

### 3. Market Impact Costs

Market impact costs are incurred when the price of a security changes as a result of the effort to purchase or sell the security.<sup>12</sup> Stated formally, market impacts are the price concessions (amounts added to the purchase price or subtracted from the selling price) that are required to find the opposite side of the trade and complete the transaction.<sup>13</sup>

Market impact cost cannot be calculated directly. It can be roughly estimated by comparing the actual price at which a trade was executed to prices that were present in the market at or near the time of the trade.<sup>14</sup> Impact cost may be reduced by stretching out a trade over a long time period. The benefit of reduced impact cost may be reduced or eliminated by an increase in opportunity cost.

### 4. Opportunity Costs

Opportunity cost is the cost of missed trades.<sup>15</sup> The longer it takes to complete a trade, the greater the likelihood that someone else will decide to buy (or sell) the security and, by doing so, drive up (or down) the price.<sup>16</sup>

Opportunity cost cannot be measured directly. The joint effect of market impact and opportunity cost can be estimated by comparing market prices at the time that the transaction was conceived to the price at which the

transaction was actually executed. Consulting firms have developed quantitative tools that attempt to estimate these costs for their clients.<sup>17</sup>

### 5. Magnitude of Transaction Costs

Although estimates of the magnitude of transaction cost and its components vary, the following estimates are representative. For the average stock fund, commission costs have been estimated at almost .30% of net assets<sup>18</sup> (an amount equal to approximately 20% of the 1.42% expense ratio of the average long-term mutual fund in 2002); and spread costs have been estimated at approximately .45% of net assets<sup>19</sup> (approximately 30% of the average expense ratio.)<sup>20</sup> Market impact cost and opportunity cost are more difficult to measure. One study estimates that total transactions costs (including market impact and opportunity costs) for large capitalization equity transactions range from 0.18% to as much as 1% of the principal amount of the transaction.<sup>21</sup> Another study estimates that for institutional investors, under relatively stable market conditions, opportunity costs may amount to 0.20% of value.<sup>22</sup>

To summarize, commissions are explicit costs, readily identifiable and quantifiable. Spread, impact, and opportunity costs are implicit costs. Because the implicit costs, which are difficult to identify and quantify, can greatly exceed the explicit costs, there is no generally agreed-upon method to calculate securities transaction costs.<sup>23</sup>

### III. Proposals To Quantify Transaction Costs

During recent years, a number of commentators have argued that although transaction costs represent a significant portion of the overall

expenses incurred by a mutual fund, current disclosure requirements fail to provide investors with adequate information about these costs. Most recently, during hearings held on March 12, 2003 by the House Committee on Financial Services, Subcommittee on Capital Markets, Insurance and Government Sponsored Enterprises, and on November 3, 2003 by the Senate Committee on Governmental Affairs, Subcommittee on Financial Management, the Budget, and International Security, several witnesses testified about the opacity of portfolio trading costs and made suggestions for additional narrative and quantitative disclosure. Suggested improvements tend to fall into three broad alternatives that would require funds to: (1) Quantify and disclose their commission costs; (2) quantify and disclose all of their transaction costs; or (3) provide other information related to the level of transaction costs. In this section of the release, we describe in more detail the alternatives for quantifying transaction costs and request comment on the alternatives. Alternatives for providing additional information about the level of transaction costs are described and comment is requested in Section V of this release.

#### A. Quantify Commission Costs Only

The dollar amount of commissions paid is easily determined. As previously indicated, the commission appears on the confirmation of each transaction and funds already report in their SAls the aggregate dollar amounts of commissions paid.

Some commentators have proposed that mutual funds be required to disclose the commissions they pay to effect securities transactions and include the result in their expense ratios and fee tables.<sup>24</sup> They argue that disclosing portfolio commissions would provide additional information about the amount of transaction costs that funds incur, thus permitting investors to make better informed investment decisions. The average commission paid by institutional investors is about 5 to 6 cents per share, but can range from 1 cent to 12 cents per share.<sup>25</sup> A portion

<sup>12</sup> See Harris, *supra* note 6 at 421. The average trade on the New York Stock Exchange and on NASDAQ is approximately 1,700 shares. The average order placed by institutions (including mutual funds) is 44,600 shares, according to an estimate from Plexus, Inc. See Wayne H. Wagner, Chairman, Plexus Group and Senior Vice President, Chase JPMorgan Chase Co., Statement Before the House Subcommittee on Capital Markets, Insurance and Government Sponsored Enterprises of the Committee on Financial Services (Mar. 12, 2003). Basic economics dictate that, if the supply of a good or service is held steady, increased demand drives up the price. Large trades have an impact on price. They "move the market" (drive the price up if the fund is buying; down if the fund is selling.)

<sup>13</sup> See Berkowitz and Logue, *supra* note 7 at 67.

<sup>14</sup> See Harris *supra* note 6 at 422–423. Theory suggests comparing the actual price paid or received to what would have prevailed had the order never been placed. In practice, however, only the market prices and bids and offers near the time of the trade can be observed.

<sup>15</sup> See Harris, *supra* note 6 at 421.

<sup>16</sup> An opportunity cost is incurred when three conditions hold: (1) The price of a stock rises (falls) after an investor decides to buy (sell) it, but before he or she is actually able to do so; (2) the price change is independent of the investor's decision; and (3) the price change is "permanent"—i.e., it is caused by the dissemination of information relevant to the valuation of the asset. Other factors may influence the price of an asset, such as temporary liquidity imbalances, but they do not generate opportunity costs. See Robert A. Schwartz and Benn Steil, *Controlling Institutional Transactions Costs*, The Journal of Portfolio Management (Spring 2002) at 43.

<sup>17</sup> See Berkowitz and Logue, *supra* note 7 at 70.

<sup>18</sup> Miles Livingston and Edward O'Neal, *Mutual Fund Brokerage Commissions*, Journal of Financial Research, Vol. XIX, No. 2 (Summer 1996) at 280. See also, Chalmers, Edelin, and Kadlec, *supra* note 2 at 2; Rich Fortin and Stuart Michelson, *Mutual Fund Trading Costs*, Journal of Investing, Vol. 7, No. 1 (Spring 1998) at 67.

<sup>19</sup> See Chalmers, Edelen, and Kadlec, *supra* note 2 at 10.

<sup>20</sup> Morningstar Principia Pro Database, Apr. 2003 edition.

<sup>21</sup> See Berkowitz and Logue, *supra* note 7 at 67.

<sup>22</sup> See Schwartz and Steil, *supra* note 16 at 43–44.

<sup>23</sup> "Transaction cost measurement is as much an art as a science. It's very difficult to accurately measure implicit trading costs. Not all companies use the same methodology, and there's no commonly accepted standards as to how to measure price impact." See Alison Sahoo, *SEC Weighs Trading Cost Rule, Seeks Industry Input*, *Ignites.com* (July 22, 2003) (quoting Ananth Madhavan, managing director of ITC, a provider of equity-trading services and transaction research to institutional investors and brokers).

<sup>24</sup> See John Montgomery, President, Bridgeway Funds, and Gary Gensler, Former Undersecretary of the Treasury for Domestic Finance and Author of *The Great Mutual Fund Trap*, Statements Before the House Subcommittee on Capital Markets, Insurance and Government Sponsored Enterprises (Mar. 12, 2003).

<sup>25</sup> See Harris, *supra* note 6 at 151. In 1998, the Commission's Office of Compliance Inspections and Examinations (OCIE) conducted limited scope on-site inspections of the soft dollar activities of 75 broker dealers and 280 investment advisers and investment companies. OCIE found the average cost