

t r e a s u r y Topics

Internal Investment Manager or External – or Both?

Organizations frequently explore the question of how to maximize the return on their investment portfolio by debating the benefits or risks of internal vs. external investment management. An organization considering an internal investment management program must ask itself: do we have the right resources to be successful? Answering this question requires considering whether the organization has adequate time, infrastructure and trading relationships available to fulfill the fiduciary responsibility to company shareholders of managing an internal portfolio. If adequate resources are available, then what other considerations should be evaluated? This article will explore the advantages, disadvantages and considerations involved in making this important decision.

Introduction

In most cases, a detailed analysis will conclude that a portion of the investment portfolio should be outsourced to external investment advisors that have the experience, time and resources to do thorough risk and securities analysis, resulting in better returns for the company and its shareholders.

If a portion of the investment assets is outsourced, a company with the right structure and technology can have the best of both worlds. With daily visibility into the external portfolio, an internal investment team has an opportunity to leverage the research and portfolio management resources of its external investment advisors. This can give a small internal staff assistance with internal trading decisions, while maximizing the internal advantages of timely cash flow information and lower costs

A combination of adequate resources (including technology), playing to the Treasury team's strengths and building credibility and confidence will allow the internal investment team to optimize its value.

The Starting Point

A successful internal investment management program is defined as one that instills confidence in the process controls and can compete effectively with external managers, while not making critical credit, trading or settlement errors. Internal investment teams compete by playing to their strengths.

Eye-Opening

Critical to the success of an internal investment management program is complete senior treasury, audit and management understanding of the risks associated with the program. Informing and educating senior staff, including the audit committee and/or board of directors, of the potential economic value of an internally managed portfolio is easier than making sure they have a clear understanding of the risks associated with the program.

Selling senior management on the "fee savings" without clearly defining the risks is shortsighted, and ignores some of the real costs of administering an internal management program. Downgrades, defaults, compliance violations, embedded option volatility and settlement errors are all examples of problems inherent in investment management that could have a direct economic impact on company earnings.

It is important to: 1) educate senior staff about potential risks and, 2) implement process controls that trigger definitive steps when problems occur.

Take Stock of your Resources

For an internal investment management team to add value they must, at minimum, be as good as the

external manager. In order for the company to profit fully from reducing external management fees, the internal staff should at least match the external manager's gross return. To do that a company must be committed to providing the internal team the resources necessary to compete.

The minimum resources required for a successful (and SOX compliant) investment management function include, sufficient time, adequate infrastructure and broad trading relationships. With these resources applied to an internal strategy that is specifically designed to leverage the internal staff's advantages, combined with an educated and confident senior staff, an internal investment mandate can be successful.

Sufficient time

Portfolio management success is measured by performance growth in portfolio value relative to a benchmark or to an external manager's performance?

An internal investment team with sufficient time has the ability to execute trades during the most liquid market hours and the authority to step away from other corporate responsibilities to portfolio decisions, read research, etc. Investment management requires sufficient time to execute trades and manage risk.

In the US liquidity market, the overwhelming majority of money market instruments trade between 7:30AM and 10:30AM Eastern Standard Time (4:30AM to 7:30AM PST). Access to the broadest offerings at the best prices requires the internal investment management staff to trade during these hours. If the internal staff is not available during these hours, it will find itself at a distinct disadvantage relative to an external manager.

Portfolio management includes reading market, sector and/or security-specific research, reviewing and analyzing portfolio risk, considering trade ideas internally and with external parties, ensuring competitive trade execution, timely settlement and accurate performance calculation and analysis. These are all time-consuming tasks.

Without sufficient time to execute trades during the most liquid market hours or do the work necessary to make educated, effective investment decisions, the internal staff is at a competitive disadvantage from a return perspective, but more importantly, the company has exposed itself to significant additional risk.

Adequate Infrastructure

Adequate infrastructure is defined as the minimum tools necessary to manage an internal portfolio. This includes adequate technology, personnel and custody services.

TREASURY TOPICS

Technology

It is critically important that an internal investment management team have ample market information, including pricing and relative value models, daily portfolio risk management and evaluation tools, independent compliance monitoring/performance modeling, automated price discovery and trade execution capabilities.

Some of the required investment-related tools have no explicit cost to the company because the company pays via trading commissions. Most will require an explicit one-time or annual fee paid by the company. The total system cost should be considered when evaluating the potential fee savings of an internal investment management program. Sufficient investment analytics and reporting systems are generally the largest cost of a start-up internal corporate investment management program.

We estimate the cost of market and portfolio information (this includes the cost of custody services), accounting, compliance, risk and performance reporting, including automated trade execution, to be between \$200,000 and \$350,000 annually (for an internal portfolio of \$500 million to \$1 billion) or between 3.5bps and 7bps. Even at 7bps (not including the personnel cost) there is a potential cost savings to internal investment management that may translate to better portfolio performance.

Market data, pricing and relative value models

At a minimum, an internal investment management team should have a Bloomberg terminal or Reuter's subscription. Bloomberg is widely used for fixed income investment management because it includes market information, pricing and relative value models. Both platforms have some automated execution capabilities (see more information on the Bloomberg automated execution capabilities below). Risk Management System

If you are an internal investment manager, how do you monitor positions and transactions? How do you track risk characteristics, like duration and credit risk by security and for the total portfolio? And how do you review expected cash flows? You should be using a daily risk management tool.

A complete risk management tool provides a detailed breakdown of the portfolio positions, transactions and expected cash flows including individual security and aggregate portfolio risk characteristics, all critical to making investment decisions. A good risk management system will update risk characteristics daily (or intra-day) to allow the internal portfolio manager access to the most accurate and timely portfolio information. Excel does not provide adequate risk management capabilities. Excel requires manual updates of daily market information, including price, credit rating, duration, etc. Excel also introduces the risk of infected cells.

In addition to its value as an investment decisionmaking tool, the risk management system will provide daily transparency throughout the organization so senior treasury and audit staff can independently monitor the internal investment management program.

Independent Compliance Monitoring/Performance Reporting System

Accurate, independent verification of portfolio investment policy, regulatory or tax compliance is critical to an auditable internal investment process. It is necessary, but not sufficient for senior treasury, management and audit staff to rely exclusively on the internal investment management team to monitor its own investment policy compliance.

Obviously the internal investment management staff must monitor its own compliance to make certain they are in compliance with the investment policy. In addition, the audit staff should have an independent verification of investment policy compliance for all investment portfolios, including the internal portfolio.

An independent performance calculation and reporting system can guarantee that internal and external managers use consistent pricing and performance calculation models to facilitate a direct comparison of each manager's performance versus a benchmark and versus the other managers.

Automated Execution Capabilities

Most corporate investors are waiting for the day when money market products (i.e. commercial paper, agency discount notes, etc) execution and settlement is as easy as foreign exchange transactions. The challenge in automating execution of fixed income securities is the lack of homogeneous products and structures.

TREASURY TOPICS

Automated investment execution platforms provide a distinct advantage over traditional phone trade execution in efficiency (time spent trading and/or chatting with brokers), price discovery (multi-broker systems) and trading controls.

Similar to online foreign exchange trading tools, internet based investment trading platforms allow for more efficient execution and free an investment manager's time to do the detailed analysis and research leading up to the trade decision. While not all of these platforms are free, the efficiency of online execution can, depending on the size of the portfolio, reduce internal transaction costs by hundreds of thousands of dollars a year.

Bloomberg has the BOOM <GO> function for automated trading of commercial paper and BBT <GO> for automated trading of Treasuries. Tradeweb (www.tradeweb.com) allows trading of Treasuries, Agencies, Mortgages and CP. MarketAxess (www.marketaxess) is a multi-broker platform for trading corporate bonds.

Since the bond market is a negotiated market with no single, definitive market price, finding the best price from thousands of brokers can take an incredible amount of time. Many portfolio managers will tell you the time spent seeking best execution is often rewarded with a competitive execution price. The process of price discovery is most efficient when an investment manager can access the maximum number of brokers with the minimum amount of time. This is arguably the primary value of a multi-broker automated execution platform.

Trading controls, like wire transfer controls, have the ability to limit and monitor the value and frequency of large cash movements. Trading controls can be embedded in automated trading tools. For example, the internal team may only be allowed to execute trades of \$1 million or less. These controls have two benefits: insures SOX consistency on internal wire

transfers and prevents mistakes. It is not uncommon for a portfolio manager to expect to execute a \$1 million trade and accidentally execute a \$10 million trade. Automated trading controls will minimize the chance of trading errors and impose audit processes in internal controls involving trading.

A final thought on technology costs; while \$200,000 to \$350,000 annually may seem expensive for setting up an adequate internal investment management organization, it is dwarfed by the potential economic, audit or regulatory impact of rash or uniformed decisions and mistakes by an understaffed, inadequately equipped internal investment management organization.

Personnel

An early emphasis on clear segregation of duties and independent confirmation of key data is vital to the transparency and sustainability of an internal investment process.

Segregation of duties generally refers to a segregation between the internal trading and settlement responsibilities, a segregation between the internal settlement and custody (cash/securities movement) and a segregation between the internal investments and internal accounting responsibilities.

At a minimum, an internal investment management team requires two people, one to make the investment decisions and the other to authorize the settlement or cash movement. A distinct segregation of duties between trading and settlements personnel is critical.

Equally important, neither of the two internal investment management functions should generate or book investment-related journal entries. The company should rely on an independent provider of investment accounting information to generate the accounting entries (custody and/or an accounting technology provider) and the accounting team should book them.

Single institutional custodian

An institutional custody relationship is a contractual agreement with a third party bank to provide professional services including independent safe keeping of assets, settlement and reporting of transactions, income and cash transfers, and a consistent single source of aggregate portfolio holding and transaction reports. Advantages of centralized institutional custody include independent safekeeping of assets (including a SAS70 Type 2), operational efficiency and transparency.

TREASURY TOPICS

A single, independent source for safekeeping of assets provides security of the portfolio assets and a clear segregation of duties between the party that initiates the cash or security movement (settlements person) and the party that executes the actual transfer (the custody bank).

A custody bank allows the company to outsource a large portion of the back-office operation, minimizing the work required for the securities settlements process while maximizing controls. This operational efficiency, combined with an independent, daily verification of portfolio assets and transactions, is critical to the internal infrastructure.

Broad Trading Relationships

Brokers are a valuable part of the investment management process because they provide access to research and trade execution or liquidity.

It is important to have a variety of trading relationships and not to be too closely tied to any single broker or dealer (general rule, no single broker should receive more than 20% of a company's business). While the big firms including Salomon Smith Barney, Merrill Lynch, Goldman Sachs and Morgan Stanley can provide adequate liquidity, they don't always provide the broadest selection of bonds or the best prices. It is important to have some super-regional or regional banks in a broad list of relationships.

Managing broker relationships is time consuming. The combination of 8-12 trading relationships including large, super-regional and regional brokerage firms, and active use of automated trading platforms, may be sufficient for broad market coverage.

Play to your strengths

Advantages of an internal investment manager

Several of our more sophisticated clients with adequate resource commitment manage a portion of

their assets internally. In many cases the decision to manage assets internally is predicated upon an organizational commitment to provide the internal investment management team with the time and infrastructure necessary to be successful.

Even a well-supported internal investment management team should manage a strategy that is specifically designed to play to its strengths.

The two advantages an internal investment management team has over an external team are: 1) access to accurate, timely company cash flow needs, and 2) lower fees.

Access to accurate, timely company cash flow information is arguably the most important factor driving enhanced cash portfolio returns. Since company cash flow needs are both "forecastable" (i.e. monthly payroll, debt payments, stock buy-back, etc) and erratic (i.e. acquisitions, etc.), it is reasonable to expect the internal investment management team to be in the best position to profit from this information.

Lower fees can help, but do not guarantee better returns. Starting an internal investment management team solely to save external investment management fees alone is a decision based upon a lack of understanding of the risk assumed by bringing investment management in-house.

For lower fees to fully translate into higher returns, the internal staff has to make investment decisions that are at least as good as those of an external manager with more time, experience, resources and hopefully better technology.

To match the gross-of-fees returns of the external manager and ensure a full fee savings, the internal staff must invest the time and resources necessary to compete and leverage their advantages to offset the external managers advantage in experience and aggregate.

The largest factor in driving enhanced cash returns is cash flow management. If a company has poor cash flow forecasting, resulting in last minute cash outflows, the primary advantage of an internal staff is diminished.

Disadvantages of an Internal Investment Manager

Breadth of internal resources will affect the internal investment management team's ability to: 1) allow sufficient time 2) access adequate market information 3) evaluate and monitor credit risk 4) segregate duties adequately and 5) achieve best execution.

TREASURY TOPICS

As we discussed earlier, the investment management process takes time and most external portfolio managers, analysts and traders have 100% of their time allocated to the investment management process. An external manager generally has more people, with better experience and more time to allocate to the investment management process.

It takes time and resources, specifically technology, to stay abreast of the market. Information sources, like Bloomberg, have not only market information, but also models that allow internal portfolio managers to evaluate securities relative to other products. This relative value analysis can provide a solid basis for profitable trade ideas.

While anyone can buy a bond, it is the investment manager's responsibility to research, evaluate and monitor credit, sector or structure risk. Many companies are not staffed to manage active credit, sector or structure risk internally and treasury and senior management is not prepared to deal with the consequences of a negative credit event on internally managed assets (the problem is compounded by the fact that the company has no legal recourse or no errors and omissions insurance to cover errors by the internal investment management team).

Best execution occurs when the internal manager has access to a broad range of automated trading tools and broker/dealers. If an internal manager uses only a small number of broker/dealers (3-5) in an effort to be more efficient, the internal team will have less information and fewer bids and offers to evaluate. This can be a significant disadvantage.

The internal investment team can mitigate many of these disadvantages by making certain they have adequate time, infrastructure and relationships. build confidence and credibility include complete investment transparency and measurable, consistent

A strategy that plays to the internal investment team's strengths

Many corporate cash portfolios have three tiers: 1) operating cash (money market funds), 2) enhanced cash (separate account managed to exceed 6 or 12 month LIBOR total return benchmark or a similar municipal index) and 3) short duration (separate accounts managed to exceed the 1-3 year Government/Credit >A total return benchmark or a similar municipal index).

A taxable enhanced cash strategy (a separate account managed to exceed a 6 month LIBOR total return benchmark) is best suited to capitalize on the advantages of the internal investment management staff and minimize the impact of the disadvantages.

The access to cash flow will allow the internal team to minimize the assets in operating cash (money funds) and maximize the total value of the enhanced cash strategy, in effect earning a higher rate on a larger portion of the portfolio.

The reduced fees will have a larger impact on enhanced cash versus short duration because, in general, the disparity between manager returns is narrower, making the reduction in fees potentially more important.

The importance of credit analysis and technical factors in the municipal market, specifically market size and liquidity, make a tax-exempt strategy less favorable for the enhanced cash market segment and an internal investment management team.

Managing the internal portfolio to beat a predetermined benchmark embeds accountability and consistent performance measurement with external managers in the process. Measuring the value added by an internal investment management team versus an externally managed portfolio is done by calculating excess return. Excess return is the total return of the portfolio, less that of the benchmark, using identical calculation methods.

Build Confidence and Credibility

The most successful internal management programs build and maintain confidence within the overall corporate investment structure. The tools used to Transparency

portfolios.

Complete investment process transparency is essential to monitor the success of the process controls, promptly identify potential problem areas and mount an informed, decisive response.

performance results relative to externally managed

TREASURY TOPICS

Investment management tools can allow an internal investment management team to prevent most investment problems while resolving those that do occur in a timely and efficient manner.

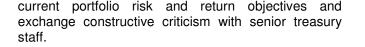
The burden of monitoring controls in the investment function falls upon the treasury and audit staff, CFO, senior management and board of directors. Therefore, it is important that all parties responsible have timely and complete visibility into the aggregate investment process including portfolio accounting, compliance, risk and performance of both internal and external investment portfolios. Complete investment transparency invites informed questions that result in discussion and education before potential problems occur. In many cases, the internal mandate will flow seamlessly into the custody and reporting platform for efficient, independent assessment of the internal risk and return.

Measurable, Consistent Results

We recommend subjecting the internal portfolio to the same manager review process as external managers. This will demonstrate internal accountability and emphasize measurable, consistent results across all portfolios, internal and external.

Performance should be measured independent of any single manager, using consistent pricing of securities and consistent models for calculating return. The external managers' performance should be shown net of fees to provide a direct comparative analysis of the total value added for both internal and external strategies.

The quarterly review process should include both quantitative and qualitative aspects of the investment manager relationship. The formal framework, like an employee review, allows the manager to discuss



The most important aspect of the formal internal investment manager review process is the quantitative performance review. Performance is defined as the economic gain the manager delivered relative to the assigned similar-risk benchmark (including performance on a risk-adjusted basis). Each quarter, senior treasury staff will calculate a portfolio total, index and excess return (total return over or under the index return) for each manager, net of fees, using a consistent pricing and performance calculation model.

The company should rank the managers' returns based upon the excess return. Since different managers may have different benchmarks, the excess return should normalize the value a manager earned over their pre-defined index, allowing for a direct comparison of manager value added over their return hurdle for a market cycle.

The Conclusion

TREASURY

Answering the question of internal vs. external investment management often leads to a combination of both. It requires an organization to honestly assess whether or not they have the right resources to be successful with adequate time, infrastructure and trading relationships. The internal investment manager must have a strategy that plays to their strengths, builds confidence and credibility and can be evaluated consistently against external investment managers.

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Disclaimer

The information provided in this article is the result of experience with investment accounting issues and interaction with accountants and investment service providers. It is not intended to be relied upon substantively; rather, it is intended to inform and provide a discussion framework that treasury practitioners, internal management, and accounting and audit staff can use to discuss the impairment process.



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