



Adding Transparency and Lowering the Cost of Institutional Trading

Presented to:



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Introduction

Founded in 1975 by Stanley S. Abel and Eugene A. Noser, Jr., Abel/Noser has long been respected as a leader in the campaign to lower the costs associated with trading. To that end, we offer a range of effective tools to the asset owner community that help our clients achieve savings.

Value-Added Services

Transaction Cost Analysis

Transaction Cost Analysis helps asset owners establish best execution practices, reduce costs, and satisfy compliance and regulatory needs.

Commission Recapture

Commission recapture allows clients to save on explicit commission costs over an “execution-only rate” and pay bona fide fund expenses with commissions generated.

Program and Block Trading

Electronic trading and portfolio executions are vital tools for institutional investors. Includes global equities, global fixed income, ADR’s and ETFs.

Transition Management

Transition Management allows clients to move portfolios between investment managers while managing market risk and reducing explicit and implicit transaction costs.

The Abel/Noser Solution

A/N is a pioneer and the country’s leading provider of TCA, serving over 400 Asset Owners, Investment Managers, and Sell-Side Firms.

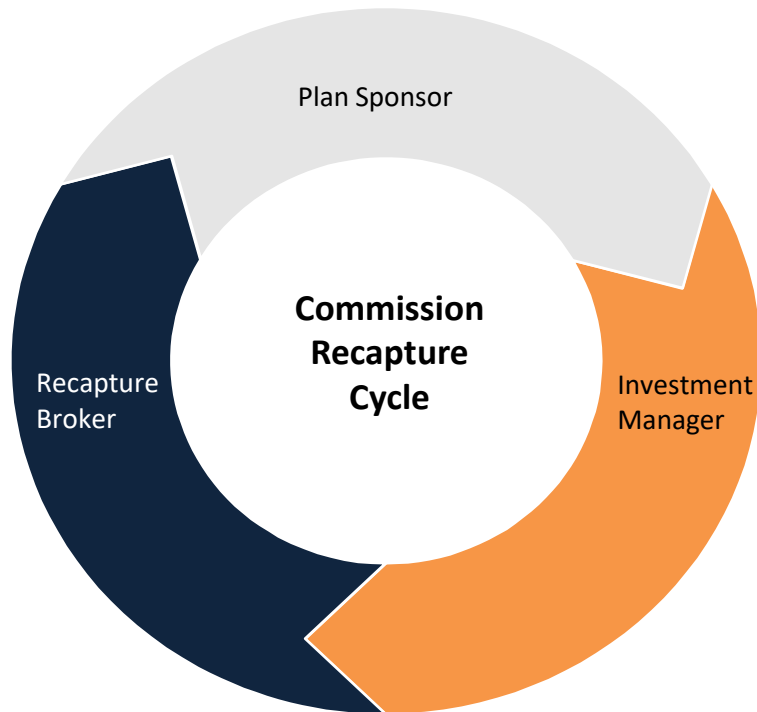
A/N is a leading provider of commission recapture, having launched the offering in 1982. We now serve over 650 asset owners.

A/N works with clients to develop customized, adaptive execution strategies derived from proprietary models and client TCA data.

TM is a natural extension of A/N’s mission to lower the costs of trading for asset owners, and our background in TCA supports measurably superior results.

Commission Recapture – How it works

Commission Recapture Programs are easily implemented, require minimal maintenance and offer an attractive alternative to paying hard dollars for TCA. The Asset Owner's commission dollars that would ordinarily be used by investment managers for their benefit instead flow back to the Fund and the net commissions kept by Abel are applied to the cost of quarterly TCA.



The Asset Owner sends a letter to its Investment Managers requesting a portion of the trading on the Fund's behalf to be executed with a designated recapture broker.

Managers trade with the broker at the "going rate" they pay their other brokers.

The broker keeps a low, execution-only rate and returns the rest of the commissions back to the Asset Owner on a monthly basis.

Example: Manager X trades 100,000 shares of IBM on an Asset Owner's behalf with Abel/Noser at 4¢/share for a total commission of \$4,000. Abel/Noser keeps 1.0¢/share to clear the trade and refunds \$3,000 back to the Asset Owner.

Choosing a Commission Recapture Broker

Questions

- *Are they established in the space?*
- *Can they manage the program?*
- *Will they monitor for best execution?*

Abel/Noser Solution

- Having launched Commission Recapture in 1982, Abel/Noser is a pioneer in the space and it remains a Core Competency today. We serve over 650 asset owners and, with our partners in our Correspondent Broker Network, we have established trading relationships with over 1,000 investment managers.
- Manager participation and commission credits are tracked on a consolidated Web portal, streamlining the accounting process and ensuring the timely reconciliation of rebates.
- Abel's industry-leading Trade Cost Analysis is an integral element of our Commission Recapture platform. We provide a high-touch, consultative approach identifying patterns in Managers' execution quality when trading inside and outside of the Program.

Trade Cost Analysis – An Overview

Abel/Noser measures commission, market impact and foreign exchange costs for all separately managed equity accounts, relative to our universe of trade data. By monitoring their investment managers' trading, our clients add transparency and save considerable money, while dedicating little time and limited resources. Our competitive advantages include:

Robust Peer Universe

A/N's Peer Universe differentiates us from our competitors in terms of both its size and application. The Universe, comprised of over \$7.5 trillion in Principal traded annually, can be segmented based on Market, Capitalization, Style, and Price Trend for "apples to apples" benchmark comparisons.

Web-Based Platform

A/N's web platform, Trade Zoom, streamlines deliverables and allows for drill down capability to the trade level. Reports are scheduled and automatically sent to interested parties.

Consultative Approach

A/N's team of Client Service representatives meet with clients on a quarterly basis to review the analysis and provide actionable recommendations to improve inefficiencies in the trading process.

Abel/Noser's TCA Process and Cycle of Deliverables



- Client authorizes Custodian to provide trade data to AN
- AN production team reviews the file and processes the trade data

- Client trade executions are compared to our tick level global market data
- AN client services team verifies results for accuracy

- Appropriate benchmark metrics are selected
- Execution costs are measured against our \$7.5 trillion Peer Universe
- A percentile ranking for each metric is computed

- Commission and Execution costs of Client's managers are compared to those trading like strategies with similar disciplines
- A trend analysis is conducted to identify trading patterns and negative trends
- Custom reports are generated

- AN will meet with Client to interpret the data, explain findings, and recommend a course of action

- Results are shared with Client's managers and engaged in dialogue should some a pattern of high costs emerge

Sample Report – By Manager

Sample Client

10/01/2012 to 12/31/2012

Top 10 Manager Summary by Buys / Sells

| TOTAL - Current Period | | Commission Cost | | | Execution Cost / Gain | | | | | | Total Cost / Gain | | | |
|------------------------|-----------|-----------------|------|-------|------------------------|--------|--------|-------------------|-------|-------|--------------------|--------|-------|---------------|
| Shares | Principal | Dollars (000) | BP | Rank | oOpnStrike Cost / Gain | | | oVWAP Cost / Gain | | | oVWAP + Commission | | | |
| | (000) | | | | Dollars (000) | BP | Rank | Dollars (000) | BP | Rank | Dollars (000) | BP | Rank | Dollars (000) |
| Total | 6,560,078 | \$185,898 | -153 | -8.3 | 45% | -\$860 | -46.2 | 61% | -\$88 | -4.7 | 60% | -\$241 | -13.0 | 53% |
| Buy | 2,966,052 | \$81,357 | -71 | -8.7 | 44% | -\$459 | -56.4 | 67% | -\$31 | -3.8 | 52% | -\$101 | -12.4 | 48% |
| Sell | 3,594,026 | \$104,541 | -83 | -7.9 | 44% | -\$401 | -38.3 | 53% | -\$57 | -5.5 | 62% | -\$140 | -13.4 | 55% |
| 1: Manager 1 | | | | | | | | | | | | | | |
| Total | 655,043 | \$18,818 | -13 | -7.1 | 35% | -\$232 | -123.2 | 95% | \$11 | 5.7 | 22% | -\$3 | -1.4 | 14% |
| Buy | 312,076 | \$9,375 | -6 | -6.2 | 29% | -\$76 | -81.2 | 81% | -\$8 | -8.0 | 68% | -\$13 | -14.3 | 57% |
| Sell | 342,967 | \$9,442 | -8 | -8.0 | 40% | -\$156 | -164.9 | 95% | \$18 | 19.4 | 5% | \$11 | 11.5 | 5% |
| 2: Manager 2 | | | | | | | | | | | | | | |
| Total | | | -7 | -4.5 | 40% | -\$75 | -47.5 | 80% | -\$50 | -31.4 | 95% | -\$57 | -35.9 | 95% |
| Buy | | | -2 | -3.4 | 39% | -\$39 | -61.0 | 95% | -\$14 | -22.5 | 95% | -\$17 | -25.9 | 95% |
| Sell | | | -5 | -5.3 | 41% | -\$37 | -38.5 | 65% | -\$35 | -37.3 | 95% | -\$40 | -42.6 | 95% |
| 3: Manager 3 | | | | | | | | | | | | | | |
| Total | | | -11 | -7.2 | 54% | -\$39 | -26.7 | 50% | \$2 | 1.4 | 29% | | | |
| Buy | | | -6 | -7.5 | 59% | -\$38 | -50.9 | 73% | -\$7 | -8.9 | 74% | | | |
| Sell | | | -5 | -7.0 | 48% | -\$1 | -1.4 | 25% | \$9 | 12.2 | 14% | | | |
| 4: Manager 4 | | | | | | | | | | | | | | |
| Total | 461,420 | \$14,590 | -12 | -8.0 | 51% | \$15 | 10.5 | 13% | -\$13 | -8.8 | 77% | -\$24 | -16.8 | 70% |
| Buy | 190,240 | \$6,726 | -6 | -8.3 | 64% | \$48 | 71.4 | 5% | -\$15 | -21.7 | 95% | -\$20 | -30.0 | 95% |
| Sell | 271,180 | \$7,864 | -6 | -7.8 | 42% | -\$33 | -41.6 | 55% | \$2 | 2.3 | 30% | -\$4 | -5.5 | 29% |
| 5: Manager 5 | | | | | | | | | | | | | | |
| Total | 571,000 | \$14,207 | -21 | -14.5 | 82% | -\$111 | -78.3 | 75% | -\$13 | -9.4 | 74% | -\$34 | -23.9 | 75% |
| Buy | 357,200 | \$7,465 | -12 | -16.4 | 79% | -\$110 | -147.4 | 90% | \$4 | 5.5 | 25% | -\$8 | -10.9 | 34% |
| Sell | 213,800 | \$6,743 | -8 | -12.3 | 88% | -\$1 | -1.7 | 25% | -\$17 | -25.9 | 95% | -\$26 | -38.2 | 95% |

Each Manager's Commission and Execution Costs are quantified and compared to their peers in the Abel/Noser Universe.

Relative results are heat mapped to easily identify areas of high costs.

| Style | Buys | | Sells | | Total | |
|------------------|-------------|-------|-------------|--------|-------------|---------|
| | Dollars (K) | % Buy | Dollars (K) | % Sell | Dollars (K) | % Total |
| Large Cap Value | \$15,271 | 18.8% | \$20,700 | 19.8% | \$35,971 | 19.3% |
| Large Cap Growth | \$12,485 | 15.3% | \$22,791 | 21.8% | \$35,277 | 19.0% |
| Mid Cap Value | \$10,045 | 12.3% | \$9,740 | 9.3% | \$19,785 | 10.6% |
| Mid Cap Growth | \$11,163 | 13.7% | \$12,730 | 12.2% | \$23,893 | 12.9% |
| Small Cap Value | \$15,343 | 18.9% | \$16,866 | 16.1% | \$32,209 | 17.3% |
| Small Cap Growth | \$17,050 | 21.0% | \$21,710 | 20.8% | \$38,760 | 20.8% |
| Other | \$0 | 0.0% | \$5 | 0.0% | \$5 | 0.0% |

| | Commission | oOpnStrike Cost / Gain | oVWap Cost / Gain | Total Cost / Gain |
|-------|------------|------------------------|-------------------|-------------------|
| | BP | BP | BP | BP |
| Total | -9.2 | -34.4 | -2.9 | -12.4 |
| Buy | -9.4 | -33.7 | -3.3 | -12.9 |
| Sell | -9.1 | -35.7 | -2.6 | -12.0 |

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Sample Report – Executive Summary



Sample Client

Transaction Cost Analysis- Domestic Equity (01/01/14 to 9/30/2014)

Executive Summary

Universe Description

- ▶ Currently measures over 7 trillion dollars per year in principal amount traded, domestically and internationally
- ▶ Over 500 clients that include:
 - Investment Managers
 - Mutual Funds
 - Pensions, Foundations and Endowments
 - Brokers

Clients' managers' execution costs are compared to the AN Peer Universe and given a relative ranking.

Results:

| EXPLICIT COST (COMMISSIONS) | | IMPLICIT COST (EXECUTION) | | TOTAL COST (EXPLICIT + IMPLICIT) | |
|---|---------------|--|------------------|--|------------------|
| ▶ Aggregate commission cost is | -2.31 ¢/share | ▶ Cost versus oVWAP is | -0.82 ¢/share or | ▶ Commission + cost v.s. oVWAP is | -3.12 ¢/share or |
| ▶ A/N Universe Benchmark is | -2.40 ¢/share | ▶ A/N Universe Benchmark is | -1.15 ¢/share or | ▶ A/N Universe Benchmark is | -3.30 ¢/share or |
| ▶ Percentile Rank in Abel Noser Universe for commission cost is | 48% | ▶ Percentile Rank in Abel Noser Universe for placement strike is | 45% | ▶ Percentile Rank in Abel Noser Universe for placement strike is | 48% |

Observations:

▶ **Explicit Costs:** During the first three months of 2014, Sample Client's domestic equity managers paid an aggregate of just over \$2.9 million, or -2.31 cents per share, in commissions. This rate was lower than the median commission in the Abel/Noser Universe and ranked in the 48th percentile.

▶ **Implicit Costs:** Over the nine months ended 9/30/2014, Sample Client's managers executed to within -0.82 cps of the order length Volume Weighted Average Price. This ranks in the 45th percentile of the Universe and illustrates that collectively Sample Client's managers received competitive prices when trading on the Fund's behalf.

▶ **High Cost Managers:**

- ▶ **Manager X-** Driven by an execution cost of -14.66 cps vs. oVWAP, Manager X experienced a Total Cost of -16.9 cps over the first three months of 2014. However, a approximately half of their execution costs were incurred selling 13,500 shares of Company XYZ. (XYZ) in July. Historically, dating back to January 1, 2013, Sands has outperformed the oVWAP by +1.56 cps.
- ▶ **Manager Y-** Manager Y's Total Cost of -10.56 cps was a result of both high explicit and implicit costs. The firm paid commissions of -5.0 cps, more than double the benchmark and in the 95th percentile of the Universe, and lost -5.56 cps to the oVWAP. Losses to the oVWAP were consistent quarter over quarter.
 - ▶ **Recommendation:** Continue to monitor. Ask Manager Y what services they receive for paying significantly higher commissions and how does Sample Client benefit. In addition, how do they benchmark their trading and measure for best execution?

▶ **Liquidations and Rebalancing Events:**

- ▶ **Manager Z** was terminated in February, 2014 and it appears they were permitted to liquidate their own portfolio. The firm liquidated 1,473,554 shares with Broker A on 2/21/14 at a full service commission rate of 3.0 cps. If given the opportunity, terminated managers will often use the liquidation as a means of catching up on soft dollar commitments, particularly in periods of low trading volume. These trades are not part of a larger order or research driven and should be done at low, execution-only rates.
 - ▶ **Recommendation:** When liquidating a portfolio, engage a Transition Manager that will act as fiduciary. A Transition Manager trading at an execution-only rate of 1 cps would have provided a savings of approximately \$30,000.

Our analysts concisely summarize areas of potential concern and provide actionable recommendations.

Glossary of Metrics:

Commission: This is the explicit cost paid by investment managers to brokers to execute and clear trades on the Fund's behalf.

oVWAP: This measure compares a manager's execution price to the Volume Weighted Average Price of the Stock over the length of the order.

Total Cost: Explicit (Commission) + Implicit (results vs. oVWAP) Costs.

Trade Zoom Web – Drill Down Capability

pre-trade
real-time
post-trade

View
Report
StockLenz
Manager Styles
Help

View: Plan Sponsor-1 (Public)

Actions Report

Time Frame: Latest Quarter (2013-04-01 - 2013-06-30) Benchmarks

| Available Dimensions | Dimensions | Prin /K | Shares | Comm /K | Comm /CPS | Comm /BP | dVWAP /K | dVWAP /CPS | dVWAP /BP |
|------------------------|--------------------|------------|-----------|---------|-----------|----------|----------|------------|-----------|
| Order Pct of Total Mkt | Grand Total | 197,671.97 | 5,327,065 | -105.40 | -1.98 | -5.33 | -42.75 | -0.80 | -2.16 |
| Portfolio | MANAGER G | 61,912.12 | 1,069,885 | -10.70 | -1.00 | -1.73 | -2.13 | -0.20 | -0.34 |
| Region | BROKER 2 | 61,912.12 | 1,069,885 | -10.70 | -1.00 | -1.73 | -2.13 | -0.20 | -0.34 |
| Style | 2013-04-01 | 61,912.12 | 1,069,885 | -10.70 | -1.00 | -1.73 | -2.13 | -0.20 | -0.34 |
| Symbol | ISHARES RUSS... | 31,075.07 | 436,680 | -4.37 | -1.00 | -1.41 | -46.17 | -10.57 | -14.86 |
| Time Interval | APPLE INC | 2,096.58 | 4,800 | -0.05 | -1.00 | -0.23 | 12.58 | 282.14 | 60.01 |
| Trade Date Month | AMGEN INC | 1,215.70 | | | | | 5.15 | 43.67 | 42.33 |
| Trade Date Quarter | VISA INC CLASS... | 1,183.26 | | | | | 4.97 | 70.94 | 41.97 |
| Trade Date Weekday | HOME DEPOT INC | 1,175.76 | | | | | 1.88 | 11.20 | 16.01 |
| | TIME WARNER... | 961.33 | | | | | 0.48 | 4.80 | 5.00 |
| | PHILIP MORRIS I... | 813.00 | | | | | -0.80 | -9.06 | -9.81 |
| | COMCAST COR... | 811.70 | 19,500 | -0.20 | -1.00 | -2.40 | 3.71 | 19.01 | 45.67 |
| | CROWN CASTLE... | 796.18 | | | | | | | |
| | BIOGEN IDEC INC | 757.26 | | | | | | | |
| | TIME WARNER I... | 649.11 | | | | | | | |
| | DISCOVERY CO... | 646.79 | | | | | | | |
| | SPRINT NEXTEL... | 645.02 | | | | | | | |
| | SHERWIN WILLI... | 605.97 | | | | | | | |
| | EBAY INC | 579.30 | | | | | | | |
| | PFIZER INC | 574.80 | | | | | | | |
| | BANK OF AMERI... | 567.17 | | | | | | | |
| | ABBOTT LABOR... | 473.69 | | | | | | | |

Selected Dimensions

- Manager
- Broker
- Trade Date
- Stock Name

Available Measures

- BrokerDay
- ManagerDay
- MultiDay
- StockDay
- Unblocked

Selected Measures

- Prin /K
- Shares
- Comm /K
- Comm /CPS
- Comm /BP
- dVWAP /K
- dVWAP /CPS

Summary reporting is supplemented with Trade Zoom, our web interface, that allows the User to drill down on trading results all the way down to the stock level.

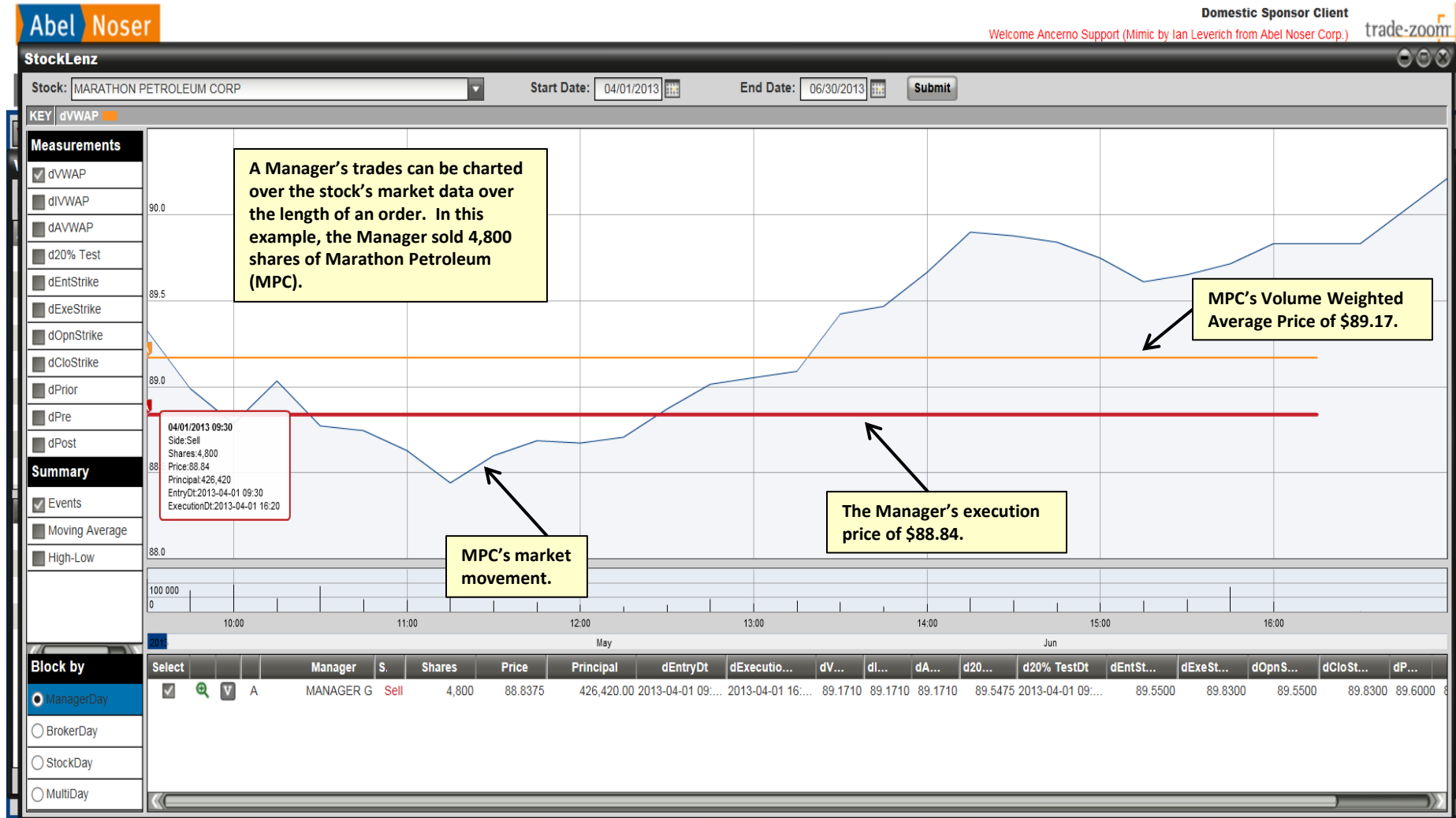
Benchmarks: 2013Q2

Region/Country: United States | Breakdown: Commissioned | Daily % of Total Mkt: Combined | Price Trend: Momentum | Sector: Combined | Style: Large Cap Gro...

| Percentile... | Comm /CPS | Comm /BP | dVWAP /CPS | dVWAP /BP |
|-----------------|-----------|----------|------------|-----------|
| 5th percentile | -1.21 | -2.74 | 5.61 | -17.35 |
| 25th percentile | -2.43 | -4.59 | 0.60 | 2.91 |
| Median | -2.90 | -6.20 | -2.53 | -6.44 |
| 75th percentile | -3.49 | -8.23 | -6.64 | -14.51 |
| 95th percentile | -5.49 | -13.79 | -11.61 | -29.85 |

Benchmarks can be adjusted based on Style, Market, Sector, Price Trend...etc.

Trade Zoom Web – Stock Lenz View



Why measure trading?

Questions

- *Shouldn't I trust my managers?*
- *Doesn't it factor into their returns?*
- *What do we do with the results?*

Abel/Noser Solution

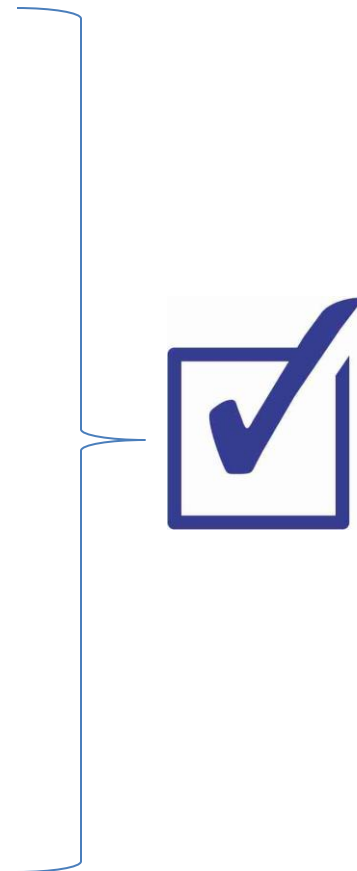
- There has been no shortage of asset owners being disadvantaged by the trading practices of those supposedly acting in their best interest. Trust but verify!
- Yes, a manager's trading factors directly into their returns. However, if there is an inefficiency in the way they execute trades, an asset owner should not wait until the manager is on a watch-list to address the issue. It is the responsibility of the fiduciary to monitor the commissions being paid out and that best execution is achieved.
- Share the results with your managers. Let them know you are watching and engage them when trends of high costs emerge.

Transition Management – An Overview

Options for Completing an Allocation Change

Key Questions

| | Liquidate & Transfer Cash | Target Manager Execution | Plan-Coordinated Event | Transition Manager |
|---|---------------------------|--|---------------------------|---------------------------|
| Is investment exposure maintained? | No | Possibly | Difficult | <u>Yes</u> |
| Who shoulders the operational burden? | Trustees / Administrators | Trustees / Administrators & Target Manager | Trustees / Administrators | <u>Transition Manager</u> |
| Who has fiduciary responsibility? | Board? | Target Manager? Board? | Board? | <u>Transition Manager</u> |
| Is specialized transition reporting available? | No | ? | ? | <u>Yes</u> |
| Is there performance accountability throughout the process? | No - cash drag | No - legacy intertwined, necessitating performance holiday | ? | <u>Yes</u> |



Transition Management – Step by Step



- Build an event timeline clearly delineating all responsibilities, identifying all calendar constraints
- Analyze exposures in legacy and target portfolios, prepare liquidity summary, identify key differences
- Estimate implementation shortfall and range of outcomes

- Neutralize largest exposures
- Multi-venue liquidity aggregation
- Algorithms built out of our TCA expertise
- Real time execution monitoring
- Operations and settlement

- Measure performance with specific reference to pre-trade estimate
- Provide comprehensive, straight-forward written report
- 3rd party independent evaluation upon request

Communication with all parties throughout the process

Proprietary analytical, trading, and TCA measurement platforms

Transition Management – Abel’s Approach

Abel/Noser has been a provider of comprehensive Transition Management services since 1986. Our offering encompasses global equities and global fixed income.

We ranked #1 in overall service in the aiCIO 2013 Transition Management Survey. Highlights of our approach include:

An Agency-Only Platform

A/N does not take the other side of client trades and we do not trade for our own account, providing a conflict-free business model.

Low Commission Rates

A/N’s commission rates are competitive, and we serve as a fiduciary at no added cost.

Industry-Leading Risk Analytics

A/N’s array of proprietary pre and post-trade tools are leveraged to the client’s benefit in the TM setting.

Improved Operational Efficiencies

Our dedicated TM team serves as an extension of your staff, developing a comprehensive blueprint to success and communicating with all parties throughout.

Transition Management – Other Implementation Considerations

Qualitative Questions

- *Can they trade?*
- *Can they manage the project?*
- *Will they put the asset owner's interests first?*

Abel/Noser Solution

- Our TCA research informs all aspects of our approach, and yields measurably superior executions.
- Client service-oriented project management is at the heart of A/N's TM offering. We strive to be a full-service transition manager, and not just an instrument of best execution. Our team helps asset owners avoid the pitfalls that can crop up in the early phases of the transition process. Our services add value in the planning stage as well as in the implementation stage.
- Our agency-only model is a vital safeguard against the conflicts of interest are inherent in other transition management models. Our sole objective is to act on our client's behalf and get the best possible price in the market.

Conclusion

Questions?

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