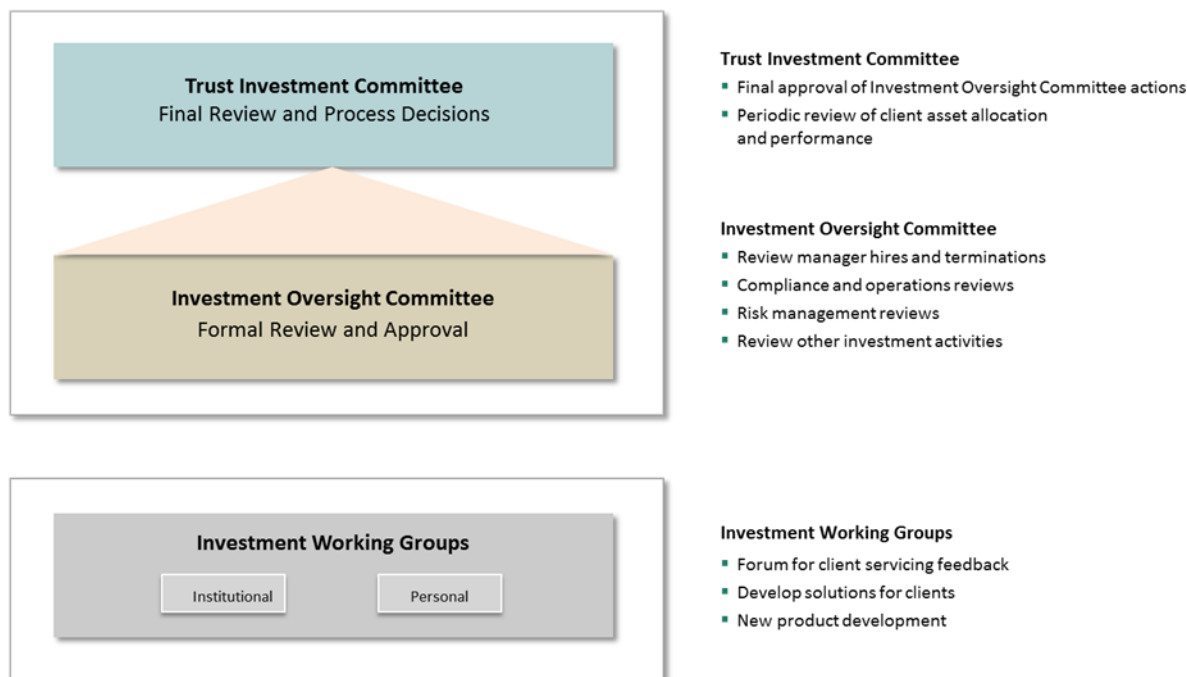
Ultimate oversight of managers and client programs is conducted by the Northern Trust's Investment Committees which are comprised of senior representatives from various investment teams across Northern Trust. Northern Trust's Investment Committees formally review the performance and risk of all client programs on a monthly basis. They also



review and approve all changes to asset allocation within a client program. In addition, Northern Trust recommends a disciplined approach for rebalancing to strategic targets with monthly review of potential rebalancing needs including consideration of how cash flows can be used to bring allocations in line with strategic asset allocation targets.

Oversight of all client programs is provided by the Trust Investment Committee and the Investment Oversight Committee. Additionally, Investment Working Groups provide a forum to discuss client feedback and develop solutions for clients.

Formalized committee structure with the objective to ensure consistent oversight of all managers and client solutions.



Final review of all manager selection decisions is the responsibility of the Trust Investment Committee. Voting members of the Trust Investment Committee include:

- Joseph McNerney, Chief Executive Officer, Multi-Manager Solutions
- Chris Vella, Chief Investment Officer, Multi-Manager Solutions
- Tom Benzmilller, Managing Director, Client Solutions Group
- Patrick Herrington, Chief Operating Officer, Multi-Manager Solutions
- John Keshner, Practice Lead, Investment Program Solutions Wealth Management Group
- Phil Hausken, Director of Investment Compliance, Northern Trust Global Investments
- Susan Hill, Chief Compliance Officer, Multi-Manager Solutions

The Trust Investment Committee is responsible for the management of its commingled funds, separate accounts and other programs. The Trust Investment Committee provides:

- A review of application of investment strategies and policies;
- Oversight of investment performance relative to the investment strategies and target benchmarks; and
- A review of compliance with investment guidelines.



All managers proposed for Multi-Manager Solutions programs are reviewed and determined as approved or not approved by our Investment Oversight Committee. All decisions on manager selection and portfolio construction are made by unanimous vote of this committee, whose members provide oversight in the manager research/selection and program construction process.

Responsibilities of the Investment Oversight Committee include:

- Review and approve manager hires/terminations;
- Review asset allocations and program compositions;
- Review client and fund performance vs. benchmarks;
- Review programs for compliance; and
- Ensure adequate due diligence and decision making procedures.

10. If your firm manages (or anticipates or is contemplating managing) any fund-of-funds please describe those vehicles and detail how the decision is made to invest client assets in proprietary commingled vehicles relative to separate account allocations.

Northern Trust manages fund of funds in both the long only and alternatives spaces. Two primary factors influence the decision to use proprietary funds of funds versus separate accounts. They are as follows:

- **Size.** On the long only side, asset size needs to be adequate to support a multi-manager framework at an asset size external managers will implement. For alternative allocations, we require a minimum of \$50 million per asset class in order to implement a custom strategy via external manager funds.
- **Access.** For smaller asset classes (such as infrastructure) which have high separate account minimums but are not generally a large part of a plan's asset allocation, a fund of funds solution may be appropriate.

Generally, for a client of this size, we would not anticipate implementing using Northern Trust fund of funds. Please note as well, with our open architecture model, there is not a requirement to use Northern Trust proprietary product. We will be happy to discuss with you the pros and cons of each investment strategy and implementation vehicle prior to investment.

11. Please describe the your firm's ability to educate trustees on investment matters. What experience do the individuals have conducting educational workshops? What types of research materials does your firm develop or have available for clients? Please provide samples of such research reports or white paper.

We have a number of resources available to assist our clients beyond managing their account, including investment committee support, periodic publications and client conferences.

INVESTMENT COMMITTEE SUPPORT

Northern Trust is proud of the role that its Investment Program Manager plays in supporting our clients' Investment Committee and staff.

- The Program Manager will discuss the effectiveness of the program construction and managers employed in Client's investment program
- The Program Manager will discuss performance contributors and detractors and risk exposures at the program and manager level
- The Program Manager will review manager performance, provide updates on their businesses, and will offer suggestions on possible graduation candidates
- The Program Manager will discuss broader market themes and trends and explain why different types of active management strategies experienced successful or disappointing results in these market conditions.



- In annual performance reviews or at other times requested by the Client, the Program Manager will also review longer term results of the investment program in meeting its objectives and discuss additional asset classes, investment strategies or managers that may further enhance the Client's investment performance.

RESEARCH PUBLICATIONS

Our clients have access to numerous Northern Trust publications; specific details and frequency are included below:

- The Current Economic Research Report and Current Investment Strategy Report – Monthly
- Northern Trust Global Investments Point of View Newsletter – Quarterly
- Northern Trust Newsletters – Quarterly
- Northern Trust White Papers – As published
- Northern Trust Weekly market review

CLIENT EDUCATION - CONFERENCES

Northern Trust hosts a number of conferences each year for our institutional clients and produces periodic publications discussing topics of interest to institutional investors.

For examples, please reference [Exhibit 5 – Education and Training](#).

12. Describe any significant innovations or insightful investments your firm implemented for institutional investors over the past several years. Include the names of key staff involved in these developments.

Below are a few of the significant lessons we have learned through the changing market conditions of the past several years. Communication with clients, a thorough understanding of our managers' philosophy, and continued emphasis on investment, operational, and compliance due diligence were among the most important lessons learned.

- **Client communication is key:** Client satisfaction is essential to the success of our business and the financial crisis reaffirmed the value of keeping our clients informed of all changes during fast moving periods of market stress. This included updates on market events as well as any information on our performance, investment managers in our programs, or other business issues.
- **Understanding our investment managers' philosophy:** Throughout the financial crisis our manager research analysts proactively reached out to our managers to discuss the market environment, their strategy, and how they were shifting their portfolio to protect capital and preserve upside potential. Considerable time was spent determining if and how the changing market environment might impair the managers' business models. The analysts needed to understand what moves the managers were making in order to guide their organization through the crisis. Fundamentally, Northern Trust regards the business models and stability of our managers' organizations as a key focus of our research. The crisis did not force us to rethink our investment philosophy and/or process and, if anything, it reassured us and our clients that our process was disciplined and guided us to focus on the right issues. Our questions throughout the crisis went beyond investment strategy and into a manager's:
 - business strategy,
 - counterparty risk, and
 - management of operating margins.

We made a few manager changes due to a lack of conviction in the responses we received and our worries regarding ongoing business risk. Subsequently, one of those managers was forced to sell their firm to a larger organization.



- **Deep due diligence is essential in the areas of Investments, Operations, and Compliance:** Our manager research team has historically provided rigorous due diligence on each manager recommended for client programs as well as ongoing monitoring of these managers. This process has always included a look at managers from all angles including investments, operations and compliance. However, we have restructured the manager research process to include three distinct groups who conduct separate reviews on each manager. This three-pronged approach provides a comprehensive review of each manager and all findings are presented separately to investment committee for approval before a manager is used in a client program.

13. Please provide a sample/model contract that your firm would propose for the scope of services described.

Please refer to [Exhibit 6 – Sample Investment Management Agreement](#).

14. Describe your firm's experience advising or structuring portfolios for defined benefit plans headed for insolvency, including the type of plan (corporate, multi-employer, etc). Additionally, please detail the investment strategies you have put in place (or recommended) to address the solvency issue.

We manage two multi-employer plans where insolvency could be in their future. We certainly hope that circumstances change, but there are reasonable future scenarios that show eventual insolvency as a real possibility. Multi-employer plans have a real challenge in today's environment as many of them have too few contributing employers and employees to support the payout population. In many cases this demographic issue is too large to reasonably expect asset allocation to be the primary solution. While we do not know the circumstances of the plan this RFP represents, the following information would be prudent to know before setting asset allocations for each of the plans:

- Funded ratio of legacy plan
- Expected normal cost of future service plan
- Expected contributions
- Expected split of future contributions between the two plans
- Ratio of contributing participants to current and future payout participants
- Anticipated increase or decrease in participating employers/employees and
- Anticipated increase in negotiated contribution rates

These factors can help shape the ultimate asset allocation. For example, higher funded ratios and larger expected contributions could create justification for a less risky asset allocation, staying cognizant that this could lower expected return thereby decreasing the discount rate and increasing the liability. In dire situations, it is not unreasonable to recognize the 'put' option that the PBGC provides to insolvent plans and accordingly set a very aggressive return seeking asset allocation. For most multi-employer plans (who are likely somewhere between severely under and well-funded), we recommend trying to maximize return within the plan's comfortable risk levels. Maximizing return for a level of risk is usually best achieved through a well-diversified portfolio of domestic and international return focused strategies. This often equates to equity plus alternative allocations at or above 75%. Additionally, since multi-employer liabilities essentially display absolute return, alternative asset classes which may provide absolute-like growth can be appropriate if a committee is comfortable with them.

While insolvency does not apply to corporate plans, a plan sponsor bankruptcy can create a distressed plan termination. At this time, we do not know that any of our plan sponsors are contemplating a distressed termination. While most of our clients are underfunded (70%-85% funded ratios), many of them have implemented a glidepath to derisk their asset allocations as funded ratios improve. In the later stages of these glidepaths, liability driven investments (LDI) will be heavily implemented. Due to discount rate methodology, typical LDI applies more to corporate plans than multi-employer plans, whose discount rate is tied to expected return. However, this does not mean that less risk would not be more appropriate for a well-funded multi-employer plan or that asset allocations should not change as the situation changes.

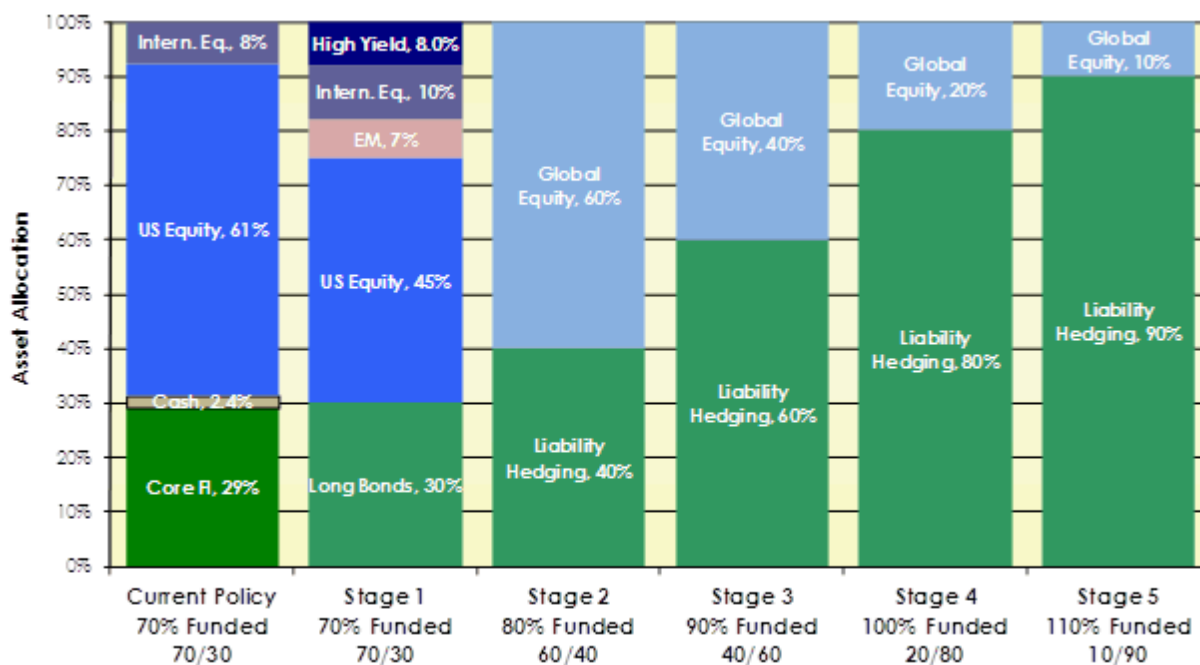


15. Describe your firm's experience with frozen plans including the type of plan (corporate, multi-employer, etc).

As of June 30th, 2012, our Multi-Manager Solutions clients included 36 U.S. defined benefit plans for which we provided total investment program consulting and management services. Of these clients, 14 were frozen plans. We also have implemented liability driven investment glidepaths for 13 of these clients to date. We also work with all of our defined benefit clients to understand the impact of investment and funding decisions on the company's specific financial statements.

Northern Trust employs dynamic asset allocation strategies to implement de-risking for frozen pension plans. A glidepath is developed for adoption by the investment committee which specifies how at higher funding ratios assets will be shifted from return-seeking investments such as equities to liability-hedging assets such as long duration investment grade fixed income. Due to multi-employer plan liability and contribution methodology, this type of dynamic derisking glidepath strategy is not a natural fit. However that does not mean that a well-funded multi-employer plan that is willing to tolerate a lower expected return and consequently higher liability could not benefit in the long run from a lower risk portfolio.

Here is a sample glidepath illustrating how the initial allocation between liability-hedging fixed income assets and return-seeking investments could change over time.



- Stage 2: As the funded ratio increases from 70% to 80%, a 10% increase in liability hedging fixed income would be implemented, with a corresponding reduction in other asset classes.
- Stage 3: At a 90% funded ratio, a further 20% shift would occur from return-seeking assets to liability-hedging assets.
- Stage 4: At a 100% funded ratio, another 20% shift would occur from return-seeking assets to liability-hedging assets. (Even though the plan is fully funded, a continuing allocation to



return-seeking assets is recommended with the goal that further asset returns could be used to pay for termination costs such as annuity purchases.)

- Stage 5: At a 110% funded ratio, a final 10% shift would occur from return-seeking assets to liability-hedging assets (with continuing allocation to return-seeking assets recommended so that further asset returns could be used to pay for other termination costs such as legal and filing expenses).

This dynamic asset allocation strategy reduces a plan's funded status volatility and balance sheet impact by reducing risk and increasingly hedging interest rate sensitivity of liabilities at higher funding ratios. Another key risk management technique is to employ liability-driven investments to hedge interest rate sensitivity. Northern Trust is able to offer a full range of liability-driven investing strategies.

- With lower 30-40% allocations to longer duration fixed income, passively managed or quantitatively managed strategies represent a cost-effective way of hedging against large changes in the often longer-term interest rates used to value pension obligations. Such passive or quantitative strategies may offer diversification in the form of exposure to both investment grade corporate bonds and US Treasury bonds.
- As longer duration fixed income allocations increase to 50% or more, tighter hedging of interest rate sensitivity will generally lead to more focused investment portfolios, with a higher proportion of assets in investment grade corporate bonds, with US Treasury bonds used primarily to hedge longer-dated obligations.
- For clients interested in using Treasury futures or other derivatives to achieve a higher liability hedging ratio while still maintaining significant allocation to return-seeking assets, Northern Trust works with managers who offer such capabilities (including commingled fund strategies where the manager executes all ISDA agreements under a comprehensive framework for management of counterparty risk).

16. With respect to newly formed plans, describe your firm's experience advising or structuring portfolios, including the type of plan (corporate, multi-employer, etc). Additionally, please detail the investment strategies you have put in place (or recommended) for brand new plans.

Following similar practices outlined above, we have worked with newly formed plans that have often been spin-offs from existing plans. All have been corporate plans and all the new plans already included established assets and liabilities at inception. In at least a couple of the cases, the new plan included only active employees, creating quite a strange liability profile with very long liability duration. With that said, our philosophy for setting asset allocation is unchanged and reviewed below.

Our methodology for retirement plan investing begins with a review of the plan's liabilities and related objectives regarding funded status and future contributions and expenses, addressing a wide range of subjects including the following questions:

- What is the demographic make-up of retirees and employees entitled to benefits under the plan?
- How are liabilities of the plan expected to change over time as benefits are paid out and as any additional liabilities are accrued?
- What is the current funded status of the plan?
- What levels of contribution and expense are projected for coming years?
- For corporate plans, how does the client weigh the relative attractiveness of more predictable contributions and expenses compared with the potential for higher asset returns which can reduce contributions with good asset returns but can lead to increased contributions with unfavorable asset returns and further loss of funded status if market changes increase liability valuations at the same time (as occurred following the tech bubble, when interest rate reductions increased liability valuations, resulting in what was described as a "perfect storm" for pensions.)



We view asset-liability modeling as an important first step in designing any long-term investment program for a pension plan sponsor. An asset-liability study helps demonstrate the risk/reward trade-offs of various asset mixes. These are important discussion points with a client prior to establishing an investment program and asset allocation strategy. If stability of cash contributions, pension expense, and funded status is of higher importance, this would require one type of portfolio asset mix, but the trade-off is higher long-term cash contributions and pension expense. On the other side of the equation, asset mixes that potentially reduce long-term cash contribution and pension expense have higher volatility associated with these items as well as increased funded status variability. We use an asset/liability study to help us find the appropriate risk/return trade-off.

Northern Trust employs a full asset/liability study to analyze defined benefit plans' liabilities. This stochastic asset/liability study incorporates the actual liability structure of the plan including actuarial data for the plan. Such a stochastic model is more useful than simpler deterministic approaches which provide sensitivity analysis for a number of specified scenarios using annualized average returns for both likely and extreme favorable and unfavorable market scenarios. As with the asset allocation analysis, more than one thousand scenarios are typically simulated. In this asset/liability study, statistical probabilities are now used to demonstrate how funding levels and contribution levels would change under varying market conditions for a range of potential asset allocations.

Inputs to this asset/liability study will include:

- Detailed actuarial data that would be provided by the client's actuary; and
- A range of alternative asset allocation strategies

The end result will be a board-ready report summarizing both more likely and more extreme results of each potential asset allocation strategy for a variety of measures including projections of:

- Funding ratios
- Cash contributions
- Pension expense

As was included earlier in the RFP, below is a brief case study highlighting how Northern Trust worked recently with a spun-off plan.

**Client Case Study:****Developing a Customized Pension Risk Management Solution**

Take advantage of expert help tailoring and executing a pension risk management solution for your specific needs.

SITUATION

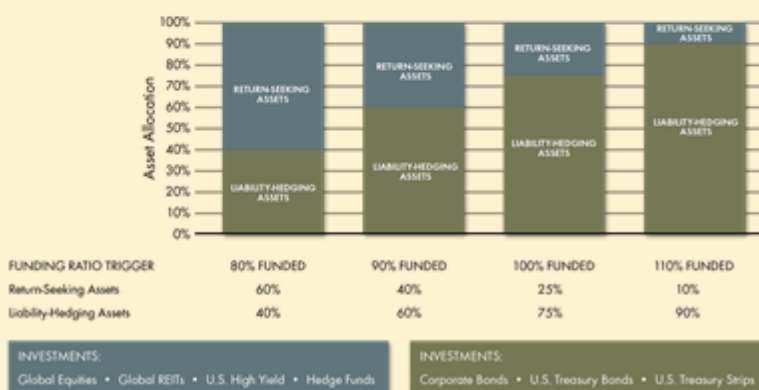
- After spin-off, a U.S. manufacturer needed a strategy for managing a pension plan that would be hard-frozen in five years
- Company's new treasury staff sought a strategic partner with expertise in pension risk management, manager selection and investment program implementation

SOLUTION

- Northern Trust used asset-liability analysis to design a dynamic glidepath strategy
- Implemented the strategy using leading external managers
- Continue to monitor the funding ratio, asset allocation and external investment managers

DYNAMIC GLIDEPATH DE-RISKING STRATEGY

Result: Two de-risking shifts implemented over the past few years



As funding ratio improves, the pension plan is designed to be systematically de-risked by:

- Reducing exposure to return-seeking assets
- Increasing exposure to liability-hedging assets.

The case study presented is intended to illustrate products and services available at Northern Trust. It does not necessarily represent experiences of other clients, nor does it indicate future performance. Individual results may vary.

For the new plan represented by this proposal, we might start by looking for answers to the following questions:

- What % of accruals are expected to be covered by the contributions?
- What are the prospects for higher negotiated contribution rates or more employees contributing?
- What are the prospects for limiting liability through plan provision changes?
- How important is the 8% return assumption? Could the future service plan have a lower return assumption than the legacy plan?

For a brand new plan in the corporate world whose plan sponsor was willing and able to make predictable, stable contributions annually, we would look to implement a duration matched bond portfolio so that accrued liability was hedged off and annual accruals were covered by contributions. This would create the least volatile, most predictable contribution and expense scenario. A similar strategy could be applicable for multi-employer plans if the plan contributions were expected to cover the annual accruals as valued with bond yields as the expected return assumption. If contributions are expected to be less than accruals, then additional risk should be included in the allocation to increase the expected return and lower the annual accruals. Since the 8% return target is identical for both plans, it is reasonable to assume the asset allocations will be similar. Although, as liquidity is likely less of an issue with the future service plan, there may be opportunity for larger allocations to alternative absolute return type investments in the future service plan.



It may be worth discussing whether the new plan could survive using a lower expected return and hence less volatile asset allocation.