BEACON POINTE ADVISORS

# BEACON POINTE RESEARCH WHITE PAPER

## AN INTRODUCTION TO EQUITY TRADING COSTS

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*CONFIDENTIAL – PROPRIETARY*



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## HIGHLIGHTS

- *Background:* When looking at the "costs" to the plan, most fund sponsors evaluate the fees that are paid to the investment managers or mutual funds, the custodian fee, and the investment consultant fee. The costs associated with trading, however, often escape the attention of fund sponsors.

- Trading cost is normally defined as the cost of making a transaction, including the commission and the bid/ask spread (or the market maker spread). Most fund sponsors pay specific attention to the commission component of trading costs. Trading costs, however, include a number of different components, some less easily measured and some with greater costs.

- The costs associated with trading equity securities have a definite impact on the performance of a portfolio. Trading costs include both *explicit* and *implicit* costs. Explicit costs are associated with accounting charges and are easy to measure and compute. Implicit costs, however, are difficult to measure and are often significant relative to the explicit costs.

- Managing a plan's expenses is crucial in the management of the overall portfolio. Beacon Pointe understands the importance of lowering a plan's expenses and helps plans by negotiating investment manager and custodian fees. Beacon Pointe is also sensitive to the costs associated with trading and has recommended the use of third party commission recapture firms and investment management firms that utilize electronic trading systems to help reduce trading costs.

The following pages are presented to give our clients a better understanding of equity trading costs and, more importantly, how these costs can be reduced.

## Equity Trading Cost Components – Explicit Costs

- Equity trading costs can be categorized as either *explicit* or *implicit* costs.

- *Explicit costs* are costs such as commissions, SEC fees, taxes, and clearing charges. These fees are normally associated with accounting charges and are easy to measure and evaluate. Commissions are the largest explicit costs and thus have received much focus in the investment community.

- *Implicit costs* are costs such as opportunity costs or the price or market impact of a trade. These costs are difficult to measure and are often significant relative to the explicit costs. Fund sponsors oftentimes pay little attention to these costs, as they are difficult to measure.

- Driving a car serves as an analogy for the distinction between explicit and implicit costs. Explicit costs can be represented by fuel and gas costs. Implicit costs can be represented by the wear and tear costs—those costs that one does not see.

- *Explicit Costs*

  - Commissions are the largest explicit costs. Commissions are fees paid to a broker in order to execute a trade. Mr. Hans R. Stoll (*The Importance of Equity Trading Costs: Evidence from Securities Firms' Revenues*, 1995), Mr. Donald B. Keim and Mr. Ananth Madhavan (*The Cost of Institutional Equity Trades: An Overview, 1998*) estimated that commission costs range from 0.20% to 0.25% of trade value.

  - Commissions paid for equity trade transactions vary widely not only by broker in order but also by market mechanism. For example, discount brokers may charge lower commissions relative to full service brokers. Full service brokers may charge 12-15 cents per share while an electronic crossing system may charge 1-2 cents per share. Commission costs have dropped substantially over the past years due to the implementation and greater utilization of technology in trading and electronic crossing networks. In 1982, according to Stoll, commissions were almost 18 cents per share. This represented 0.58% of trade value.

  - Trading institutions are under pressure by fund sponsors to lower commission fees. The fund sponsor ultimately bears the commission costs.

## Equity Trading Cost Components – Implicit Costs

➢ *Implicit Costs*

- The bid-ask spread (market maker spread) is the difference between the bid and ask price that a specialist sets for a security. The specialist normally keeps the difference between the bid and ask prices as a fee for providing liquidity to the market. Normally, less liquid stocks will have larger spreads. The implicit cost within the bid-ask spread is the difference between the "quoted" bid-ask spread and the "effective" bid-ask spread. The effective spreads are normally smaller than the quoted trades due to buy/sell bargaining. The market maker spread is the smallest of implicit costs.

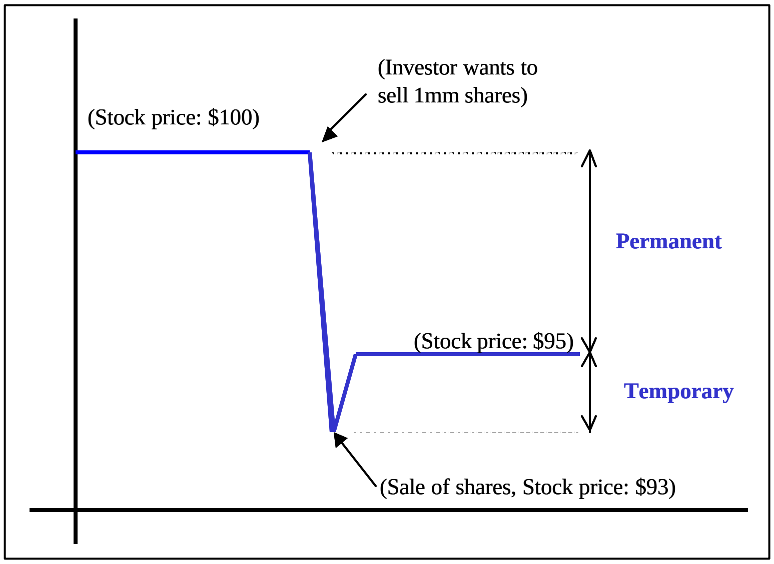
- Price impact (or market impact) is an implicit cost that results when high volume trades influence the market price of the stock. Implicit costs primarily reflect market impact. Large trades move prices and sometimes even markets.

  - Price impact can be separated into two distinct components—a permanent and a temporary component. The temporary component, according to Madhavan, is "the price concession needed to accomplish the trade (liquidity)." The permanent component is "the long-run revision in price associated with the trade (information)." This permanent component is due to the change in the market's perception of the security due to the large trade.

  - The main factor behind market price movement is asymmetric information. It is assumed that some investors may have better information than other investors. Investors on the other side of the trade oftentimes do not know the motivation behind the trade. An investor, for example, looking to buy shares of a certain security, does not know if the seller is selling for liquidity reasons or if the sale is based on private information.

  - Exhibit 1 below is a graphic representation of market impact. Let us say that an investor intends to sell shares of a security that presently have a market value of $100/share. Once this news is made public, the price of the security falls to $93/share and the investor sells the shares. Shortly after the sale, the price of the security rebounds to $95/share.

**Exhibit 1**




Source: *Advanced Portfolio Management, Dr. Madhavan, Marshall School of Business (2000)*

## Equity Trading Cost Components – Implicit Costs

- Exhibit 1 on the previous page shows how the need for liquidity plays into the overall cost structure. The purchaser of the 1 million shares believes that the value of the security is $100/share. When the purchaser hears that an investor wants to sell 1 million shares, the purchaser then feels that the value of the shares should only fall by 5% (or to $95/share) due to asymmetric information. The purchaser, however, will only take the 1 million shares if the seller is willing to sell at another 2% discount ($93/share). The 2% is the price concession needed to accomplish the trade—the needed liquidity to fill the order (temporary component). Liquidity has a cost, depending on the timing of the order and the size of the trade. Other determinants of costs include trade difficulty, order complexity, and stock specific factors, investment style, and reputation.

• Opportunity costs are the largest of implicit costs. Opportunity costs include desk timing issues and the possibility of failure to execute.

- Desk Timing: This is the gap when portfolio managers issue a trade order (buy/sell) and when the traders actually trade the securities. The costs are evident when, as a buyer, the stock prices continue to rise before the buy order is finally executed. As a seller, the costs are evident when the stock prices continue to fall before the sale order is finally executed.

  *Implementation Shortfall* is an industry standard that measures the implicit trading costs associated with the difference between the return on a paper portfolio and the actual portfolio return. Implementation shortfall compares the performance between a portfolio that is traded when a trade issue is made and the actual portfolio price.

  Example: An investor issues a 500,000-share buy order for Company XYZ when it is trading at $50. The investor's broker buys in a series of trades at an average price of $53. If the investor later sells at $50, the paper return is 0, but the shortfall is –6% ($3/$50) plus commissions, fees, etc.

- The failure to execute a trade is another cost that negatively affects the performance of the portfolio. This failure is common to firms using traditional brokerage trading institutions and electronic crossing networks. Electronic crossing networks have a problem when there are no matches available for the trade.

## Reducing Equity Trading Costs

- There are a number of different methods to reduce trading costs:

  - One can utilize passive or index funds within the overall portfolio to reduce costs. Index/passive funds generally have lower transaction and trading costs. A key factor to the lower trading costs is that passive funds normally trade (buy/sell) a security because the security has recently entered or left the index. Asymmetrical information, therefore, does not exist, as investors do not believe that index funds have private information or advantageous information. Index funds generally do not trade as quickly or often as an actively managed portfolio.

    Although index funds are a method to reduce trading costs, Beacon Pointe, in general, believes that actively managed, portfolios can add value above an index fund net of fees (*Beacon Pointe – Active versus Passive Management – September 2002). We* do, however, approach each client individually to evaluate the client's individual risk and return objectives and needs. Beacon Pointe does not recommend utilizing passive index funds as a method of reducing trading costs.

  - Beacon Pointe recommends utilizing third-party commission recapture firms to help the fund "capture" some of the brokerage commissions. A third-party recapture firm is recommended to avoid all conflicts of interest between the fund sponsor and the investment consultant. Beacon Pointe is not a registered broker-dealer and has recommended and implemented a third-party commission recapture firm for many institutional clients. Commissions are the major explicit costs to the fund sponsor.

  - Electronic communications networks (ECNs) have become very popular in the industry and have lower trading costs than do the traditional exchanges due to lower commissions, no bid-ask spread, and the elimination of price impact. The most well known ECNs are Instinet, Island, Tradebook, and Archipelago. ECNs attempt to match the buyers and sellers of a security at a pre-determined price. Since a market maker is not necessary, the cost associated with liquidity is eliminated. Generally, price impact is also eliminated, as traders remain anonymous. Beacon Pointe's manager research team believes that traders should be conscientious regarding both commissions and execution. The majority of our recommended managers, especially in the large cap arena, trade a portion of the portfolio through ECNs to help reduce costs to the fund sponsor.

  - Depending on the situation, Beacon Pointe also works with the client and associated investment managers through in-kind transfers, where stocks held by both managers are transferred without the use of a broker and thus have no commission cost or price impact.

## Summary

- It is important to focus on total costs when evaluating trading costs of the portfolio. Although commissions are easy to measure, they are not the only incurred costs. Explicit and implicit costs both have definite impacts on a portfolio's performance.

- Beacon Pointe assists our clients manage the expenses of the overall fund by negotiating investment manager and custodian fees. Our firm also believes that trading costs should also be managed and recommend the following to our clients:

- Beacon Pointe helps clients reduce trading costs by:

  - Recommending and implementing commission recapture programs.

  - Closely evaluating the trading process and portfolio construction process—managers are expected to trade for best execution and should utilize electronic crossing networks when appropriate.

  - In varying client-specific situations, Beacon Pointe will recommend methods such as in-kind transfers or other methods, when appropriate.

- Please feel free to contact your Beacon Pointe consultant if you have any questions.