

DRIFTING ICEBERGS: PERCEPTIONS AND REALITY IN TRADING COSTS

A recent survey concluded that market academics believed the markets were improved by regulatory changes while traders felt the opposite. Who is more correct? Surprisingly, both, but in different dimensions.

Has Market Quality Deteriorated?

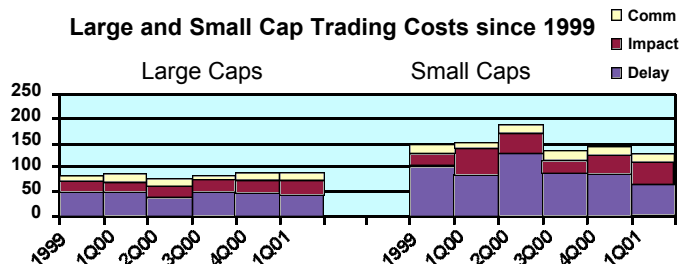
Late last year, Bob Schwartz and Dan Weaver surveyed both buy-side/sell-side practitioners and academics for their current perceptions of market quality. The key issue was whether regulatory changes that reduced spreads and increased access to markets had improved market efficiency. The academics viewed the changes favorably; however, both buy-side and sell-side traders were less enthusiastic. While the 'new market' may be friendlier to the retail investor, the overwhelming perception was that regulations have led to higher costs and more difficult trading conditions for Institutions.

Is perception reality? The trader's views were shaped by a combination of increased volatility, market fragmentation, and heavier order flow as assets exploded while the market soared and dipped. But is more difficult trading the 'fault' of the market? Moreover, is the new market truly more expensive?

Reality: Lower Costs

Years ago Plexus introduced the use of an iceberg to describe execution costs. At the tip was commission, easily seen but relatively insignificant. Market Impact (Brokerage) was the next layer; more significant, but still small relative to what lay under the water. Plexus measures Impact as the difference between the release price and the average execution price on the trade day. The hidden costs lie in the multiday Timing and Opportunity categories as institutional traders search for, and sometimes never find, liquidity.

The chart below shows iceberg data for recent quarters, using the 1999 average as a reference. Here we focus on execution costs and omit Opportunity effect, which will be discussed later.



Plexus data shows that costs remain flat for Large Cap and have recently fallen for Small Cap after peaking in the Summer of 2000. This is contrary to perception, or is it? We note that Schwartz and Weaver conducted their survey shortly after costs, especially Small Cap, rose to their all time high.

Brokerage costs (Impact, shown in red) rose for both Large and Small

Cap trades. Impact costs include spreads; yet the total is rising even though spreads are shrinking. The rise in Impact was accompanied by a fall in multi-day delay costs. This anomaly hints that the nature of the trading has shifted the cost structure in ways unrelated to market procedures. We shall see that these changes blur perceptions of trading costs. In the next few sections we will show that: 1) Trading became more concentrated; 2) Momentum conditions lightened, leading to lowered costs; and 3) The flight to safety shifted institutional trading focus from small cap stocks to lower-cost large caps.

More Concentrated Trading

The table shows that the increase in Impact results from an increase in very large daily trades exceeding 250,000 shares:

- The percentage of very large trades soared, accompanied by a tendency to concentrate heavy trading under the control of a single broker, especially in NASDAQ trades. Increasingly, traders are using brokers to search out liquidity wherever it can be found.
- Impact cost for large trades increased even more significantly. Costs for small trades may be shrinking, but that is a moot point for Institutions: over 75% of the daily trades by our clients results from orders exceeding 50,000 shares.

One Day Trades Are Larger - And More Expensive!				
	NYSE	% Change	NASDAQ	%Change
% of Total Activity				
1Q2001	41	20	39	35
1999	34		29	
Average Impact				
1Q2001	-37 bp	42	-95 bp	228
1999	-26 bp		-29 bp	

Size and Impact alone do not tell the whole story. Price momentum during trading represents the greatest challenge for traders since it is the most important determinant of cost. The percentage of orders encountering adverse momentum conditions dropped 3 percentage points for both Large and Small Cap funds, to 25% and 31% respectively. This three percentage point drop leads to a 15% drop in momentum trading costs. This drop was partially offset by reduced gains from trading orders in Favorable market conditions.

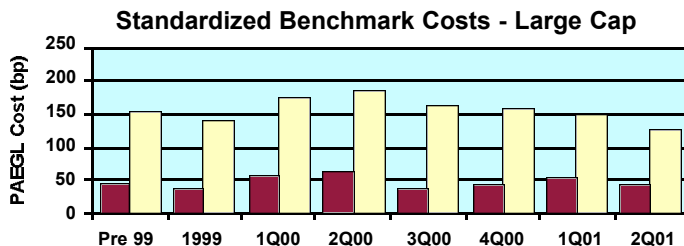
Cost of Standardized Trades

We've shown that shifting trading emphasis accounts for most of the drop in costs, but the question remains: have costs dropped, or not? Plexus re-estimates its benchmark cost equations each quarter, using the previous six months of trading data. Thus any shifts in trade cost structure will be reflected in changes in the cost equations.

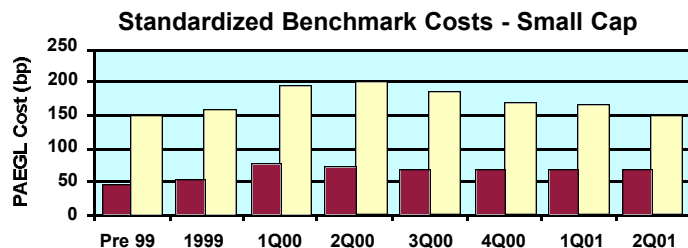
The next two graphs compare quarterly benchmark costs for standardized Large and Small Cap stocks, having the following characteristics typical of institutional trades:

Standardized Trades	Capitalization	Order shares	% daily volume
Large Cap	\$50 bil	500K	25%
Small Cap	\$5 bil	200K	50%

The graphs show expected costs for 0% (red) and for 4% momentum (yellow). The cost figures are the average of NYSE/NASDAQ equations for both buy and sell orders.



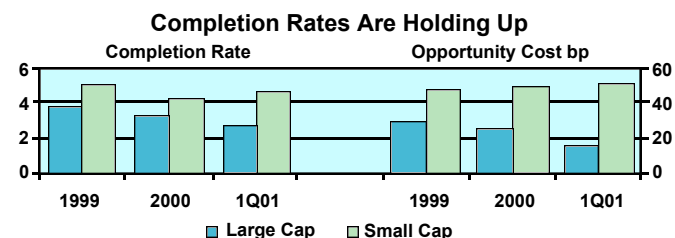
Large Cap costs initially fell in 1999, and did not start to rise until late in the year. After peaking in early 2000, costs fell back and are now below the historic average.



Similarly, Small Cap trade costs for Adverse momentum orders fell off later in 2000, but the cost for neutral momentum remains high. Perhaps earlier high-momentum costs were distorted by the NASDAQ bubble and then reverted back to more normal levels. We believe, however, that recommendations to Plexus clients to trade more aggressively into momentum to avoid delay costs also contributed to the shift. "Normal" momentum costs outside of this self-selected universe may be much higher.

Completion Rates Remain High

Because the PAEG/L and the icebergs reflect only traded shares, these results may be affected by traders and managers who cancel orders rather than pay up. We tested this hypothesis by comparing completion rates and unexecuted returns for those clients providing complete order information.



The left side of the graph shows that completion rates have held up. Both the Large Cap and the Small Cap funds now show slightly higher completion rates despite larger orders and increased volatility. One result of higher completion rates is lower Opportunity costs for the Large Cap funds, and steady costs for the Small Caps.

This reinforces our belief that clients are becoming more attuned to the cost of delays and cancellations. De-emphasizing low broker Impact in exchange for lower Timing and Opportunity costs has likely led to higher captured returns as well as lower total costs.

Conclusions

Traders dispute the claim that new market regulations improved market quality. From the Institution's viewpoint, lower costs at the retail level have led to much higher costs for institutional size.

Plexus icebergs show fairly constant Large Cap trading costs since 1999, and Small Cap stocks trending cheaper. Both of these findings are contrary to trader perceptions.

This at-a-glance perception may be too facile. It appears that reductions in Small Cap trading costs primarily reflect changes in order characteristics. The iceberg may not look so favorable had the percentage of Adverse Momentum orders not dropped off.

A trend towards higher broker Impact supports the traders' argument. Shrinking spreads have led to increased premiums for size. Ironically, traders are responding by trading more aggressively, leading to larger intra-day volumes. They can find liquidity, and the overall speed of trading as measured by daily completion rates has not dropped. In exchange for controlling Timing costs, traders are willing to pay up for rapid fill of large orders.

This is a successful strategy when urgency is high, and leads to lower total costs. But as urgency drops, we do not see a commensurate drop in Impact. Consequently, the total cost of neutral Small Cap orders remains high. In contrast, neutral Large Cap orders show little drift from historic averages.

We believe that this reflects the changes in market regulations. Smaller cap stocks have greater sensitivity to retail traders. Improved access to markets and lower spreads have provided small traders with an opportunity to crowd in front of Institutional sized orders, which pay higher premiums to access size. At least in this sector of the market, reducing costs for the little guy may truly be shifting the costs to the big Institutional guy.

Plexus Group Reschedules Conference

In response to the tragic events of September 11th, Plexus Group rescheduled its conference at Amelia Island to February 24-27, 2002. We invite your attendance.

In honor of our clients, friends and acquaintances whose lives were tragically lost, Plexus Group has made a contribution to the Fred Alger Families Trust.

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