

Electronic Investment Banking: *Where Will It Survive?*

**Professor James Freeman
Investment Banking
Columbia Business School
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Introduction

- Investment banking has been a powerful financial force for at least two centuries. Morgan, Rothschild, and Lazard have all been important names (among many others) for most of that period.
- Over the past five years, the internet has transformed and changed many traditional investment banking services.
- The advent of deep discount brokers, online investment banks, and new technology trading platforms are challenging the business models of equity and debt underwriting, trading, sales research, and even now making strides into M&A.

Introduction

- There are three main types of electronic players

Online Firms

Ameritrade
Datek
Discover
DLJ Direct
E* Trade
Fidelity
Merrill Direct
Quick & Reilly
Schwab
TD Waterhouse

ATS/ECNs

Archipelago
Arizona Stock Exchange
ATTAIN
Brass Utility (BRUT)
Institutional Networks (Instinet)
Island
@ Harborside
MarketXT
NexTrade
OptiMark
POSIT
Primex
REDIBook
Strike
Tradebook

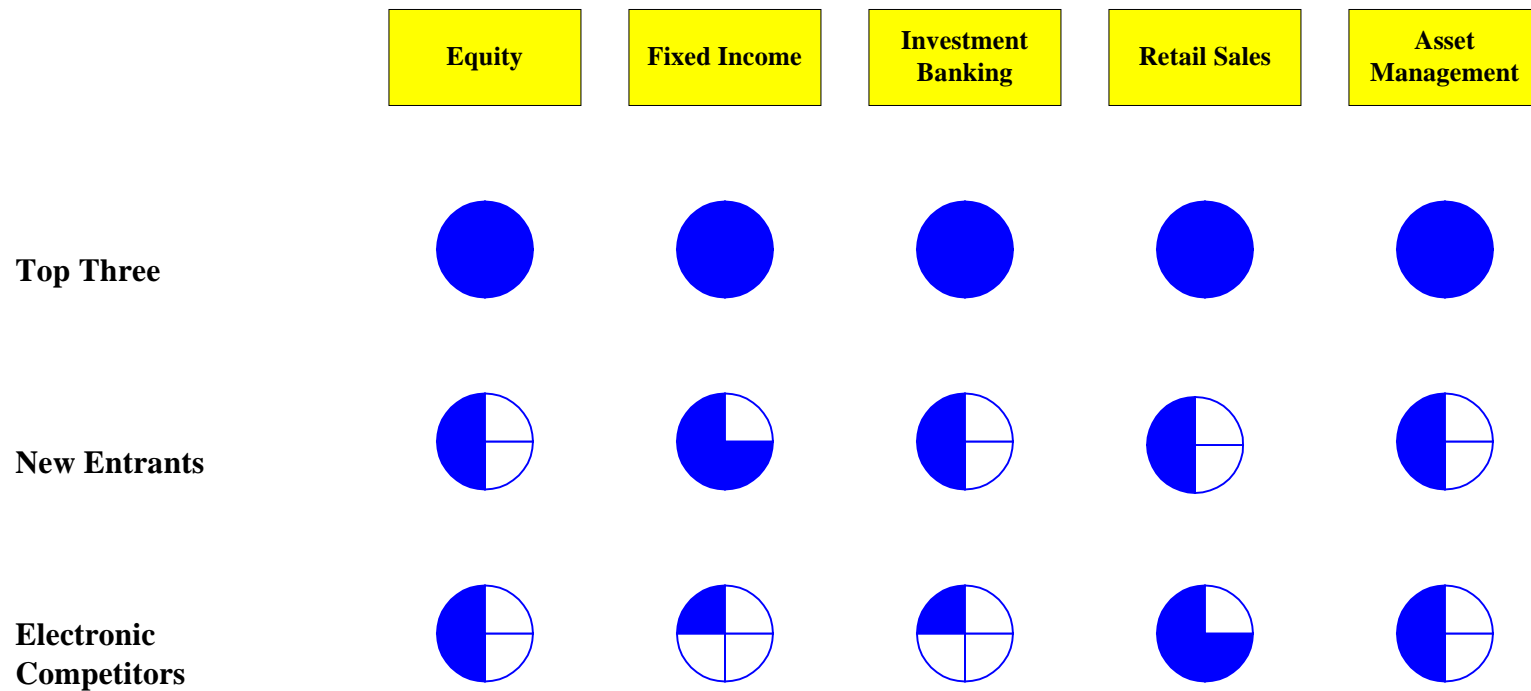
Online Underwriters

DLJ Direct
E* Offering
FBR.com
W.R. Hambrecht
Wit Capital

Source: Credit Suisse First Boston Technology Group, Putnam, Lovell de Guardiola & Thornston, Inc. Report

Introduction

- These electronic players are focused on a narrow band of investment banking products.



Introduction

- Observations
 - ◆ Electronic trading has increased volume yet reduced margins
 - ◆ Electronic origination has lagged secondary penetration due to lack of research coverage and after-market trading support
 - ◆ The larger firms have made significant investments in these platforms

E-firms will gain market share, but in a limited product set

Introduction

- In judging the impact of the internet/electronic platforms, we have focused on three criteria which we believe lead to early acceptance and profitability:
 - **Cost:** does the internet or electronic platform lead to cost saving for the investor, the issuer, or the investment bank? If it yields all three, it will gain universal acceptance and will have quick and major impact on the industry-wide business model.
 - **Transparency:** does the internet product area benefit from transaction transparency? Is it in the issuers', the investors', or the investment banks' interest to have transparency? If "yes," then the acceptance will be universal. If the answer is yes, for two out of three, then it is a concept that has promise.
 - **Generic or standardized products:** is the security or service standardized or is every user or transaction unique? The greater the degree of standardization the greater the applicability to the internet/electronic platform model. The more unique the service, the greater the investment banker's magic will sustain him.

Equity Underwriting

- Currently there are two online underwriting methods among online investment banks:
 - ◆ *Online distribution*
 - Offering price of share is fixed (as with all traditional equity new issues) and shares are offered on a first come, first served method or allocated based on priority (not traditional).
 - ◆ *Dutch auction process*
 - Investment bank solicits bids and orders them from highest price to lowest. The lowest price of all the accepted bid prices becomes the offer price. This is the methodology used in U.S. Treasury bonds auctions.

Equity Underwriting

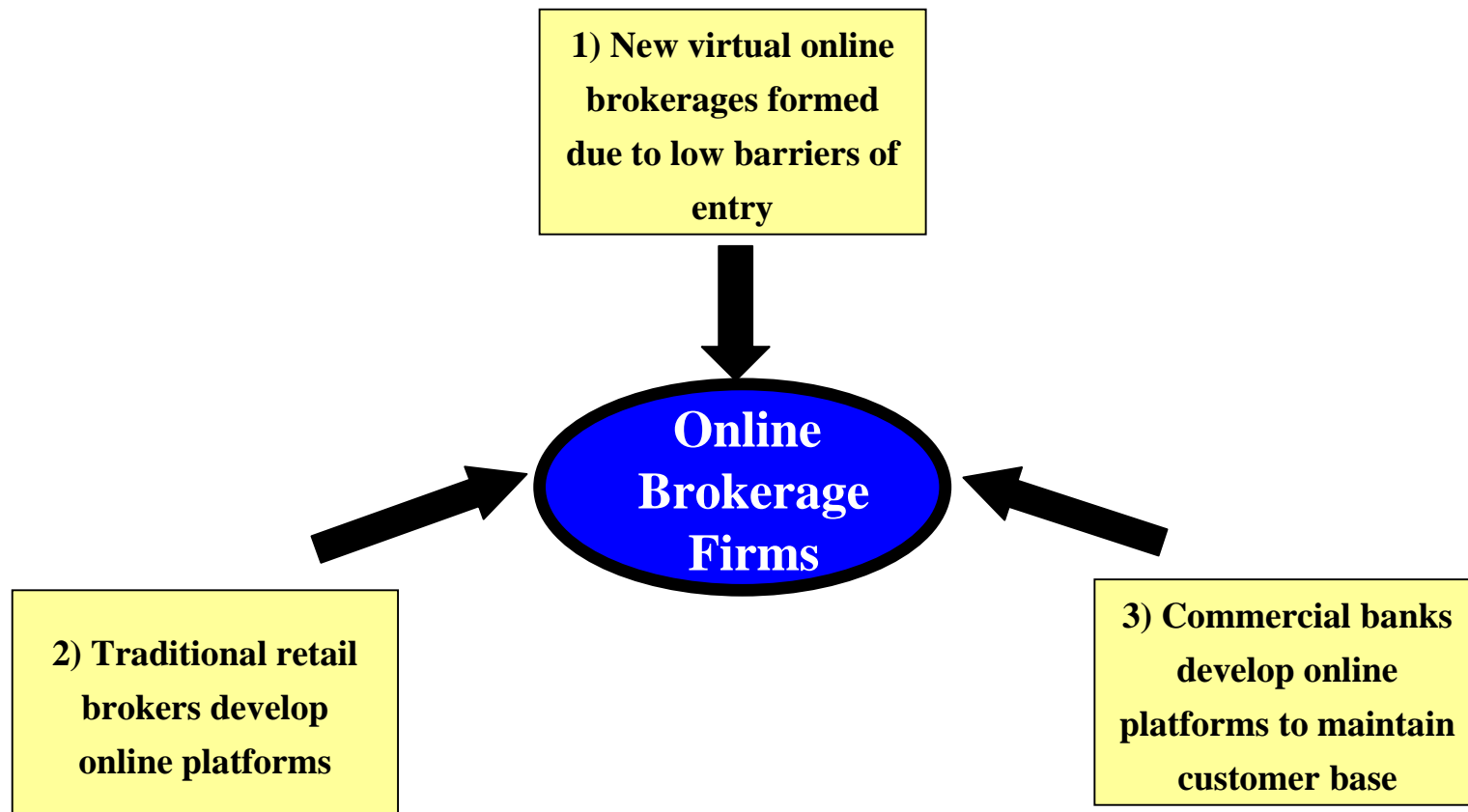
- IPOs
 - ◆ Cost
 - Online distribution may well reduce the notoriously high fee cost of IPO fees which range from 5-7%
 - ◆ Transparency
 - There is no transparency in the IPO market for a stock because there is no market.
 - ◆ Standardization of products
 - Until the stock begins to actively trade on its own without support, there is no standardization because there is no market.

Equity Underwriting

- Follow-ons
 - ◆ Cost
 - Taking subscriptions for shares online and confirming those indications and later confirming final sales saves time and money..
 - ◆ Transparency
 - Follow-on offerings have huge transparency. The company's shares are already traded daily.
 - ◆ Standardization of products
 - All common shares are the same.

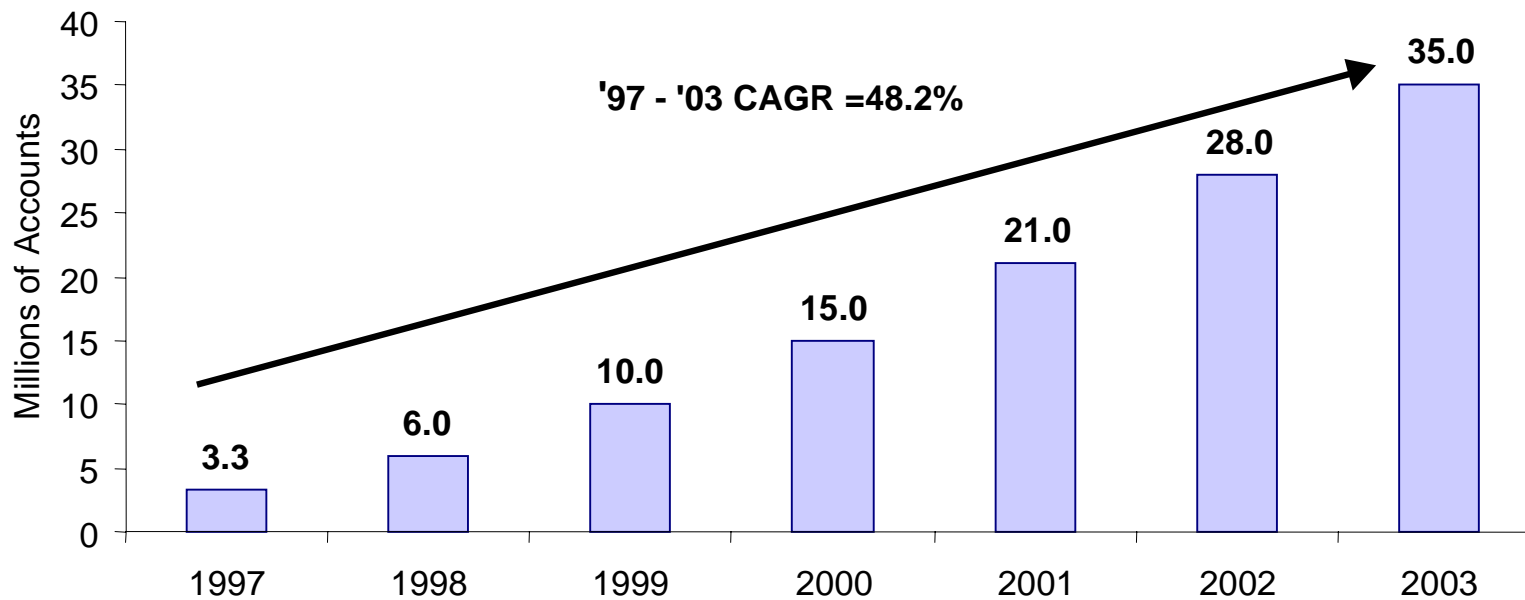
Online Retail Brokerage

- As of 1st quarter of 2000, there were 180 online retail discount brokerages. The three main reasons and point of entry into online retail brokerage is summarized in the diagram below:



Online Retail Brokerage

Online Brokerage Accounts in the US (mm)



Source: Robertson Stephens

Online Retail Brokerage

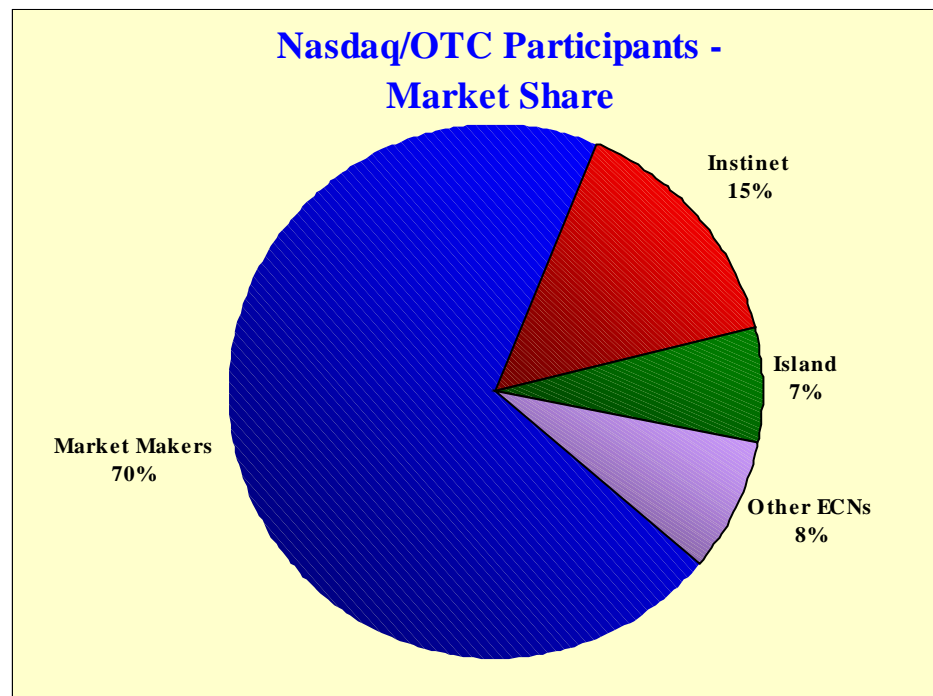
- Cost
 - ◆ Online brokers have attacked this high cost structure by eliminating the need for human intervention except in emergencies.
- Transparency
 - ◆ Internet access to real time prices and bid/ask quotes is greatly enhanced
 - ◆ Online brokers have exploited the advantages of ECNs by eliminating the need for human intervention.
- Standardization of products
 - ◆ Retail investors and day traders are price (cost) sensitive. Lower trading (commission) costs have opened a new segment of investors who were previously kept away from trading.

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Equity Trading

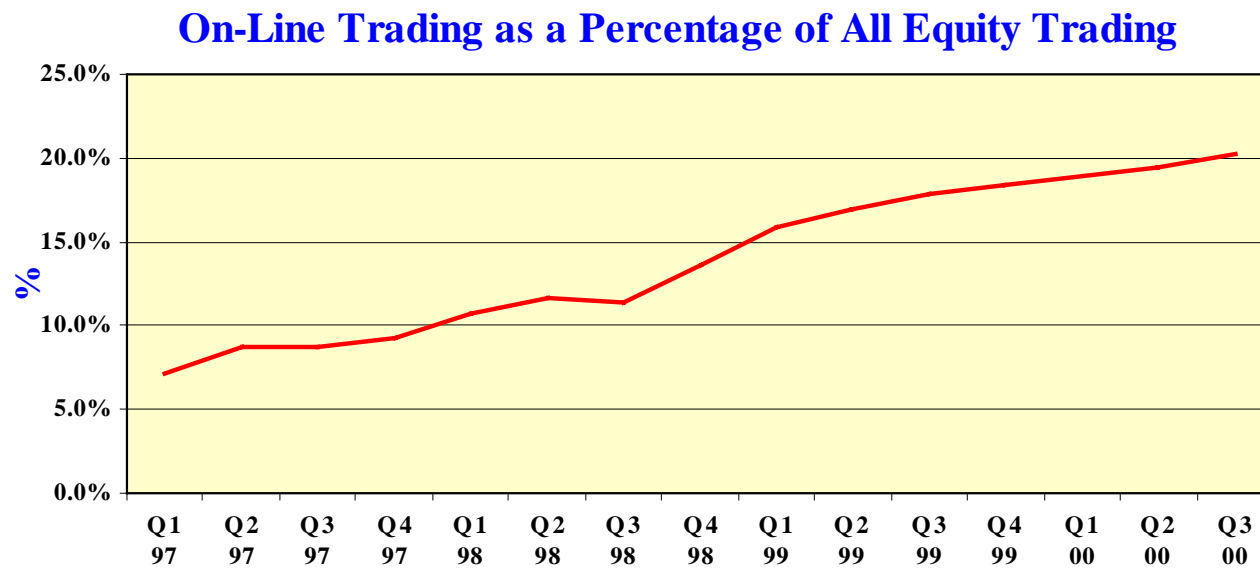
- Approximately 30% of Nasdaq volume is traded through ECNs, with Island and Instinet capturing close to 75% of this volume.



Source: Putnam, Lovell, de Guardiola & Thornton, Inc. report

Equity Trading

- Currently, 20.3% of all equity trading is done online.



Source: Credit Suisse First Boston Technology Group

Equity Trading

- The “top three” have invested in a number of “e-firms”

Name of ATS/ECN

Ownership by “Top Three”

Archipelago

JP Morgan, Goldman Sachs, Merrill Lynch

Brass Utility

Goldman Sachs, Merrill Lynch, Morgan Stanley Dean Witter

MarketXT

Morgan Stanley Dean Witter

OptiMark

Goldman Sachs, Merrill Lynch

Primex

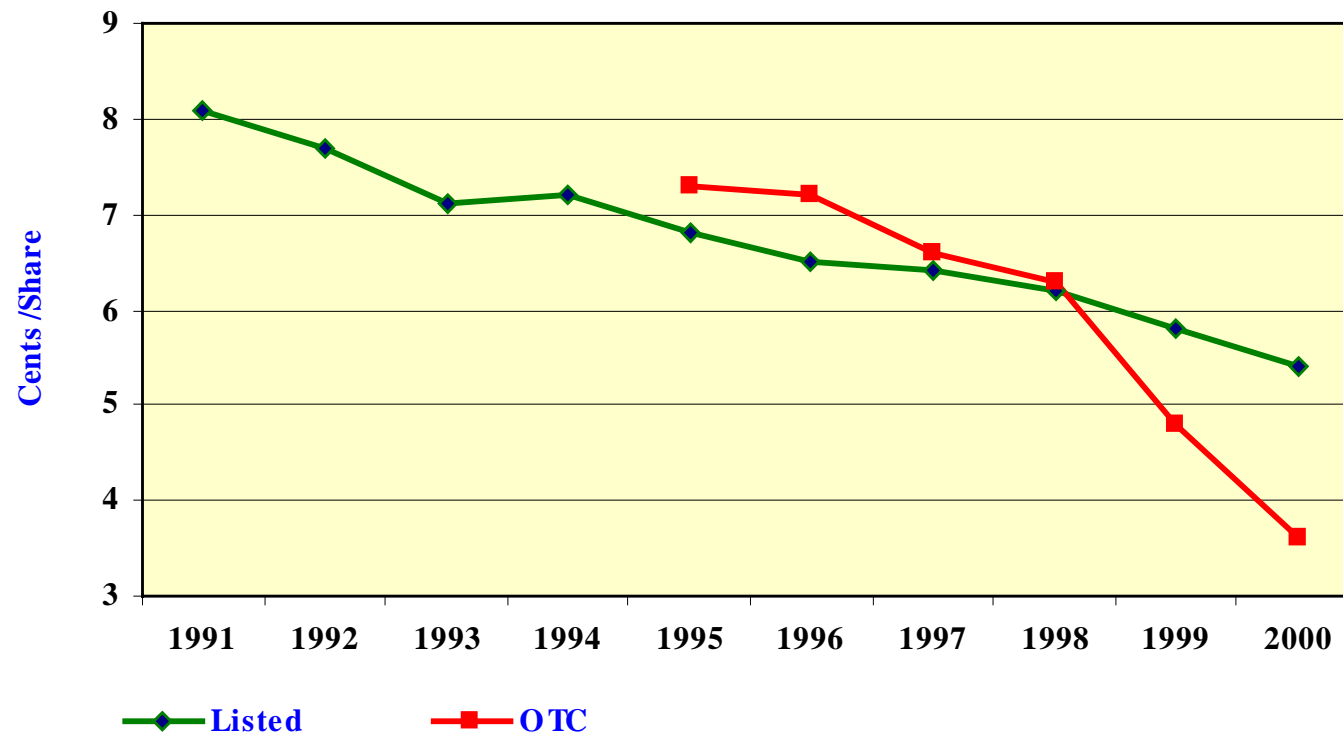
Goldman Sachs, Merrill Lynch, Morgan Stanley Dean Witter

Source: Bloomberg, CNBC.com, Putnam, Lovell de Guardioli & Thornton, Inc. Report

Equity Trading

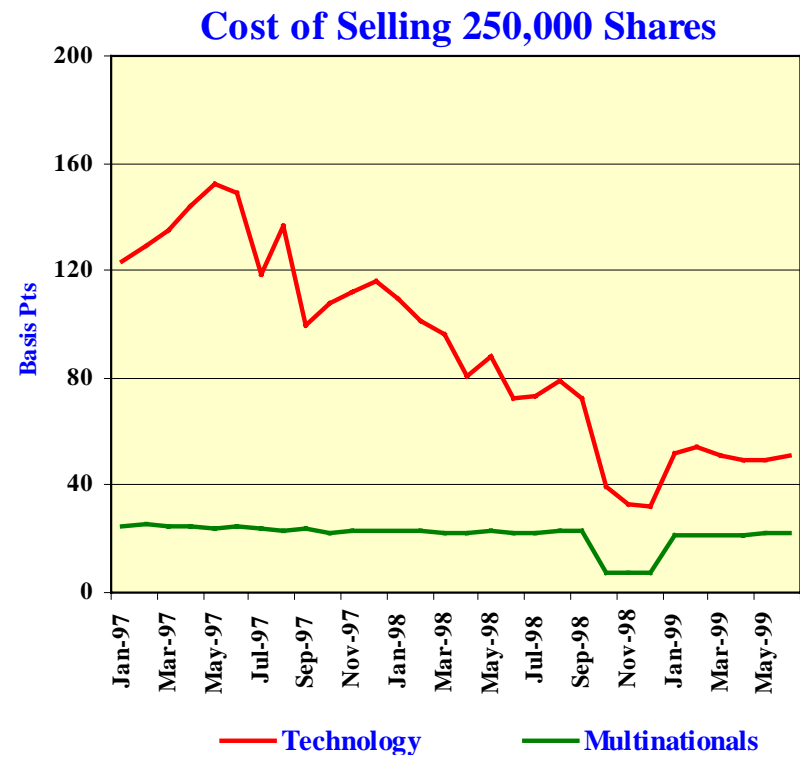
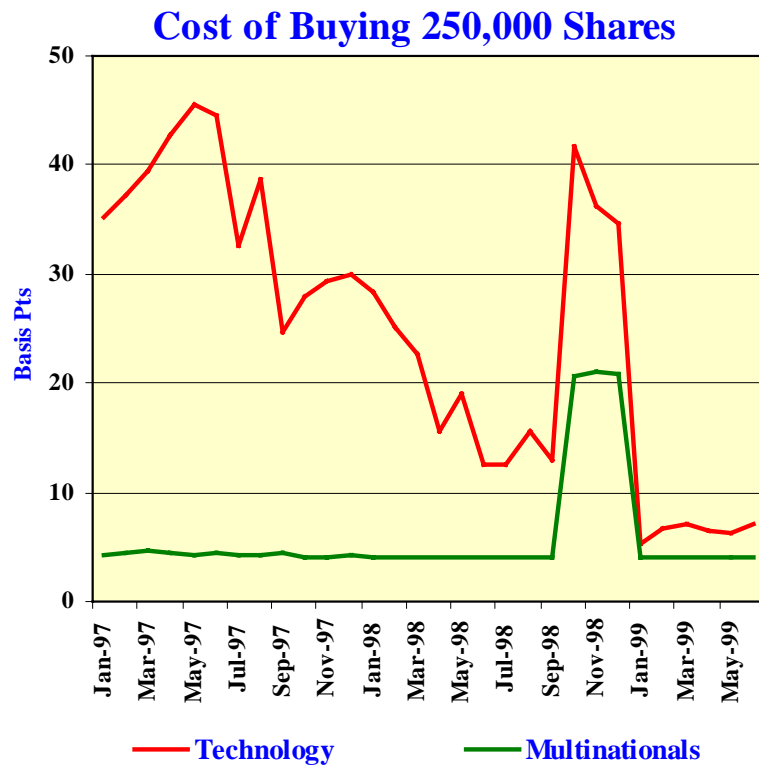
- This increased competition has resulted in falling institutional trading commissions

Average Institutional Commissions - Cents per Share



Equity Trading

- Electronic trading has reduced transaction costs, especially in high volatility stocks



Source: Plexus Group

Multinationals - General Electric, Exxon, IBM, Coca-Cola, & General Motors

Technology - Amazon, AOL, Lycos, Netscape & Yahoo

Equity Trading

- Online trade execution
 - ◆ ATS/ECN execution reduces the cost of transactions for institutional investors and for investment banks:
 - ◆ ATS's have had a similar important impact on mainly institutional commissions and liquidity. Liquidity is the ability to execute large orders with a minimum of market impact.
 - ◆ ATS's are usually not inter-connected to the internet, but provide execution through a closed electronic system. Some ATS's are also a major liquidity source for broker/dealers who want to gain liquidity for their trading positions (getting "flat")

Equity Trading

- Cost
 - ◆ Reduces the commission transaction cost for investors and the exchange fees for the investment bank
- Transparency
 - ◆ If linked in a national market, it is part of a full system-wide best price mechanism
- Differentiation
 - ◆ There is no price differentiation (in a perfect world) which is not a competitive advantage or disadvantage. Differentiation will be found on ease of entry, speed and liquidity on the ECN

Equity Research

- Research is a win/win/win business model for internet expansion. The benefits to the investment banks to move their research onto the internet are very low from a competitive standpoint. The advantage is in cost reduction
- Electronic dissemination of research by investment banks to institutional investors has been around for nearly twenty years. Thomson's first call is the market leader. But the real future is in internet dissemination of research which is starting to gain major traction
- Issuers do not care how analysts disseminate information about their company as long as it's positive

Equity Research

- Cost
 - ◆ More than 60% of the costs of research departments are from compensation.
- Transparency
 - ◆ The internet increases transparency to the sellers of research.
- Standardization
 - ◆ Product differentiation in research is extremely important. However, the differentiating factor is research analyst specific, not delivery specific

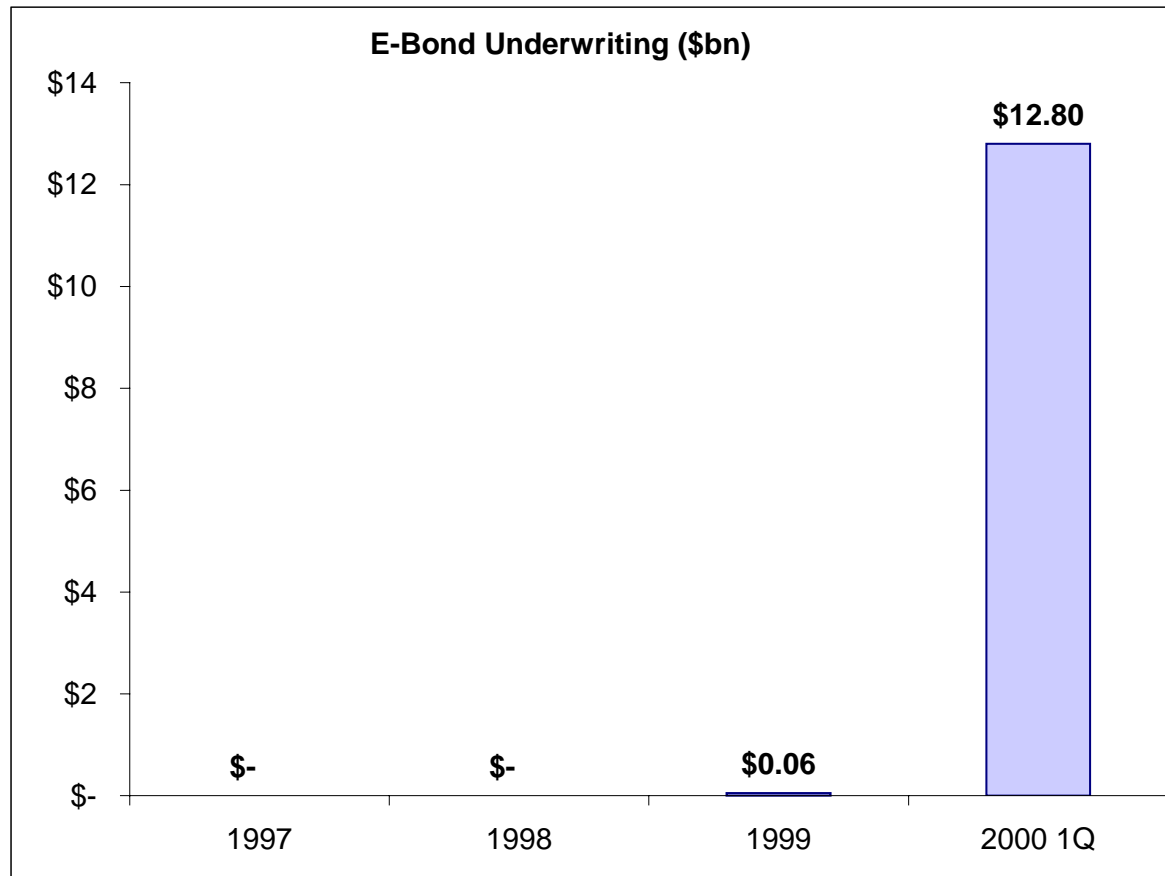
Fixed Income

- The transition to online fixed income products has been slower than the equity arena. Why are fixed income electronic trading systems (FIETS) so far behind?
 - ◆ First, unlike stocks, almost all bonds are not traded on an exchange such as the NYSE or a completely linked broker/dealer market like NASDAQ
 - ◆ Secondly, the bond market is much more diverse and complex than the equity market. In 1999, there were 4.4 million outstanding debt issues in the U.S. Alone versus only $\pm 12,000$ equity issues. The municipal bond market has over 50,000 different issuers and 1.5 million different issues outstanding, each with unique structures.
 - ◆ Third, there was little price incentive to transform processes to adapt the necessary features for an online platform.

Fixed Income

- Why are fixed income electronic trading systems (FIETS) so far behind?
(Continued)
 - ◆ Fourth, earlier technology platforms were not successful in recreating the bond market exactly. While some platforms targeted the buy side, others targeted the sell side, resulting in a lack of sufficient liquidity.
 - ◆ Fifth, the fixed income market has mostly institutional clientele. In the equity market, retail investors were a significant catalyst of the transformation to cheaper, faster, more efficient online platforms.
- According to the Tower Group, 37% of all bonds will be traded electronically in the year 2001, up from 5% in 1998. Currently, research at Freeman & Co. Suggests that on-line are less than 10% of trades and on-line firms are remaining at 1% of capacity.

Fixed Income



Source: Bloomberg, Freeman & Co.

Nov. 1999

The City of Pittsburgh was the first borrower to invite institutional investors to bid directly for its bonds in an electronic auction. (muniauction.com)

20001Q

Freddie Mac (January 2000)

a. \$6 billion 5 year issue.

Daimler Chrysler AG –(June 2000)

a. \$2 billion deal via the web.

b. 40% of investors purchased it over the web; 60% sold through GS traders.

c. Underwriter: Goldman Sachs

World Bank –(January 2000)

a. \$3 billion offering

b. Co-lead Goldman Sachs /Lehman Brothers

Ford Motor Co. –

a. \$1.2 billion offering

b. Underwriter: Lehman Brothers

20002Q

Bear Stearns (August 2000)

a. \$600 million 7 year note

Mergers & Acquisitions

- M&A has little that suggests it would be attractive as an on-line business model.
- Every transaction is unique. Many transactions are complex with accounting and tax problems. If the buyer knows the seller, it still will probably use an investment banker to bless that it was fairly priced.
- But oddly enough there has developed a potential niche for online M&A based on neglect. With today's enormous volume of M&A transactions in number of deals and deal value, there is not enough capacity. Small and medium-sized transactions are not attractive to M&A professionals with real industry based (M&A experience doing transactions in the industry of the seller) knowledge.
- Growasia.Com, capital key and emergers are a new breed of on-line M&A firms, each with the same business profile. These allow buyers and sellers to list with many of the documents and information provided on a data base by the selling companies.

Mergers & Acquisitions

- Cost
 - ◆ Internet platforms reduce the relationship costs that bankers charge in matching up buyers and sellers. Here buyers and sellers match themselves up and the internet company gets paid a success fee, and small search fees by the buyer.
- Transparency
 - ◆ Buyers and sellers find each other. It provides each with a forum to disclose as much about each other as possible.
- Product differentiation
 - ◆ Ease of use. The training wheels to allow neophytes to move through the process properly and quickly
 - ◆ Depth of potential buyers or potential sellers. The quality of the inventory
 - ◆ Broad acceptance. Will any firm get mainline players to support its platform and provide “quality” inventory

Asset Management

- The internet will continue to spur innovation in financial services, and in asset management, it is driving three main trends (1) increased information and its timeliness, (2) product innovation and (3) mass customization.
- The result of these trends is that both retail and institutional customers (1) demand timely information, (2) wish to act on that information, (3) insist on product choice and (4) will use new product innovations. This customer behavior is shaping the businesses that are developing and the use of technology by asset management firms.
- In the mutual fund business the drive for customer choice and product access began with the move to open architecture for 401(k) plans in the mid-1990s and was best capitalized by Charles Schwab in its development of its fund supermarket platform.

Asset Management

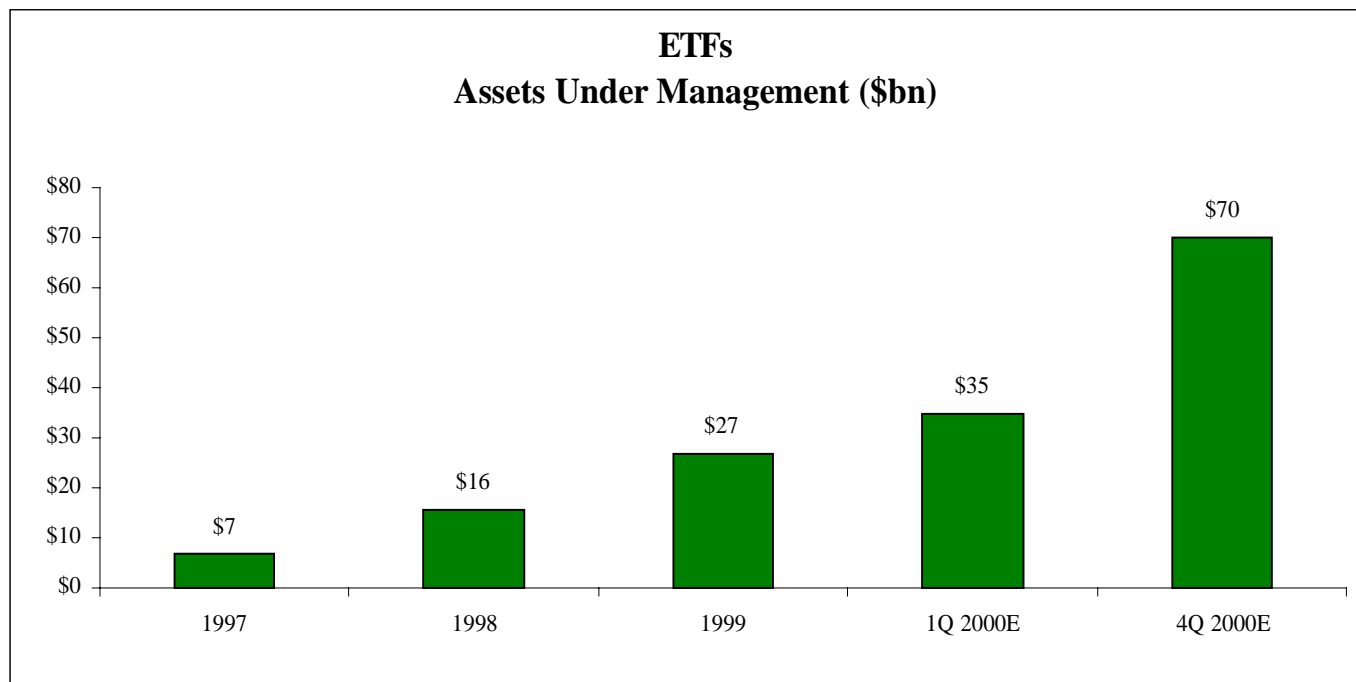
Schwab Mutual fund Trades (Daily '000s)

	Online	Total	% Online
1996	8.4	27.2	31%
1997	12.8	34.2	37%
1998	18.0	40.3	45%
1999E	24.0	45.6	53%
2000E	30.0	51.1	59%

Source: Charles Schwab annual reports, Freeman & Co. estimates

Asset Management

- ETFs (exchange traded funds) are fixed portfolios of stocks in a trust, generally representing an industry sector or equity index, that are listed on an exchange and traded intra-day.



Asset Management

■ Private client

- ◆ In the private client or high net worth (HNW) arena, the internet is creating opportunities for investors to track their holdings, to get timely information, to have access to analytical tools and to get mass customized advice. Examples of these include financial engines and mycfo.

■ Institutional

- ◆ The institutional asset management industry has been less affected by the internet to date.

Conclusion

Industry	Will the Internet Last?
Equity Trading	
Equity Underwriting	
Retail Brokerage	
Fixed Income	
Mergers & Acquisitions	
Asset Management	