



## FIRST QUARTER 2014

# ZENO'S TRADE PROCESS PEER GROUP UNIVERSES & LEAGUE TABLES

## *SMALL CAP GROWTH MANAGERS*

Last quarter, Zeno Consulting Group introduced its trade cost Peer Group Universes and League Tables. The costs tracked in the universes include not just broker-related costs, but also the trading costs incurred by asset managers “working” their orders over multiple days. Equally important, the universes rank managers against other managers charged with the same investment mandate (e.g. Small Cap Growth, Large Cap Value, EAFE etc.).

As such, Zeno views these universes as the next step in the evolution of trade cost analysis; and an important tool in evaluating the degree to which a manager’s trading processes helps or hurts bottom-line returns. Just as Fund fiduciaries use Peer Group Universes to help identify managers with superior stock picking ability, Zeno’s Peer Group Universes and League Tables, help evaluate the skill and efficiency with which managers implement those stock picks.

This quarter’s Newsletter highlights the range of trading costs, commissions, and impact to performance incurred by managers in Zeno’s **Small Cap Growth Peer Group Universe**. It also highlights those Small Cap Growth managers who incurred the lowest total trading costs, lowest commission rates, highest turnover rates, and lowest turnover rates.

### **Small Cap Growth - Peer Group Universe**

Asset manager trading processes often significantly impact overall investment performance. To this end, managers have a fiduciary obligation to both obtain best execution (so as to minimize the impact their trading has on their clients’ portfolio returns), and avoid paying excessive commissions. Asset owners, in turn, have a fiduciary obligation to monitor their managers to ensure these legal requirements are achieved.

As shown in the table below, the range of trading costs, commissions, and impact to performance experienced by Small Cap Growth managers (for the four-quarter period ending December 31, 2013), ranged from less than -60bp to more than -136bp. Small Cap Growth managers had the highest median trading costs of all equity styles (-98bp), and the widest spread between those managers that ranked in the top quartile and bottom quartile of their Peer Group (87bp).

### About Us

Zeno Consulting Group, LLC, offers plan sponsors, mutual funds, insurance companies and fund-of-fund managers an objective way to examine the entire trading process, from stock selection through implementation, devoid of conflicts or associations with any broker/ dealer. As part of that commitment, we have also developed a proprietary benchmark that goes beyond measuring costs to encompass trade characteristics, existing market conditions and delay costs, giving you a fuller, more accurate picture of a manager’s trading execution efficiency.

### In this issue:

- **Zeno’s 1Q14 Trade Process Peer Group Universes and Manager League Tables**

- US Small Cap Growth Peer Group Universe
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*Implementation Shortfall vs. VWAP – What you don’t know can hurt you!*

- **Article Abstract:**  
*The Risks and Hidden Dangers of Relying on Manager TCA Reports*

From an investment perspective, given the average turnover rates experienced by Small Cap Growth managers, the median impact to annual returns in this period was -132bp, and the performance hit for managers ranking in the 4<sup>th</sup> quartile of Zeno's trade cost Universe was greater than -200bp! Even with 2013 having one of the strongest years for Small Cap Growth (where the average active Small Cap Manager generated returns in excess of 42%<sup>1</sup>), those costs would account for almost 5% of the average manager's total return. Over the prior three years (where the average Small Cap Growth manager averaged a little under 16%<sup>2</sup>), those costs would represent more than 13% of the average manager's performance.

US Small Cap Growth				
Ranking	Total Costs (bp)	Impact on Annual Returns (bp)	Commissions (¢)	Execution Price vs. VWAP (bp)
Top (25%)	-60	-57	-2.1	-5
Median (50%)	-98	-132	-2.9	-11
Bottom (75%)	-136	-206	-3.3	-18

To review all of Zeno's *Peer Group Universes*, key trends, and Glossary [click here](#).

## Small Cap Growth - Universe League Tables

An asset manager's trade process is a function of both the Total Trading Costs incurred to build/unwind portfolio positions, and the amount of trading the manager engages in (turnover). "Total Trading Costs" x "Turnover" defines the impact a manager's trade process has on overall investment performance. The table below highlights those **Small Cap Growth Managers**, who for the four-quarter period ending December 31, 2013, incurred the lowest "Total Trading Costs" (calculated on an implementation shortfall basis), and paid the lowest Commission rates. The rankings are based on trading conducted by those managers reviewed in Zeno's Small Cap Growth Peer Group Universe.

Given the relevance of trade volume in determining the full impact trading has on bottom-line performance, the table also highlights which managers had the greatest and lowest turnover during this period. In considering managers with high (or low) turnover strategies, it's important to recognize that turnover, in and of itself, is neither good nor bad. Rather, the execution costs of managers with high turnover strategies will have a much greater impact on investment performance. Consequently, it is critical that managers with high turnover strategies have efficient trading processes.

The converse is true for managers with low turnover strategies. While it's always important that managers avoid paying unnecessary trading costs, the impact of those costs on overall investment returns will be less for managers with low turnover strategies.

Bottom-line, linking the review of overall execution efficiency with turnover, is essential in truly understanding the impact that a manager's trading process has on its overall returns; and is an oversight best practice.

<sup>1</sup> S&P Indices Versus Active Funds (SPIVA®) U.S. Scorecard – Year end 2013

<sup>2</sup> S&P Indices Versus Active Funds (SPIVA®) U.S. Scorecard – Year end 2013

Small Cap Growth Managers			
Efficient Total Costs		Efficient Commissions	
Rank	Manager	Rank	Manager
1	Atlantic Trust	1	Clarivest Asset Management
2	Harvest Fund Advisors	2	SunAmerica Asset Management
3	Gabelli Securities	3	T. Rowe Price Associates
4	TimesSquare Capital Management	4	GW Capital
5	Riverbridge Partners	5	Harvest Fund Advisors
High Turnover		Low Turnover	
Rank	Manager	Rank	Manager
1	Wells Capital Management	1	Gabelli Securities
2	Clarivest Asset Management	2	Harvest Fund Advisors
3	Cupps Capital Management	3	Invesco
4	Columbus Circle Investors	4	GW Capital
5	Century Capital Management	5	Brown Advisory

To review all of Zeno's *Universe League Tables* and a Glossary of key terms, [click here](#).

## **FEATURE ARTICLE**

### ***Implementation Shortfall vs. VWAP – What you don't know can hurt you!***

#### **Introduction**

In today's environment, every basis point of performance counts, and no one can afford to pay unnecessary trading costs (which sap returns). Happily, over the years trading technology has evolved to the point where, *for investment managers who care*, a wide spectrum of quantitative tools are available that help minimize costs and ensure best execution. Consequently, more than ever before, the level of costs incurred by an asset owner's Fund is driven by the trading strategies selected by that Fund's managers.

Having said that, we still see large disparities in trading skill and acumen among investment managers (even within the same investment Peer Group).<sup>3</sup> It is through the diagnostic analysis of those costs that asset owners can begin assessing the soundness of each manager's trade process (and whether operational/administrative obstacles exist, whose removal might improve execution efficiency). Unfortunately, in conducting this analysis, it is not uncommon for asset owners to find major differences between the level of costs shown in their trade cost analysis ("TCA") reports verses the level of costs shown in the TCA reports used by their investment managers.

<sup>3</sup> To see the actual cost ranges within various Peer Group Universes, visit Zeno's website ([www.Zenocg.com](http://www.Zenocg.com)) under Research.



There can be many reasons that drive those differences, most of which make sense and are easily reconciled.<sup>4</sup> However, one of the more pernicious reasons is when managers calibrate the software they use to produce TCA reports so as to ascertain how closely they track their chosen trading strategy.

In these situations, a report whose primary goal is to measure the degree to which a manager deviated from its strategy, implicitly assumes the chosen strategy was the optimal strategy for reducing trading costs. This is a subtle but important nuance; and often overlooked by those monitoring for “best execution.” Unfortunately, the risk to an asset owner, from a manager using an unidentified sub-optimal trading strategy can be significant.

To be sure, in Zeno’s view, the detailed review of trading costs by investment managers is a best practice. And asset owners should encourage, and take comfort from those managers who demonstrate a commitment to efficient trading. Unfortunately, a manager’s chosen strategy may not always be optimally suited for achieving the ultimate goal of minimizing the loss of asset value associated with buying/selling securities.

A particularly common example of this dynamic is when a manager employs the trading strategy known as “VWAP”<sup>5</sup>. As described below, a VWAP-based trade strategy may sometimes represent a relatively cheap and effective method of executing certain types of trades. However, in other circumstances this approach can result in significant unnecessary costs being paid out of Fund assets – and an inability to quantify the full scope of those costs.

More to the point, if the Fund does not employ a robust trade cost oversight program of its own, not only will those excessive costs remain undetected, but the Fund will have no opportunity to engage in focused discussion with their manager regarding the impact and rationale of their trading practices. As a result their Fund can continue to pay unnecessary costs, on an ongoing basis.

This article is intended to describe how a VWAP-based trading strategy works, why and when some managers will employ it, and its primary limitations. The article then highlights some historical cost numbers - to provide concrete illustrations of various misconceptions that VWAP-based analytics may promote; and contrasts that with the benefits of an alternative trading strategy know as, “Implementation Shortfall.” We conclude by summarizing the potential risks of using a VWAP approach for trading and/or oversight.

### **The VWAP trading strategy – What are its objectives and risks?**

Beginning in the 1980s and continuing through today, a number of investment managers (as well as asset owners) began defining trading costs as the difference between the price at which a security was executed, and the average price paid in the broad marketplace, for that security over a pre-defined time period. This cost formula is called the Volume Weighted Average Price (“VWAP”).

More specifically, the goal of a VWAP trading strategy is to ensure that a manager’s trades are executed at prices close to the dollar-weighted average price paid for that security on that day (or other time period), by the entire marketplace. The time period used in calculating the average price can be a full day, a portion of a day, or even a multi-day period. In this regard, VWAP trading strategies are passive approaches that execute shares in lock step with the market.

Accordingly, if the price of a security is falling throughout the designated time period, a VWAP strategy will not accelerate selling (so as to “sell high”), but rather, sell the order’s shares in a measured fashion throughout the period.

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<sup>4</sup> A complete description of the reasons why asset owner and investment manager TCA reports typically differ, and the risks associated with trying to use the wrong report to meet your firm’s needs, are detailed in the White Paper: *The Risks and Hidden Dangers of Relying on Manager TCA Reports* posted on Zeno’s website ([www.Zenocg.com](http://www.Zenocg.com)) under Research.

<sup>5</sup> VWAP is the acronym for “Volume Weighted Average Price”.



Similarly, if a manager wants to buy a stock whose price is rising, rather than accelerate buying (so as to “buy low”) the VWAP strategy will intentionally buy shares throughout the period, paying progressively higher prices.

Proponents of this approach argue that a VWAP strategy ensures the client’s trades are executed at the “average price” (for the chosen time period) and therefore do not incur excessive trading costs. We recognize that, at a certain level, such an argument may have some appeal and utility (e.g. trades with little urgency and executed during calm markets). However, in practice, this approach can be overused, and often result in significant unnecessary costs being paid by the Fund (particularly with small cap, growth or momentum-based investment strategies).

What’s worse, a TCA report that evaluates trades using the VWAP formula, by design, tends to disguise the true loss of asset value incurred as a result. Consequently, investment fiduciaries may not even be aware if there is a problem.

For this and other reasons, VWAP is no longer viewed by many (if not most) investment managers as the optimal approach for minimizing trading costs. However, VWAP is still used by a significant number of firms, who not surprisingly, continue to utilize TCA reports predicated on this metric. In these instances, it is critical that asset owners therefore understand the limitations of VWAP-based TCA reports.

### **The Implementation Shortfall trading strategy – An alternative approach**

In contrast to the VWAP approach, an alternative definition of trading costs (which requires a very different trading strategy) is known as “Implementation Shortfall” and/or “Arrival Price.”<sup>6</sup> The Implementation Shortfall formula basically compares the execution price of a security to the price of that security at the point in time the manager first determined to buy/sell it. The “Arrival Price” cost definition is a variation of Implementation Shortfall intended to measure a portion of the full Implementation Shortfall cost – as of the point in time a trade arrived at a particular place within the trade implementation process (e.g. when the trade was received by the manager’s trading desk, or when the trade was received by a broker/dealer).

An Implementation Shortfall trading strategy is specifically designed to minimize the amount of assets paid from the Fund to buy/sell securities. Just as investment returns are calculated by comparing the beginning and ending values of a portfolio (after adjusting for cash flows), Implementation Shortfall calculates trading costs by comparing the beginning and ending prices of a trade order. To this end, TCA analysis based on an Implementation Shortfall approach helps asset owners better understand the impact a manager’s trading process has on overall performance.

In Zeno’s view, the Implementation Shortfall approach thereby aligns the interests of both the Fund and their investment managers. Indeed, the Implementation Shortfall approach is very consistent with the CFA Institute’s definition of “Best Execution” - *“the trading process most likely to maximize the value of client portfolios.”* For this reason, some TCA providers whose reports are predicated on VWAP will include disclaimers that their analysis may not constitute “best execution.”

To this end, the importance of recognizing the distinction between VWAP and Implementation Shortfall cannot be overstated.

### **How do you define costs? The answer you choose matters!**

As noted above, Zeno believes all asset managers should have a rigorous approach (including written policies and procedures) for executing and fine-tuning their trading process on an ongoing basis. At the same time, asset owners

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<sup>6</sup> The term “Implementation Shortfall” was first coined by Harvard Professor Andre Perold in his paper, “The implementation shortfall: Paper verses reality”, published in The Journal of Portfolio Management Spring 1988, Vol. 14, No. 3

should be mindful that a VWAP-based trading strategy (and the subsequent TCA reports assessing how well the manager adhered to that strategy), may not always be in the best interests of their Fund.

Further, while a formal definition used to describe “trading costs” won’t affect the actual loss of asset value incurred as a result of a manager’s trading process, that definition will drive what numbers are represented and displayed in a TCA report as “costs.” In this regard, cost definitions based on: “commissions,” “VWAP,” or Implementation Shortfall,” can yield dramatically different assessments. Perhaps more important, those assessments represent the initial inputs in determining whether adjustments are needed in the manager’s process.

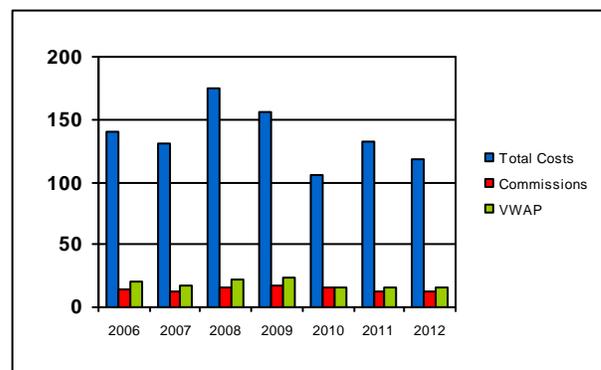
To illustrate the degree to which this dynamic can impact a Fund, Figure 1 below, displays the average commission costs, VWAP trading costs, and Implementation Shortfall trading costs incurred by Small Cap Growth managers over the past seven years. Even a cursory review shows that both commissions and the VWAP methodology vastly underestimate the full impact that trading has on Fund performance.

Specifically, over this period, Implementation Shortfall costs (i.e. the loss of asset value paid out of Fund assets) ranged from -105bp to -175bp (depending on market volatility, etc.) In contrast, VWAP costs never exceeded -25bp! Indeed, VWAP costs were approximately the same level of costs as commissions.

Figure 1

**Small Cap Growth Median Trading Costs<sup>7</sup>**

	<b>Total Cost (bp)</b>	<b>Commission (¢)</b>	<b>VWAP (bp)</b>
2006	140	3.4	20
2007	130	3.3	17
2008	175	3.1	22
2009	156	3.1	23
2010	105	3.0	16
2011	132	2.9	16
2012	118	2.9	16



Equally important, calculating costs using the VWAP methodology gives the impression that market volatility has little relevance to trading costs. For example, as shown in Figure 1, VWAP-based costs throughout the turmoil of 2008 and 2009 averaged around -23 bp, only a few basis points worse than their typical lows of -16bp.

Quite frankly, the notion that market volatility has little effect on trading flies in the face of common sense. Clearly, a Fund faces greater risk (due to trading costs) during volatile market conditions. Yet that is the opposite conclusion from what a VWAP-based analysis would seem to suggest. In contrast, costs calculated pursuant to an Implementation Shortfall methodology ranged from -175 bp (in 2008) to as low as -105 bp (in 2010). This 70 bp swing is much more consistent (and intuitive) with the notion that costs increase during times of market volatility.

Aside from understating the impact that costs have on portfolio performance, the VWAP methodology also tends to disguise the importance of *trading skill and expertise*. Figure 2 below, shows the difference between the trading costs

<sup>7</sup> Zeno Consulting Group, LLC: Small Cap Growth Universe.

incurred by the median and 75<sup>th</sup> percentile Small Cap Growth managers. As is evident from Figure 2, those differences when looking at both commission and VWAP-based costs are trivial (ranging between 7 and 20 bp), and very consistent across both volatile and flat market environments.

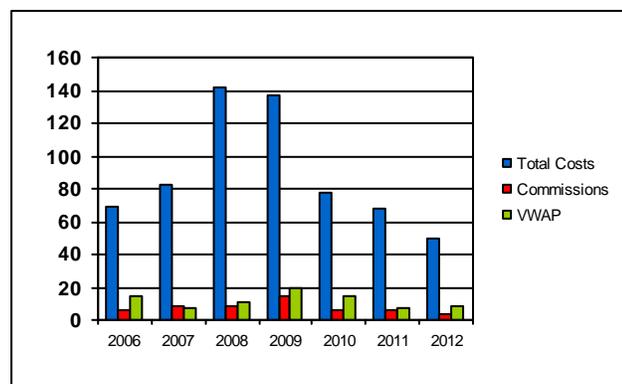
Consequently, anyone who defined costs as either “commissions” or a VWAP-based methodology might be forgiven for concluding that all managers trade equally well, and efficient trading is a commodity.

Figure 2

**Difference between 4<sup>th</sup> Quartile vs. Median Trading Costs<sup>8</sup>**

	<b>Total Cost bp (\$*)</b>	<b>Commission ¢ (\$*)</b>	<b>VWAP bp (\$*)</b>
<b>2006</b>	<b>69 (\$689K)</b>	<b>0.5 (\$64K)</b>	<b>15 (\$153K)</b>
2007	83 (\$831K)	0.6 (\$84K)	7 (\$72K)
2008	142 (\$1,423K)	0.6 (\$88K)	11 (\$112K)
2009	137 (\$1,373K)	0.5 (\$137K)	20 (\$203K)
2010	78 (\$776K)	0.5 (\$61K)	15 (\$147K)
2011	68 (\$678K)	0.3 (\$57K)	7 (\$72K)
2012	50 (\$500K)	0.4 (\$40K)	9 (\$89K)

\* \$ costs based on \$100 mm in AUM and avg. turnover rate



Of course, as the Implementation Shortfall costs in Figure 2 show, such a conclusion cannot be more wrong. Depending on whether an asset owner’s manager ranked in the median or 75<sup>th</sup> percentile of their Peer Group, the manager’s trading abilities saved (or cost) the asset owner between 50 and 142bp, depending on market conditions. Indeed, it is precisely during volatile market conditions that efficient trading processes are most important.

Bottom-line, trading skill and acumen is critical in all trading environments, but never more so than in times of market volatility. Unfortunately, unless the asset owner defines costs on an Implementation Shortfall basis, they may never even know there’s a problem. As the title of this article postulates, “*what you don’t know can hurt you!*”

**Conclusion**

“*You can’t manage what you don’t measure.*” Investment managers should always be encouraged to employ state-of-the-art trading tools and meaningful TCA reports. Indeed the scope and depth of a manager’s TCA report is often a reflection of the importance that manager places on trading, and their commitment to an efficient trading process.

However, in Zeno’s view, investment managers who emphasize VWAP-based trading strategies and VWAP-based TCA (a diminishing but still prevalent subset of managers) introduce a variety of potential risks for the asset owners who engaged their services. These risks have both investment and compliance implications, and include:

- VWAP-based analysis, by design, doesn’t capture the full scope of costs associated with building/unwinding positions from an asset owner’s portfolio.

<sup>8</sup> Zeno Consulting Group, LLC: Small Cap Growth Universe.

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- VWAP-based analysis may therefore provide partial, misleading, or incorrect assessments regarding the actual loss of asset value incurred as a result of the manager's trading strategy, and the risks associated with trading in different market environments.
  - VWAP-based analysis may similarly provide partial, misleading, or incorrect assessments regarding the manager's trading skill and his/her impact on Fund performance.
  - VWAP-based analysis won't enable asset owners to determine if a manager's trade strategy is consistent with the needs of the asset owner's specific investment mandate, nor flag trades that may be driving the absolute costs incurred in the asset owner's specific portfolio.
  - VWAP-based analysis won't identify whether an investment product's asset size is resulting in systematic excessive trading costs (i.e. if the manager has brought on too many clients and now faces a liquidity problem).
  - VWAP-based analysis lacks the ability to link the Fund's trading costs to that Fund's overall investment returns.

Accordingly, asset owners need an oversight program that ensures they obtain an accurate assessment of the true level of trading costs incurred by their Fund. Only then can they have meaningful discussions with their managers, gain comfort that those managers employ sound rational processes, and/or encourage the use of more effective trading processes.

Unfortunately, a VWAP-based analysis generally won't provide this information. At the end of the day, an oversight program predicated on Implementation Shortfall provides the best opportunity to effectively evaluate manager trading processes, and thereby better safeguard the assets of the asset owner's Fund.

*There are three kinds of lies – lies, damned lies and statistics.*  
Mark Twain, Autobiography (1924)

To access an electronic copy of this article, [click here](#).

## **ARTICLE ABSTRACT**

### ***The Risks and Hidden Dangers of Relying on Manager TCA Reports***

Today, virtually all investment managers recognize the need to incorporate some form of TCA into their investing process. And most asset owners, at a minimum, acknowledge the fiduciary obligation to monitor their manager's trading; with many viewing TCA as an important component of their investment oversight program, helping to safeguard the assets of their Funds.

Having said that, it is not uncommon for asset owners to find major differences between their TCA reports and the TCA reports used by their investment managers (both in the types of features as well as numbers). On the surface, this may appear counterintuitive, and raise unpleasant concerns regarding the efficacy of either report. However, those differences are almost always driven by the different needs of each user group; and once recognized, easily reconciled.



More to the point, in speaking with asset owners about the importance of implementing meaningful trade cost oversight programs, we're often asked two inter-related questions:

- *When I receive an independent TCA report for my Fund, why does it sometimes show different results from my managers' internal TCA reports?*
- *Rather than establish an independent TCA program for my Fund, why can't I simply ask each of my managers to send me their internal trade cost reports?*

These are fair questions; and in the absence of sound reasons, suggest that an independent TCA report might be, at best superfluous, and at worst, a false and misleading assessment of the Fund's managers. Happily, there are good explanations to both questions. Indeed, rather than causing confusion, these variances corroborate the simple fact that managers use TCA in different ways, and for different reasons than asset owners.

Generally speaking, there are five basic differences in report content and usage:

- The intended scope of the analysis;
- The use of "custodial" vs. "time-stamped" trade data;
- The use of "account-specific" vs. "block order" trade files;
- The use of standardize metrics across multiple investment managers; and
- The use of simplistic cost definitions, and/or investment strategy Peer Group Universes.

Of course, what thereby follows is that asset owners face a number of potential risks if they try to use their investment manager's TCA reports to satisfy their own oversight obligations. This is not to say that one report is right and the other report is wrong. Rather, the use (or non-use) of any of the above data may be critical for an investment manager, but not an asset owner; or vice versa. Consequently, it's difficult if not impossible to use one report to satisfy the objectives of the other report. At the end of the day, reliance by an asset owner, on their managers' TCA reports can introduce a variety of potential risks and limitations, including:

- Investment manager TCA reports typically don't look at the full costs associated with building/unwinding positions from an asset owner's portfolio.
- Asset owner custodial files are often the only way to measure a specific Fund's (or investment product) costs.
- The absence of Peer Group Universes in manager TCA reports ignores the issue of whether a manager's costs are excessive relative to their peers.
- Investment manager TCA reports that don't provide client-specific analysis, fail to address several Investment and Compliance-related oversight needs:
  - Is a manager's trade strategy consistent with the needs of the client's specific investment mandate?
  - Flagging of systematic issues, or specific trades that may be driving the client's costs.
  - Are the client's Investment Guidelines adhered to (e.g. trading in "approved" Emerging Markets, soft-dollar prohibitions, commission recapture mandates, etc.)?
  - Is "Style Drift" is occurring within the client's account (e.g. has a Large Cap manager begun buying smaller cap stocks)?
  - Has the manager brought on too many clients and now faces an AUM problem?
  - Is a manager engaging in "window dressing?"
- Investment manager TCA reports typically lack the ability to link trading costs to a specific product's overall investment returns.

- Investment manager TCA reports may use customized formulas and calibrations chosen by the manager for a variety of reasons. This is particularly evident with asset managers who emphasize VWAP-based cost formulas. Associated potential risks for asset owners include:
  - It's difficult to evaluate if a manager's trading strategy was effective, when using that manager's TCA report (which essentially only measures how closely the manager adhered to their strategy);
  - VWAP-based reports may provide partial, misleading, or incorrect assessments regarding the actual level of trading costs, and the risks associated with trading in different market environments;
  - VWAP-based reports may provide partial, misleading, or incorrect assessments regarding the manager's trading skill and his/her impact on Fund performance;
  - The risk that the manager is "gaming" their TCA benchmarks, and/or "benchmark shopping"

Bottom-line, "you can't manage what you don't measure." Zeno believes all investment managers should have a rigorous approach (including written policies and procedures) for evaluating and fine-tuning their trading process on an ongoing basis. This is a best practice, and requires the use of TCA programs designed to meet their specific goals.

At the same time, asset owners need to be mindful that TCA reports for investment managers and asset owners are often designed to address very different needs and objectives. Consequently, a manager's TCA report should not be viewed as a substitute for asset owners using their own account-specific TCA reports.

The use of independent account-specific TCA programs by asset owners helps: ensure an accurate assessment of the Fund's costs, flags inattentive managers, identifies potentially deleterious trading practices, and uncovers administrative or operational roadblocks within a manager's trading process. This in turn facilitates meaningful discussions with managers, and encourages the use of effective trading processes; thereby better safeguarding the assets of their Funds.

To read and access the full article, [click here](#).



**About the author**  
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Steven joined Zeno (formerly Plexus Group) in 1996. He manages all client servicing, sales, marketing and product development for institutional clients including plan sponsors, mutual fund boards, and other entities exercising oversight over 3<sup>rd</sup> party investment managers. Prior to joining Zeno, Steven served as General Counsel to the District of Columbia Retirement Board where he provided fiduciary guidance on investment management issues, and developed the Board's Transaction Cost Monitoring Program.

## Upcoming Newsletters

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  - *Is our current regulatory framework up to the task?*
  - *What questions should asset owners be asking their managers?*
- Fixed Income Trading Costs
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  - *How much are we really talking about?*
  - *What should I expect my managers to be doing?*

