Trading Myths and Realities:

New Opportunities For Trustees to Save Money

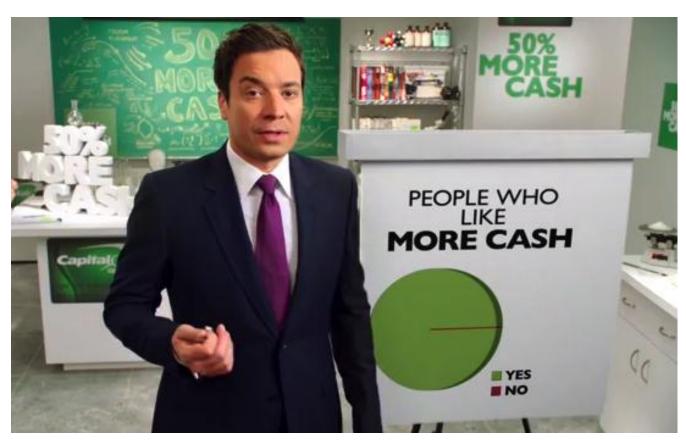
Tom Warren

President, UAT, Inc.



Why Listen? It is Your Plan's Money

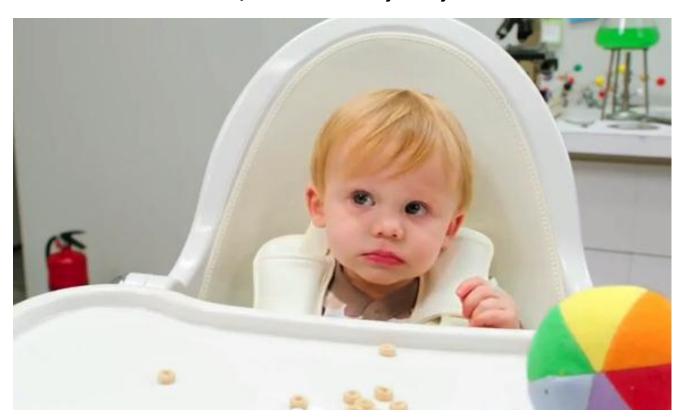
"Everybody Likes More Cash" Jimmy Fallon





Saving Money is for Everyone

"Well, Almost Everybody"





Trading Has Dramatically Changed

Three Goals to This Presentation

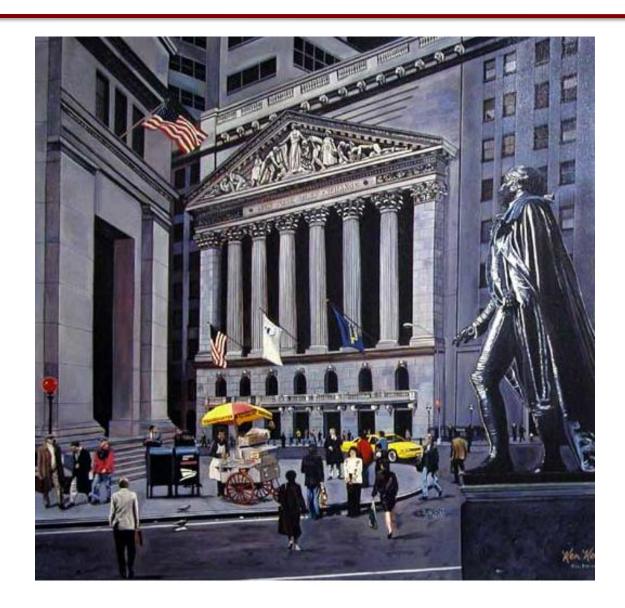
✓ Educate on Emerging Opportunities for Trustees

✓ Dispel Widely Held, But Now Obsolete, Myths About Trading

✓ What You Can Do to Create Savings for Your Plan



Saving the Plan Money in Equity Trading





What Happened to Performance Since 2000?

S& P 500 Compound Average Growth Rates (CAGR) by Decade

✓ 1950's

19.61%

✓ 1960's

7.78%

✓ 1970's

5.80%

✓ 1980's

17.68%

✓ 1990's

18.30%

✓ 2000-2011

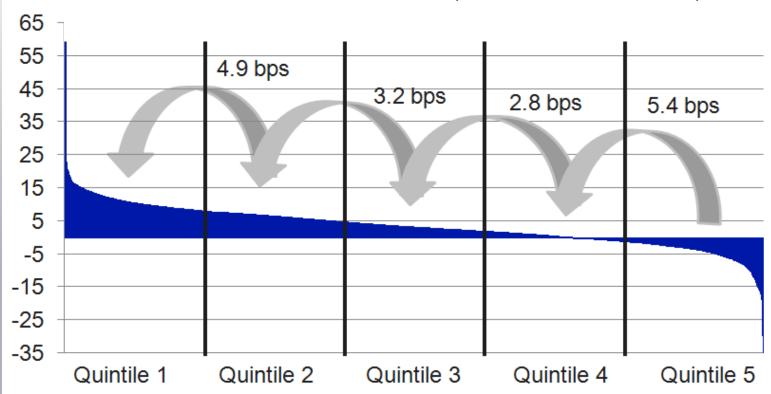
0.50%

Cash Starvation of Equity Returns



Low Return Environment: BPs to Jump a Quintile?

Performance vs. S&P 500 Benchmark Basis Points to Move from Mid Point of a Quintile to Bottom of Next Quintile

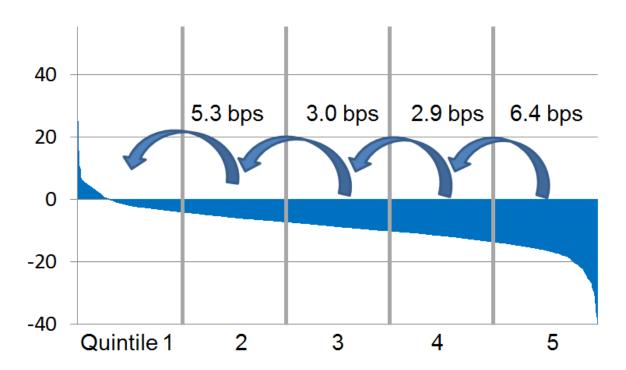


¹ One Year Total Return Analysis, assumes dividends reinvested back into the security 7/16/11 – 7/16/12 Source: Analysis of 6,087 funds by Bloomberg Tradebook Analytics using **FSRC<GO>**; April 12, 2012.



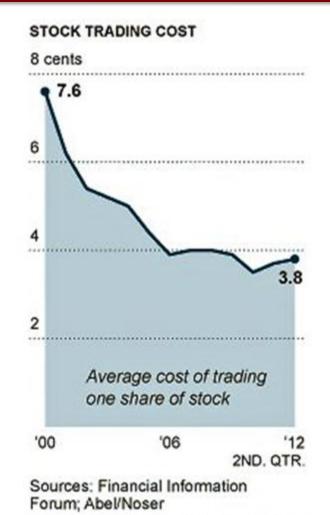
Now: "Rounding Error" Matters!!!

Performance vs. Russell 3000 Benchmark Basis Points to Move from Mid Point of a Quintile to Bottom of Next Quintile



One Year Total Return Analysis, assumes dividends reinvested back into the security 7/16/11 – 7/16/12 iShares IWV equity used as proxy for Russell 3000 index in order to incorporate dividend reinvestment in total return Source: Bloomberg, FSRC<Go>: Analysis of 6,032 U.S. Domiciled U.S. Equity Funds

Commissions Drop Dramatically, Then Rise



Lower Brokerage Commissions

√ 1990's 12.50 Cents Per Share

✓ 2002 6.25 Cents Per Share

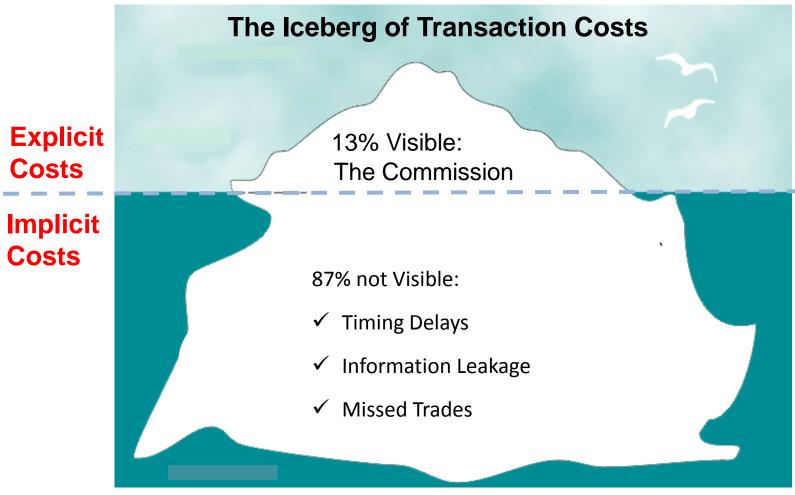
√ 2010 3.5 Cents Per Share

✓ 2012 Average 3.8 Cents per Share

✓ 2012 Electronic 1.00 Cent Per Share



What are the Two Components of Trade Cost?



» A Plan can reduce costs and help preserve alpha for trading



Trading Reality Meets Myth: The Wizard of Oz (1939)





Trading Reality Meets Myth: The Wizard of Oz (1939)





Trading: Reality Meets Myth

Two Worlds of Trading:

- ✓ High Touch: Traders Add Value Create Individually Customized
 Execution Strategy for Each Order Using Multiple Trading Venues
- ✓ Low Touch: No Value Added by Trader Hit ENTER for Automated, Low Cost, Ultra Fast Electronic Execution
- For Externally Managed Platforms: Major Implications
 - ✓ Let's Look at Three Trading "Myths"
 - ✓ Let's Begin with Some Historical Perspective

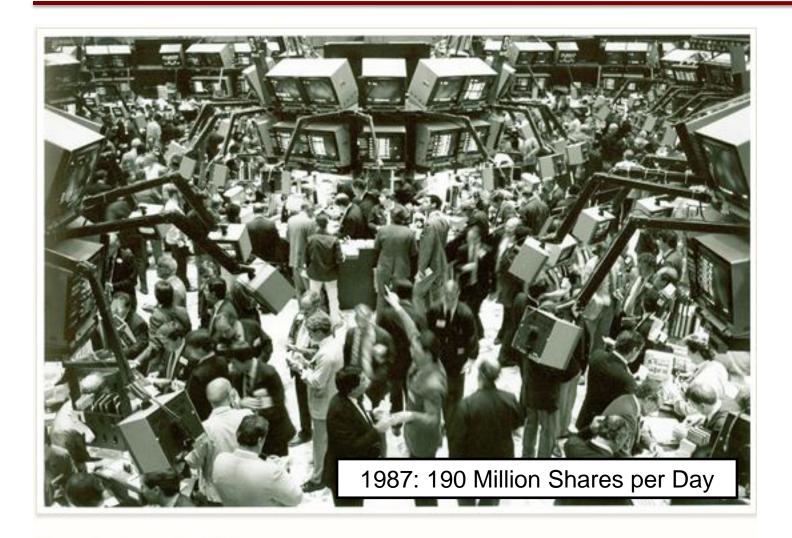


Myth #1: Aggregating Orders Benefits You

- Most Common and Most Dangerous Fallacy: No Longer True!
 - ✓ MYTH: Money Managers Aggregate Trades to Benefit Plans Through Their Buying Power
 - ✓ FACT: Large Trades Are Disadvantaged in Terms of Cost and Quality
 - Fragmented Liquidity Makes Large Blocks of Shares Hard to Find
 - More Expensive Execution with Longer Execution Times
- REALITY: Your Trades Are Better Off with Low Cost, High Quality
 Electronic Execution



NYSE: Trading Has Dramatically Changed



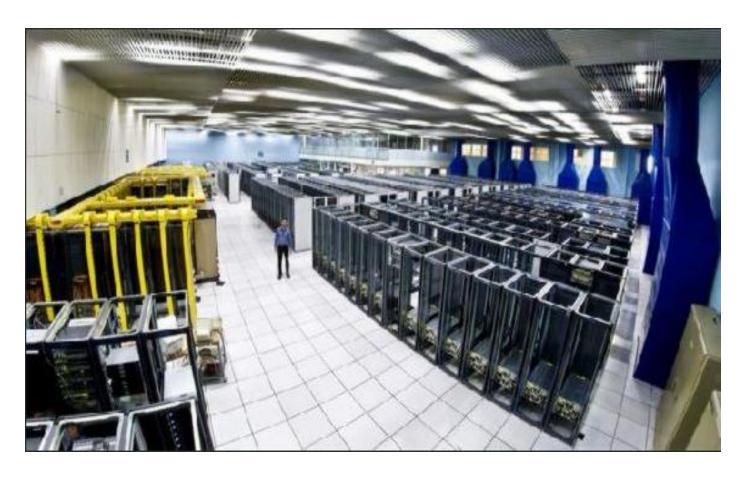


NYSE: What Happened?





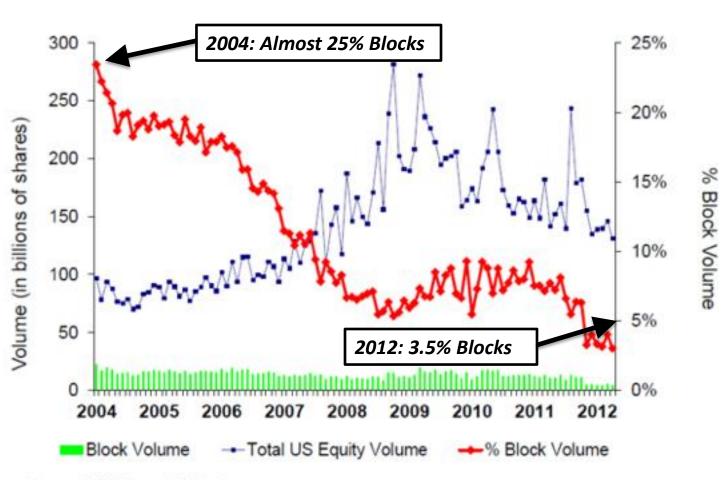
Trading Evolves From People to Computers





Block Trades (>10,000 Shares) Almost Disappear

Block Volume vs. US Total Volume: 2004 – 2012

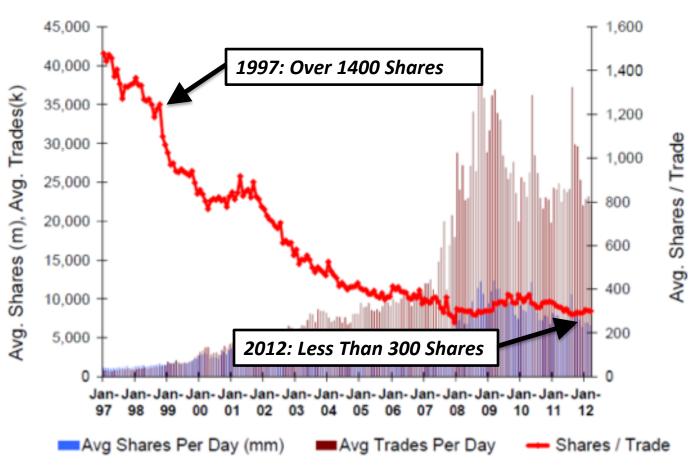




Source: TABB Group, US Exchanges

Shares per Trade Drops Dramatically

US Average Trade Size: Jan 2004 – Apr 2012



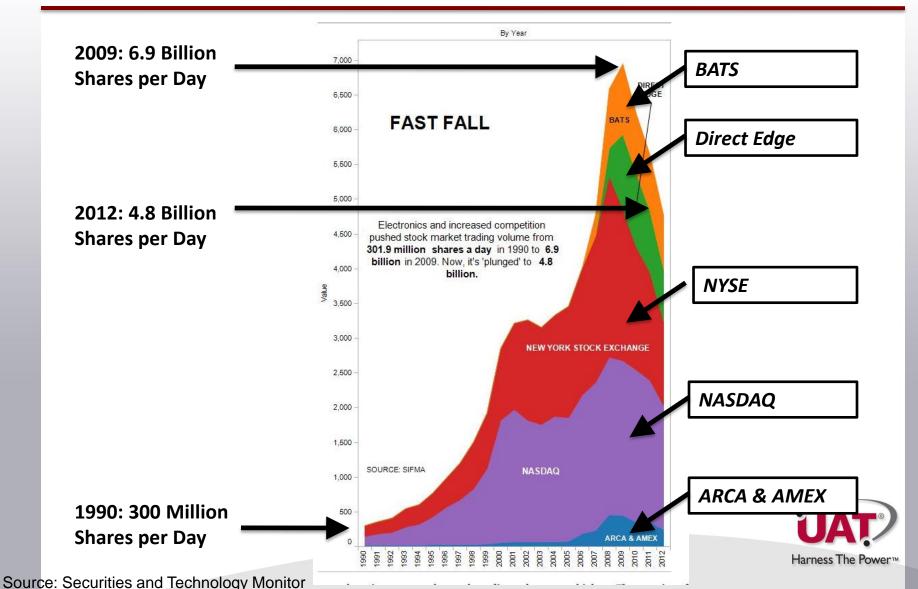
The Power™

Myth #2: Relationships with Traders Are Critical

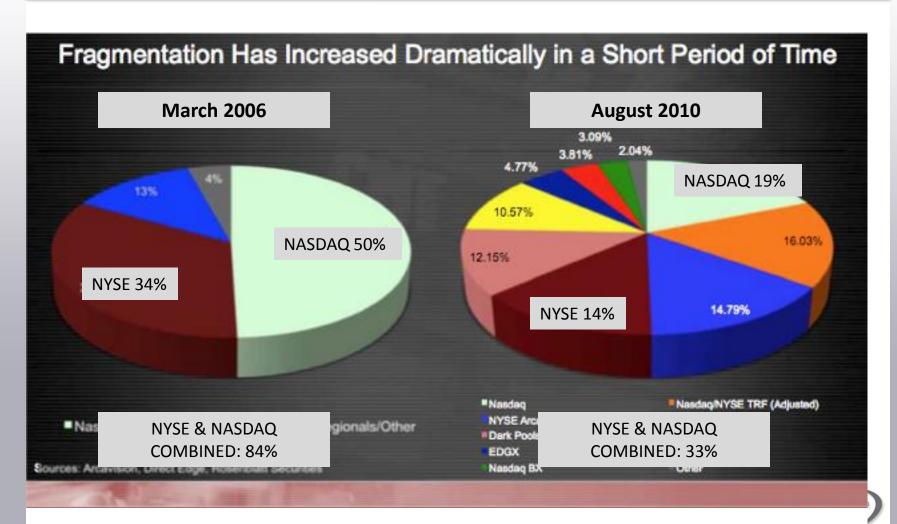
- MYTH: Money Manager Relationships with Traders are Critical to Success
- FACT: Traders are Far Fewer in Numbers and Much Less Powerful
 - ✓ Power Grew From Their Monopoly on Information
 - ✓ Electronic Systems Make Information Ubiquitous
 - ✓ Reg NMS Prohibits Favoritism on Small Orders
- REALITY: Traders' Hands Are Tied By Technology, Market Structure and Regulatory Oversight



"Liquidity Fragments" as Total Volume Explodes

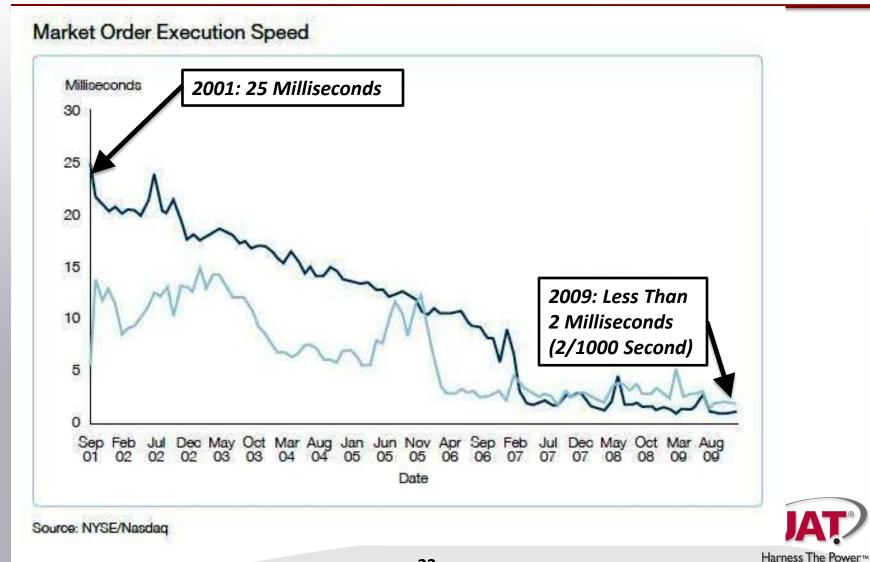


Liquidity Fragments Quickly: 2006 - 2010



Sources: ArcaVision, Direct Edge, Rosenblatt Securities

Faster Trade Execution Times



Today's Electronic Trading: The Big Picture

• Finding Large Numbers of Shares Is Difficult Across Multiple Venues

1980's....

2012....



One Major Exchange (NYSE)

Shares Offered: Thousands Spread: 12.5¢/Share Commission: 12.5¢/Share

Very Profitable!

Multiple Execution Venues

Shares Offered: 100-500 per Venue

Spread: 1¢ to 3¢/Share

Commission: 2.5¢/Share

Very Competitive!



Today: Faster, Smaller and Cheaper

Today's Trading:

✓ Faster, Cheaper Trades... Transacted at Lightning Speed... in Smaller and Smaller Share Increments... At Tighter Spreads and Lower Commissions.

"The U.S. Marketplace Has Evolved Rapidly in the Last Decade.

The Advances in Speed Since 1999 Have

Transformed the Marketplace to the Core."

Laurie Berke, Principal, Tabb Group

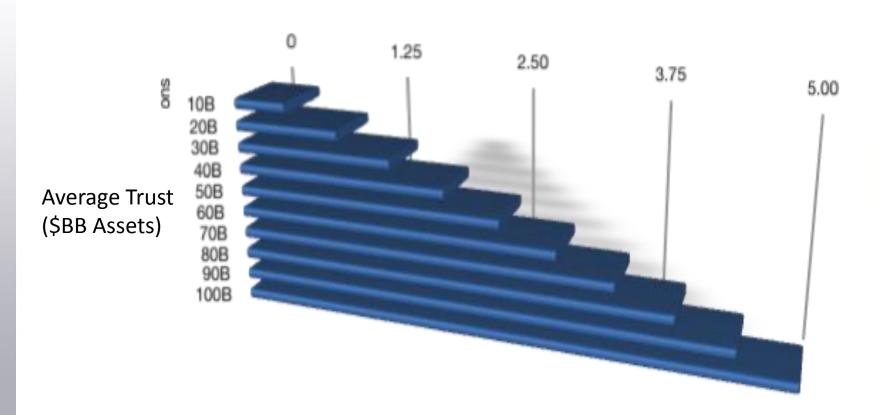


Myth #3: You Are Powerless to Question Costs

- MYTH: Trading Is Too Complicated and Plans Should Not Question Trading
- FACT: Trading Costs and Quality are Your Business
 - ✓ Plans have a Fiduciary Obligation to Lower Expenses
 - ✓ Goal: Minimize Trading Costs and Maximize Execution Quality
- REALITY: New and Improved Technology Enables Plans To Benefit from Lower Trading Costs and Higher Execution Quality



Amazing Control and Power Opportunity

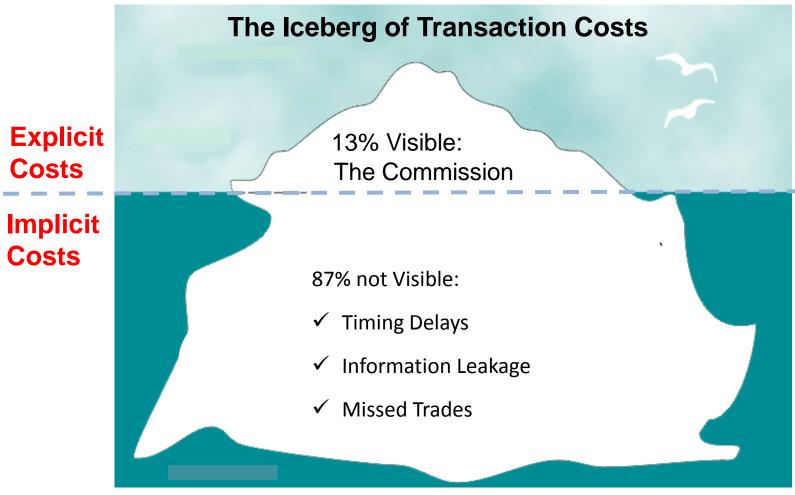


Rule of Thumb:

\$10 Billion in Active Equity Trades 500 Million Shares Annually



What are the Two Components of Trade Cost?



A Plan can reduce costs and help preserve alpha for trading



Explicit and Implicit Trading Costs

- Explicit Costs include Brokerage Commissions
 - ✓ Commissions Drop From 12.5¢ to as Low as 1.0¢ per Share
- Implicit Costs Consists of Price Improvement: More Favorable Stock Price





TABB Group White Paper



Automated Trading Decisions:

Unifying The Goals of Asset Owners and Asset Managers
September 2012



Conclusion

- Electronic Trading Has Replaced People With Computers
 - ✓ Faster Trading with Less Expensive, Higher Quality Options
- Trading Myths Die Slowly
 - ✓ Little or no Benefits to Aggregation of Your Plan's Trades and traders need technology
- Plans Have Power to Control Trading Cost and Quality
 - ✓ Technology Enables You to Help your Money Managers Deliver Better
 Results for Your Plan...Come to Booth to Get a Copy of the Report



Cost Containment Managers Custody Trading



Three Step Process

ASSESSMENT
 EVALUATION
 ACTION

