Freeman & Co. LLC

The End of the Line for Old Reliable:
New Directions for Institutional Commission Flows

October 2002

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Freeman & Co.

Welcome to Freeman & Co.'s research report on the historical and future trends in Investment Banking. We hope to provide our clients, friends and future clients with an overview of the business. We draw upon our consulting background and knowledge of Investment Banking to evaluate the business from a strategic perspective and to provide our thoughts on how these strategies impact the industry and individual firms.

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We would like to thank our clients and friends for their continued support. We would also like to thank Patrick Connell for his research and invaluable support in developing this report. We encourage you to share your thoughts with us and look forward to working with you to develop and build your firms.

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Introduction

Traditional investment banks have long relied on commission revenues for equity sales and trading desks to provide a steady level of return and to pay for much of the infrastructure costs, most notably, equity research. This revenue stream has become even more important in the current environment with equity underwriting revenue down 38.5% for 2001 and an additional 4.1% for the first half of 2002. Further exacerbating this situation is the drop in M&A fees of 29.0% in 2001 and another 23.7% drop in first half of 2002.

Unfortunately, we feel that the sales and trading revenues may now fall after a decade-long growth. This is because there is a shift away from using traditional broker dealers for institutional trading. Investment managers are feeling their own set of pressures, as limited return opportunities make trading costs more visible. Faced with these challenges, they are critically evaluating all trading alternatives to select the most efficient execution option.

Furthermore, investment managers are increasingly questioning the value added by traditional brokers. The objectivity of equity research provided by investment banks has clearly been compromised. Allocation of "hot IPOs", a tool used by investment banks to attract secondary trading business, is non-existent in the current market environment. Therefore, in order to secure commission business, full service investment banks need to come up with some new tricks or risk losing a significant portion of this business to alternative trading venues.

In the pages that follow, we will examine:

- Trends in the institutional commission business
- Competitive pressures faced by the traditional "research sales and trading" model of investment banks
- The role that alternative trading systems and execution venues are playing in driving commission business
- Strategies that different market participants can adopt in order to enhance their positions in this rapidly evolving marketplace

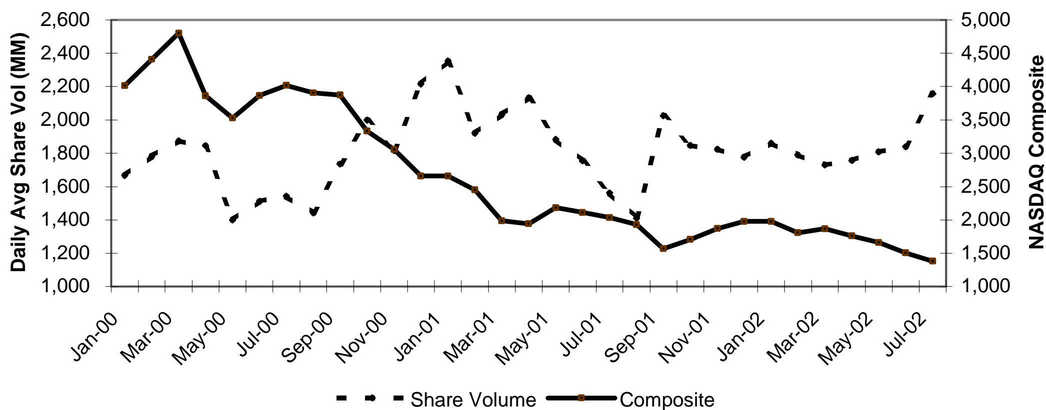
State of the Market – Equity Trading Volumes

In the past, higher stock market valuations have been associated with higher trading volumes. This makes sense as the number of publicly traded companies and market participants increases, trading volume increases. Recently, however, stock market valuation and trading volumes have diverged significantly, while both have been very volatile. This is due in large part to the change in the nature of the market participants, which has shifted from traditional "buy and hold" investors to a critical mass of participants actively pursuing quantitative strategies in order to profit from a declining market. The good news for brokers with traditional commission business is that volumes have held up in spite of decreases in stock valuation. The bad news is that there are more venues than ever competing for trade execution.

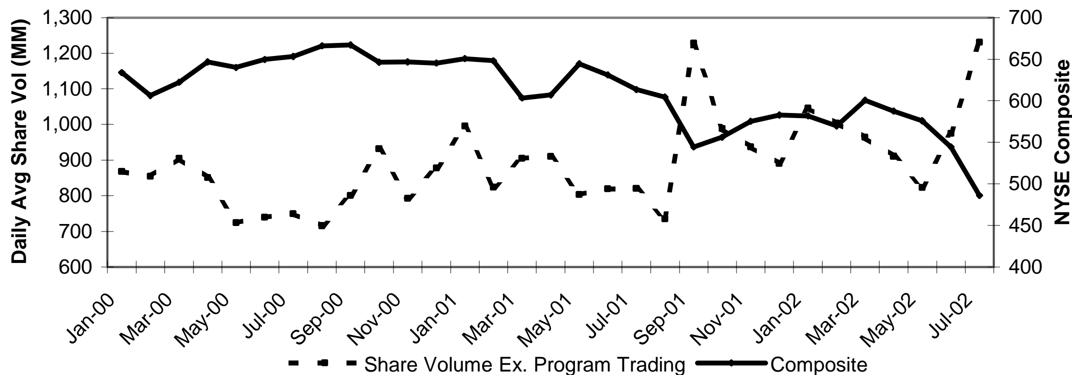
Additionally, a declining percentage of the volumes actually generate commissions for the Street. Although exact numbers are difficult to obtain, the two primary revenue generating components of volume, namely retail trading and institutional trading are down significantly. This shortfall has been compensated for by the increase in proprietary trading by investment banks and the increased trading by hedge funds and "active" retail traders (day traders), who pay little to nothing in traditional commissions. The charts below illustrate NYSE and NASDAQ equity share volume and composite value.

Figure 1: NYSE and NASDAQ Trailing 30-Month Volume and Index Values

Daily Average – NYSE Composite vs. Volume of Shares Traded (Excluding Program Trading)



Daily Average – NASDAQ Composite vs. Volume of Shares Traded



Source: NYSE and NASDAQ web sites

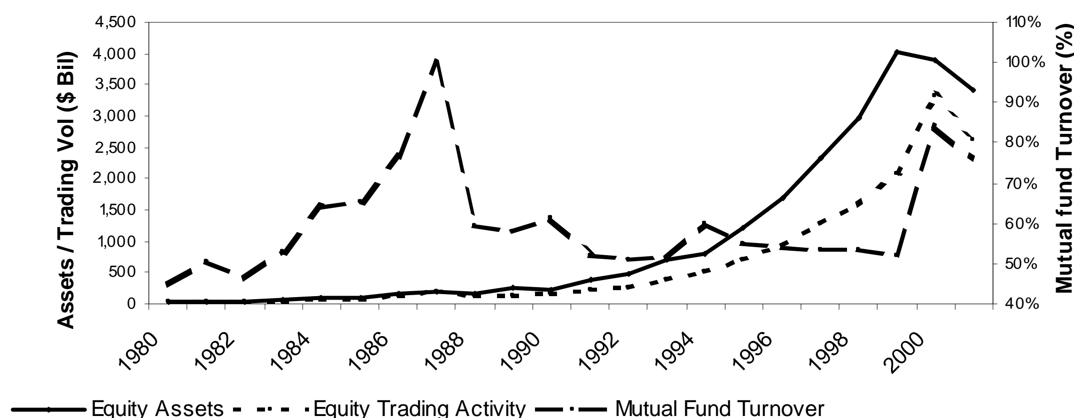
Buy Side Trading Activity

Mutual funds have fewer commission dollars to give out

Equity mutual fund assets were down 23% in 2001 and new net cash inflows were down 91% in 2001:

- Mutual fund trading activity (as indicated by their turnover rates) increases during bull markets and decreases sharply during bear markets. This makes intuitive sense, as mutual funds are "long only" investors and therefore need investment ideas that increase in value in order to trade. Such ideas are not in abundance in a bear market.
- Mutual fund trading activity (defined as the lesser of gross purchases and sales of equity assets) increased at a CAGR of 36%, while net equity assets increased by only 29% during 1994 through 2000.
- In 2001, mutual fund trading decreased by 27%, while net equity assets decreased by 23%. As the market settles down near the bottom, the decline in assets and the decline in trading activity will have a compounded effect on the turnover rate.
- If the equity assets decline 20% in 2002, and the turnover rate drops to its historical average of around 50% - 60%, the mutual fund trading activity will be down 37%-47%. Since the decline in trading activity has a direct relation to the available commission pool, commissions will decline by the same amount.

Figure 2: Mutual Fund Assets and Trading Activity



Source: Investment Company Institute

There is pressure on the buy-side to reduce trading costs . . .

As Assets under Management (AUM) and management fee revenues have decreased, there is an increased pressure on the buy-side to reduce its execution costs in order to preserve its AUM.

- According to Plexus Group's execution cost 'iceberg", large cap funds lose as much as 116 basis points in frictional costs. With an average turnover of 76%, transaction costs can reduce a fund's return by 0.88%. This may have been less significant to investors in the double-digit return environment of 1998-2000, but it means a lot in the current negative return environment.
- Plan sponsors have become educated about investment managers' ability to improve their performance by better managing their execution costs. Plan sponsors are now using execution cost efficiency as a selection criterion.

And there are fewer reasons for buy-side to trade with full service broker dealers

The reasons for trading with full service broker dealers are:

- Equity research / access to company management
- Access to deal flow – IPOs and follow-ons
- Liquidity provider
- Market intelligence

Most of these reasons have diminished in importance. The objectivity of equity research has clearly been compromised. Most buy-side firms have added research staff and have therefore decreased their reliance on sell-side research. As a result, many management teams will visit large funds on their own, without their investment banking intermediaries. Further, with a decline in primary and secondary offering activity, the value added of trading with a full service investment bank has diminished.

The growth of ECNs and alternative trading systems has created multiple liquidity pools, all of which are accessible electronically. As a result, the buy-side is only willing to pay for liquidity on complex transactions requiring a significant capital exposure, or significant sales trading time for the broker-dealer to create liquidity.

An investment bank's role as a liquidity provider is a very risky and expensive option. In the current competitive investment banking environment, the compensation associated with these trades barely covers the risk adjusted capital cost for the investment banks and by no means pays for the research and trading infrastructure.

According to Plexus Transaction Cost Analysis survey (the industry standard in measuring transaction cost across 150 of the largest asset managers globally) for 2001 and 2002, trading focused firms (highlighted in the chart below) are gaining ground in terms of quality of execution. As some of the factors mentioned earlier have decreased in importance, trading focused firms are better positioned to gain market share in a declining commission market.

Figure 3: Plexus US Broker Dealer Execution Cost

Plexus Transaction Cost Analysis

Exchange Listed - Most Used - All Trades

2002	Percent of Trading	2001	Percent of Trading
Merrill Lynch	8.86%	Merrill Lynch	8.44%
Salomon Smith Barney	7.49%	Salomon Smith Barney	6.83%
Morgan Stanley	6.66%	Goldman Sachs	5.11%
Goldman Sachs	6.26%	Morgan Stanley	4.95%
Credit Suisse First Boston	5.82%	ITG/Posit	4.62%

Nasdaq Listed - Most Used - All Trades

2002	Percent of Trading	2001	Percent of Trading
Merrill Lynch	9.44%	Merrill Lynch	10.66%
Salomon Smith Barney	8.07%	Goldman Sachs	8.22%
Goldman Sachs	8.06%	Salomon Smith Barney	7.62%
Credit Suisse First Boston	7.13%	Morgan Stanley	7.24%
Morgan Stanley	6.77%	Instinet	6.63%

Exchange Listed - Best Execution - All Trades

2002	Value added (bps)	2001	Value added (bps)
Weeden	13	Goldman Sachs	17
ITG/Posit	11	Pershing	13
Jefferies	8	UBS Warburg	11
Bear Stearns	6	JP Morgan	9
Salomon Smith Barney	5	Morgan Stanley	7

Nasdaq Listed - Best Execution - All Trades

2002	Value added (bps)	2001	Value added (bps)
Instinet	44	UBS Warburg	33
ITG/Posit	36	Instinet	30
Bloomberg Tradebook	26	Bloomberg Tradebook	15
Spear, Leeds & Kellog	9	ITG/Posit	10
JP Morgan	4	Goldman Sachs	1

Note: Trading orianted firms are hilighted
Source: Pensions and Investments

The buy-side has responded by increasing its use of alternative trading systems

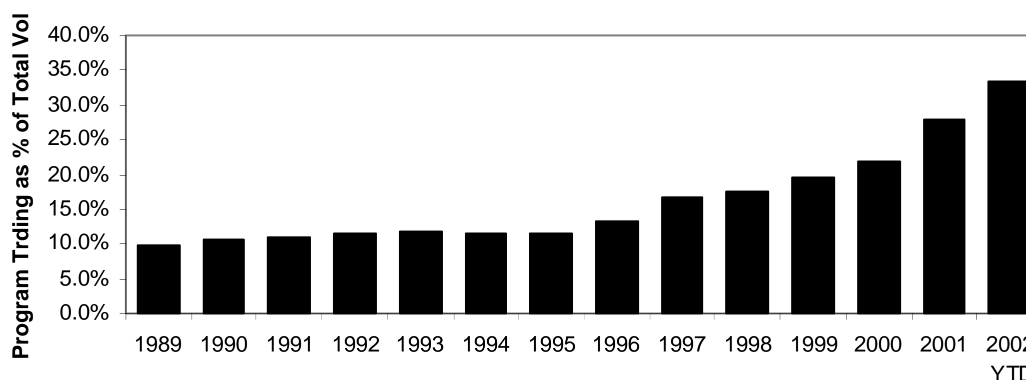
The buy-side is doing the following:

- Increasing the use of program trading
- Increasing the use of alternative trading systems (ATS) such as POSIT, Instinet, and other ECNS

While share volume remains high, broker dealers are experiencing an assault on several fronts that is reducing potential commission revenue. The first assault comes from the trend towards program trading, which has been increasing as a percentage of total volume on the NYSE. While this may not have an overall negative impact on broker dealers that have strong program trading desks, it will likely draw business away from traditional commission businesses, and consequently reduce revenues available to support the core research, sales and trading platform.

The chart below illustrates the increasing importance of program trading.

Figure 4: NYSE Program Trading Volume as Percentage of Total NYSE Volume

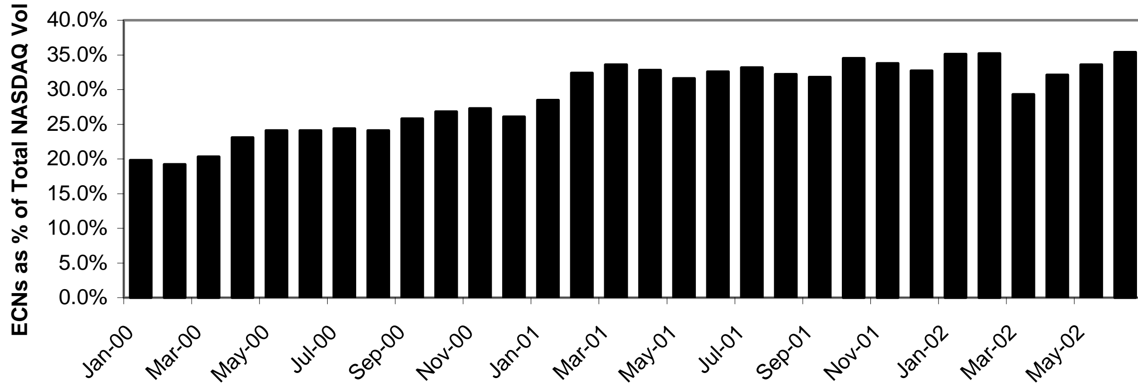


Source: NYSE website

The second assault comes from direct access brokers and ECNs. Although information on direct access brokers and their share of trading volume is limited, data from public companies such as ITG (a leading institutional direct access and trade matching system operator) regarding its POSIT and Client site product revenues (direct access execution products) give an indication of the increasing importance of this means of trade execution.

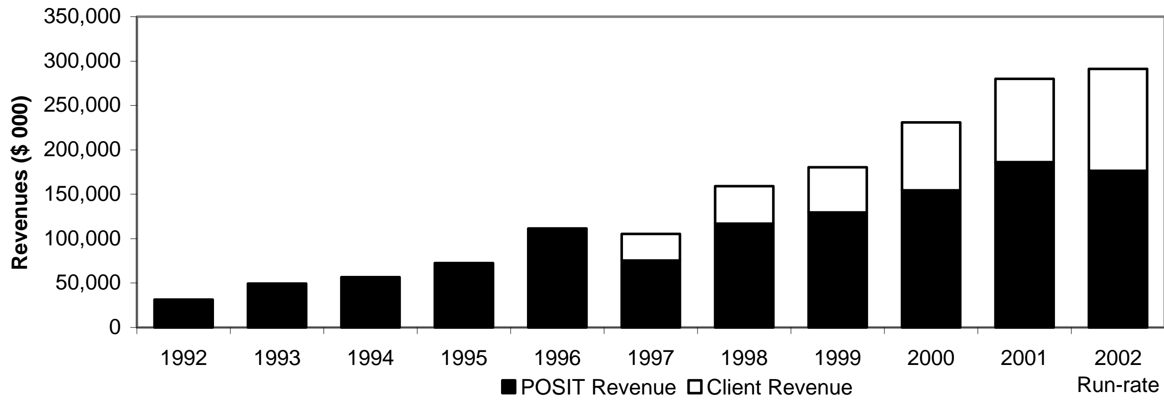
The exact magnitude of ECNs on reducing traditional commission revenues is difficult to determine, because many broker dealers also use ECNs to offload their positions. Still, there is little doubt that this alternative trading venue has recently gained in importance.

Figure 5: ECN Volume as % of NASDAQ Trading Volume



Source: NASDAQ website

Figure 6: ITG's POSIT and Client-Site Products Trading Volumes



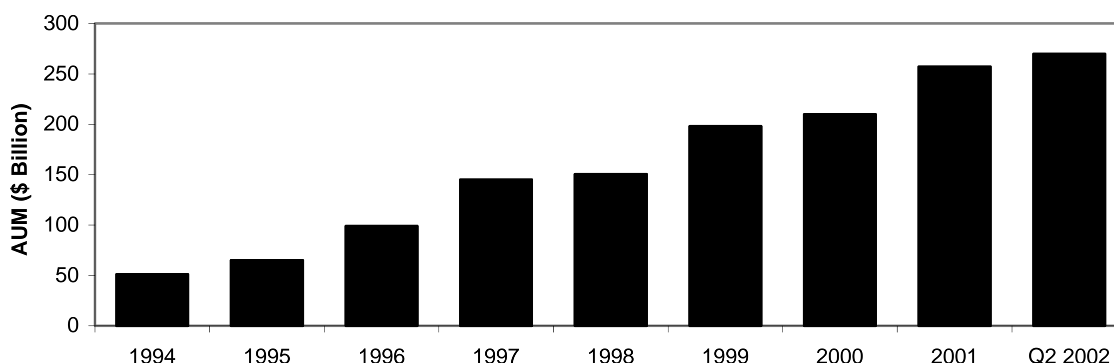
Source: ITG 10-K Reports

Growth in Hedge Funds Assets

The growth of hedge funds offers some hope . . .

While the conventional equity asset managers have been losing assets as a result of market decline and redemptions, hedge funds have been gaining assets. Total assets under management for hedge funds increased from approximately $150 billion in 1998 to approximately $275 billion by the end of the second quarter of 2002. This is a compounded annual growth rate of 19%, significantly higher than the 3% growth in mutual fund assets over the same period. This is good news for equity trading desks, since compared to traditional investment managers, hedge funds tend to be far more active traders.

Figure 7: Hedge Fund Assets Under Management



Source: TASS Research

…but they have their unique set of service needs.

This sounds like good news, but the reality is that capturing hedge fund trading volume requires a completely different set of product capabilities and relationships. Some of these include:

Prime brokerage product: A critical aspect in attracting hedge fund trading volume is the ability of investment banks to provide a full suite of execution, financing, securities lending, clearing and accounting services (prime brokerage). Hedge funds are big users of broker-dealer financing in order to execute their strategies. This represents a profitable opportunity for investment banks.

Soft dollar product: Soft dollars allow hedge funds to pay for expenses through trading commissions as against paying them from their management fees. Hedge funds are very flexible in terms of what they can and cannot pay for using soft dollars. They have a strong incentive to outsource as much of the middle and back office functions as possible, and to pay for its use in soft dollars.

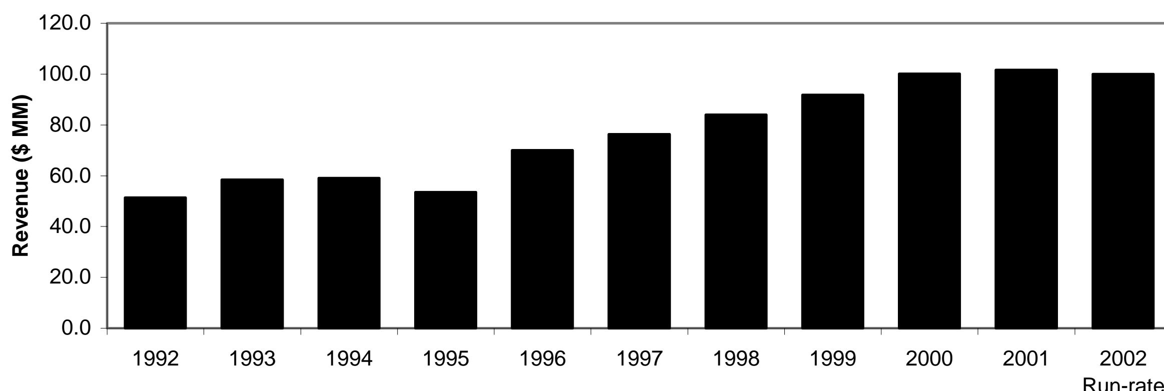
Quantitative execution products: Unlike traditional "buy and hold" investors, hedge fund's strategies are focused on profiting from small market discrepancies. The profitability of these strategies is highly dependent upon the speed and quality of execution. Quantitative products that allow investment managers to define their investment objectives and execute trades in the most efficient manner are very valuable.

The Soft Dollar Advantage

The buy-side finds it difficult to reduce the amount of trading commissions it directs towards soft dollar payments, as it needs almost the same amount of dollars to pay its infrastructure bills. In fact, we believe that soft dollar commissions as a percentage of total commissions given to the Street must have increased, as many research, data and accounting service contracts are fixed price contracts and therefore unaffected by the current market decline.

Therefore the only place to reduce commission flow is in the free commissions historically available to the full service investment banks. As one of the leading and the only "pure-play" public soft dollar firms, Hoenig Securities' revenue may be viewed as a proxy for the state of the soft dollar brokerage business.

Figure 8: Soft Dollar Commission Revenues of Hoenig Group, Inc.



Source: Hoenig 10-K Report

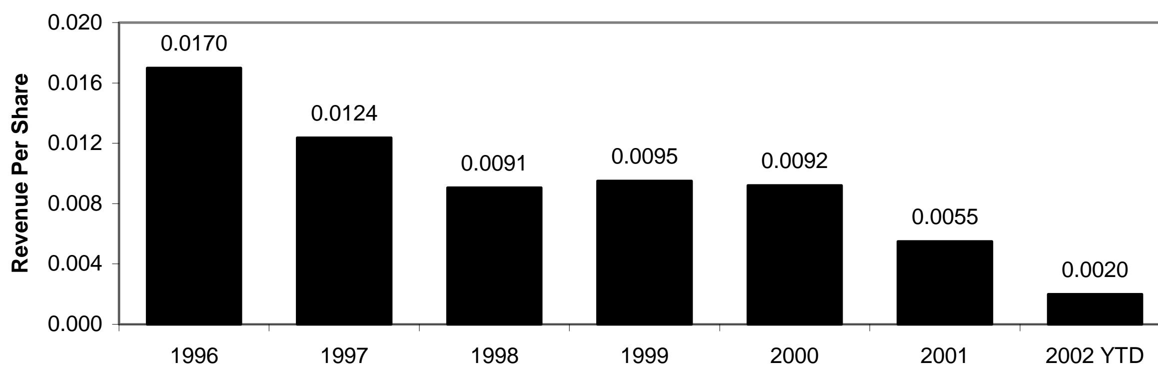
Hoenig has also been the beneficiary of the growth in hedge funds, which for reasons mentioned earlier, have been a major driver of soft dollar activity.

NASDAQ Trading Spread Compression

As if all the diversion in trading flow was not enough, decimalization has killed the profitability of the trading desks for sell-side firms

In addition to facing encroachment on their traditional commission business, broker dealers are also experiencing reductions in revenue per share due to decimalization, creating a shortfall in revenues that cannot be compensated for by any increases in volumes. Knight Securities, the leading market maker of OTC securities, provides revenue per share information that may be viewed as a proxy for the OTC trading spreads in the broker-to-broker market. While spreads at OTC desks of most full service investment banks are higher than the spreads in the inter-dealer broker market, we believe that they have experienced a similar decline.

Figure 9: Knight Securities' Revenue per Share



Source: Knight Holdings 10-K Reports

Trading desks, however, are reluctant to reduce their cost base to compensate for this reduction in OTC trading spreads, as they still need the same number of traders to effectively service the execution needs of their institutional customers, as well as to maintain their market share in relevant stocks to capture corporate finance business. The net result is a sharp decline in the overall profitability of the cash equity business.

Impact on Investment Banks

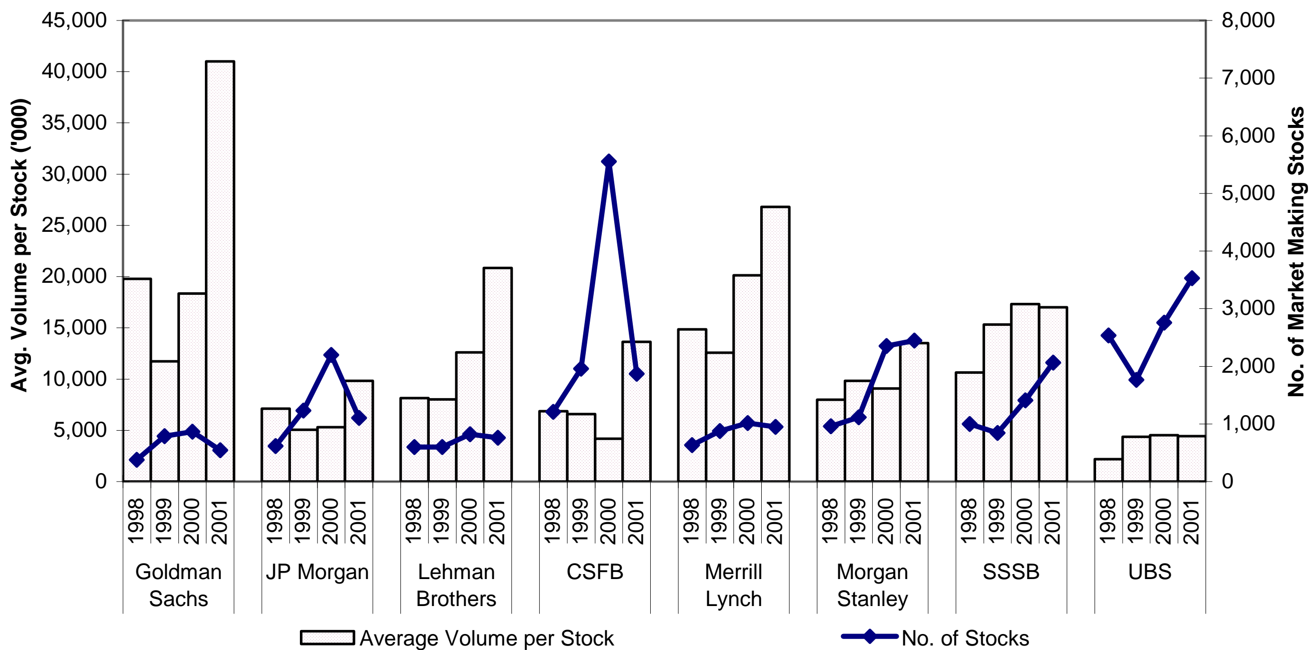
Large full-service investment banks

With the competition for commissions increasing every day, bulge bracket investment banks are increasingly reliant on capital-intensive trading products such as program trading, executing large block trades, equity derivatives and proprietary trading strategies.

During the technology boom, equity sales and trading distribution strength had become a marketing tool for corporate finance. This resulted in the expansion of trading desks at major firms, which were soon making markets in stocks where there was very little equity trading activity or had acquired large inter-broker dealer businesses (e.g. Goldman Sachs' acquisition of Spear Leeds and Merrill Lynch's acquisition of Herzog, Heine).

The decline in new issue volume, coupled with the sharp decline in the profitability of OTC trading desks is forcing investment banks to evaluate the stocks in which they are making markets, and to focus their research and trading resources on priority clients and stocks. As the chart below indicates, as a firm increases the number of stocks in which it makes markets, the average volume per stock declines, suggesting the diminishing return of adding stocks to its market making effort. This marginal return relationship further validates the need for investment banks to evaluate the distribution of trading desk resources. The recent announcement by Merrill Lynch to reduce the number of NASDAQ stocks it makes markets in by 75% is an indication of this trend.

Figure 10: OTC Market Making Rev/Share and No. of Stocks in which Firms Make Markets



Source: Autex

Boutique investment banks

The key competitive advantage of a boutique investment bank is its independent research and the value added services it provides to its institutional customers. Boutique investment banks cannot compete with large investment banks in capital-intensive products such as large block trades, program trading, equity derivatives and convertible trading. Boutiques should therefore continue to focus on trading stocks in which they have a significant research call, or stocks that are priority from a corporate finance standpoint. Further, OTC desks at boutique firms need to lead with research and look to get paid in OTC trading flow on an agency commission basis, as opposed to capturing the bid-ask spread.

With the decline in spreads in OTC market making, research personnel, equity sales people, sales traders and traders need to understand that the profitability of the equities business has changed dramatically for the worse. Firms need to re-configure the OTC capital commitment vs. agency execution of OTC trades, as well as sales credit calculation, research sales and sales traders' payout and traders' compensation.

Direct access providers

ECNs and direct access providers are the biggest beneficiaries of these trends. By using cutting edge technology, direct access firms captured the trading flow of active retail traders and are now making inroads into the institutional equity commission pool.

Direct access providers, however, are finding that the migration from retail direct access to institutional direct access is not simple. It is easy for direct access providers to capture simple trades, but in order to capture higher margin business and to attract heavy volume, they must provide quantitative products that can help institutional investors automate the trading process. Products such as liquidity mapping and management tools, VWAP (volume weighted average price) servers, etc. that capture the investment objective of the client are critical in attracting institutional trading volumes to direct access.

The other critical aspect in attracting institutional flow is the ability of direct access providers to build confidence among their institutional customers that their trades will be executed and cleared seamlessly each and every time. While the trading technology is new and requires buy-side traders to learn the system, the fact that most direct access providers are thinly capitalized and do not have the same level of customer service as full service providers is making the transition to direct access providers slower than might be expected.

Summary and Conclusions

While the overall trading volumes have held up in the last year, typical money managers have become increasingly focused on the commission revenue they are giving to the Street and the service they are getting in return. Further, with the decline in credibility of sell-side equity research and the nonexistent IPO calendar, there is less reason to trade with the sell-side. As a result, the buy-side is actively directing its trading business to other venues.

The other factor contributing to the stronger than expected trading volume is the growth in assets under management of hedge funds. Compared to typical asset managers, hedge funds are much more active traders and therefore have become major contributors to trading activity in the market. However, the investment needs of hedge funds are very different from those of traditional investment managers. Therefore, in order to service the hedge funds, investment banks need to completely restructure their product offerings and lead with products such as prime brokerage and soft dollar.

Along with a decline in volumes, there is a decline in spreads in the OTC market making business. As a result of decimalization, the average trading spreads are down 78% in the first half of 2002 as compared to the trading spreads in 2000. However, investment banks still need to maintain the same level of infrastructure in order to support their institutional customers and their corporate clients. The direct impact of this decline in spreads has been on the profitability of the equity business. In order to compete in the current environment, we feel that firms need to restructure their businesses to include some of the following strategies:

Focused Trading Operations – impossible to be everything to everyone
Focus the trading desk on stocks/spaces where the firm is an "axe" (top research call, strong historic trading volume, corporate finance relationships and willingness to commit capital)

- Analyze capital on a "firm-wide" P/L by stock and by account
- Commit capital for customers that will pay the firm back for losses. Liquidity will become increasingly valuable as the profitability of the business declines

Diversify Trading Revenue Streams

- Add program trading capability
- Add quantitative trading products more suitable for hedge funds and other active traders, such as direct access, VWAP trading, liquidity search tools etc.
- Add soft dollar capability

Diversify Client Base

- Add mid-cap and hedge fund focused sales forces
- Re-configure the research product to better service the needs of hedge fund clients
  - Providing "topical research" focused on attractive investment ideas are valued more by hedge funds rather than "maintenance research" focused on quarterly earnings forecasts on S&P components
  - Providing quantitative research in keeping with the investment style of hedge funds

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