



On-Line Discount Brokers 2002

by AAI Staff

Seventy-seven brokers are featured in this year's comparison of on-line discount brokers, two more than covered last year. The rapid growth in the number of on-line brokers seems behind us. Instead, brokers are working hard to establish their competitive position and differentiate themselves from the competition. A broker seeking active stock traders will likely feature a different cost structure, research offerings and order entry process than a broker acting as a one-stop center for investors seeking banking services, financial planning, and management of varied portfolios of stocks, mutual funds, and bonds.

The bar chart in Figure 1 traces the growth in the number of on-line discount brokerage firms over the 12-year period since we first began covering them. A big jump took place in 1996, soon after the launch of the first Internet-based broker. Today, all the on-line brokers surveyed offer Internet trading capabilities.

Figure 2 depicts the trend in on-line commissions, displaying the movement of commissions for a 100-share market order charged by on-line discount brokers over the last 12 years. In the early years, when discount brokers first ventured on-line with direct dial-up software, on-line commissions decreased only moderately. However, significant declines in commission charges started to be observed about four years ago, with the average minimum commission decreasing from \$34 to \$20. This year, the average commission is just under \$18 dollars a trade.

The commissions have settled into three segments closely matching the highest, lowest, and even the average commissions in the chart. Deep discounters can be found that offer free or nearly free market order trades for Nasdaq-traded stocks, although they may charge a flat monthly fee. Full-service discount brokers offering a wide range of securities and services

seem to charge about \$10 to \$30 per trade. And finally, there are a few discount brokers with commission schedules still rooted primarily in a non-flat-rate, pre-Internet world.

The highest commission broker this year is once again Max Ule at \$45.60 for the sample 100 share trade. The lowest commission this year is one dollar charged by Interactive Brokers, which charges a penny a share for any order up to 500 shares. While some brokers offer free trades, they only apply to Nasdaq-listed stocks; we used the New York Stock Exchange (NYSE) commission schedule for our chart.

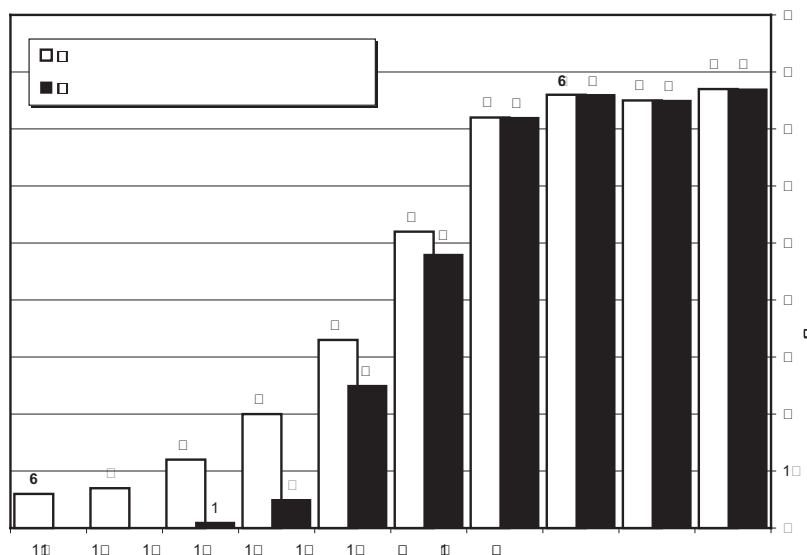
Brokerage firms generate revenue from many sources beyond commissions, including payment from dealers to execute trades, the mark-up between the bid and ask of the stock price, and lending securities and money.

With commissions at these low lev-

els, brokers are trying to focus on features that differentiate them from each other—such as research tools, better rates for active investors, after-hours trading, brick and mortar brokerage offices, and even direct order placement. Over the last several years, bonus features such as research tools and free real-time quotes have given certain firms an added benefit—a competitive advantage over other brokerages. The comparison grid details these services and reports associated fees charged, if any. Firms that offer trading via the Web are able to package the widest range of information and coverage as a result of the multitude of resources that can be linked through the Internet.

While the data shown in the comparison grid is supplied to us directly from each broker, always verify the information presented here by contacting the brokers before making any final decisions.

Figure 1.
Growth of On-Line Brokers



Trading Options

The Other Trading Options section of the grid shows alternatives to Internet trading. In addition to being able to place trades via an on-line trading module hosted at the firm's Web site, brokers may also offer touch-tone telephone service and a hand-held wireless option for the investor who is on the go.

Touch-tone service simply allows you to place your trades over the phone using your phone's keypad.

Personal digital assistants (PDAs) have become popular tools for contact management and task management, and they are able to handle spreadsheets, mini-software applications, and games. Today, these handheld PCs have also become the standard for wireless trading, with capabilities allowing for two-way communication throughout the U.S. A number of larger brokers also offer support for trading through BlackBerry RIM handhelds.

The flexibility of a firm's trading system is a key component in the evaluation of any broker's offerings. If the firm's Web site is down due to heavy trading volume or technical problems and you cannot get in to access your accounts, the touch-tone service option becomes very valuable.

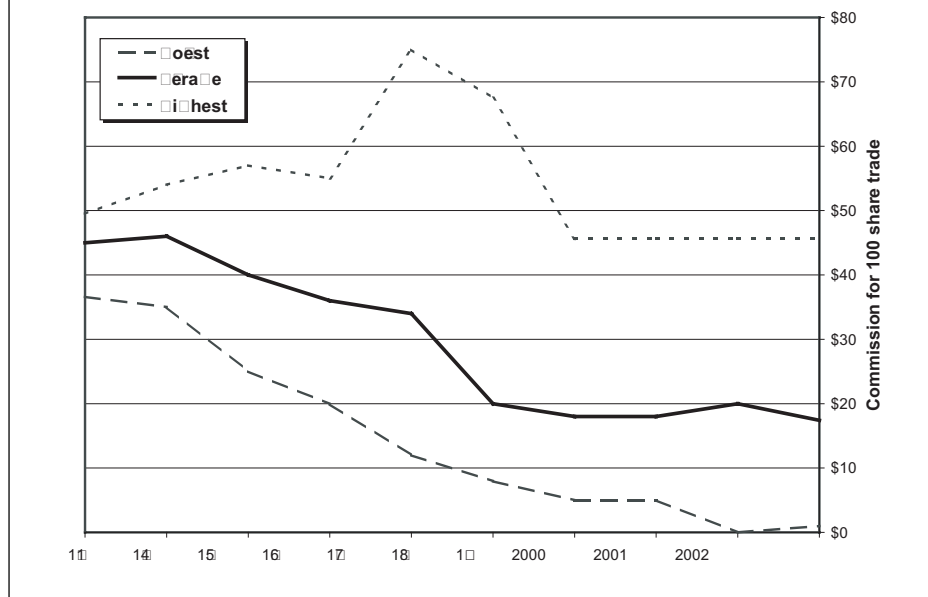
In this article, Internet trading presupposes that you have a connection to the Internet, and wireless trading presupposes that you have obtained the necessary unit.

Commissions

The Flat-Fee Commission Rate and Maximum Number of Shares columns should serve as the base for any commissions analysis. If the broker does not offer a flat-rate schedule, then "none" appears. A sample trade of 500 shares at \$50 per share is presented, along with what percentage of the total transaction the commission is, to allow comparison with brokers that do not have flat-fee schedules. The chart also indicates any additional charge for limit orders.

For example, let's look at E*Trade's commission situation. E*Trade has a

Figure 2.
On-Line Commissions 1991–2002



flat \$14.95 fee for up to 5,000 shares and a \$5 fee is levied for limit order trades.

No-Load Mutual Fund Transactions

The figures entered in the Minimum Fee for No-Load Mutual Fund Transaction column are calculated by figuring the associated commission of purchasing one share at \$1.

Securities Handled

All on-line brokers included here handle stock trades, so this is not shown in the grid as a checkmark. Most of the brokers allow you to trade the basic securities such as stocks, options, and mutual funds. Unfortunately, only five of the firms in this year's survey allow individuals to trade futures contracts on-line. This is primarily due to the highly leveraged nature of futures and their accompanying liability concerns. Roughly half of the brokers allow investors to trade bonds on-line. With the exception of U.S. Treasuries, the bond market is very fragmented and therefore less suited toward simple on-line order entry systems.

Commission structures vary for different types of securities traded, so be

sure to ask for a detailed commission schedule from any potential broker and review it carefully. Most brokers describe basic commissions and fees on their Web site; however, you may have to contact the firm directly for details involving specific situations.

Cash Management Account

A cash management account consists of basic banking services within a brokerage account. Cash management accounts offer services such as direct deposit, check writing, wire transfers, debit card usage, and sweep account capabilities.

Placing Orders

Most brokers allow basic trades to be placed on-line, such as market orders, limit orders, and stop orders.

The simplest of all orders is the market order, which is usually executed immediately at the best available price. Before placing a trade, it is important to first examine the market price by looking at the last trade price and its time of execution, the current inside bid/ask spread, the size of these offers, and the volume. While a market order offers you the quickest and surest way to accomplish a trade, it

comes with the risk that a quickly moving or thinly traded market may lead to a poor execution price.

A limit order reduces this transaction risk by setting the minimum price that an investor is willing to sell a security at, or the maximum price that an investor is willing to pay to purchase a security. As mentioned above, the flat-fee commissions are based on entering a market order. Some firms are extending their flat commission schedules to include limit orders as well. Ask any prospective brokers if their stated commissions apply to limit orders—that added flexibility could put one firm ahead of the others under consideration.

Stop orders are also tied to market moves. While a limit order establishes a set price or better, a stop order becomes a market order when the security's price hits the stop price. This order will then be filled at the prevailing market price, with no guarantee of a specific price.

Length of time can also be assigned to on-line orders, such as a day order (good through that day only) or good-until-canceled (usually good through the end of the month in which the transaction was placed). Short-selling involves selling shares of stock that you do not own. Short sellers hope to profit from stock price declines by borrowing stock and selling it first, then buying the stock later at a lower price and returning the borrowed shares. Brokerage firms have the ability to lend out shares held by the broker in margin accounts of other customers.

A do-not-reduce order is an instruction not to automatically reduce a stop or limit order by the amount of the dividend when a stock goes ex-dividend. Specifying which lots are to be sold is done through a versus purchase order. A versus purchase order helps individuals limit their tax liability by allowing them to sell shares that were purchased at a specific price.

Order Confirmations

The section entitled Confirmation of Order Fulfillment Delivered refers

to how you are notified that your recent order was filled. Order fulfillment confirmation can appear on-line at a designated area on the broker's Web site, or it can arrive in your inbox as an E-mail message. A confirmation can also come in the form of a telephone call or be sent via regular mail.

In most cases, more than one means of receiving confirmation is available.

Portfolio Data

Immediate access to account information is a huge benefit of on-line trading. It is important for the broker to make this type of portfolio data available and easy to access. It allows you to see how much cash you have in your account to purchase new securities, as well as to view those securities you already own.

In addition to reporting on the availability of cash balances and positions, in this section the comparison grid also indicates which on-line brokers provide a record of dividends received from your securities and a detailed ledger of your account transactions. The comparison grid indicates the historical time period of the transaction ledger available on-line. The reference "since inception" refers to a transaction ledger that begins with the opening of your account. The shortest timeframe is one week. Where there are blanks, the broker simply did not provide information.

The brokers were also surveyed on how soon portfolio information is updated following a transaction or change in the portfolio holdings or cash account. Real-time (symbolized by RT in the grid) denotes that the portfolio is updated immediately following a change. Intraday (ID) updating is on a delayed basis, such as a 15-minute delay or every hour. End-of-day (ED) simply means that changes to the portfolio would not be reflected in your records until the next trading day. In a few cases, you can request that portfolio updates are periodically sent to your inbox in the form of an E-mail message (EM).

Quotes

Current quotes on securities are a vital part of placing a trade. An investor needs fresh data, no matter how volatile

the market, to make informed decisions.

The bid/ask price refers to the spread between the highest price bid to purchase and the lowest price offered to sell a stock. Last trade denotes the price at which the security last traded. Volume refers to the total shares that have changed hands for that security. We also report on the availability of high/low price for the day and for the year, which aids in determining a security's relative price standpoint.

We have broken down the quotes section by the type of quotes available—delayed (denoted by DY in the grids), real-time (RT), and Nasdaq Level II (NLII). In the past, real-time quotes were quite expensive and rarely free. Today, real-time quotes are a cost of being competitive with other brokers and free for most customers. Some brokers charge a fee for real-time quotes as well as for Nasdaq Level II quotes, most often on a per month basis—if so, the fee is identified in the grids.

Live Broker Availability

In addition to touch-tone trading or a wireless trading option, the availability of "live" brokers adds flexibility to a brokerage firm's trading system. On-line brokers maintain a staff of live brokers that are there to take orders over the phone. This service is different than a touch-tone function in that you are actually speaking with a real person on the other end of the line. In some cases, commissions are higher for these broker-assisted trades.

After-Hours Trading

Some of the on-line brokers offer their clients access to the markets before the open or after the close via after-hours trading sessions.

After-hours trading utilizes computerized order matching systems known as Electronic Communications Networks (ECNs). These sessions are completely independent from standard market hours trad-

(continued on p. 20)

PRODUCT COMPARISON: ON-LINE DISCOUNT BROKERS

Broker Name Web Address	Phone Number	Other Trading Options	Commissions						Minimum Fee for No-Load Fund Transaction	Other Securities Handled				Offers Cash Management Account	Types of Orders That Can Be Placed On-Line							
			Touch-Tone Service	Hand-Held Wireless Unit	Flat-Fee Commission Rate	Maximum No. of Shares at Flat Rate	500 Shares@\$50 per Share	% of 500 Share Trade		Additional Charge for Limit Orders	Bonds	Mutual Funds	Options		Futures	Market Limit	Stop	Stop-Limit	Day/Good-Until-Canceled	Short Sell	Do Not Reduce	Versus Purchase
A.B. Watley Inc. www.abwatley.com	888/229-2853	✓		\$9.95	5,000	\$9.95	0.04%	none	none	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	
Accutrade www.accutrade.com	800/494-8939	✓		\$29.95	1,000	\$29.95	0.12%	none	\$27.00		✓	✓			✓	✓	✓	✓	✓	✓		
American Express Brokerage www.americanexpress.com/trade	800/297-7378	✓		\$19.95	3,000	\$19.95	0.08%	none	none		✓			✓	✓	✓	✓	✓			✓	
American Securities Group www.invest.com	800/546-8378	✓		\$4.99	5,000	\$4.99	0.02%	\$5.00	none	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	
Ameritrade www.ameritrade.com	800/669-3900	✓	✓	\$8.00	no limit	\$8.00	0.03%	\$5.00	\$18.00		✓	✓		✓	✓	✓	✓	✓	✓	✓		
Banc of America Inv't Serv www.bankofamerica.com/investments	800/926-1111	✓		\$24.95	1,000	\$24.95	0.10%	none	none		✓	✓		✓	✓	✓		✓		✓		
Barry Murphy & Co. www.barrymurphy.com	800/221-2111	✓		\$29.95	2,000	\$29.95	0.12%	\$4.00	none	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	
Bidwell & Company www.bidwell.com	800/547-6337	✓		\$12.00	1,500	\$12.00	0.05%	\$3.00	varies		✓	✓		✓	✓	✓		✓	✓	✓		
Brown & Co. Securities Corp. www.brownco.com	800/822-2021			\$5.00	5,000	\$5.00	0.02%	\$5.00	\$5.00		✓	✓			✓	✓	✓	✓	✓	✓	✓	
Bush Burns Securities www.bushburns.com	800/821-4803			\$25.00	5,000	\$25.00	0.10%	none	none	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	
BUY and HOLD Securities Corp. www.buyandhold.com	800/646-8212			\$6.99	*no limit	\$6.99*	0.03%	n/a	n/a						✓							
Century Discount Inv'ts www.centurydiscount.com	800/366-1500			none	n/a	\$29.00	0.12%	none	n/a	✓	✓	✓			✓	✓	✓	✓	✓			
Charles Schwab www.schwab.com	800/435-4000	✓		\$29.95	1,000	\$29.95	0.12%	none	none	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
ComputEL Securities www.computel.com	800/432-0327	✓		\$14.00	1,000	\$14.00	0.06%	\$5.00	29.00		✓	✓		✓	✓	✓	✓	✓	✓	✓		
CSFBdirect www.csfbdirect.com	800/825-5723	✓	✓	\$20.00	1,000	\$20.00	0.08%	none	\$35.00	✓	✓	✓		✓	✓	✓	✓		✓	✓		
CyberTrader www.cybertrader.com	888/762-9237	✓		\$14.95	no limit	\$14.95	0.06%	none	n/a			✓		✓	✓	✓	✓	✓	✓	✓	✓	
Daat Securities www.daattrading.com	800/991-5408			\$9.95	no limit	\$9.95	0.04%	\$5.00	35.00	✓	✓	✓			✓	✓	✓	✓	✓		✓	
Datek www.datek.com	800/823-2835			\$9.99	5,000	\$9.99	0.04%	none	none		✓			✓	✓	✓	✓	✓	✓			
Downstate Discount www.trade4less.com	800/780-3543			\$19.95	5,000	\$19.95	0.08%	none	n/a			✓		✓	✓	✓	✓	✓	✓	✓		

*monthly fee

[†]DY=delay, ED=end of day, EM=E-mail, ID=intraday, NLII=Nasdaq Level II, RT=real time

Open Orders	Confirmation of Order Fulfillment Delivered					Portfolio Information Available On-Line						Quote Data Available											Free Research Offered On-Line												
Examine & Change	Cancel	Via an On-Line Link	Via an E-Mail Message	Via a Telephone Call	Via Regular Mail	Cash Balance	Positions and Values	Dividends Received	Transaction Record	Transaction Record History Availability	Portfolio Information Updated*	Bid / Ask Price	Last Trade	Volume	High / Low (Day)	High / Low (52-Week)	Dividend / Ex-Dividend Date	Type of Quotes (Delay, Real-Time, NLI)*	Real-Time Quote Fees (per month, rounded)	Nasdaq Level II Quote Fees (per month, rounded)		Live Broker Availability (EST)	After-Hours Trading (EST)	Fundamental Data	Earnings Estimates	Analyst Reports	Mutual Fund Ratings	Mutual Fund Performance Data	Mutual Fund Screening	Portfolio Tracking	Stock Screening	Charts	News	Web Site Offers a Trading Demo	
✓	✓	✓	✓	✓	✓	✓	✓	✓	since incep'n	RT	✓	✓	✓	✓	✓		DY, RT	free	\$300	7:00am-8:00pm	am & pm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓	✓	18 mos.	RT	✓	✓	✓				DY, RT	free	n/a	8:00am-6:30pm	pm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓				✓	✓	✓	since incep'n	RT	✓	✓	✓	✓	✓	✓	DY, RT	free	free	24 hours/7 days	pm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓	✓	16 mos.	RT	✓	✓	✓	✓	✓		DY, RT	free	n/a	8:30am-8:30pm	am & pm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓	✓	19 mos.	ED	✓	✓	✓	✓	✓	✓	DY, RT	\$15	\$15	24 hours/7 days	am & pm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓		✓	✓	✓	✓	90 days	RT	✓	✓	✓	✓	✓	✓	DY, RT	free	n/a	8:00am-9:00pm	pm	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	
✓	✓	✓	✓	✓	✓	✓	✓	✓	2 yrs.	RT	✓	✓	✓	✓	✓	✓	RT	free	n/a	8:30am-5:00pm	am & pm	✓	✓		✓	✓		✓	✓		✓	✓	✓	✓	
✓	✓	✓	✓	✓	✓	✓	✓	✓	since incep'n	RT	✓	✓	✓	✓	✓	✓	DY, RT	free	n/a	9:00am-8:00pm	pm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓	✓	90 days	RT	✓	✓	✓	✓	✓		RT	free	n/a	8:00am-8:00pm	pm	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	
✓	✓	✓	✓		✓	✓	✓	✓	45 days	RT	✓	✓	✓	✓	✓	✓	DY, RT	\$30	n/a	8:30am-5:00pm														✓	
✓	✓	✓	✓	✓		✓	✓	✓	2yrs.	RT	✓	✓	✓	✓	✓	✓	DY	n/a	n/a				✓	✓					✓		✓	✓	✓	✓	
✓	✓		✓			✓	✓	✓	30 days	RT	✓	✓	✓	✓	✓	✓	DY, RT	free	n/a	8:00am-5:00pm			✓				✓	✓							
✓	✓	✓	✓		✓	✓	✓	✓	2 yrs.	ID	✓	✓	✓	✓	✓		DY, RT	free	varies	24 hours/7 days	am & pm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓		✓		✓	✓	✓	✓	90 days	RT	✓	✓	✓	✓	✓	✓	DY, RT	free	n/a	9:00am-5:00pm			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓		✓	✓	✓	✓	2 yrs.	RT	✓	✓					DY, RT	free	\$45	24 hours/7 days	am & pm	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	
✓	✓	✓	✓		✓	✓	✓	✓	since incep'n	RT	✓	✓	✓	✓	✓	✓	RT, NLI	free	\$99	7:00am-8:00pm	am & pm	✓		✓					✓	✓	✓	✓	✓	✓	
✓	✓	✓	✓	✓	✓	✓	✓	✓	1 yr.	RT	✓	✓	✓	✓	✓		DY, RT	free	\$10	8:30am-5:30pm	am & pm	✓							✓		✓		✓		
✓	✓	✓	✓	✓	✓	✓	✓	✓	6 yrs.	RT	✓	✓	✓	✓	✓	✓	DY, RT	free	\$10	24 hours/7 days	am & pm	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓		✓	✓	✓	✓	6 mos.	RT	✓	✓	✓	✓	✓		DY, RT	free	n/a	9:00am-5:00pm			✓	✓					✓		✓	✓	✓	✓	

PRODUCT COMPARISON: ON-LINE DISCOUNT BROKERS

Broker Name Web Address	Phone Number	Other Trading Options		Commissions						Minimum Fee for No-Load Fund Transaction	Other Securities Handled				Offers Cash Management Account	Types of Orders That Can Be Placed On-Line							
				Touch-Tone Service	Hand-Held Wireless Unit	Flat-Fee Commission Rate	Maximum No. of Shares at Flat Rate	500 Shares@\$50 per Share	% of 500 Share Trade		Additional Charge for Limit Orders	Bonds	Mutual Funds	Options		Futures	Market Limit	Stop	Stop-Limit	Day/Good-Until-Canceled	Short Sell	Do Not Reduce	Versus Purchase
Dreyfus Brokerage Services www.edreyfus.com	800/421-8395	✓	✓	\$15.00	100,000	\$15.00	0.06%	none	20.00	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓		
E*Trade Securities www.etrade.com	800/786-2575	✓	✓	\$14.95	5,000	\$14.95	0.06%	\$5.00	none	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓			
elephantX Online www.elephantxonline.com	877/826-9857			\$9.95*	5,000	\$9.95*	0.04%	none	n/a					✓	✓	✓	✓	✓	✓	✓			
Empire Financial Group www.empirenow.com	800/569-3337	✓		\$5.00	nolimit	\$5.00	0.02%	\$5.00	5.00	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓			
Fidelity Brokerage Services www.fidelity.com	800/343-3548	✓	✓	\$25.00	1,000	\$25.00	0.10%	\$5.00	none	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓		
First Discount Brokerage www.1db.com	888/642-2811	✓		\$19.95	5,000	\$19.95	0.08%	none	35.00	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓			
First Financial Equity www.ffec.com	480/951-0079			\$26.95	nolimit	\$26.95	0.11%	none	varies	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓			
First Union Securities www.firstunion.com	800/326-4434	✓		\$25.00	1,000	\$25.00	0.10%	none	none		✓	✓		✓	✓	✓	✓	✓	✓				
Firstar Investment Services www.firstarinvestments.com	800/558-5818			\$24.95	1,000	\$24.95	0.10%	none	\$25.00	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓		
Firsttrade Securities www.firsttrade.com	888/988-6168	✓	✓	\$6.95	nolimit	\$6.95	0.03%	\$3.00	\$19.95		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓		
Freedom Investments www.freedominvestments.com	800/381-1481			\$15.00	nolimit	\$15.00	0.06%	none	n/a	✓		✓		✓	✓	✓	✓	✓	✓	✓	✓		
GlobalTradz globaltradz.com	877/698-7239		✓	\$7.95	5,000	\$7.95	0.03%	none	none	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Harris InvestorLine www.harrisinvestorline.com	800/729-7585	✓	✓	\$14.95	5,000	\$14.95	0.06%	\$5.00	varies		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓		
Interactive Brokers www.interactivebrokers.com	877/442-2757			none	n/a	\$5.00	0.02%	none	n/a			✓	✓		✓	✓	✓	✓	✓	✓			
InvestIN Securities Corp. investinonline.com	800/327-1883			\$9.95	1,000	\$9.95	0.04%	none	n/a			✓		✓	✓	✓	✓	✓	✓	✓			
Investors National Corp. www.investorsnational.com	800/728-1266			none	n/a	\$62.50	0.25%	none	\$59.00		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓		
Investrade Discount Sec www.investrade.com	800/498-7120	✓		\$7.95	nolimit	\$7.95	0.03%	\$4.00	\$29.00	✓	✓	✓		✓	✓	✓		✓	✓				
JB Oxford & Company www.jboxford.com	800/799-8870	✓	✓	\$14.50	1,000	\$14.50	0.06%	\$5.00	\$25.00	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓			
JH Darbie & Co. www.jhdarbie.com	800/606-8844	✓	✓	\$14.95	5,000	\$14.95	0.06%	\$5.00	\$25.00	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓		

*monthly fee

†DY=delay, ED=end of day, EM=E-mail, ID=intraday, NLII=Nasdaq Level II, RT=real time

Open Orders	Confirmation of Order Fulfillment Delivered					Portfolio Information Available On-Line					Portfolio Information Updated*	Quote Data Available					Type of Quotes (Delay, Real-Time, NLIJ)*	Real-Time Quote Fees (per month, rounded)	Nasdaq Level II Quote Fees (per month, rounded)	Live Broker Availability (EST)	After-Hours Trading (EST)	Free Research Offered On-Line												Web Site Offers a Trading Demo
	Examine & Change Cancel	Via an On-Line Link	Via an E-Mail Message	Via a Telephone Call	Via Regular Mail	Cash Balance	Positions and Values	Dividends Received	Transaction Record	Transaction Record History Availability		Bid / Ask Price	Last Trade	Volume	High / Low (Day)	High / Low (52-Week)						Dividend / Ex-Dividend Date	Fundamental Data	Earnings Estimates	Analyst Reports	Mutual Fund Ratings	Mutual Fund Performance Data	Mutual Fund Screening	Portfolio Tracking	Stock Screening	Charts	News		
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	4 yrs.	RT	✓	✓	✓	✓	✓	DY, RT	free	n/a	8:30am-7:00pm	am & pm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	1 yr.	RT	✓	✓	✓	✓	✓	DY, RT	free	n/a	24 hours/7 days	am & pm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓	✓	since incep'n	RT	✓	✓	✓	✓		DY, RT	free	n/a	8:30am-5:00pm		✓						✓		✓	✓	✓	✓	
✓	✓	✓	✓		✓	✓	✓	✓	✓	2 yrs.	RT	✓	✓	✓	✓	✓	✓	DY, RT, NLIJ	\$15	\$30	8:00am-6:30pm	pm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	90 days	RT E M	✓	✓	✓	✓	✓	✓	DY, RT, NLIJ	free	varies	24 hours/7 days	pm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓		✓		✓	✓	✓	✓	✓	since incep'n	RT E M	✓	✓	✓	✓	✓	DY, RT	free	n/a	7:00am-6:00pm				✓						✓	✓	✓	✓	
✓	✓	✓	✓		✓	✓	✓	✓	✓	1 yr.	RT	✓	✓	✓	✓		RT	free	n/a	9:00am-3:00pm		✓	✓		✓	✓				✓	✓			
✓	✓	✓		✓	✓	✓	✓	✓	✓	90 days	ED	✓	✓	✓	✓	✓	✓	DY, RT	free	n/a	7:00am-7:00pm		✓			✓	✓			✓	✓	✓	✓	
✓	✓	✓			✓	✓	✓	✓	✓	90 days	RT	✓	✓	✓	✓	✓	✓	DY	n/a	n/a	9:00am-5:00pm									✓	✓			
✓	✓	✓			✓	✓	✓	✓	✓	since incep'n	RT	✓	✓	✓	✓	✓	✓	DY, RT, NLIJ	free	\$20	8:00am-6:00pm	pm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓			✓	✓	✓	✓	✓		ED	✓	✓	✓	✓		DY, RT	free	n/a	9:00am-5:30pm		✓	✓					✓	✓	✓	✓	✓	✓	
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		RT	✓	✓	✓	✓	✓	DY, RT, NLIJ	free	\$12	8:00am-8:00pm	am & pm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	3 yrs.	RT	✓	✓	✓	✓	✓	✓	DY, RT	free	n/a	8:30am-1:00am	pm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓			✓	✓	✓	✓	18 mos.	RT E M	✓	✓	✓	✓	✓	DY, RT, NLIJ	varies	\$79	8:00am-8:00pm	varies									✓	✓	✓		
✓	✓	✓			✓	✓	✓	✓	✓	since incep'n	RT	✓	✓	✓	✓		DY, RT, NLIJ	free	\$12	8:00am-6:30pm	am & pm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
✓	✓		✓		✓	✓	✓	✓	✓	90 days	RT	✓	✓	✓	✓		DY, RT	free	n/a	9:00am-8:00pm							✓				✓			
✓	✓		✓		✓	✓	✓	✓	✓	18 mos.	RT	✓	✓	✓	✓	✓	✓	DY, RT	free	n/a	8:00am-6:00pm	pm	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	18 mos.	RT	✓	✓	✓	✓	✓	✓	DY, RT	free	n/a	8:30am-5:00pm	am & pm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	1 yr.	RT E M	✓	✓	✓	✓	✓	RT	free	n/a	8:00am-6:00pm	am & pm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

PRODUCT COMPARISON: ON-LINE DISCOUNT BROKERS

Broker Name Web Address	Phone Number	Other Trading Options		Commissions						Minimum Fee for No-Load Fund Transaction	Other Securities Handled				Offers Cash Management Account	Types of Orders That Can Be Placed On-Line							
				Touch-Tone Service	Hand-Held Wireless Unit	Flat-Fee Commission Rate	Maximum No. of Shares at Flat Rate	500 Shares@\$50 per Share	% of 500 Share Trade		Additional Charge for Limit Orders	Bonds	Mutual Funds	Options		Futures	Market Limit	Stop	Stop-Limit	Day/Good-Until-Canceled	Short Sell	Do Not Reduce	Versus Purchase
Levitt & Levitt www.trutrade.com	800/671-8505			\$12.95	2,000	\$12.95	0.05%	\$5.00	\$12.95		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	
Lexit Capital, LLC www.lexitusa.com	800/926-9991			\$20.00	nolimit	\$20.00	0.08%	none	n/a			✓	✓		✓	✓	✓	✓	✓	✓	✓		
Max Ule www.maxule.com	800/809-1160			none	n/a	\$156.00	0.62%	none	none	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	
MB Trading www.mbtrading.com	866/628-3001			none	n/a	\$12.45	0.04%	none	n/a						✓	✓	✓	✓	✓	✓	✓		
Merrill Lynch Direct www.mldirect.ml.com	877/653-4732			\$29.95	1,000	\$29.95	0.12%	none	none	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓		
Morgan Stanley Online www.morganstanley.com/online	800/688-6896	✓		\$29.95	1,000	\$29.95	0.12%	none	none	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓		
Mr. Stock www.mrstock.com	800/470-1896			\$9.95	5,000	\$9.95	0.04%	\$2.05	n/a			✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	
Muriel Siebert & Co. www.siebertnet.com	800/872-0711	✓	✓	\$14.95	1,000	\$14.95	0.06%	none	none	✓	✓	✓		✓	✓	✓	✓		✓	✓	✓		
Mydiscountbroker.com www.mydiscountbroker.com	888/882-5600		✓	\$12.00	5,000	\$12.00	0.05%	none	none		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	
myTrack www.mytrack.com	800/698-7225		✓	\$12.95	nolimit	\$12.95	0.05%	\$3.00	\$25.00			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Net Investor www.netinvestor.com	800/638-4250			\$8.95	nolimit	\$8.95	0.04%	\$6.00	\$35.00	✓	✓	✓		✓	✓	✓	✓	✓	✓		✓	✓	
NetVest www.netvest.com	800/961-1500	✓	✓	\$14.00	nolimit	\$14.00	0.06%	\$5.00	\$29.00	✓	✓	✓		✓	✓	✓	✓		✓	✓	✓	✓	
One Financial Network www.thefinancialcafe.com	877/600-6410	✓		\$2.99	nolimit	\$2.99	0.01%	\$8.96	varies	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓			
Peremel & Co. www.peremel.com	800/737-3635	✓	✓	\$18.00	2,000	\$18.00	0.07%	\$2.00	none			✓	✓	✓	✓	✓	✓		✓	✓	✓		
Preferred Trade, Inc. www.preferredtrade.com	888/889-9178			\$15.00	nolimit	\$15.00	0.06%	none	n/a	✓		✓			✓	✓	✓	✓	✓	✓	✓	✓	
Quick & Reilly www.quickandreilly.com	800/837-7220	✓	✓	\$14.95	nolimit	\$14.95	0.06%	\$5.00	\$25.00	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓			
R.J. Thompson Securities www.rjt.com	800/273-3212	✓	✓	\$5.00	nolimit	\$5.00	0.02%	none	\$25.00	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	
Recom Securities www.trutrade.com	800/328-8600		✓	\$12.95	2000	\$12.95	0.05%	\$5.00	\$12.95			✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	
Regal Discount www.eregal.com	800/786-9000	✓		\$18.95	nolimit	\$18.95	0.08%	none	none			✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	

^tDY=delay, ED=end of day, EM=E-mail, ID=intraday, NLII=Nasdaq Level II, RT=real time

Open Orders	Confirmation of Order Fulfillment Delivered				Portfolio Information Available On-Line				Transaction Record History Availability	Portfolio Information Updated*	Quote Data Available					Dividend / Ex-Dividend Date	Type of Quotes (Delay, Real-Time, NLI)*	Real-Time Quote Fees (per month, rounded)	Nasdaq Level II Quote Fees (per month, rounded)	Live Broker Availability (EST)	After-Hours Trading (EST)	Free Research Offered On-Line										Web Site Offers a Trading Demo
	Examine & Change	Cancel	Via an On-Line Link	Via an E-Mail Message	Via a Telephone Call	Via Regular Mail	Cash Balance	Positions and Values			Dividends Received	Transaction Record	Bid / Ask Price	Last Trade	Volume							High / Low (Day)	High / Low (52-Week)	Fundamental Data	Earnings Estimates	Analyst Reports	Mutual Fund Ratings	Mutual Fund Performance Data	Mutual Fund Screening	Portfolio Tracking	Stock Screening	
✓	✓	✓		✓	✓	✓	✓	✓	60 days	RT	✓	✓	✓	✓	✓	✓	DY, RT	\$30	n/a	9:00am-5:00pm		✓	✓	✓	✓		✓	✓	✓	✓	✓	
✓	✓	✓	✓	✓	✓	✓	✓	✓	3 mos.	RT	✓	✓	✓	✓	✓	✓	RT, NLI	\$300	\$300	8:30am-5:00pm							✓	✓	✓	✓		
	✓		✓	✓	✓	✓	✓	✓	60 days	RT	✓	✓	✓	✓	✓	✓	RT, NLI	free	free	8:00am-4:30pm												
✓	✓	✓	✓			✓	✓	✓	since inosp'n	RT	✓	✓	✓	✓	✓	✓	RT, NLI	\$25	\$25	7:30am-8:00pm	am & pm										✓	
	✓	✓	✓			✓	✓	✓	90 days	RT	✓	✓	✓	✓	✓	✓	RT	free	n/a	24 hours/7 days		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
✓	✓	✓	✓		✓	✓	✓	✓	since inosp'n	RT	✓	✓	✓	✓	✓		DY, RT	free	n/a	24 hours/7 days	pm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
✓	✓	✓	✓	✓	✓	✓	✓	✓	2 yrs.	RT	✓	✓	✓	✓			DY, RT	free	n/a	8:30am-8:30pm		✓	✓	✓			✓	✓	✓	✓	✓	
✓	✓	✓	✓	✓	✓	✓	✓	✓	30 mos.	RT	✓	✓	✓	✓	✓	✓	DY, RT	free	n/a	7:30am-7:30pm	am & pm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
✓	✓	✓	✓	✓		✓	✓	✓	since inosp'n	RT	✓	✓		✓			DY, RT NLI	free	\$80	8:00am-10:00pm	am & pm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
✓	✓	✓	✓	✓		✓	✓	✓	since inosp'n	RT	✓	✓	✓	✓	✓	✓	DY, RT NLI	free	\$40	7:00am-8:00pm	am & pm	✓			✓	✓		✓	✓	✓		
✓	✓	✓	✓	✓	✓	✓	✓	✓	since inosp'n	RT	✓	✓	✓	✓	✓		DY, RT NLI	free	\$15	8:30am-5:30pm						✓	✓	✓	✓	✓	✓	
✓	✓	✓	✓	✓	✓	✓	✓	✓	18 mos.	RT	✓	✓	✓	✓	✓	✓	DY, RT	free	n/a	24 hours/7 days	pm	✓	✓		✓	✓		✓	✓	✓	✓	
✓	✓	✓	✓	✓	✓	✓	✓	✓	1 yr.	RT	✓	✓	✓	✓	✓		DY, RT NLI	free	\$30	6:00am-5:00pm	am & pm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
✓	✓	✓			✓	✓	✓	✓	18 mos.	ID	✓	✓	✓	✓	✓	✓	DY, RT	free	n/a	8:30am-5:00pm	pm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
✓	✓	✓	✓	✓	✓	✓	✓	✓	since inosp'n	RT	✓	✓	✓	✓			DY, RT	free	n/a	8:30am-8:00pm	pm										✓	
✓	✓	✓	✓	✓		✓	✓	✓	13 mos.	RT	✓	✓	✓	✓	✓	✓	DY, RT	free	n/a	24 hours/7 days	pm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
✓	✓	✓	✓	✓		✓	✓	✓	2 yrs.	ED							RT, NLI	free	\$25	6:30am-5:00pm	am & pm										✓	
✓	✓	✓	✓			✓	✓	✓	60 days	RT	✓	✓	✓	✓	✓	✓	DY, RT	\$30	n/a	9:00am-5:00pm		✓	✓	✓	✓		✓		✓	✓	✓	
✓	✓	✓	✓	✓	✓	✓	✓	✓	3 mos.	RT	✓	✓	✓	✓	✓	✓	DY, RT	free	n/a	8:00am-6:00pm	am & pm	✓	✓	✓	✓	✓		✓		✓	✓	

PRODUCT COMPARISON: ON-LINE DISCOUNT BROKERS

Broker Name Web Address	Phone Number	Other Trading Options		Commissions						Minimum Fee for No-Load Fund Transaction	Other Securities Handled				Offers Cash Management Account	Types of Orders That Can Be Placed On-Line							
				Touch-Tone Service	Hand-Held Wireless Unit	Flat-Fee Commission Rate	Maximum No. of Shares at Flat Rate	500 Shares@\$50 per Share	% of 500 Share Trade		Additional Charge for Limit Orders	Bonds	Mutual Funds	Options		Futures	Market	Limit	Stop	Stop-Limit	Day/Good-Until-Canceled	Short Sell	Do Not Reduce
Scottrade www.scottrade.com	800/619-7283	✓	✓	\$7.00	nolimit	\$7.00	0.03%	\$5.00	none	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	
Seaport Securities Corp. www.seaportsecurities.com	800/732-7678	✓		\$19.95	1,000	\$19.95	0.08%	none	\$35.00	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	
Securities Research www.securitiesresearch.com	800/327-3156			\$35.00	2,000	\$35.00	0.14%	none	\$35.00	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	
Sherry Bruce's State Disc't Brok www.statediscountbrokers.com	800/222-5520	✓		\$14.00	5,000	\$14.00	0.06%	none	\$25.00		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓		
StockCross www.stockcross.com	800/225-6196			\$20.30	2,000	\$20.30	0.08%	\$7.00	n/a			✓		✓	✓	✓		✓	✓	✓	✓	✓	
Strong Investments www.strong.com	800/368-1550	✓		\$24.95	1,000	\$24.95	0.10%	none	none		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	
T. Rowe Price Brokerage www.troweprice.com	800/638-5660	✓		\$19.95	1,000	\$19.95	0.08%	none	none		✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	
TD Waterhouse Securities Grp www.tdwaterhouse.com	800/934-4448	✓	✓	\$14.95	2,500	\$14.95	0.06%	\$3.00	none	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	
Trading Direct www.tradingdirect.com	800/925-8566	✓		\$9.95	nolimit	\$9.95	0.04%	none	\$15.95		✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	
U.S. Rica Financial www.usrica.com	888/887-7422			\$4.95	nolimit	\$4.95	0.02%	none	n/a		✓				✓	✓			✓	✓			
USAA Brokerage Services www.usaa.com	800/531-8144	✓		\$24.00	1,000	\$24.00	0.10%	none	\$40.00		✓	✓		✓	✓	✓	✓	✓	✓		✓		
Vanguard Brokerage Services www.vanguard.com	800/992-8327	✓	✓	\$20.00	1,000	\$20.00	0.08%	none	\$35.00		✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	
Wachovia Investments www.wachovia.com	800/922-9008	✓		\$29.95	1,000	\$29.95	0.12%	none	\$40.00		✓	✓		✓	✓	✓	✓		✓	✓	✓	✓	
Wall Street Access www.wsaccess.com	800/925-5781	✓		\$25.00	5,000	\$25.00	0.10%	none	35.00			✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	
Wall Street Equities www.wsei.com	800/321-4877			\$12.00	5,000	\$12.00	0.05%	none	n/a					✓	✓	✓			✓			✓	
Wall Street*E www.wallstreete.com	888/925-5783	✓	✓	none	n/a	\$29.95	0.12%	none	\$35.00	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓		
Wells Fargo Investments, LLC www.wellsfargo.com	800/872-3377	✓		\$24.95	1,000	\$24.95	0.10%	none	none			✓	✓		✓	✓	✓	✓	✓	✓			
WR Hambrecht & Co. www.wrhambrecht.com	800/673-6476			\$19.95	3,000	\$19.95	0.08%	none	35.00	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓			
York Securities www.yorktrade.com	800/221-3154	✓		none	n/a	\$38.70	0.15%	none	n/a	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	
Your Discount Broker www.ydb.com	800/800-3215	✓		\$29.95	5,000	\$29.95	0.12%	\$5.05	none			✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	

*DY=delay, ED=end of day, EM=E-mail, ID=intraday, NLII=Nasdaq Level II, RT=real time

Open Orders	Examine & Change Cancel	Confirmation of Order Fulfillment Delivered	Portfolio Information Available On-Line	Transaction Record History Availability	Portfolio Information Updated*	Quote Data Available	Type of Quotes (Delay, Real-Time, NLI)*	Real-Time Quote Fees (per month, rounded)	Nasdaq Level II Quote Fees (per month, rounded)	Live Broker Availability (EST)	After-Hours Trading (EST)	Free Research Offered On-Line										Web Site Offers a Trading Demo
												Fundamental Data	Earnings Estimates	Analyst Reports	Mutual Fund Ratings	Mutual Fund Performance Data	Mutual Fund Screening	Portfolio Tracking	Stock Screening	Charts	News	
✓	✓	✓	✓	1 yr.	RT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	6 mos.	RT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	5 mos.	ED	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	1 yr.	RT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	13 yrs.	RT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	45 days	RT E M	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	60 days	RT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	3 yrs.	RT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	1 yr.	RT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	7 days	ID	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	18 mos.	RT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	18 mos.	ID	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	12 mos.	RT E M	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	60 days	ID	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	60 days	RT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	since incep'n	RT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	13 mos.	RT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	18 mos.	RT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	30 days	ED	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	18 mos.	RT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

(continued from p. 11)

ing—the trading interface is usually different, and only special after-hours representatives can take your orders. After-hours sessions mostly occur after the markets close and in some cases early in the morning, before the markets open. After-hours sessions start at 4 p.m., 4:15 p.m., or 4:30 p.m. Eastern Standard Time.

A certain degree of liquidity must be present for a security to be traded during these after-hours sessions—most Nasdaq 100 and heavily traded NYSE stocks are eligible candidates. There are limitations on the types of orders that can be placed and the size of those orders. The specific guidelines and rules differ from broker to broker regarding after-hours trading. The key for the individual investor is whether or not they can get another investor to fill the other end of the trade and at a favorable price.

Research

To provide more detailed and consistent information on the free research on-line brokers provide, we have included a list of services and capabilities. The categories of free research offered on-line include fundamental data, analyst reports, screening, charts, and news.

Trading Demo

Most of our readers are familiar with how demonstration versions of software applications work. You, as a potential user, request a demo copy, which allows you to test out the features and functionality and gauge the ease-of-use of a program before making a commitment to buy it.

Many on-line discount brokers are taking the same approach with regard to the proprietary trading modules on their Web sites. Basically, if a broker offers a trading demo, you have access to a sample of the site's trading area where you can test drive the site and see how user-friendly the trading module is. Some demos allow you to enter information, click

buttons, and experience the order fill process, while other demos are simply slide shows that walk you through the process.

In any case, this is an invaluable feature that unfortunately is not offered by all the brokers in this comparison.

The column reporting those firms that offer a trading demo appears at the end and wraps up the comparison grid.

Support

If you are in the process of reviewing several on-line discount brokers as possible trading service providers, the issues covered here will give you a good foundation on which to build—a starting point in your quest for selecting an on-line discount broker. One area that all potential customers should consider, and that we were unable to quantify in our comparisons, is the type and quality of support you can expect to receive when you encounter a problem or have a question regarding your on-line brokerage account.

When test-driving any broker, focus on the firm's phone support and E-mail responses. Be sure to call prospective brokers and ask the representative any and all questions, request literature detailing their services and fees, E-mail the firm your same questions, and be sure to browse their Web site to see what kind of information you can glean from it. Compare the information you have received from each of these sources for consistency.

Also, consult friends and peers with

Figure 3.

AAII Member Questionnaire on Brokers

PRIMARY FACTOR	PERCENTAGE	SECONDARY FACTOR	PERCENTAGE
Commission	10%	Commission	10%
Service	10%	Service	10%
Security	10%	Security	10%
Convenience	10%	Convenience	10%
Investment	10%	Investment	10%

experience in on-line trading or those who have just shopped on the Web before. And finally, check out the on-line trading discussions in chat rooms and on message boards.

Voicing Your Opinions

Four years ago, *Computerized Investing* and the *AAII Journal* got together and created a joint questionnaire for members focusing on on-line discount brokers. This questionnaire, located on the AAIL.com Web site, gives our readers a chance to share their trading experiences and observe what others are thinking (Figure 3). The questionnaire has been very popular; we are pleased with the response over the last couple of years.

If you have worked with an on-line brokerage firm in this year's comparison, please take a minute to log onto AAIL.com and answer the few questions and share your experiences. The questionnaire can be found under Member Surveys. Again, as in years past, results are posted and continually updated. All responses will remain anonymous.

John Bajkowski, Jean Henrich and Alynna Johnson of AAIL contributed to this article.