ANALYZING THE BROKERAGE FIRMS: A LOOK AT ON-LINE DISCOUNTERS

By Kenneth J. Michal

Internet stocks are red-hot, and one group tied directly to the Internet is the on-line discount brokerage industry. Here's how to analyze these firms as possible investment opportunities.

Internet stocks are red-hot in today's investment world. Any stock with ties to the Internet receives a lot of attention, and many of these stocks have been flying high of late.

One group that is directly linked to the Internet is on-line discount brokerage stocks. Much of the trading of Internet stocks is done through these on-line brokers. Approximately 27% of all individual investor trading activity was conducted on-line in 1998.

This article reviews the brokerage services industry, concentrating mainly on the on-line discount brokers segment, and explains how to analyze a brokerage services company.

CATEGORIZATION

Before we get into the current state of the brokerage services industry and pore through any numbers, we need to better understand the nature and the characteristics of the industry itself.

Industries are often grouped by the level of the demand for their products. Expansions, recessions, and recoveries sum up the cyclical nature of an economy and provide a framework for industry groups. The most commonly referred to classifications include defensive industries, growth industries, and cyclical industries.

Defensive industries (not to be confused with the defense industry) tend to do relatively well during recessions. Growth industries are just that—industries that tend to grow rapidly throughout the business cycle. Cyclical industries rise and fall with the economy.

The brokerage services industry is cyclical, with performance tied most closely to that of the stock market, which tends to lead economic performance. While the relationship between the stock market and economic cycle is far from perfect, stock market downturns lead recessions by approximately nine months and market upswings precede expansions by about five months.

Industry experts attribute the brokerage industry's cyclical nature to two factors. First, most of its business lines (commissions, trading, investment banking, etc.) have a tendency to move in tandem—expanding during bull market runs and contracting during corrections. Second, employment numbers increase during bull markets and are significantly cut during bear markets, thus amplifying the effect of the next boom or bust on brokerage firms' bottom lines.

The brokerage services industry can be further broken down and classified along three distinct lines:

- The first and most obvious categorization is by traditional group names like full-service firms, large investment banks, and discounters. On-line discount brokerage firms are obviously discounters.
- The next type of classification is by primary revenue source. These include: commissions, trading income, and underwriting. Retail commissions are the primary revenue source of the on-line discount broker.
- The third and most telling means of this categorization is based upon major product area. Retail operations, institutional firms, international opera-

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tions, and discount operations are just some of the product area categories. Again on-line discount brokers clearly fall into the discount operations realm.

The terms discounters and discount operations refer to the lower commission rates charged by these firms versus commissions charged by full-service brokers. Some discounters, many of which are on-line brokers, are considered deep discount brokers and execute trades with minimal commission rates. These deep discounters are mostly private firms or subsidiaries of larger organizations.

The major players in the on-line brokerage arena are largely firms that are publicly traded, including such names as Ameritrade, Donaldson, Lufkin & Jenrette (DLJdirect), E*Trade Group, and Charles Schwab & Co.

Table 1 lists all publicly traded brokerage firms that conduct trading through the Internet; it includes both pure-play on-line brokers (brokerages whose primary focus is on-line trading) and financial firms with on-line brokerage subsidiaries. The list was taken from the most recent comparison of on-line discount brokers that appeared in AAII's *Computerized Investing* (January/ February 1999); that data set was pared down to include only firms publicly traded or part of a larger, publicly traded company. The firms are listed by their holding company name, but the last column includes the on-line brokerage firm's name. The AAII *Stock Investor Pro* stock database program was used to produce the statistics in Table 1.

A LITTLE HISTORY

Profound change and equally significant growth have marked the securities industry in the 24 years since May Day of 1975, the day fixed-minimum brokerage commissions were ended. Four major events have shaped the industry over this time period. The first event was deregulation, beginning with the elimination of fixed rates and continuing through banking deregulation in the 1980s. Second,

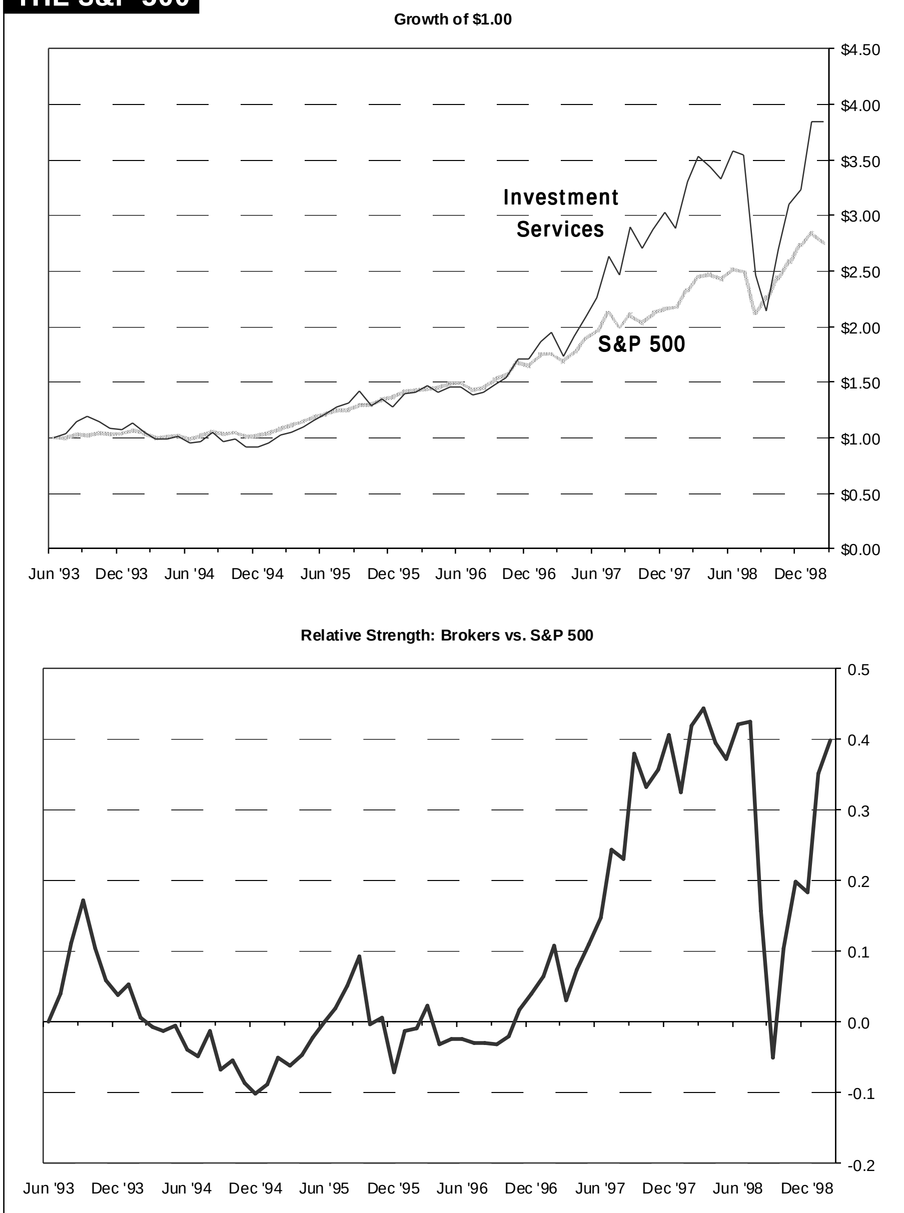
TABLE 1. PUBLICLY TRADED ON-LINE BROKERS: FINANCIAL STATISTICS

Company (Exchange: Ticker)	Net Margin (Last 12 Months) (%)	Return on Equity (Last 12 Months) (%)	Long-Term Debt/ Total Capital (%)	Total Liabilities/ Total Assets (%)	P/E Ratio (X)	Sales Grth 3 Yr. (%)	EPS Grth 3 Yr. (%)	EPS Grth Est. (%)	Brokerage Firm Name
Pure–play On–line Brokerages									
Ameritrade Holding Corp. (M: AMTD)	7.8	13.0	15.0	93.4	195.0	56.4	–26.0	30.0	AccuTrade, Ameritrade
Bull & Bear Group, Inc. (M: BNBGA)	3.3	4.3	0.0	6.0	13.9	8.4	97.2	na	Bull & Bear Securities
Charles Schwab & Co. (N: SCH)	11.9	23.4	21.2	93.1	96.8	29.3	26.6	20.0	Schwab Online
E*Trade Group, Inc. (M: EGRP)	–6.8	–2.6	0.0	67.5	na	104.2	–28.3	40.0	E*Trade Securiites
J.B. Oxford Holdings, Inc. (M:JBOH)	–3.6	–16.3	8.7	95.9	na	61.9	27.9	na	J.B. Oxford
Siebert Financial Corp. (M: SIEB)	15.4	31.0	18.8	31.6	140.3	14.4	86.6	na	Siebert Net
Ziegler Companies (A: ZCO)	1.2	1.8	13.1	75.4	44.8	17.8	–43.7	na	Zeigler Thrift Trading
Median for Pure–Play Group	**3.3**	**4.3**	**13.1**	**75.4**	**96.8**	**29.3**	**26.6**	**30.0**	
Financial Firms with On–line Brokerage Subsidiaries									
American Express Company (N: AXP)	11.2	22.4	43.8	92.2	23.5	7.5	14.7	14.0	Amer. Exp. InvestDirect
Donaldson, Lufkin & Jen. (N: DLJ)	7.1	15.5	52.3	96.2	15.2	32.2	53.6	11.5	DLJdirect
Fleet Financial Group (N: FLT)	21.5	16.5	44.5	90.8	16.4	3.9	16.7	11.0	SureTrade
Mellon Bank Corp. (N: MEL)	29.2	19.0	47.8	91.0	21.0	5.5	34.4	12.0	Dreyfus Brokerage
Morgan Stanley Dean Witt. (N: MWD)	10.3	24.0	66.0	95.6	16.1	18.5	34.5	12.9	Discover Brokerage
National Discount Brokers Grp (N: NDB)	7.1	9.3	0.0	35.4	31.2	16.9	23.6	na	Nat'l Discount Brokers
T. Rowe Price Associates (M:TROW)	19.8	30.2	0.0	23.0	19.5	25.5	35.4	15.0	T. Rowe Price Discount
Toronto-Dominion Bank (N: TD)	12.2	15.2	29.7	96.0	16.3	na	na	na	Waterhouse Securities
Wachovia Corporation (N: WB)	13.8	12.2	55.3	92.0	27.4	21.7	–1.5	11.0	Wachovia Investments
Wells Fargo & Company (N: WFC)	20.6	20.3	66.2	92.8	18.8	15.1	13.1	13.0	Norwest, WellsTrade
Median for Subsidiaries Group	**13.0**	**17.8**	**46.2**	**92.1**	**19.2**	**16.9**	**23.6**	**12.5**	
Median for Stocks Within S&P 500	**6.4**	**14.3**	**36.1**	**65.0**	**22.2**	**9.3**	**10.9**	**12.0**	
Median for Entire On–Line Brokerage Group	**11.2**	**15.5**	**21.2**	**92.0**	**21.0**	**18.2**	**25.1**	**13.0**	

Source: AAII's Stock Investor/Market Guide Inc. Statistics are as of February 28, 1999.

Exchange Key: N = New York Stock Exchange
A = American Stock Exchange
M = Nasdaq

FIGURE 1. THE INVESTMENT SERVICES INDUSTRY VS. THE S&P 500



Source: Track Data Corp. (Dial/Data).

beginning in the late 1970s the Federal Reserve Bank let interest rates fluctuate and began targeting the money supply instead in an effort to control inflation. Third, in late 1982 inflation subsided, interest rates came down, and the biggest bull market ever began, which remains strong today. The fourth event was the birth of the Internet-based "on-line" discount broker in 1995.

A small number of discount brokers have offered on-line trading as far back as 1983. These early systems usually relied on some combination of proprietary on-line networks and software that limited their appeal to a narrow customer base. The expense and expertise needed to create and maintain proprietary trading systems also limited the number of brokers to those with the resources on hand to build such an on-line trading service. The popularity of the Internet has made it easier and cheaper for brokers to design trading systems, opening up the marketplace for a full range of brokers to offer on-line trading systems to a wide audience of on-line investors. Lower commissions and a greater degree of access to investment data and information has forever changed the investment services landscape.

HOW INVESTORS HAVE FARED

Figure 1 shows the capital appreciation of $1 invested in the Market Guide Investment Services industry in June of 1993 and a similar amount in the S&P 500. Two items are immediately apparent: Investment services and brokerage stocks have significantly outperformed the S&P 500 since December of 1996, but they have been dramatically more volatile over that same period. The best example of this volatility is the market drop that occurred in September of 1998, where growth for the industry fell below that of the market.

Also shown in Figure 1 is the relative strength of the industry versus the market as a whole; it is simply the value of the dollar invested in brokerage stocks divided by the dollar invested in the S&P 500 at each point in time. When the line trends up, brokerage stocks are outperforming the S&P 500; brokerage stocks underperform the market index when the line trends down.

Of course, one should not try to rely on predicting market bottoms—it is a skill few have mastered. A complete review of key industry statistics and individual company fundamentals is a much more sound and proven approach to analyzing a brokerage services firm or any other firm in any industry.

ANALYZING "ON-LINE" FIRMS

When analyzing traditional brokerage firms—say, a full-service firm like Merrill Lynch—a complete review of their balance sheet, line item by line item, is necessary. Here the analyst is looking to assess the company's leverage (the degree of

debt financing its equity) and liquidity (how fast it can sell its asset holdings). This is done through ratios such as shareholder's equity to net assets and the percentage of total assets that can be quickly sold for cash.

However, smaller, on-line firms do not partake in risky activities, such as their own trading operations, and they do not hold much, if any, trading assets, so it is not necessary to scrutinize as carefully for liquidity. As far as leverage goes, it is gauged merely for determining levels of financial risk. Thus, on-line broker financial statements are much more standard; they have only one major source of revenue—commissions—and they are exposed to little or no trading operations risk.

When analyzing the on-line brokerage services industry, key industry statistics and quantitative measures like profitability ratios, growth rates, and market share numbers are the core elements that must be addressed. Another important step in the analysis process is to conduct some kind of valuation analysis against industry benchmark figures.

INDUSTRY STATISTICS

The first step in the analysis is to look at several key industry numbers and statistics. For the brokerage services industry, stock market performance—both domestic and overseas—is quite possibly the most important factor. Bear markets are obviously bad for brokers in almost every way. But in bull markets, equity prices are rising, investors are actively buying and selling securities, firms are sweating to issue new stock, and brokers' profits are sky high. In this case, the most meaningful index to track market performance is the S&P 500 index.

Yet tied to this performance are several other key statistics such as market volatility and trading volume. In addition to these numbers, be sure to look at underwriting volume, merger and acquisition activity, and mutual fund sales.

RATIO ANALYSIS

The most important step in the analysis of any company is to see how the individual firm is doing relative to its competition. The best way to accomplish this is with ratio analysis, measuring the firm's performance and comparing it to the industry average. Table 2 includes selected data for the brokerage industry.

No matter what the industry, profitability, financial risk, and relative market valuation are worth a look.

Profitability can be analyzed via two ratios: net profit margin and return on equity.

Net profit margin is earnings after all costs and taxes divided by total sales; it measures how efficiently a firm operates and how much pricing power it has. Firms with brand strength (firm name), patent protections, and unique products tend to have higher margins due to lessened competition, and they therefore have the ability to price products (in this case, commissions) higher to maintain higher margins. A perfect example of this is Charles Schwab, whose "brand name" sets it above all others when one thinks of discount brokers and whose commission schedule is the highest of all on-line brokers that charge flat rate commissions. Schwab's net profit margin for the most recent 12 months was 11.9%; the industry figure was approximately 6.8%.

Another measure of profitability is return on equity, which tells how well management is using the firm's equity to generate profits. It also gives you a benchmark from which to judge alternative investments. The 12-month return on equity for Ameritrade Holding Corp. was 13%; the number for the industry was 17.0%. Return on equity can be greatly influenced through the use of financial leverage. High leverage amplifies both good and bad results.

Financial risk is best analyzed using some measure of financial leverage—ideally, total liabilities relative to total assets. However, the more commonly quoted ratio in industry composite reports is long-term debt to total capital (long-term debt plus shareholder's equity). Both ratios are presented in Table 1. Total liabilities to total assets is the better of the two ratios to consider here because it encompasses both short- and long-term debt; most of the smaller on-line firms' debt obligations are short-term, with relatively low levels of long-term debt.

Debt levels significantly above industry averages should be a clear warning sign signifying that further, fine-tuned analysis is needed. Based on the Value Line data, the 1998 brokerage industry ratio of long-term debt to total capital was 75%.

TABLE 2. RATIOS FOR THE BROKERAGE INDUSTRY

	1994	1995	1996	1997	1998*	1999*
Total Revenues ($ mil)	54,707	70,684	82,276	101,173	117,000	122,500
Net Profit ($ mil)	3,164.7	3,843.5	5,893.9	7,460.3	8,000	7,500
Net Profit Margin (%)	5.8	5.4	7.2	7.4	6.8	6.1
Long-Term Debt ($ mil)	31,922	53,789	75,405	102,093	132,000	135,000
Shareholder's Equity ($ mil)	15,455	28,965	33,442	39,262	45,000	51,000
Return on Equity (%)	20.5	13.3	17.6	19.0	17.0	18.0
Average Annual P/E Ratio (X)	5.3	6.1	4.9	10.9		
Relative P/E Ratio (X)	6.91	12.73	14.83	17.45		

**Figures for these years are Value Line estimates.*

Source: Value Line Investment Survey, February 5, 1999.

For two major players, one in the pure-play area and one in the subsidiary section that actually hold some sort of long-term debt—Schwab and Donaldson, Lufkin & Jenrette (DLJdirect)—the results were just 21% and 52%, respectively.

Another risk variable that needs to be considered is the risk involved with system outages, a reported plague currently afflicting brokerages like E*Trade and Schwab Online. If these system failures were to last for a substantial period of time—for instance, an entire trading day (they have only been reported as lasting an hour or so)—there could be a major pullback by account holders and a total rejection of Internet trading by skeptical investors.

This is a risk factor that cannot be quantified at this point, but it is currently being tracked by a group claiming to be the Internet performance authority. This company, Keynote Systems, monitors the performance and reliability of 20 on-line brokers at its Web site (www.keynote.com) via the Web Brokerage Index. Performance is gauged based upon the number of seconds it takes to download a page and reliability, or availability of the site, is measured as a percentage. Their analysis is available back to December 1998 and is reported and updated every week.

GROWTH RATES

The two most important growth rates to look at when analyzing any industry are sales growth and earnings growth. If you combine these with a consensus earnings growth estimate, you have a solid picture of the recent success and forecasted performance of the firm.

Annual sales (or revenue) figures and their compound growth rate are indications of how successful the firm has been in marketing its products and the trend of its success in their market. E*Trade holds the top sales growth figure for the pure-play group: 104.2%. For the diversified financial firms, it is Donaldson, Lufkin with 32.2% sales growth.

Equally important are market share numbers—what percentage of total industry sales the firm has.

Another measure of success, this time in generating the bottom line, is net profit, or historical earnings growth, and comparing a firm's trend with the industry trend is crucial. Ironically, the leader in sales growth is the clear laggard in terms of earnings growth over the last three years, as E*Trade checks in at –28.3%. This negative number is due to increases in total operating expenses over and above revenues. Specific examples include significant increases in selling and marketing expenses and an increase in revenues spent on major technological developments. Here E*Trade is trading current profits for greater market share and the hope of profits in the future.

The highest earnings growth in the pure-play category, 97.2%, was registered by Bull & Bear Group. Donaldson, Lufkin's 53.6% figure once again tops the list of diversified firms.

Both of these growth rates are included in Table 1 and total revenue and net profit figures are found in Table 2.

A consensus earnings growth estimate, available from I/B/E/S, an earnings estimate data provider, is defined as the midpoint of the range of analysts' forecasts for a company. This earnings figure covers the expected annual growth over the next five years; this data is not available for all firms. Some firms, mostly the smaller start-ups like Bull & Bear and Ziegler, do not show a number because they have no institutional coverage. The highest growth estimates are 40% for E*Trade and 30% for Ameritrade. A strong and rather impressive growth figure (20%) is even projected for industry heavy Charles Schwab. However, the sustainability of such high growth rates is unclear.

VALUATION

Any type of industry performance comparison is incomplete without some measure of valuation—establishing a value for the company's stock and checking to see if that stock is correctly priced. This is best done by comparing the broker's price-earnings ratio to the industry average figure and perhaps an index. Donaldson, Lufkin's current price-earnings ratio is 15.2, while the figure one year ago was 12.5.

Current and meaningful price-earnings ratios are not available from Value Line for the brokerage industry. The current (as of February 28, 1999) price-earnings ratio for the industry termed Investment Services in *Stock Investor Pro*, is 15.5, versus 16.2 one year ago. That compares to the current S&P 500 price-earnings ratios of 34.3 and 26.8 one year ago.

A high relative price-earnings ratio, that above industry numbers, may indicate a jacked-up stock price that is unwarranted and priced beyond a reasonable value. But remember, price-earnings ratios are a direct reflection of expectations. Stocks with higher growth potential—in this case, the pure on-line brokers—should be trading with higher ratios. Numbers that reflect such possible expectations are those of Schwab with a current price-earnings ratio of 96.8 and Siebert Financial with 140.3. These numbers might be sending up a warning flag, because of high expectations embedded in them. The critical question is whether the expectations are justified.

MARKET SHARE

Valuable data that can be difficult to find concerns market share. Often quoted in news stories discussing the larger brokerage firms, this data adds great value to the analysis of

TABLE 3. ON-LINE TRADING INDUSTRY MARKET SHARE: 1/98–12/98

	4th Quarter 1998			3rd Quarter 1998			2nd Quarter 1998			1st Quarter 1998		
	Trades/Day	Share (%)	Rank	Trades/Day	Share (%)	Rank	Trades/Day	Share (%)	Rank	Trades/Day	Share (%)	Rank
Schwab	93,000	28	1	76,608	30	1	66,000	29	1	60,200	31	1
Waterhouse	42,003	12	2	26,500	10	4	20,400	9	4	16,700	9	3
E*Trade	39,990	12	3	27,450	11	3	25,835	11	2	23,196	12	2
Datek	33,695	10	4	21,272	8	5	19,084	8	5	13,000	7	5
Fidelity	33,100	10	5	28,428	11	2	20,831	9	3	15,350	8	4
Ameritrade	25,725	8	6	18,246	7	6	15,417	7	6	12,198	6	6
DLJdirect	13,366	4	7	10,448	4	7	10,698	5	8	8,604	4	7
Discover	11,531	3	8	9,400	4	8	8,856	4	9	7,837	4	9
Suretrade	9,600	3	9	6,900	3	9	6,754	3	10	2,969	1	na
Nat'l Discount Brokers	4,420	1	10	3,910	2	10	na	na	na	na	na	na
Others	**30,306**	**9**		**25,462**	**10**		**33,909**	**15**		**32,066**	**18**	
TOTAL	**336,736**	**100**		**254,624**	**100**		**227,784**	**100**		**192,120**	**100**	

Source: Piper Jaffray Inc.

the on-line brokerage industry. Market share is a clear comparison of where a firm fits into the landscape of its industry. These numbers tell you who consumers are choosing, how popular the firm is with its customers, and how strong the company's brand name is in the market.

In Piper Jaffray's industry report, market share rank is based upon average trading volume per day and it lists the top 10 firms in each of the four quarters of 1998. The top 10 on-line brokers, based upon market share, are presented in Table 3. As you can see by the numbers, this group of 10 leaders remained fairly stable for the first and second quarters—with no change in the top five, except for the slight erosion of percentage share numbers for both Schwab and E*Trade. In the third quarter, Schwab gained back 1% it lost while E*Trade remained fairly constant and Fidelity continued its climb—moving from 4th to 2nd place. However, in the fourth quarter, two youngbloods set new account records and pushed Fidelity down to 5th place in the rank column and dropped Schwab's hold on market share to just 28%. Waterhouse Securities added 145,000 accounts (38% increase) and Datek grew by 21% in the fourth quarter of 1998.

FINDING AN UNDERSTANDING

You really don't know a stock unless you know its industry. And knowing an industry means understanding what drives the industry and understanding the financial characteristics of the firms that comprise that industry.

Things to continue monitoring in the on-line brokerage services industry throughout the coming months include:

- The financial ratios;
- Market share numbers;
- Commission and service menu changes;
- Degree of industry consolidation;
- Major technological innovations affecting the industry; and
- Any negative news on the on-line brokerages, such as system outages and any disclosed legal problems.

One final thing to keep a lookout for currently in the industry news headlines is a greater level of scrutiny placed the on-line brokers by the Securities & Exchange Commission, as the SEC looks at cracking down on system outages and Internet fraud.✦

Sources of Information for On-Line Discount Brokerages

Keynote Web Brokerage Index
Keynote Systems
www.keynote.com

National Association of Securities Dealers (NASD)
202/728-6900
www.nasd.com

Piper Jaffray Industry Reports
Piper Jaffray Inc.
800/333-6000
www.piperjaffray.com, www.ecinvestor.com

Securities Exchange Commission (SEC)
202/942-0020
www.sec.gov

Securities Industry Association Fact Book
Securities Industry Association (SIA)
212/608-1500
www.sia.com

Standard & Poor's Industry Reports
Standard & Poor's Corp.
800/221-5277
www.stockinfo.standardpoor.com

Value Line Investment Survey
Value Line, Inc.
800/833-0046
www.valueline.com