

## APRIL 2000 ISSUE

- 2** Editor's Comments On This Issue
- 3** Contributors
- 4** Web Watch
- 6** Getting Connected  
What's the best way to "plug in" – modem, dial-up, DSL, cable?  
Here's how to set up your communications for maximum efficiency.
- 9** Trading Pure Price Action  
Charts, technical indicators, number-crunching software...forget about it.  
A veteran trader shares a half dozen back-to-basics trading strategies.
- 14** Playing The Break(out)  
Momentum trading is about reacting to the right opportunity at the right time.  
Here's a systematic method that triggers off the unique dynamics of price breakouts.
- 19** A Matter of Timing  
Combining analysis on different time frames – intraday, daily, weekly – gives you an edge. Here's a unique approach that incorporates multiple time frame indicators on a single chart.
- 23** Navigating the ECNs  
Find out how different Electronic Communication Networks handle trades and how you can make the most of their order-executing capabilities.
- 28** Acing the Market
- 31** Contractor Gets The Point
- 34** Richard Saidenberg's Sound View on Trading  
He's a trader and trading system designer who has worked with some of the top names in the business. Find out how he trades and controls risk.
- 39** Playing The Percentages  
Most people place stops based on the amount of money they're willing to risk. Such an approach will almost guarantee you'll lose money over time.
- 43** A Fool And His Money  
It's the question that's almost never asked: Should I trade?
- 47** Short-Term Strategy, Long-Term Perspective  
You still need a big-picture perspective to trade effectively.
- 51** Give Me Trader Status Or Give Me...  
Tax issues impact trading as much, if not more, than they do any other business.
- 54** The Trading System Lab  
A look at a simple short-term trading system using percentage-based stop orders.

# Minding your business

**Y**ou've seen the headlines, you've read the stories: Brave New Trading World. Day Trade Nation. The New Cyber-Traders.

The protagonist is often a borderline obsessive who racks up five-figure stock market profits with a few keystrokes. Trading is portrayed as a high-stakes video game, full of super-sophisticated technology and arcane financial jargon. After three hours of mastering the universe, the wunderkind knocks off for the day, driving off into the sunset in his shiny (insert your favorite luxury car here). C'mon.

That may be fine for someone to read on a Sunday morning between the sports and the comics, but for someone actually trading, or thinking about it, such stories are about as valuable as a season's worth of *Ally McBeal* episodes to a law student.

*Active Trader* is based  
on a very simple concept:  
**Trading is a business.**

The Internet has indeed revolutionized the trading process, but taking profits out of the market is still the same game it was when price quotes were disseminated via giant chalkboards on financial exchange floors. Trading is, and always will be, about understanding the market, having an edge and executing a plan. When information overload is an increasingly real hazard for traders, it's more important than ever to focus on the best trading resources available.

So, read any good trading magazines lately?

*Active Trader* is based on a very simple concept: Trading is a business. It's not a pastime, it's not a hobby. It's a profession, one that should be approached like any other — with clear goals and a realistic attitude.

Our goal is to provide you with the best trading information possible — the tools you need to become a successful trader. We'll do the research you wish you had the time to do and give you the bottom line on the trading strategies, key industry news, latest Web sites, books and software, and tax and legal issues that impact you the most as a short-term trader. Our coverage will encompass stocks, options, currencies and futures, with material for the market novice as well as the seasoned professional.

What we won't give you is hype about "can't-lose" trading systems, tales of overnight riches or incomprehensible jargon. We won't sugarcoat the risks or downplay the hard work.

Flip through these pages and you'll get an idea of where we'll be taking you in the months and years to come. The following list is only the tip of the iceberg.

**News:** We don't have the most recent three-year forecast from the economic think tank, but we do explore the proposed changes to minimum account equity and margins, as well as developments in the electronic trading arena that could directly affect the way you trade each day.

**Trading strategies:** If you've only thumbed through a few

trading books, magazines or Web sites, you've undoubtedly come across articles that A) sounded too good to be true (they are), or B) were so incomprehensible you didn't know if they were too good to be true or if they were instructions for building your own thermonuclear device.

Contrast this to Gary Smith's article on the common-sense stock market strategies he has developed over decades of real-life trading. There's no smoke, no mirrors, no instant retirement promises, just explanations of several strategies used by an independent trader who has averaged \$14,000 profit per month for the last three years.

In this and all our strategy articles, you'll get a clear picture of how a particular strategy works, the logic on which it's based and examples of it in action. It doesn't matter if the strategy is about trading intraday breakouts or combining multiple time frames, we'll give you concrete ideas you can apply to your own trading.

**Profiles and interviews:** Each issue, you'll read about traders — successful and unsuccessful, professional and part-time — who will give you both fresh insights on different trading approaches and a feel for how your industry is developing.

**Trading hardware and software:** Your computer setup, communications and software are an integral part of your trading. We'll keep you abreast of the latest trading technology and how to make the most of it. In this issue, Gibbons Burke compares the different Internet connection methods and uncovers a new option that can decrease your risk of getting blown off the 'Net in the middle of a trade.

**Risk control:** Rather than simply pay lip service to the subject, every month we'll devote an article to risk control and money management — specific ideas to help you control losses and maximize your profitability. This month, for example, Thomas Stridsman explains why a popular stop approach doesn't work and then illustrates a technique to keep your risk at the same level on all your trades.

**Trading as a business:** Finally, our monthly "The Business of Trading" column will give you the bottom line on taxes, legal issues and other little-discussed aspects of trading that can mean the difference between actually keeping the majority of your hard-earned profits and watching them disappear every April 15. Do you have trader status? Do you even know what trader status is? Reading CPA/trader Ted Tesser's article on p. 88 could be one the best moves you make this year.

Good traders know the value of good research — it's the foundation of every solid trading plan. That's what *Active Trader* is all about. Think of us as a low-risk opportunity with unlimited upside potential.

In other words, a good trade.



Mark Etzkorn, Editor-in-chief

## THIS MONTH'S **Contributors**

**Gary Smith** is a full-time home-based trader and the author of *How I Trade for a Living* (2000, John Wiley & Sons). Smith, who has not had a losing year (and only a few losing months) since 1985, has turned a \$2,200 trading account into nearly \$1 million and a full-time career. He has been profiled extensively in the financial press and is a frequent speaker at trading seminars.

**Mark A. Seleznov** is a general securities principal and managing partner of Trend Trader, a NASD, SIPC broker-dealer firm in Scottsdale, Ariz. A professional trader for more than 25 years, he was a market maker on the Philadelphia Stock Exchange, a retail registered representative and a futures trader.

Seleznov is a recognized expert in equity day-trading and conducts stock day trading seminars. In addition to his TV appearances and regular newspaper and magazine contributions, Seleznov is a featured analyst three times a day on KFNN 1510 AM radio in Phoenix.

**Robert Krausz** is president of the Fibonacci Trader Corporation ([www.fibonaccitrader.com](http://www.fibonaccitrader.com)) and president of Wizard On Wall Street, Inc. ([www.the-wow.com](http://www.the-wow.com)), publisher of a home study course for traders.

He has been a private trader and trading coach for more than 20 years. His work in this area was featured in Jack Schwager's *New Market Wizards* (1994, HarperBusiness). He is also author of the book *A.W. D. Gann Treasure Discovered*.

Krausz also is a master hypnotist, British Council of Hypnotist Examiners (MH, BCHE).

**M. Rogan LaBier**, author of the e-book *The Tools of the Trade* ([www.tools-of-the-trade.com](http://www.tools-of-the-trade.com)), was formerly a registered principal of Terra Nova Trading LLC and head trader at MB Trading. Prior to that he was an institutional sales trader and Nasdaq market maker.

LaBier's trading experience encompasses the stock, derivative and world currency markets, both for his own account and managed accounts. He also is a nationally known speaker on the subject of order execution.

**Gibbons Burke** is a Silicon Valley, Calif.-based independent trader, writer and software developer. He operates TraderCraft.com, a Web site that provides tools and information for mastering the craft of trading.

Burke has 23 years of experience in the financial markets at firms such as CompuTrac/Telerate, Logical Information Machines, Dow Jones Markets and Quote.com. He has published hundreds of columns and articles in *Futures* magazine and spoken at industry conferences on topics such as the Internet, technical analysis and system development, and money management. He can be reached at [gibbons@tradercraft.com](mailto:gibbons@tradercraft.com).

**Ted Tesser** (contributing editor), is a certified public accountant and president of Waterside Financial Services, Inc., Boca Raton, Fla. He specializes in assisting traders create and manage more profitable trading businesses by implementing sound trading, business and tax management strategies. He also actively trades small-cap stocks, bonds, mutual funds, futures, options and currencies.

Tesser's clients have included many prominent traders and members of the U.S. government, including a former Secretary of State, a former Secretary of the Treasury and several members of Congress. He is a featured speaker at many trading conferences, and has appeared frequently as a guest on CNBC and KWHY TV-Los Angeles.

Tesser has authored more than a dozen books and manuals, including *The Serious Investor's Tax Survival Guide*, *The Trader's Tax Survival Guide*, *The Ultimate Tax Shelter* and *Tax Strategies for Traders*, among others. His latest book, *The Trader's Tax Solution* (John Wiley & Sons), was released in January. You can reach him at (800) 556-9829 or at [tbtester@aol.com](mailto:tbtester@aol.com).

**Allen Sykora** has been a journalist for 21 years, including several years covering foreign exchange trading and the futures markets. He has interviewed dozens of traders, profiling many of the top names in the stock and futures industries.

In addition, Sykora has held positions as editor and reporter for newspapers in Minnesota, Iowa and Alaska and has worked as a freelance writer for Reader's Digest, among other publications.

**Corey Goldman** has worked as a financial journalist with Bloomberg News and the Globe and Mail in Canada, covering economics, markets, currencies, technology, politics and U.S. and Canadian monetary policy. He currently writes about economic and financial issues for CNNfn.com in New York.

# The trading EDGE

If you're looking for a thorough, comprehensive and downright helpful Web site, Hard Right Edge (HRE — [www.hardrightedge.com](http://www.hardrightedge.com)) should be your next stop on the Web. It has a plethora of information for the active trader, from the basics (price charts, suggested reading) to the advanced (Bollinger bands, Fibonacci charts). And it's free.

The site is broken down into six sub-sites: Daily, Courses, Tactics, Wizards, Resources and Systems. **Courses** is merely an advertisement for HRE's trading system, but the other five deserve a closer look.



**Daily** lists stocks whose price charts suggest a sharp move could be imminent, or ones that fall into categories like Dip Trip, Power Spike and Finger Finder (yes, these concepts are explained). Links are plentiful on this page and pretty basic, connecting news sites (Bloomberg, CNNfn), ket sites (currencies, U.S. indices)

and tools sites (earning calendars, buy-backs, splits), among others.

**Tactics** is just that — strategies broken down into eight sections (bottoms, break-outs, corrections, day trading, indicators, market quirks, new highs and tops). With 38 different terms explained (our favorites are fun with Fibonacci and hell's triangle), the newbie could spend days here and even the experienced trader might find a new nugget of knowledge.

**Wizards** picks the brains of various trading gurus (including Mark Seleznov, who contributed "Playing the break(out)" for this month's issue).

**Resources** lists numerous books that might be of service to the short-term trader and has links to magazine articles and other helpful items on the Web. In addition it features a complete glossary of technical terms and topics, and gives in-depth information on dozens of indicators, patterns, systems and market concepts. When HRE says resources, it means resources.

**Systems** focuses on the hardware necessary for online trading. Hard drives, monitors, memory and storage are discussed in detail, with (of course) plenty of links to choose from. 📍

## WHAT'S the buzz?

The Fly on the Wall ([www.theflyonthewall.com](http://www.theflyonthewall.com)) doesn't attempt to inundate visitors with detailed analysis or in-depth discussion. Instead, this subscription-based delivers quick-hit information on stocks making news. Cost: \$49.99/month or \$39.99/month paid a year in advance (two-week free trial for visitors).

Fly's goal seems to be to give you an idea of which stocks might be hoppin' based on the latest word from Street insiders. Upgrades and downgrades, earnings reports, conference calls, splits — they're all chronicled on the news "ticker" (it's not streaming text, but it does update automatically) that stays at the top of the page, no matter what part of Fly you visit (you can set it up so that the ticker stays with you no matter where you go on the Web).

The ticker is broken down into seven categories: hot stocks, general news, rumors, recommendations, pre-opening news, conferences/meetings and syndicate.

Clicking on an item in the ticker accomplishes two things: First, it brings up a pop-up box showing all stocks that have similar news (i.e., if you click on an item about a company being upgraded, you'll get a list of all companies that fall under the "recommendation" category). Also, it will take you to that company's main page on Fly, where every tidbit of information that has come across the ticker is listed for easy viewing. On the main page, there's also access to a stock chart that can be configured many different ways (perhaps Fly's best feature).

First-time visitors to Fly may find things a bit confusing. There's a help link on the top of every page, but we pretty much just clicked our way around until we got a better feel for the site. And, we noticed one strange thing: The "rumors" section of the ticker was usually blank or filled with a minimum number of items. Perhaps that fly has a hearing problem.

Fly will e-mail you alerts when news comes in on a company you're following, and its cross-referencing options are plentiful. 📍

# GET smart

Another technically oriented site is Intelligent Speculator ([www.intelligentspeculator.com](http://www.intelligentspeculator.com)). It's broken into three main sections: Chat rooms, Market Commentary and Analysis, and Trading, Risk and Money Management. The site is free except for the Chart Room (\$75/month), where the site's founder, Teresa Lo, partners with Alan Farley (of the Hard Right Edge) to provide real-time commentary and analysis on their proprietary trading strategies

One of the site's more interesting features is the ability to post charts to the chat rooms for analysis. It's a nice effect: When someone comments about the latest move in a particular stock, they can upload the accompanying chart to make traditionally murky cyber-chat crystal clear. In the "Technical Traders" room, for example, several users included heavily annotated charts of their latest trades and market calls.

The commentary section includes seven regular features ranging from fundamental economic developments to day trading, including the "Day Trader's Diary," a feature that chronicles, as you would expect, the travails of a new day trader.

Another nice tool is the "Matrix Spreadsheet" in the Trading, Risk and Money Management section. It's a downloadable Excel file that allows you to perform some quick-and-dirty (but very helpful) risk-reward analysis of your trading approaches, including the Probability of Ruin (POR) — the odds that you'll lose everything before you reach your trading goal.

## WINNING TRADES

Intelligent Speculator's Risk Matrix enables you to calculate the probability of ruin (POR) of your trading strategy.

Average Win	Percentage of Winning Trades									
	30%	35%	40%	45%	50%	55%	60%	65%	70%	75%
\$250	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%
\$375	100%	100%	100%	100%	100%	100%	0%	0%	0%	0%
\$500	100%	100%	100%	100%	67%	0%	0%	0%	0%	0%
\$750	100%	100%	67%	0%	0%	0%	0%	0%	0%	0%
\$1,000	14%	0%	0%	0%	0%	0%	0%	0%	0%	0%
\$1,250	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
\$1,500	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
\$1,750	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
\$2,000	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Source: [www.intelligentspeculator.com](http://www.intelligentspeculator.com)

Along with the spreadsheet is a helpful essay on risk and money management, which uses actual examples from the Matrix screen to graphically enhance the information. It's a good tutorial for those unfamiliar with these concepts.

Intelligent Speculator won't win any awards for Web design, and it doesn't have the extensive links of some other sites. Still, it does provide a wide range of thorough and balanced trading information, and increased knowledge is never a bad thing. 📌

## JUST the phacts

Phactor ([www.phactor.com](http://www.phactor.com)) is a loosely organized education and links site that should interest beginning and intermediate-level traders looking for some practical information on various aspects of day trading.

One of the best features on the site is a Nasdaq Level II tutorial, which takes you through a trade step-by-step, providing full-color graphics of the Level II screen at each step along the way.

There's also a pair of helpful downloads: a utility for measuring ping/tracert (two concepts crucial to a fast Internet connection — see "Getting connected," p. 20) and a spreadsheet that can be used to track trades and commission dollars. A printable table, which gives the decimal equivalent of every fraction from  $\frac{1}{32}$  to  $\frac{31}{32}$ , and their value in factors of 200, 500, 600, 800, 1,000, 1,500 and 2,000, is downloadable, and can be modified in a spreadsheet. Links to Web pages discussing whisper numbers, short selling and halted stocks will interest many traders.

Phactor won't blow anybody away with revolutionary new trading ideas. But it's likely many day traders will find something of value on the site. You may want to check it out while you still can, though: It doesn't look like it has been updated in quite a while, so who knows how long it will be around. Fortunately, this doesn't affect its most useful educational content. 📌



BY GIBBONS BURKE

# Getting connected

Your trading setup starts with your Internet connection — it's your lifeline to the market. Get the bottom line on the different communication technologies and how you can not only get connected but stay connected — when it counts most.

**W**hen trading first swept the country in the early part of the 20th century, the only way to get a stock quote was through your broker's office.

The broker had a direct connection to the exchange and a "ticker" device would spit out quotes onto a thin sheet of paper — the ticker tape. One person would stand at the ticker and shout out quotes, while another person would write down the quotes on a chalkboard for everyone in the office to see.

For decades this system remained essentially unchanged.

Eventually, the ticker box and chalkboards were replaced by electric displays, but the broker's office was still the only place to get quotes.

Today, the Internet allows online traders to get instant quotes, research reports, company news and financial filings — not to mention place trades — anytime. Because "trading" is quickly becoming synonymous with "online trading," your Internet connection is a fundamental component of your trading setup. Lost seconds or, God forbid, minutes because of a communication failure may not mean much if you're browsing the Web for tuna casserole recipes, but it

can be disaster when you're in the middle of a trade.

The active trader has many available options to connect to the World Wide Web and all the information it provides. However, there are some key considerations in making a selection:

**Speed:** How much bandwidth do you need?

**Reliability:** Your Internet connection is your trading lifeline — can you trust it?

**Cost:** You can't be penny-wise and dollar-foolish. While cost is a factor, active traders must weigh it against the amount of money they regularly put at risk. Saving money and choosing an inferior Internet connection can result in large trading losses.

The most important thing to remember is that getting connected is one thing, staying connected is another.

## Weighing the options

The Internet is a relatively new method of communicating. If you choose to rely on it for trade entry and market information, you must be prepared to deal with the problems that can occur. With some planning and precaution, you can take steps that minimize the risk of your trading being interrupted.

The first step in the process is getting a connection. You have five basic choices: analog telephone dial-up (modem), digital telephone (ISDN, xDSL), digital cable, wireless, and hybrid solutions (Web ramp).

### Modem dial-up

Telephone modems have been around for a long time. The very first ones could send and receive information at 110 bits

per second (bps) using Plain Old Telephone Service (POTS).

Over the years, technological advances allowed the bps rate to steadily increase, up to the 56,000 bps modems in use today. Considering telephones provide analog transmission, 56K is probably the upper limit for modems. In fact, with the limitations of analog, the maximum speed of a telephone connection can't even reach 56K, no matter what modem manufacturers would like you to think.

When your computer dials up another modem — say, for example, your Internet Service Provider (ISP) — the two engage in a "hand-shaking" ritual where they test the quality of the connection. When your computer makes those crazy, screeching noises while connecting, that's what is happening.

The two modems often speak different dialects, so a peak data transfer rate is not always achieved. Furthermore, ISP connections are often digital, so the analog-to-digital connection makes it difficult for maximum speed to be achieved.

Certain companies (AltaVista, NetZero) offer free Internet service, although these systems will log you off if you don't do anything on your computer for 20 minutes, so they're probably not suited for trading.

The standard rate is between \$19.95-\$21.95 per month for unlimited access — sometimes lower if you sign up for a year's service ahead of time.

*Bottom line:* Dial-up service is most useful for two reasons. First, it is the easiest to use. Modems are commonplace and relatively inexpensive.

Second, it is transportable. You can dial into your ISP from just about anywhere

there is a computer and a phone connection. And many of the major service providers such as Compuserve, AOL, Earthlink and ATT provide international access numbers when you travel overseas.

### Digital telephone: ISDN

Realizing that analog data transmission is not the best way to transfer information, the phone companies began to develop Integrated Digital Services Network (ISDN), which used the existing copper wiring already in people's homes. This new service was introduced in 1988 with the expectation that it would replace POTS within 10 years.

The premise was great: ISDN is made up of two 64 Kbps channels with an additional 8 Kbps controlling channel, with POTS provided over the same connection, allowing people to be on the computer and talk on the telephone at the same time. And because ISDN is digital, it can achieve speeds five times faster than the fastest analog modem.

However, ISDN was slow to be deployed, was often unreliable and required a special "router," which cost between \$400 and \$800.

*Bottom line:* While many people are using ISDN, it has effectively been leapfrogged by DSL and cable, although ISDN, for now, is more widely available.

ISDN service often requires you to pay an extra charge for connecting to an ISP because the ISP must itself buy an ISDN modem and connection. Also, the bandwidth required for connection is

sometimes not available from certain ISPs.

### Digital telephone: xDSL

Like ISDN, Digital Subscriber Line (DSL or xDSL) uses the existing copper wiring of the POTS telephone network, but it can achieve much higher data transmission speeds — potentially 7 million bits per second (megabits or Mbps).

However, this connection option has its limits. Computers hooked up to DSLs must be within 18,000 feet of the "DSLAM" router at the telephone company's central office. Beyond that distance, the data-carrying capacity of DSL decreases significantly.

Check with your local phone carrier, or ISPs such as Earthlink.net, to see if DSL is available to you.

DSL service is relatively inexpensive, ranging from \$39 to \$89 per month depending upon your provider and the type and term of service you desire. A special router is required, which can range from \$200-\$800.

*Bottom line:* People using DSL at their residences usually opt for Asymmetrical DSL (ADSL), which transfers data out of the user's PC at 128 Kbps and brings it in at 5 Mbps. While this would not work for hosting a Web site, it is fine for trading purposes because most of the data traffic is incoming market information.

Besides ADSL, there are a few other flavors of DSL, such as R-ADSL, ADSL Lite, VDSL, HDSL and IDSL. Others may be available in your particular area.

The Web site [www.xdsl.com/con-](http://www.xdsl.com/con-)

[tent/backgroundinfo/overview/default.asp](#) is a good source of information about different types of DSL:

### Digital cable

The connection options discussed so far use twisted-pair copper wires that already exist on your telephone network. Another method growing in popularity employs coaxial cable.

Companies such as @Home claim the bandwidth of a cable connection is 100 times faster than a 56K hookup. Unlike the telephone system, which is designed for two-way connections, cable is intended for broadcast, which means it is designed for a one-way information flow. As a result, to adapt cable technology to the Internet, cable companies have built an additional network of "head-end" connection points in various neighborhoods. Everyone in the neighborhood connects through that central point.

*Bottom line:* Cable Internet access can be very fast, but speed is dependent upon the amount of traffic in your area. Usually, the first people in the area to get hooked up via cable experience blazing speed on the Internet, but as others in the neighborhood log on, the performance of the connection decreases. This is something you cannot control.

### T1 and T3

T1 and T3 connections are high-speed, commercial quality digital connections, and are priced accordingly. If you are powering a half-dozen PCs crunching real-time data, running a small office or

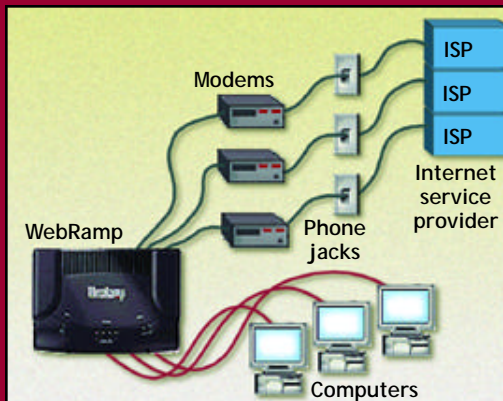
## THE NEED FOR SPEED

(all prices approximate)

Connection	Monthly Cost	Equipment	Speed (upstream/downstream)	Advantages	Disadvantages
Dial-up	\$0-\$35 plus phone line	Modem \$50	56 Kbps (30 Kbps practical real limit)	Easy, inexpensive, "transportable"	Slow, unreliable
ISDN	\$30 plus metered time charges — \$100	Router \$300-\$1,500	64 Kbps or 128 Kbps	Combines voice and data over same lines	Unreliable — frequent disconnections; metered access rates
DSL	\$40-\$100	Router \$200-\$800	384 Kbps-1.5 Mbps/128 Kbps	No speed degradation with users in neighborhood	Speed degrades with distance from central office; Regional Bells slow to install
Cable	\$40-\$50	Cable Modem \$100	30 mbps/128 kbps-10 Mbps	No interference with phone or TV viewing	Speed degrades as other people in area get the service.
Wireless — Ricochet	\$29	Ricochet modem \$160	28.8 Kbps	Total mobility within a few areas	Slow
Wireless — Bell Atlantic	\$40-\$65	Wireless modem \$150-\$520	9,600 Kbps	Available in more areas than Ricochet	Slower
T1	\$900	Router	1.544 Mbps	Extremely fast	Very expensive
T3	\$1,000	Router	45 Mbps	Extremely fast	Very expensive

**FIGURE 1 RAMPING UP**

*WebRamp allows you to pool the resources of multiple Internet connections, increasing your speed and protecting yourself from a complete communication disruption.*



Source: Ramp Networks

### Wireless modems

For active traders who find themselves away from a telephone jack, wireless connections can allow them to stay in touch with the markets from anywhere.

Right now, wireless modem service availability is very limited and connection speed is slow, but the convenience of being able to stay in contact with the markets makes this a compelling choice for active traders.

Ricochet ([www.ricochet.net](http://www.ricochet.net)) offers a solution in the San Francisco, Washington D.C. and Seattle areas. Its network of Microcell Radios — shoebox-sized devices mounted on utility poles and street lamps every quarter- to half-mile in the company's coverage areas — allow access speeds up to 28.8 Kbps. Service is \$29 per month for unlimited access, while the Ricochet external modem costs \$159.

Another solution, offered by Bell Atlantic ([www.bam.com/wireless/Internet1.html](http://www.bam.com/wireless/Internet1.html)) piggybacks on the cellular network to provide 9600 bps connections anywhere on the Eastern seaboard for a flat rate of \$40 to \$65 per month.

Apple Computer now offers Airport ([www.apple.com/airport](http://www.apple.com/airport)), a mobile

Internet connection station for the home or small office that allows up to 10 iBook or iMac units to be networked together. It is fast (11 Mbps) for a wireless network, and allows you to stay connected no matter where you are in your home office.

Dell Computers ([www.dell.com](http://www.dell.com)) also offers a wireless network with its PC line.

*Bottom line:* These are obviously the slowest and least reliable connections, but if you're frequently mobile and need some way to connect, you have some choices.

### Pooling bandwidth

While most people think in terms of finding a single communications method with the best performance features, the ultimate in speed, flexibility and reliability may be achieved by combining two or more simultaneous connections. This can increase your bandwidth and reduce the dangers of being disconnected or slowed down to a snail's pace if your ISP develops trouble or Internet traffic becomes congested.

For example, in areas where high-speed digital access is not available, a \$250 router will allow you to connect to the Internet via three separate dial-up modem connections to three different ISPs. The combined bandwidth of the three connections is a vast improvement over one connection, sometimes approaching the speeds of ISDN. Also, connecting to three different ISPs gives you an additional measure of reliability if one of the ISPs fails. Figure 1 shows how this connectivity functions.

Ramp Networks, Inc. ([www.web-ramp.com](http://www.web-ramp.com)) manufactures the routers that allow you to pool bandwidth. The company's Web ramp black boxes also include an Ethernet hub with four jacks.

Obviously, the more phone lines and ISPs you use, the higher the costs are going to be. However, at \$20 per month per ISP, it's not prohibitive. And, additional phone lines are not that much more if you avoid all the extras (i.e., call waiting, call forwarding, three-way calling) the phone company wants to sell you. Considering what could happen if you are frozen out from making a trade at a critical time, it's money well spent.

*Bottom line:* Web ramps are truly the most robust way to connect to the Internet for trading, at least until the Internet itself is more robust. ☎

you need to provide outgoing information on a Web site, a T1 or T3 would be what you would need.

Most Web sites are powered, however, on servers hosted at facilities owned by ISPs that can provide adequate "environmentals" 24-7 monitoring, an air-conditioned secure facility with uninterrupted power supplies and dedicated high-speed connections to multiple "peering" points on the Net.

*Bottom line:* Although these are the fastest connections around, most individual traders have no need for them or their high price tags.

## Reducing information and execution risk

Someone once said, "Diversification is the only free lunch on Wall Street."

What he meant was that the best way to reduce your risk exposure was to diversify your investment portfolio among a number of stocks. The same logic can be applied to the information and execution risk in your trading.

If you have only one way to get connected to the Internet — say through an ISP — and that ISP is having a bad day, your portfolio could have a bad day, too.

A trader should, at a bare minimum, have at least two ISP accounts. A backup is necessary if the first one shows any sign of trouble. And even if your main ISP seems OK, it may develop traffic snags. Having a second ISP ready to go should allow you to find another route and bypass the traffic.

There are some useful tools for diagnosing Web traffic. Windows comes with two of them: "ping" and "tracert."

Ping measures the time it takes for a message to travel from your PC to the destination server. Tracert traces the route between your PC and the destination server and lets you know how much there was at each "hop" along the route.

Ping Plotter, a \$15 shareware tool available at [www.nessoft.com](http://www.nessoft.com), combines the function of ping and tracert into a visual display. It provides a dynamic trace route display that continually monitors connection quality. It allows you to instantly spot a traffic jam and even gives you the phone numbers of the network operators so you can let them know when there is a problem. Highly recommended.



# Trading pure price action

POP QUIZ — THE MOST VALUABLE TOOL FOR THE SHORT-TERM TRADER IS:

A) A PRICE CHART

C) HIGH-SPEED COMMUNICATIONS

B) A COMPLEX TECHNICAL INDICATOR

D) NONE OF THE ABOVE

*Maverick short-term trader Gary Smith, who has averaged \$14,000 per month in profits over the last three years, will choose D every time.*

*Find out how he takes consistent profits out of the stock market.*

BY GARY SMITH

**m**any traders look at me with a skeptical eye when I tell them how I trade the stock market for a living. That's because I'm totally opposed to perceptual filters like charts, oscillators, waves, cycles, moving averages, and all the other approaches and systems traders typically use to understand price behavior. To add insult to injury, I also believe all the glitzy computer equipment and software so frequently advertised for traders is unnecessary.

Nasdaq 100 and Russell 2000 cash indices.

A year ago, in fact, I had to do just that as I helped a friend move across country. For an entire week, I did not have access to CNBC, the World Wide Web or any of the financial publications I usually rely on for information. I survived solely by making frequent phone calls to get updates on my cash indices. But my trading did not suffer: I actively traded and made \$10,000.

So, you may ask, how profitable has this simplistic trading style been over the years? Starting with a \$2,200 account in the spring of 1985, I have methodically parlayed my trading skills and capital in such a way that over the past three years (ending December 1999), I've averaged over \$14,000 in monthly trading

lates into being in sync with the rhythm of the market — and that rhythm is its momentum.

## Key short-term trading patterns

My trading methodology is based on several short-term momentum patterns that keep me attuned to the market's rhythm. These are outlined below and followed by real-life trading examples that show how they capture significant price moves.

While these patterns are all short-term techniques, they can sometimes develop into bigger trades. I trade all my momentum and divergence patterns with the expectation they will result in immediate further strength (or weakness) over the next few trading days. If this price strength continues, so much the better.

My **trading methodology** is based on several **short-term momentum** patterns that keep me attuned to the **market's rhythm**.

For me, less is more. I believe in trading pure price action — market behavior you can see and do not have to measure by traditional (and often lagging) analytical tools. My trading has evolved to the point that if I had to, I could make my trading decisions based solely on half-hourly quotes of the Dow, S&P 500,

profits.

Successful trading is about quickness, flexibility and reacting to market action as it is occurring, not after the fact when it can easily be quantified and identified by the analytical horde. That is why over the years I have gravitated toward trading pure price action. This simply trans-

**V-bottoms:** V-bottom reversals occur intraday when the Dow has been down the entire trading session (as much as .75 percent from its previous close) and then makes a furious comeback, closing either near the unchanged level or, preferably, up for the day. The later in the day the reversal occurs, the more sig-

# I trade all my **momentum and divergence patterns** in the expectation they will result in **immediate further strength** (or weakness) over the next few trading days.

nificant it is.

I instinctively trade V-bottom reversals if the Dow closed down the previous day or if it has been in a recent downtrend. V-bottom reversals that occur after a strong up day or during a period of rising prices are much less important.

**Late-day surges:** This pattern is closely related to the V-bottom. Late-day price surges normally occur during the last two- to two-and-a-half hours of choppy and non-trending trading days. A late-day price surge should take the Dow to a close of at least .5 percent above the prior day's close. Like V-bottom reversals, this pattern is most significant when it comes after a down day or a period of declining prices.

**Extreme momentum days:** Extreme momentum days are just that — trading days of out-of-the-ordinary price action that has not occurred for the past several months. This type of momentum day is normally followed by a continuation in the direction of the thrust.

**Weekend patterns:** Some of my more reliable momentum patterns over the years have been Friday-to-Monday patterns.

Greater-than-average strength on a Friday is often followed by more

strength on Monday (or Tuesday, if Monday is a trading holiday). Conversely, extremely weak price action on a Friday typically leads to more weakness on Monday. I buy on the close of any Friday when the Dow and Nasdaq 100 both close up .5 percent or more.

A Friday-to-Monday momentum break pattern occurs when extreme strength or weakness Friday does *not* carry over to Monday. These weekend momentum break patterns are highly significant and indicate short-term trend changes.

**One-percent selling days:** A 1-percent true-selling day occurs when, after a period of rising prices (at least seven to 10 trading days), the cash Dow, S&P, Nasdaq 100 and Russell 2000 indices all close down 1 percent or more on the same trading day. Such days often are “trend busters” — harbingers of serious price declines.

I use a little leeway in defining such selling days. For example, if three of the four indices are sharply lower — say, down 1.5 percent to 2 percent or more — but one index is down only .75 percent to 1 percent, I would still interpret that as a true-selling day. Any index down

less than .75 percent invalidates the true-selling day because it indicates buying interest in at least one segment of the market (in an otherwise extremely weak overall market).

**Divergence patterns:** Divergence patterns are my favorite technique because they have made me the most money over the years. Divergences (when one market or indicator goes in one direction and another market or indicator goes the opposite direction) between the Dow, S&P, Nasdaq 100 and Russell 2000 indices tell me where money is flowing and which sector I should be trading.

## Market selection

Before looking at specific trade examples, let's first discuss a couple of the nuts-and-bolts issues: what to trade and how to time entries and exits.

There are a number of vehicles you can use to trade these patterns — individual stocks, equity shares like the SPDRs, DIAs or QQQs, stock index futures, stock index options or mutual funds. In the following trading examples, it really does not matter which trading weapon would have been used — they all can be effective in exploiting the types of price action I have described.

Regardless of your preferred trading vehicle, the challenge remains the same — understanding price behavior and being in sync with the momentum of the market. In the end, what you trade boils down to your individual risk tolerances and preferences. In the past I have traded stocks, equity and index options, and stock index futures. But at this point in my trading career, I make most of my money trading mutual funds, partly because of their trend persistency compared to other trading vehicles.

## Entry, exit and risk control

I am a close-of-the-day trader, which means my trading decisions are based on the entire day's trading action. I make my trades right before the close of trading.

## STRATEGY SNAPSHOT

**Strategies:** Gary Smith short-term stock market strategies

**Approach:** Discretionary; the following strategy elements are general guidelines, not systematic rules.

**Market:** Stocks or stock-related instruments — equity shares (QQQs, SPDRs, DIAs), stock index futures, mutual funds.

**Setup:** See descriptions of individual strategies.

**Entry:** On today's close.

**Exit:** Exit winning trades on a 3 percent to 4 percent reaction from a relative high (for long-side strategies). Trades can also be exited with other patterns, such as a 1-percent true-selling day.

**Risk control/money management:** Risk no more than 1 percent to 2 percent initially. Exit on next-day's close if expected follow-through does not materialize. Add to position with each 1 percent to 2 percent price advance. Trail stop and exit on reaction as described above.

In the past, I used to trade intraday. However, my trading account is hundreds of thousands of dollars to the better since I've moved beyond intraday trading in favor of close-of-the-day trading. This approach has allowed me to capture much more of the gains from the great bull market of the past decade than darting in and out on a daily basis.

As mentioned earlier, my price patterns are short-term and are intended to exploit immediate further strength (or weakness) over the next few trading days. As a trader, I never cut my profits short or set price objectives. My sell criterion is very simple: If the expected strength fails to materialize the next trading session, I exit my position on the close — no hoping, praying or wishing.

Once I am in a profitable trade, I will add to that position as the market moves in my favor. This is a scale-up trading strategy I learned from master traders such as Jesse Livermore and Nicholas Darvas.

On initial purchases, I do not risk more than 1 percent to 2 percent of account equity. Then, if the trade moves in my favor, I will add to my position on each 1 percent to 2 percent incremental price advance.

Livermore and Darvas also believed in trailing their stops as prices rose, so once the market retraced a certain percentage from their highs, they were taken out with a profit. I usually get out if the market moves 3 percent to 4 percent off any recent high since I have been in. If these percentages seem like I don't give the market much room for error, it is because I focus on trading mutual funds moving upward in tight, rising channels with few or no reactions along the way. (This part of my strategy is one of the key elements of my success.)

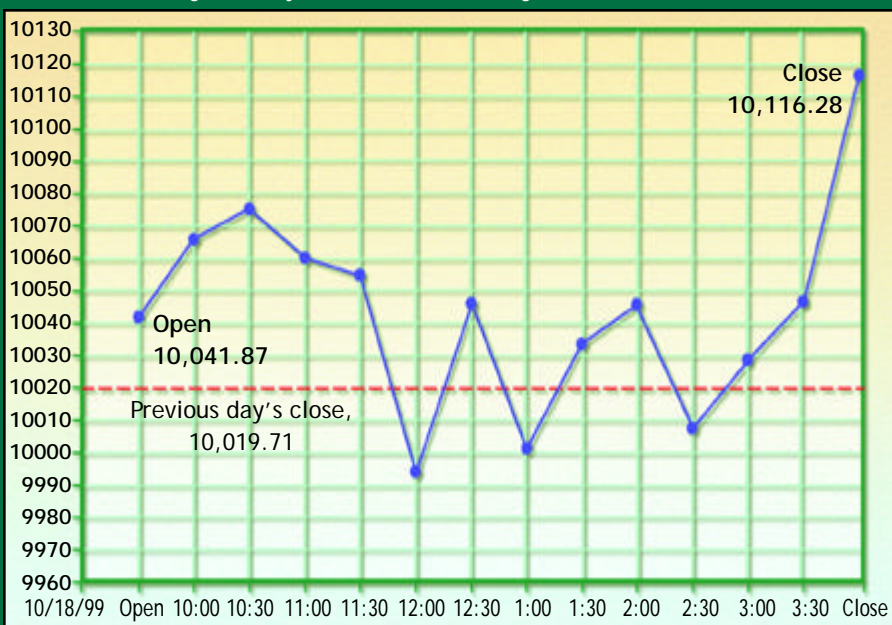
## In the trenches

Enough of the explanations. Here are some real-life examples that illustrate how to trade these momentum and divergence patterns.

**Weekend break:** The Dow had been in correction mode from August through mid-October 1999, declining more than 11 percent. This correction reached its nadir with a 266-point (2 percent) decline Friday, Oct. 15. Doom and gloom pervaded the Street after the close that Friday, with forecasts of another sharp decline and a break of the critical 10,000

**FIGURE 1** FRIDAY-TO-MONDAY BREAK PATTERN

Dow Jones Industrial Average, 30-min., Oct. 18, 1999: *Weakness from the preceding Friday did not carry over to this Monday; prices rocketed in the last 90 minutes of trading. The day turned out to be a significant bottom.*



Source: Defender Capital Management

level on Monday, Oct. 18.

But a funny thing happened when the market re-opened that Monday: Instead of suffering follow-through selling, the Dow chopped around most of the day, flipping between positive and negative territory (see Figure 1). Then, in the last 90 minutes of trading, the Dow shot up 116 points, closing ahead 96 points for the session.

It was a classic example of the Friday-to-Monday momentum break pattern. Coming after a period of declining prices, Oct. 18 marked a major bottom in the market and launched a rally that resulted in the Nasdaq 100 gaining 57 percent by the end of the year.

Over the years, Friday-to-Monday momentum break patterns have marked several significant lows. Both the Friday-to-Monday momentum break patterns of April 14, 1997, and Jan. 12, 1998, led to 30 percent advances in the major indices over a period of a few months. Other Friday-to-Monday momentum break patterns have led to smaller, but still significant, price moves.

As with any of my trading patterns, I trade Friday-to-Monday momentum break patterns instinctively. Trading is not about analyzing or rationalizing, it is about being quick, flexible and capable

of reacting to changes in the market.

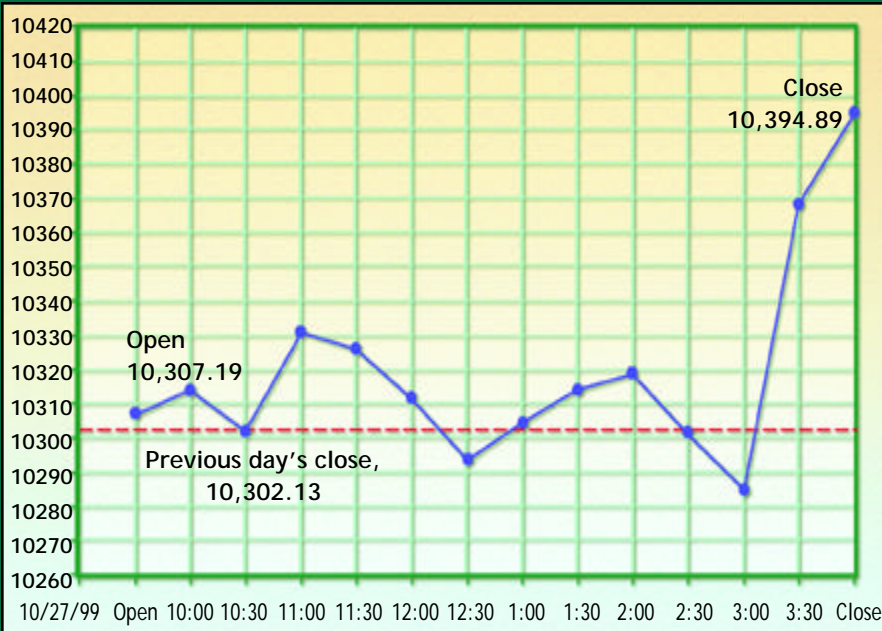
On Oct. 18, 1999, however, I was not quick or flexible. I was psychologically unable to make the trade because I got bogged down in bearish analysis. That was my loss: The Dow rallied nearly 300 points the following two trading days. (The lesson: Even experienced traders need to be vigilant about adhering to sound trading practices. You have to be able to execute your game plan to profit from it.) Fortunately, another trading pattern — extreme price momentum — got me in the market on Thursday, Oct. 21.

**Momentum extreme:** On that Thursday, the Nasdaq 100 dropped more than 60 points in the first hour of trading. (This was a reaction to some adverse news that technology giant IBM announced after the previous day's close.) Beginning with the second hour of trading, the Nasdaq 100 gradually traded higher throughout the day (trade not pictured).

Then, in the last hour of trading, it surged upward to close 10 points higher on the day. I found this type of extreme daily momentum in the tech-heavy index especially significant because IBM was getting pummeled in trading on the NYSE. As a result of its extreme price

**FIGURE 2** LATE-DAY SURGE

Dow Jones Industrial Average, 30-min., Oct. 27, 1999: A 300-point Dow rally followed the late-day momentum move on this day.



Source: Defender Capital Management

momentum off the morning lows and also its divergence with IBM and the Dow (which closed lower by 94 points), I took a position before the close in the INVESCO Technology fund.

As I expected, prices rallied the next day (Oct. 22) and then traded sideways for a few days. But on Wednesday, Oct. 27, this time in the Dow, another momentum pattern triggered — the late-day price surge.

**Surging market:** On this day, the Dow had been trading around the break-even level for most of that session when it suddenly broke out and staged a 100-point rally in the last hour (see Figure 2). This also was a day when the Dow Jones Utilities index was making one of its best advances in several years.

Buoyed by the late-day price surge in the Dow and the out-of-the-ordinary price action in the Utilities, I increased my technology fund position before the close on Oct. 27. The Dow rallied more than 300 points the following two days, with technology leading the way.

While this would have been a completely acceptable two-day trade, I continued (as I do whenever I am in a winning position) to increase my technology mutual fund position as the Nasdaq 100 and other tech-related indices moved steadily higher over the next two

months.

**Mixed signals:** My favorite patterns are divergences between the Dow, S&P, Nasdaq 100 and Russell 2000 indices. By telling you which sectors — large cap, technology or small cap — are the strongest, divergences provide a good indication of where you should put your money.

Table 1 shows the performance of the Dow and the Nasdaq 100 for the seven trading days from Oct. 28 through Nov. 5, 1999. At the time, a one-point move in the Nasdaq 100 equaled a 4.23-point

**TABLE 1** OCT. 28 - NOV. 5, 1999

	Dow	Nasdaq 100
Oct. 28	+227.64	+82.47
Oct. 29	+107.33	+97.51
Nov. 1	(-81.35)	(-21.08)
Nov. 2	(-66.67)	+10.63
Nov. 3	+27.22	+45.73
Nov. 4	+30.58	+30.39
Nov. 5	+64.84	+52.59
Totals	+309.59	+298.24
		(1,261.55 Dow pts.)

move in the Dow (computed by dividing the Dow by the Nasdaq 100).

It was pretty obvious beginning Oct. 28 where the strength was in the market and, hence, where to be invested — the Nasdaq 100 and technology sector. This divergence between the Nasdaq 100 and the large-cap stocks was particularly notable Oct. 29, when the Nasdaq 100 rose the equivalent of 412 Dow points. It also was very glaring Nov. 2 when the Dow closed down for the day in the face of a strong Nasdaq 100.

Many traders began backing away from the Nasdaq 100 around the time shown in Table 1 because most traditional technical indicators were flashing “overbought” signals. However, the extreme divergence between the Nasdaq 100 and the rest of the market suggested something very big was brewing. And far from being overbought, the Nasdaq 100 rocketed ahead another 900-plus points from the close of trading Nov. 5 through the end of December.

The rule regarding diverging markets is to always buy the strong market. If you find yourself in a sector that suddenly begins to diverge negatively from the other indices, get out as quickly as possible and re-deploy your capital in the sector diverging positively.

A classic example of negative divergence occurred in early April 1999. As shown in Table 2, there was a vicious rotation out of tech stocks and into large-

**TABLE 2** APRIL 12 - APRIL 14, 1999

	Dow	Nasdaq 100
April 12	+165.67	(-13.26)
April 13	+55.50	(-44.03)
April 14	+16.65	(-76.22)

cap Dow and value stocks beginning April 12. I was in technology during this rotation and exited part of my position on April 12 and the remainder on April 13.

I repositioned myself in the value sector of the market. As it turned out, the Dow and other value stocks continued soaring through the month, while technology went nowhere.

**Catching the bottom:** The V-bottom upside reversal pattern does not occur

## If **strength fails** to materialize the next trading session, I **exit** my position on the close — **no hoping, praying or wishing.**

very often, but when it occurs, get ready for some fireworks. The last notable V-bottom reversal I traded was the major market bottom of Oct. 8, 1998. That day marked the culmination of the summer meltdown, which took most indices 20 percent or more off their summer highs.

It looked like the market was about to fall deeper into the abyss that day, opening lower and continuing to plummet (see Figure 3). By 2 p.m. EST the Dow was down 274 points, or almost 4 percent. Around that time, I had to leave home to conduct some personal business, never imagining I would soon be moving money into the market. But when I returned home near the end of the trading session, the Dow had made a miraculous turnaround. Right before the close it briefly pushed into positive territory, then drifted back to close marginally lower, down only 9 points.

Even though I was bearish, I had no choice but to trade this pattern. Although I doubted it was a bottom, I thought there would have to be some carryover buying. That is, in fact, how the situation unfolded: The Dow rallied 235 points over the next four trading days.

Again, this would have been another great short-term trade, but this 235-point rally was luckily only a prelude to the explosion that was about to occur. On Thursday, Oct. 15, shortly before 3 p.m., the Fed unexpectedly lowered the discount rate. After the surprise Fed announcement, the Dow surged a stunning 220 points during the last 60 minutes of trading and closed up 330 points for the day.

This was another example of extreme price momentum — the kind of out-of-the-ordinary price action that invariably leads to much larger gains in the days and, sometimes, weeks ahead. Some traders, intimidated by extreme momentum, retreat to the sidelines awaiting price pullbacks that never occur. As with all my trading patterns, whenever I see an extreme momentum day, I don't think, analyze, or reason — I simply buy. From the close of Oct. 15, the Dow ran up another 900 points through the end of the year.

**The short side:** I have only one sell-side momentum pattern — the 1-percent true-selling day. True selling for me is

when all the indices — the Dow, S&P, Nasdaq 100 and Russell 2000 — concurrently decline 1 percent or more on the same trading day. Although this is my least reliable trading pattern — most likely because of the historical upward bias in stock prices — it nevertheless has given me some excellent sell signals.

For example, the summer 1998 top on July 21 came in the form of a 1-percent true-selling day. Another 1-percent true-selling day occurred two days later on July 23. Usually, I will sell up to 50 percent of my position on an initial true selling day, and the remainder of my position on a second true selling day (or if prices continue trending down). After closing out my remaining positions on July 23, the Dow sank nearly 1,600 points through the end of August.

Incidentally, my 1-percent true-selling day pattern also got me out of the market in mid-October 1997, when two such days occurred back-to-back on October 16 and 17. That effectively ended the

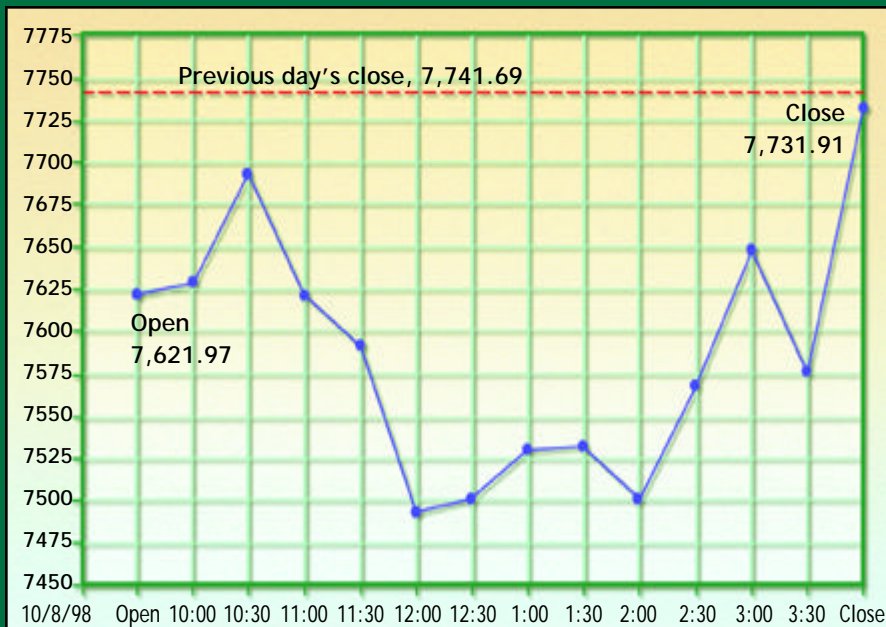
spring and summer rally in technology and small caps, and enabled me to avoid the mini-crash of October 27 (as well as the weakness leading up to that debacle). However, because the 1-percent true-selling day is my least accurate pattern, there have been occasions when I have exited only to reenter a day or two later when one of my other momentum patterns kicked in on the upside.

The patterns we have analyzed share several common traits: They are simple, based purely on easily observable price action and easy to trade. By focusing on price action and momentum, and avoiding perceptual filters like charts and indicators that can adversely influence trade decisions, I have been able to develop short-term strategies that identify highly profitable trade opportunities in the stock market.

“Keep it simple” may be a shop-worn trading concept, but it has been a philosophy I have actively, and profitably, practiced for years. 🕒

**FIGURE 3** V-BOTTOM UPSIDE REVERSAL

Dow Jones Industrial Average, 30-min., Oct. 8, 1998: The V-bottom reversal is a furious rally that occurs on a day when the market has been trading dramatically lower. The turnaround this day was followed by a strong rally over the next several days



Source: Defender Capital Management

# PLAYING the break(out)



Short-term traders always debate the wisdom of trading gap openings:

trade 'em,

fade 'em

or leave 'em alone?

Read on to learn about a low-risk intraday breakout system that plays off the market psychology and price dynamics of gap openings.

BY MARK SELEZNOV

**A** hitter in baseball can fail 70 percent of the time but still make it to the all-star game if he gets enough doubles, triples and home runs with the other 30 percent of his at-bats.

It's the same with trading. In fact, the average successful floor trader is correct only around 30 percent of the time. He stays in business by practicing the old cliché of "cutting losses short and letting profits run." And he does that by developing a sound, systematic trading plan.

Regardless of whether they are pat-

tern- or indicator-based, most successful traders use a systematic plan to select their trades. Even floor traders, who basically trade tick by tick, follow a systematic approach.

Short-term and day traders who make hundreds of trades a month have no room for faulty judgment or excessive risk-taking. A trading plan helps guard against these problems by taking the emotion out of trading.

A successful trading plan does not have to be right all of the time, or even most of the time, to be profitable. It is the slugging percentage that counts. If your loss when "striking out" is small, but your hits are big, you can be an overall winner.

Think of it this way: Suppose you had a method that triggered 30 trades a day

with 50 percent winners and 50 percent losers, but the average win was \$600 and the average loss was \$300. You would be pretty happy, right? Unfortunately, many inexperienced traders are uncomfortable with being wrong a large percentage of the time.

There is no "holy grail" in trading. The typical trader usually gravitates toward strategies with very high winning percentages, but often falls prey to "black box" systems that are limited to one stock or commodity. Many other methods show results for limited time spans, such as periods of great price increases or bull markets. Good trading strategies keep losses small, let profits expand and work over long periods of time in different market conditions.

Before detailing a specific systematic

intraday trading approach, let's take a look at some of the common elements of all well-planned trading strategies.

### Systematic trading plan

A complete systematic trading plan needs seven components: time frame, studies, a setup, trigger, stop, exit and filters.

All trading plans must start with the **time frame**, which establishes a time span (2-minute, 10-minute, daily, etc.) for the price bar used to determine the patterns and indicators in the approach.

For example, if you are going to buy the highest high of the last 20 bars, you must decide whether you are going to look at a 5-minute, 15-minute, daily or even a weekly bar. You cannot determine appropriate stop levels until you have determined your time frame.

For example, a strategy for which the initial stop-loss is placed below the lowest low of the past three bars would have much more risk on a daily chart than on a 5-minute chart because of the larger range of the daily bars. You must choose a time frame that allows you to place trades that fit your risk tolerance level.

**Studies** include any calculations or indicators needed to analyze market action, such as moving averages, moving average convergence-divergence (MACD), the commodity channel index (CCI), relative strength index, stochastics and so on. Studies also include chart analysis tools like trend lines or horizontal support and resistance lines for certain times of the day.

The **setup** is a clearly defined condition (or conditions) that makes it possible to take a trade. If you are using a pattern-based approach, the setup clearly defines the characteristics of the pattern that must be in place before you can take the trade. If you use an indicator like a moving average, an example of a setup might be that price is above or below the moving average (or above or below it by a certain amount).

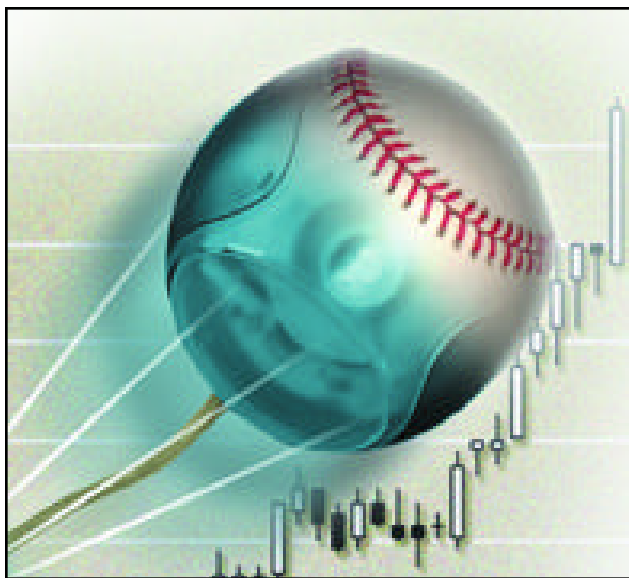
The **trigger** is the actual entry into the trade. After the setup conditions are met, this trigger signals a buy or sell. There should be no second thoughts about

entry. For example, after the setup we just described lays the groundwork for the trade, an entry might be signaled when price exceeds the highest high of the last three bars.

**Stops** are used to exit a trade that is not performing as expected, and can be based on one or multiple conditions. For example, a trader might opt to exit with a \$500 loss if the trade has not become profitable after a specific amount of time.

The **exit** is used to liquidate a profitable trade after a certain amount of time has passed. Too many traders exit trades early precisely because they do not have a plan for when and how to get out of positions. Letting winning trades run as much as possible is critical to successful trading.

**Filters** are additional conditions applied to a trading strategy. A filter can



be something as simple as exiting long trades only when the overall market is up. (However, in this case, you would need to decide whether "market" refers to the Dow Jones, Nasdaq or S&P 500.) Filters can turn a method with average returns into one with above-average results.

### Market psychology

Any systematic trading approach also should have a "psychological" basis — that is, something that tries to exploit the crowd behavior of the market.

Repetitive crowd behavior is what makes trading work, and recurring price

or indicator patterns are visual representations of crowd psychology in action (this will become clearer when we describe our intraday breakout strategy later in the article). A clear trading plan allows you to remove emotion from trading and take advantage of such patterns.

One of the primary reasons to use a plan is that it allows you to review trades and evaluate performance. Keep in mind, though, that a trading plan will not do any good if it is not followed. If you entered a trade that did not fit your setup criteria, you did not follow your plan. If you closed out a trade without the stock meeting your exit strategy, you did not follow your plan. Such detours from your game plan may seem like minor lapses at the time, but they can seriously impact your performance.

A trading plan gives you a roadmap to navigate the markets; if you throw the map out the window, you should not be surprised when you find yourself in the middle of nowhere with an empty gas tank.

### Intraday breakout system

Now we will take a look at a specific system that incorporates the ideas we have discussed. This system (for Nasdaq stocks only) is the Seleznov Breakout Method No. 8 (SBM8).

This pattern is based on very simple market psychology: When a stock gaps above the previous day's high on the open, new buyers are entering the market, pushing the stock higher. In such situations there is often some fundamental reason for the

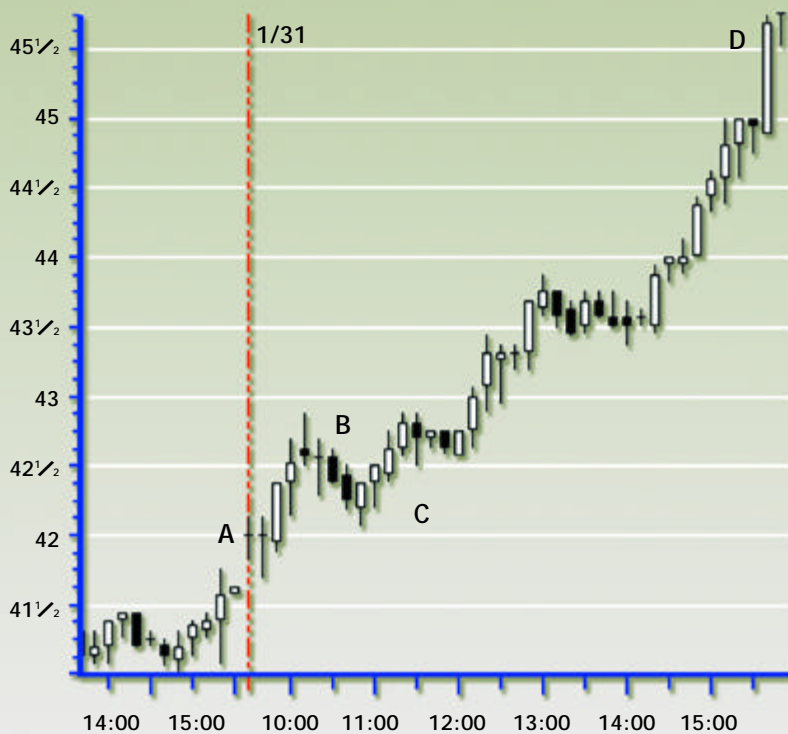
higher price — an earnings announcement, a merger, etc.

When market orders have built up overnight, the market-making firms and specialists gap the stock higher so they can turn around and sell it short, capitalizing on the overzealous buyers piling into the stock. (Remember, in most instances, a market maker or specialist is taking the other side of your trade.) The market maker hopes the stock's rise will bring in other sellers, pushing the stock back down and allowing him to buy back his short position at a profit.

However, sometimes the market makers misjudge the true strength of a price

**FIGURE 1** MCI WORLDCOM (WCOM), 10-MIN.

An SBM8 trade occurs when price makes at least three lower or equal highs after a gap opening.



Source: Trend Trader and Townsend Analytics

**FIGURE 2** SUN MICROSYSTEMS (SUNW), 10-MIN.

A trade is triggered when price moves 1/8 above the high of the previous bar (after the sequence of at least three bars with lower or equal highs).



Source: Trend Trader and Townsend Analytics

move. If the stock starts to move up again (after the thrust of the initial gap open move), not only will the new buyers be pushing the stock higher, but the market makers and traders who faded the gap opening will need to cover their short positions.

The SBM8 trades in the direction of

## TRADING EXAMPLES

Here are examples of the SBM8 system at work:

Figure 1 shows MCI Worldcom (WCOM), which closed at 41 5/8 on Friday, Jan. 28 and opened up the next trading day (Monday, Jan. 31), at 42 (A). The setup began with the 10:10 a.m. bar, which hit a high of 42 7/8, and continued over the next four bars, each of which made consecutively lower or equal highs (B). The 11 a.m. bar exceeded the prior bar by 1/8. The 10:50 bar has a range of less than 3/4 giving the trade a maximum risk of one point.

The trade is entered at 42 1/2 (C). From this entry at 11 a.m. through the entire day, the stock never traded 1/8 below the low of the last two bars. Exit occurs at the end of the day "market on close" (MOC) at 45 3/4 (D) for a 3 1/4-point profit per share.

Figure 2 shows Sun Microsystems (SUNW), which closed on Jan. 31 at 78 5/8 and opened on Feb. 1 at 78 7/8 (A). The stock then moved lower, creating a setup with the three 10-minute bars from 10 a.m. through 10:20 a.m., each of which had a lower or equal high than the previous bar.

The trigger occurred at the 10:30 a.m. bar, 1/8 above the high of the 10:20 a.m. bar at 77 9/16 (B). SUNW rallied with each bar, never falling 1/8 below the low of the previous two bars until the 1:30 p.m. bar, when it fell to 80 1/4, 1/8 below both the 1:10 p.m. and 1:20 p.m. bars. This exit resulted in a 2 11/16-point profit on the trade.

Figure 3 shows a stock with several entries during the day.

Biogen (BGEN) closed at 86 1/4 on Jan. 31. It opened the next day at 88 15/16 (A) and immediately completed four bars with equal or lower highs. At 10:20 a.m. (B), BGEN exceeded the previous bar (which had a range of less than 3/4) by



this trend, as buyers push the stock higher. Here are its components:

**Time frame:** 10-minute bars, normal trading hours.

**Studies:** None.

**Setup:**

1. The stock opens higher than the previous day's close.

$\frac{1}{8}$ , triggering the trade at  $87\frac{11}{16}$ . At 11:10 a.m., the stock slipped  $\frac{1}{8}$  below the low of the previous two bars, and an exit at  $87\frac{7}{8}$  closed the trade with a gain of only  $\frac{3}{16}$  (C).

But immediately after this exit, BGEN made four consecutive bars with lower or equal highs. At noon (D), the stock exceeded the previous bar (a bar with a very tight range, less than  $\frac{3}{4}$ ) by  $\frac{1}{8}$ , at  $87\frac{7}{8}$ , triggering another trade. BGEN rallied immediately, moving higher until 1:50 p.m., when the stock traded  $\frac{1}{8}$  below the low of the last two bars, signaling an exit at  $91\frac{1}{16}$  (E), for a nice  $\frac{3}{16}$  gain on a risk of  $\frac{1}{2}$  point.

Finally, late in the day BGEN went into another setup pattern at 3 p.m. (F to G). However, the filter rule to not trade after 3 p.m. keeps us out of the market. Still, not a bad trading day, with two winners producing a  $\frac{3}{8}$ -point profit.

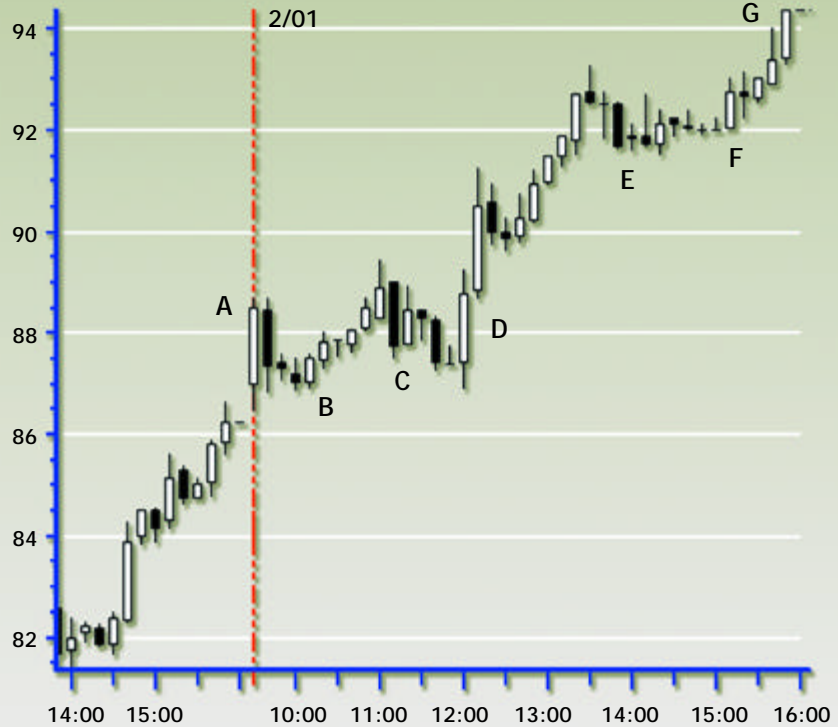
In Figure 4 USA Networks (USAI) gapped up from its Feb. 2 close of  $49\frac{15}{16}$  to open at  $51\frac{9}{16}$  (A) and then sold off. After three bars of lower or equal highs, the stock broke above the previous bar by  $\frac{1}{8}$  at 10:20 a.m., triggering entry at  $50\frac{7}{8}$ . The previous bar had a  $\frac{1}{4}$ -point range, giving the trade a  $\frac{1}{2}$ -point risk (B).

USAI ran for the next 90 minutes before an exit signaled (at 11:50 a.m.) at  $51\frac{5}{8}$ , for a gain of  $1\frac{1}{16}$ . (Although this was a "wiggle stop," one that just touches the exit point, you have to get out — rules are rules.)

From 12:20 p.m. through 12:50 p.m., the stock made three lower or equal highs, a congestion pattern that qualifies under all of our rules (C). A trade is triggered at  $52\frac{3}{16}$ , and with the previous bar having a range of only  $\frac{1}{8}$ , the risk on this trade is only  $\frac{3}{8}$ . USAI rallied strongly until the exit rule closed the position at  $53\frac{3}{4}$  at 2:10 p.m. with a  $1\frac{9}{16}$ -point gain (D).

FIGURE 3 BIOGEN (BGEN), 10-MIN.

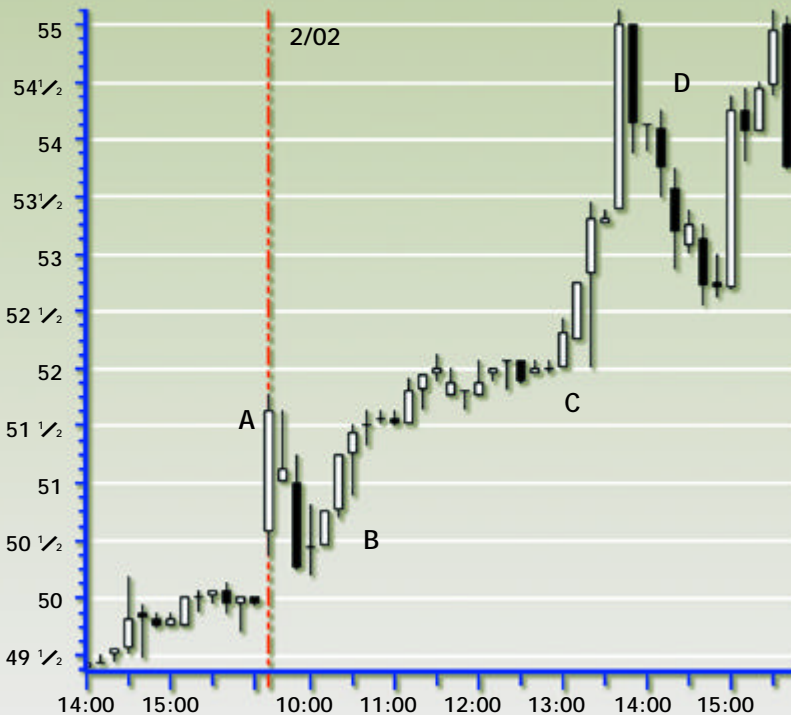
The SMB8 strategy triggered twice in the same day in Biogen (BGEN).



Source: Trend Trader and Townsend Analytics

FIGURE 4 USA NETWORK (USAI), 10-MIN.

The bar before the entry bar must have a range of no more than  $\frac{3}{4}$ , because risk on an SMB8 trade is limited to one point and the stop is placed  $\frac{1}{8}$  below the low of the bar preceding the entry bar.



Source: Trend Trader and Townsend Analytics

2. The stock makes at least three consecutive, completed bars (i.e., not partial bars) with equal or lower highs than the previous bars.

**Trigger:** Buy  $\frac{1}{8}$  above the high of the previous bar.

**Stop:**  $\frac{1}{8}$  below the low of the previous bar.

**Exit:**  $\frac{1}{8}$  below low of two bars ago.

**Filters:** Only take trades with a maximum risk of one point and do not make trades after 3 p.m. EST.

Let's go over each of these components in detail to make sure they're absolutely clear.

**Time frame:** A bar starts at 9:30 a.m. EST and runs to 9:40 a.m. to complete. Then the next bar begins.

**Studies:** Because this is a pattern-based method, there are no studies.

**Setup:** First, the stock must have opened at least  $\frac{1}{8}$  higher than the previous day's close. Second, it must make at least three complete down bars, or it can be in a congestion pattern. (The main part of the setup is that each of the three previous bars must have equal or lower highs than the preceding bars.) What is

A trading plan  
**gives you a roadmap**  
to navigate the markets;  
if you throw the map out  
the window, you should  
**not be surprised** when you  
find yourself in the  
**middle of nowhere** with an  
**empty gas tank.**

happening here is that the stock is pausing or pulling back after the initial opening burst.

**Trigger:** Entry can occur only after a stock has completed at least three 10-minute bars with equal or lower highs (entry must occur on the fourth bar). The filter conditions also must be met (see below). What is happening here is the stock is turning back to the upside after

its pause or pullback.

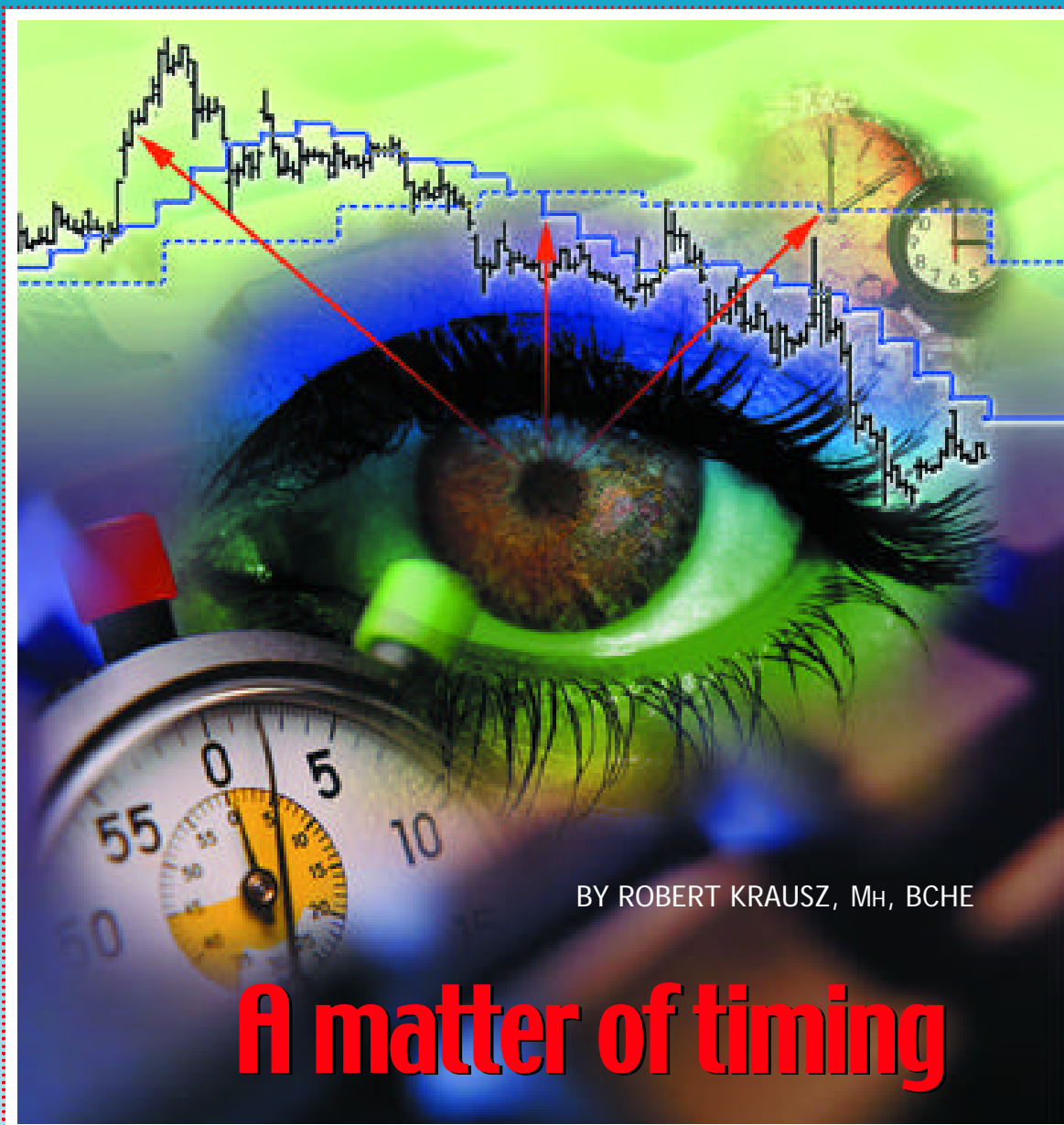
**Stop:** Because most trades will not work out, stops are necessary to keep losses small. If the stock drops  $\frac{1}{8}$  below the low of the bar previous to the entry bar, exit the trade at the market.

**Exit:** If the trade works out, stay in it until the price drops  $\frac{1}{8}$  below the low of the last two bars. Otherwise, all trades are exited "market on close" — no overnight positions.

**Filter:** To limit risk to a point, the length of the bar prior to entry must have a range of  $\frac{3}{4}$  point or less, because the stop is placed  $\frac{1}{8}$  below the low of the previous bar.

This is a solid trading plan with good risk-reward characteristics. The filter rule keeps you from trading the pattern in high-priced, riskier stocks. Fortunately, many stocks priced less than \$100 provide intraday trade opportunities with manageable risk.

The bottom line in trading is to design a plan and stick to it. This gives you the best chance of racking up enough doubles, triples and home runs to more than offset your strikeouts. 🎯



BY ROBERT KRAUSZ, M<sub>H</sub>, BCHE

## A matter of timing

*Analyzing multiple time frames is a simple but powerful way to improve your trading. Here's a technique that allows you to look at three different levels of price action on the same chart and time your trades accordingly.*

**T**rading is not necessarily easy, but it is a much simpler process than most people imagine. The problem, ironically, is that gaining this understanding often requires a long, complicated journey — kind of like walking out your front door and travel-

ing a few thousand miles to get to your back yard.

New traders especially tend to run into difficulties because they believe that more — indicators, charts, statistics, etc. — is better.

The truth is, simple approaches can

yield good results if your analysis is based on a solid frame of reference. Here we will explain a simple, but powerful, concept — multiple time-frame analysis — and show how it will enhance your trading by providing a well-defined framework in which to operate.

### **Trend on different levels**

The basis of multiple time-frame analysis is that every time period has its own trend and its own support and resistance levels.

By simple inspection, you can see the trend and support and resistance levels on a 10-minute bar chart are different than levels on a daily bar chart.

However, the trend and support and resistance levels of the 10-minute time frame are still part of the daily trend — the trend of the 10-minute bars obviously shapes the trend of the daily bars. In other words, while any time period is a self-contained universe, it still functions as part of a larger structure. Longer-term price action provides a context for shorter-term price action — the frame of reference every trader needs to make good decisions.

The context provided by these different time frames determines how, when and in what direction to trade.

## Simple approaches can yield good results

if your analysis is based on a **solid frame of reference.**

### Time frame trading structure

The first step in our trading approach is to define three time frames that will provide the trading structure we operate in.

The time frame we will trade is the “own” time frame. The longer time frame is the “next” time frame. Finally, the longest time frame is simply the “high” time frame.

For example, the setup for trading 30-minute bars might be:

**30-minute bars = own period**

**Daily bars = next period**

**Weekly bars = high period**

For trading daily bars, the definitions might break down as follows:

**Daily bars = own period**

**Weekly bars = next period**

**Monthly bars = high period**

For most practical purposes you only need to focus on two time frames, own and next. The next time frame indicates the direction of the tradable trend and the support and resistance levels for trading. When the next time frame indicates an uptrend, we will trade from the long side; when the next time frame indicates a downtrend, we will trade from the short side.

Let’s walk through some examples using America Online (AOL). Figure 1 is a daily bar chart of AOL. The line plotted in a step formation is the weekly “balance step,” a five-week moving average of the weekly closes (Friday-to-Friday only). In essence, we are overlaying a moving average of weekly price action on a daily chart, making it possible to monitor both

time frames simultaneously. The daily bars represent the own time frame (the time frame we will trade) while the weekly balance step functions as the next time frame (the time frame that indicates the tradable trend). What does this multiple time frame analysis reveal?

First, in late September there were two consecutive closes above the weekly balance step (point A). Second, in early October the weekly balance step turned up (point B) and continued to rise each week until the end of the year when it turned down for the first time (point F). This highlights that the next time frame was in an uptrend throughout this peri-

od from points A to F, and the safest trades to make using daily bars (the own time frame) would have been on the long side — that is, in conjunction with the longer-term trend.

This is a very straightforward concept. Trading with the trend of the next time frame is like having the wind at your back. Keep in mind that the trend can only change when the direction of the next time frame changes.

Also notice that at points C, D and E in Figure 1 the balance step functions as support and resistance; closing above the balance step is a positive sign. At point C, AOL tests the near-term support defined by the balance step and rallies sharply from this level. Point D marks a similar instance. Point E is a major warning the trend may be changing: The stock breaks support by closing below the balance step for two consecutive bars.

### Intraday analysis

The same principles outlined in our first example are equally applicable to shorter time frames. Let’s drop down in time and take a look at an intraday view of AOL using 78-minute bars (one-fifth of the 390-minute normal trading day) and additional technical indicators to help filter trades.

Figure 2 uses the 78-minute bars as the own time period, daily bars as the next time period and weekly bars as the high time period. Both weekly and daily balance step lines are plotted, and both



indicators are calculated over five-bar periods. The daily balance step uses the daily closing prices.

Why did we add the daily balance step? Because we always use the next time frame to determine the tradable trend. Let’s look for signs of the market topping using our multiple frame approach on an intraday basis.

Our first warning came when the daily balance step (the next time frame) turned down for the first time (point H). In addition, at point E, the stock closed below the weekly balance step, another negative indication. Adding to the bearishness, the daily balance step crossed below the weekly balance step at point X. Finally, at point F (the same point F from Figure 1), the weekly balance step — the high time frame — turned down for the first time, pointing to lower prices as well.

### Adding a filter

To take things a step further and look for trading opportunities, we will introduce additional technical indicators.

The first is the Ergodic Candlestick Oscillator (ECO), designed by William Blau and detailed in his book *Momentum, Direction, and Divergence*. This momentum indicator is a “double-smoothed” (the application of two moving averages — one very long term and the other shorter term) ratio of the difference between the closing (C) and opening (O) prices of each bar and the difference between the high (H) and low (L) prices for each bar:

**FIGURE 1 WEEKLY BALANCE STEP**

America Online (AOL), daily. The weekly balance step is a five-week moving average of Friday closing prices plotted in step formation on the daily chart. It shows the weekly trend overlaid on the daily price action.



Source: Fibonacci Trader

**FIGURE 2 WEEKLY AND DAILY BALANCE STEPS**

America Online (AOL), 78-minute. Here, the daily balance step is a five-day moving average of daily closing prices plotted in step formation. In addition, the weekly balance step is shown. This makes it possible to simultaneously compare price action on three different time frames.



Source: Fibonacci Trader

$$ECO = \left( \frac{EMA_1(EMA_2(C-O))}{EMA_1(EMA_2(H-L))} \right) * 100$$

where

$EMA_1$  is a longer-term exponential moving average (e.g., 26 days), and  $EMA_2$  is a shorter-term exponential moving average (e.g., 5 days).

Figure 3 is the same as Figure 2 except that the ECO (calculated on the 78-minute bars, the own time frame) is plotted below the price series as a histogram. The ECO functions as a filter: Readings below zero confirm the trend is down for the own time frame and readings above zero confirm the trend is up.

Look at point G: The ECO actually turned negative prior to the daily balance step turning down. When the daily balance step turned down at point H (same as Figure 2), the ECO had been negative for some time and therefore confirmed this change in the trend of the next time period.

When price rallied above the daily balance step at point J, the ECO only rallied above the zero line for one day, or five 78-minute bars, before returning to a negative trend. After point J, the ECO also reconfirmed the downtrend.

### Putting on trades

Having outlined the concept of using a multiple time frame approach to determine the trend and support and resistance levels, let's see what happens if we take a trade when the trend changes direction, as determined by a change in the next time period (the daily balance step). We'll use the intraday (78-minute bar) time frame.

Now that we are trading, though, we also must give thought to risk control: We will want to have some kind of trailing stop to lock in our profits. For that purpose we will introduce another indicator, the HiLo Activator, based on the own time period.

The HiLo Activator is a 21-period moving average of the lows or highs. If price closes above the HiLo Activator, the indicator is a moving average of the lows; when the market closes below the HiLo Activator, the indicator flips to being a moving average of the highs. The HiLo

**FIGURE 3** ERGODIC CANDLESTICK OSCILLATOR FILTER

America Online (AOL), 78-minute. A momentum oscillator, the Ergodic Candlestick Oscillator (ECO), provides an additional filter. The daily balance step turned down at point H, confirmed by the negative ECO reading. (Notice at point J the prices stopped right at the weekly balance step.)



Source: Fibonacci Trader

**FIGURE 4** ADDING THE HI-LO ACTIVATOR

America Online (AOL), 78-minute. This example establishes a trade in conjunction with the trend of the daily balance step. A trailing stop level is defined by a 21-period HiLo Activator, a moving average of the high prices (when price crosses below the indicator) or low prices (when price crosses above the indicator).



Source: Fibonacci Trader

Activator is above prices in a downtrending market and below prices in an uptrending market, providing a trailing stop point as the position progresses.

Figure 4 shows that a short sell signal in AOL occurred on the close of Dec. 17, 1999, at a price of 85 when the daily balance step clearly turned down. The HiLo Activator is trailing above the prices and the ECO also has confirmed the downtrend by dropping below zero.

Prices continued to fall until Jan. 3, 2000, when the market rallied above the HiLo Activator and penetrated the daily balance step. (You can take profits when price penetrates the balance step and the HiLo Activator by more than a point.) However, notice that the stock stopped right at the resistance level of the weekly balance step. The daily balance step went into a flat period.

The next day the downtrend resumed with the daily balance step turning down. Had you gone flat, you could have gone short again because the HiLo Activator flipped again on the close of the first 78-minute bar. Prices were below the daily balance step, which turned down at the close, triggering a short trade at 73 1/2.

A multiple time frame approach is a way of filtering price information through different windows of time. By using weekly bar-based indicators for trading daily bars, you avoid the noise of the daily bars.

Likewise, if you are trading intraday bars you should filter your trades with daily bar-based indicators, trading when indicators on both time frames are in concert. This a simple, yet powerful frame of reference for enhancing your trading opportunities. ☺

**For further research...**

Krausz, Robert  
*A W. D. Gann Treasure Discovered*  
(1997, Geometric Traders Institute).

Blau, William  
*Momentum, Direction, and Divergence*  
(1995, John Wiley and Sons)

Kaufman, Perry  
*Trading Systems and Methods 3rd Edition*  
(1998, John Wiley and Sons)

# Islands and Archipelagos: Navigating the ECNs

Think all Electronic Communications Networks are created equal? Here's the scoop on some of the little-known idiosyncrasies of the different online trading networks and how they can make or break your trading plan.

BY M. ROGAN LABIER

**C**onsider the following situation: You're sitting on a hard-earned profit toward the end of a choppy trading day. Things haven't been going well, so you're especially happy to find yourself ahead at this point in the game. You decide to close out your position and call it a day. You enter your sell order and wait for confirmation.

And wait ... and wait.

Meanwhile, the market has started to tank and you are facing the prospect of your profits disappearing before your eyes. After an eternity (or so it seems), you get your fill — five points away

from where the market was when you entered.

Live and learn, you think. Occasional communication glitches are part of the online trading environment, although this is the first time you have suffered from such a severe problem. So you swear off your dial-up modem connection and standard online broker and switch to a DSL connection and a "direct access" broker. However, a few days into trading with your new setup, virtually the same thing happens again.

What is going on?

What you didn't realize is that there are many trade execution "routes" available to the Level II trader (see "Level II trading," p. 48) and all these routes work differently from one another. It is not enough to simply know these routes exist — you must know exactly how they work to be able to trade effectively.

We'll explore the ins and outs of

Electronic Communication Networks (ECNs), the computer networks that offer trading of Nasdaq (and now, New York Stock Exchange) stocks — how they work (and don't work) depending on circumstances.

First, we will briefly explain the Nasdaq's two order execution systems, SelectNet and SOES (Small Order Execution System). Depending on trading conditions, SelectNet and SOES have their own advantages and disadvantages as trade execution systems. While the following explanations will be brief, a rudimentary understanding of these systems will help to understand the way ECNs work.

## SelectNet and SOES

Unlike the NYSE, the Nasdaq does not have a trading floor where traders buy and sell stocks face to face. On the Nasdaq, trades are executed over a net-

## THE LEVEL II SCREEN

work of roughly a half-million computers, through which market participants can post bids and offers. SelectNet and SOES are trade execution systems run by Nasdaq.

SelectNet can “broadcast” orders to a wide field of market participants or “preference” (route) orders to particular market participants. SelectNet even can be used to negotiate a better price than a market maker has advertised.

But SelectNet’s biggest use is to preference orders at the market makers’ shown price and size. Market participants are required to keep firm quotes in Nasdaq small-cap and large-cap stocks — they must honor the bids and offers they show, both the number of shares and the price.

Because SelectNet operates like an instant messaging system, bids or offers placed via SelectNet will not show up on the Level II quote display. A SelectNet preference order to an ECN results in an auto-execution at electronic speed, as long as another trade has not already occurred at this price with this market participant.

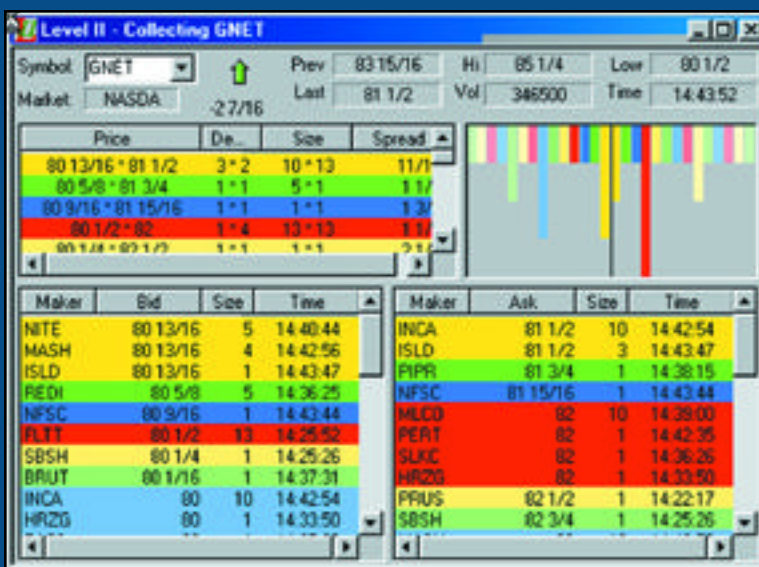
But a SelectNet preference to a market maker works differently from a preference order to an ECN, because, among other reasons, market makers are allowed 30 seconds to respond to a SelectNet preference order at their shown price/size. A market maker is liable only for the number of shares shown at the advertised price shown. He may trade more if he chooses, but if he declines to trade more at that price then he must change his bid or offer accordingly. But he still has 30 seconds to decide. These aspects of SelectNet are especially important because the “active” ECNs, like Archipelago, use SelectNet.

SOES works differently. It gives smaller investors and traders immediate fills on up to 1,000 shares of Nasdaq stocks subject to regulations and rules specific to the use of SOES. SOES will automatically execute against a market maker, without his choice. However, it is important to know that SOES will not transact against ECNs.

### The execution solution

Superior trade execution is all about identifying the current trading situation and knowing which tool is appropriate for a given job.

Nasdaq Level II quotes go beyond displaying the inside bid — they include all the bids and offers of the different market makers and ECNs.



Source: [www.windowonwallstreet.com](http://www.windowonwallstreet.com)

## Level II trading

There are three “levels” of quotes available to Nasdaq market participants. Level I, what most brokers typically provide their customers, is also known as the “inside market.” It shows only the best bid and best offer currently available in a stock.

Level II quotes (the Nasdaq Quotes Montage) contain all market participants’ bids and offers — not just the inside market. So your broker, looking at his Level I quotes, may tell you that ABCD stock is currently bid at 10 and offered at  $10\frac{1}{16}$ .

Fine. But what if you could see that there were only 100 shares bid at 10, below that another 100 at  $9\frac{7}{8}$ , and below that another 100 at  $9\frac{13}{16}$ , while on the offer there were 20,000 shares at  $10\frac{1}{8}$ , another 15,000 at  $10\frac{3}{16}$  and so on? This information would change your opinion of the current supply-demand balance considerably. In this example, you might not want to buy just yet if hoping for a quick run-up, since there are very few shares on the bid and many on the offer; prices may move down as supply overcomes demand.

Level III quotes are what the Nasdaq market makers themselves have. Level III is fundamentally the same as Level II — the only major difference is that market makers can raise and lower their bids directly through the Level III quote window. By comparison, when you or I trade “direct,” we must go through an ECN and a broker to do this.

Which trade-routing method works best? The answer comes in two parts: understanding the trading situation you are dealing with (Level II interpretation); and knowing exactly how all the execution routes work. Level II is like a map — if you know the routes well, you will know which one will get you to your destination fastest. Nowhere is this more important than if you are trading “direct” (see “Direct access vs. online trading.”).

We will examine the ins and outs of

ECNs — what they are, how they work and how they differ from the other available trade execution routes

### Electronic communication networks

ECNs have been around since the 1980s, when InstiNet, the granddaddy of the modern ECN, began offering institutions a venue to trade stocks in what has become known as the “third market.” Until recently, though, this market was largely unavailable to individual traders. Since 1997, however, there has



been a proliferation of ECNs that provide access to individual traders.

ECNs essentially function as separate exchanges. However, ECNs also allow individuals and institutions to enter bids and offers directly in the Nasdaq, alongside (and in direct competition with) the major institutions. This ability has radically changed the Nasdaq market: While there were practically no ECNs four years ago, today it is not unusual to see 30 percent of Nasdaq's total daily volume traded through ECNs. This technology also has affected the NYSE, which recently voted to repeal Rule 390 and allow Big Board stocks to trade on ECNs.

ECNs are powerful tools for short-term traders, and their usefulness extends far beyond simply displaying quotes on the Nasdaq Level II screen. "Active" ECNs, such as Archipelago, NexTrade and Attain, use sophisticated decision-making algorithms and SelectNet to "work" orders — finding, in real time, the best place to execute a trade, as well as get the best price possible. Plus, individual traders are gaining access to new types of orders that previously were reserved for major institutions with high-priced, sophisticated software.

The best software packages today offer direct access to the various ECNs, but they still let the user decide which route to use for the same reason Formula One race cars come with a stick shift, not automatic transmission: There is no substitute for the speed of the human mind and its ability to synthesize information.

Until there is, it is imperative to learn the basics of ECN routes to maximize your profits and minimize your losses.

We will focus our discussion on the two most popular (by volume) ECNs for individual traders, Island and Archipelago.

### Island

The Island ECN (ISLD), owned by Datek Holdings, has revolutionized the financial markets. A sizable chunk of the total Nasdaq share volume each day is traded on ISLD.

Island allows individuals and institutions to place limit orders — it does not accept market orders. If there is a matching order, it will execute the trade. If not, the order will post to the ISLD order book, and if the order is the "best" bid or offer currently available, it will also post to the Level II quote display screen.

There, anyone may execute against that order, either via SelectNet and the "active" ECNs that use SelectNet (see "Archipelago"), or directly through ISLD if they have access. The limit order book for ISLD is available for viewing in real-time at [www.island.com](http://www.island.com).

When you post an order to the Level II

### THE ISLAND BOOK

The Island order book is available for public viewing at [www.island.com/BookViewer](http://www.island.com/BookViewer).

LAST MATCH		TODAY'S ACTIVITY	
Price	85 1/16	Orders	266
Time	15:50:15	Volume	10,936

BUY ORDERS		SELL ORDERS	
SHARES	PRICE	SHARES	PRICE
100	83 1/16	124	86 15/16
100	78 1/4	7	93
9	72	50	93
20	69 1/8	50	95

Source: The Island ECN

screen through ISLD, you wait for someone to come along and trade with you. It's just like posting a classified ad in the newspaper. Keep in mind, though, you never know how long this will take; the stock may never trade at your price.

However, there is so much liquidity in the ISLD book, it has become a favorite among active traders. Your order, while it may not be seen in the Nasdaq Level II quote display, will often be freely visible in the ISLD book. This can be very useful in fast market conditions, and a great many traders have come to rely on the ISLD as a major source of liquidity.

However, because of Nasdaq's "minimum size" requirement, you may not see small orders reflected in the Level II quotes. A trade must be at least 100 shares to appear on the Level II quote display. For example, if you have an odd lot, say 23 shares, your order will post to the ISLD limit order book, but not to Level II. As a result, your order may take even longer to execute, since only those who have access to the ISLD book will see it.

If ISLD does happen to be on the bid or offer and you wish to hit the bid or take the offer, ISLD can be fast as white lightning — your order may fill before your finger even leaves the keypad. Remember, going through the ISLD computer directly can be much faster than using SelectNet to link to Island.

### Distinguishing characteristics

ISLD	ARCA
◆ Limit orders only	◆ Limit or market orders
◆ Bids/offers in the L2 Quotes	◆ Bids/offers in the L2 Quotes
◆ Massive liquidity	◆ Great liquidity, especially in active stocks
◆ Allows "hidden orders"	◆ Will actively "work" orders for you
◆ After-hours trading	◆ After-hours trading
◆ Odd lot trading	◆ Round-lot orders only
◆ Very fast	◆ Will execute against other market participants
◆ ISLD order book available free on Web	◆ ARCA order book available free on Web

ISLD also offers interesting order capabilities such as subscriber orders and hidden orders (although many brokerages do not accept them). Subscriber orders show up in the ISLD book, but not on the Nasdaq Level II quote display. Hidden orders take this one step further — they do not show up at all. When somebody tries to execute against the ISLD bid or offer they see they may receive price improvement from the hidden order. For example, you might see an ISLD bid of  $43\frac{1}{16}$ , and enter an order on ISLD to sell at  $43\frac{1}{16}$ . But you may actually sell the stock at  $43\frac{3}{16}$ , most likely because of a “hidden” bid at  $43\frac{3}{16}$ . This doesn’t happen too frequently, but it can occur.

The users of these features like the fact that the hidden or subscriber-only orders will not affect the appearance of supply

and demand in the Level II quote display. However, keep in mind that these orders are only in the ISLD order book, and therefore cannot be seen or traded against by any participants who do not have access to ISLD. The net effect is that these orders rely on the liquidity in ISLD alone.

Because the small size of most orders would not have a massive effect on the supply-demand balance in the Level II quote display anyway, the hidden feature is not for everyone. However, some people swear by subscriber and hidden orders.

One advantage, though, of subscriber and hidden orders is that they will not “lock” or “cross” the market like regular ISLD orders can, because they stay in ISLD and are not entered into the Nasdaq market.

Locking the market occurs when you try to enter a bid that would equal the offer price in the Nasdaq Level II screen. A crossed market occurs when you try to enter an offer lower than the current bid or a bid higher than the current offer. Both locked and crossed markets violate NASD fair practice rules. Usually, an order cancelled because it would lock or cross markets is the result of someone trying to use ISLD to hit a non-ISLD bid or take a non-ISLD offer. (Remember, you cannot do that with ISLD — it is passive.) In both cases, Nasdaq would automatically refuse the order.

Of course, if you wish to deal only with ISLD, you can match with other orders in the ISLD book. For example, if there is an offer in the ISLD book for 100 shares of a stock at  $10$  and another offer for 1,000 shares at  $10\frac{1}{8}$ , you could, by placing an ISLD order to buy 1,000 shares at  $10\frac{1}{8}$ , take both the 100 shares at  $10$  and 900 of the shares at  $10\frac{1}{8}$ .

It is important to contact your broker to see what level of connectivity and functionality it offers. Some offer subscriber and hidden orders, while many do not. Some offer direct links to ISLD, while others do not. Also, some may offer real-time display of the ISLD order book as an integrated part of the software, and some may offer full access to ISLD in the after-hours market.

ISLD is open until 8 p.m. EST and has tremendous after-hours liquidity relative to the other ECNs.

## Direct access vs. online trading

Many traders believe that because they are using an online broker, they are “trading direct” — that is, participating directly in the Nasdaq or NYSE markets. They are not.

Standard online brokerage houses offer you the same execution capabilities available over the phone — a keyboard has merely replaced the telephone interface. While this is extremely convenient, your executions are no more under your control than when you say “buy” or “sell” over the phone.

At some point, a market maker or trader will execute your trade for you, and as you might expect, he must get paid. So your broker may take the other side of your order (and profit from the spread), or even route your order to a market maker for execution and receive payment for order flow.

An often overlooked aspect of the brokerage business is that broker-dealers can profit from their customers orders. For example, say a stock is bid  $10$  and offered at  $10\frac{1}{8}$ . You want to buy the stock and enter a bid through a traditional discount online broker, receiving your fill seconds later at  $10\frac{1}{8}$ . It’s quite possible the broker “took the other side” of the trade, buying it at  $10$  and selling it to you for  $10\frac{1}{8}$ . His profit ( $\frac{1}{8}$  — \$125 on a thousand shares) is his fee for doing the trade. Was the low commission price of \$10 worth it? Many traders say no and instead trade direct access, which allows them to try to get a better price for themselves.

When you trade “direct,” you are able to show your bids and offers directly in the Level II quotes and effectively cut out the middleman (the market maker or trader who would have handled your order had you placed it through a standard online broker). But with this opportunity comes the responsibility of getting a better price for yourself.

“Direct access” is really a misnomer. The Nasdaq and the ECNs do not deal directly with private, individual traders. Brokers who offer direct access trading allow you to use their sophisticated software and good name to bid, offer and execute at your discretion in real-time. Nevertheless, you are never really trading direct, even though you do have the ability to bid, offer and execute in the Nasdaq market at your discretion. You are still, technically, using a licensed broker and a clearing firm to execute and clear your trade.

## After-hours trading

One of the current problems in after-hours trading is that ECNs are not connected to one another and therefore cannot execute against one another. This creates arbitrage opportunities, a sure-to-be-short-lived situation some people are attempting to exploit.

Several proposals are on the table that will fundamentally improve price discovery and execution in the after-hours market (see “ECNs strive for level playing field,” p. 14). Keep in mind, though, that because the ECNs operate like separate exchanges (even though they don’t have exchange status), you may not be able to access them unless your broker offers a direct connection to them in the hours after SelectNet has closed.

## Active ECNs

The “active” ECNs all have something in

common: They will dynamically work an order, attempting to get better prices.

To do this, they use sophisticated algorithms to “read” the inside market and then choose the best way to route a trade. They will take market and limit orders, and several of them offer interesting order-entry capabilities previously unavailable to individuals. The best-known “active” ECNs are Archipelago, NexTrade and Attain. Archipelago is easily the largest active ECN in terms of volume.

### Archipelago

Archipelago (ARCA) offers the next generation of functionality for ECNs. For limit orders, it functions like ISLD: It checks its order book for a match. If there is no match and the order is the best in the book, it will post the order to the Level II screen.

However, that is where the similarity ends. If the order is priced more favorably than the current inside market, ARCA starts its active operations. Using an algorithm, it checks for who is on the inside bid or offer, dynamically deciding the quickest way to route the order. If ECNs are present, it executes against the ECNs using either direct connections to the other ECNs or SelectNet.

A SelectNet link to an ECN is an auto-execution at electronic speed. When there are several ECNs at the inside quote and ARCA goes out to all of them, large orders can get filled — fast. (I’ve personally sold 10,000 shares of MSFT in about six seconds when there were several ECNs lined up at the bid. This is one of ARCA’s best features.)

Use of SelectNet allows ARCA not to cross the market and, additionally, to accept market orders, in which case it simply keeps trying to get the best price until it executes.

Also, if you have the appropriate software package (one such program is made by Townsend Analytics) you can place several other kinds of orders on ARCA, including stop orders on Nasdaq stocks and “reserve” orders that allow you to show one size in the Level II screen and actually transact a different reserve size. (For example, you can show 100 shares and actually trade 10,000.)

You also will soon be able to enter a new type of order: a “conditional” order that allows you to set up if-then conditions for purchase or sales. For example,

you can place an order to buy 1,000 shares of a stock if it breaks out above its 200-day moving average or buy another stock if the Dow hits 12,000.

But let’s get back to what ARCA does now: It accepts limit and market orders, and uses SelectNet to execute. Say, for example, 200 shares of a stock are offered at 25 and 100 more are offered at 25½. If you placed an order to buy 300 shares at 25½, ARCA will “work” the

given, by regulation, 30 seconds to respond to a SelectNet preference. Imagine: A stock you are long is tanking hard; sellers are pouring into the market and there are no ECNs anywhere to be seen. You place an ARCA market sell order and wait...and wait.

Because of their 30-second time window, market makers can wait (and wait) while the stock market plummets. What just happened is that ARCA routed the

**THE ARCHIPELAGO BOOK**

The Archipelago book ([www.tradearca.com/automm/arca\\_book.asp](http://www.tradearca.com/automm/arca_book.asp)) includes Archipelago bids and offers as well as those of other ECNs.

**ARCA integrated book: CMRC.**

This data requested at 12:58:55 PM EST.

Symbol:

MMID	BID	SIZE	TIME	MMID	ASK	SIZE	TIME
ISLAND	173 9/16	975	12:54	ARCHIP	173 11/16	200	12:56
ISLAND	172 7/8	100	12:53	ARCHIP	173 11/16	1000	12:55
ISLAND	172 1/2	200	12:36	ISLAND	174 1/4	300	12:54
ISLAND	172	10	12:34	ISLAND	174 15/16	108	12:55
ARCHIP	172	100	12:01	ISLAND	175	410	12:33

Source: The Archipelago ECN

order for you, going out to each participant and taking stock. It will do this all the way up to your price target, or until your total order is filled.

It tries to get the cheaper stock first and, failing that, will try the next best price, all the way up to your limit, executing against multiple market makers and ECNs until you are filled. And if you have access to the ARCA order book you can see all the individual ARCA orders (“chippies”) bidding or offering a stock.

ARCA’s use of SelectNet opens up interesting order entry possibilities, but SelectNet is a double-edged sword. Although a SelectNet link to an ECN gives auto-execution at electronic speed, a SelectNet preference to a market maker does not. In fact, market makers are

order to a market maker, the market maker took his full 30 seconds to respond and the response was a “decline” — the market maker decided not to take the trade. When ARCA receives notice of the decline it runs through its progressions and starts the whole process over again. It preferences another market maker, who again takes the 30 full seconds he is allowed to and declines, and so on.

Every tool has a particular job it does best. There are situations for which ARCA is an ideal tool, and others for which it is not. The same goes for ISLD. Understanding the different execution routes and which ECN is best for a particular trading “job” will enable you to execute with confidence. ☺

BY ALLEN SYKORA

**S**helli Simon thought life was great when her first trade turned into a winner.

She bought a stock that appeared to be at the bottom of a trading range. She watched it rise to the top and sold for a profit.

“I said, ‘Oh boy! This is terrific!’”

But it was not until her second trade turned into a big loser that Simon really became hooked on trading.

Once again, she bought a stock near the bottom of a trading range. This time, though, it fell through support, and to make matters worse, Simon had not yet learned about stop orders. But her reaction to the trade at least partially explains why she has continued to trade.

“I thought it was a small price to pay for a good education,” says the Sarasota, Fla., woman. “I wasn’t discouraged. I thought to myself, ‘This is something I want to do for a career.’”

“It strengthened my resolve to understand that the market is always right and I’m not,” Simon explains. “I needed to



interview, she was on something of a hot streak: Of her last 35 trades, 29 were winners — a rate of 83 percent.

When she’s not trading, one of Simon’s passions is tennis. She plays several days a week and uses the same mental approach on the court as she does in trading.

“On the tennis court, my focus is on the ball, my stroke and execution,” she



## Acing the market

understand that when things aren’t going well, back away with a smile on my face and move onto the next (trade).”

That was more than a decade ago. Simon is still trading and went full-time two years ago. She spends up to 1½ hours each day studying charts. She makes as many as 25 trades a month, mostly holding her positions between two and five days, although she will take a profit the same day if the price hits her objective. At the time of this

says. “In trading, I focus on the charts, recognition of the pattern, execution and protection of my capital.”

Over the years, she has read numerous trading books, taken courses and worked with a couple of trading tutors.

“I am an extremely tenacious person,” says Simon — so much so she uses the word “tenacity” as part of her e-mail address. “When I find something I have a love for or curiosity about, I will do whatever is within my ability to learn as much as I can and make that come to



“ On the tennis court, my focus is on the ball, my stroke and execution. In trading, I focus on the charts, recognition of the pattern, execution and protection of my capital. ”

## The Fibonacci series

The Fibonacci series is a number progression in which each successive number is the sum of the two immediately preceding it: 1, 2, 3, 5, 8, 13, 21, and so on.

As the series progresses, the ratio of a number divided by the immediately preceding number approaches 1.618, the “golden mean” found in the dimensions of the Parthenon, the Great Pyramid and many natural phenomena. Some traders use 1.618, its inverse — .618 (.62) — and other ratios (such as .38 and .50) to calculate price targets and retracement points.

For example, if a stock rallied from 25 to 55, potential retracement levels could be calculated by multiplying the distance of the move (30 points) by Fibonacci ratios — say, .38, .50 and .62 — and then subtracting these results

fruition.”

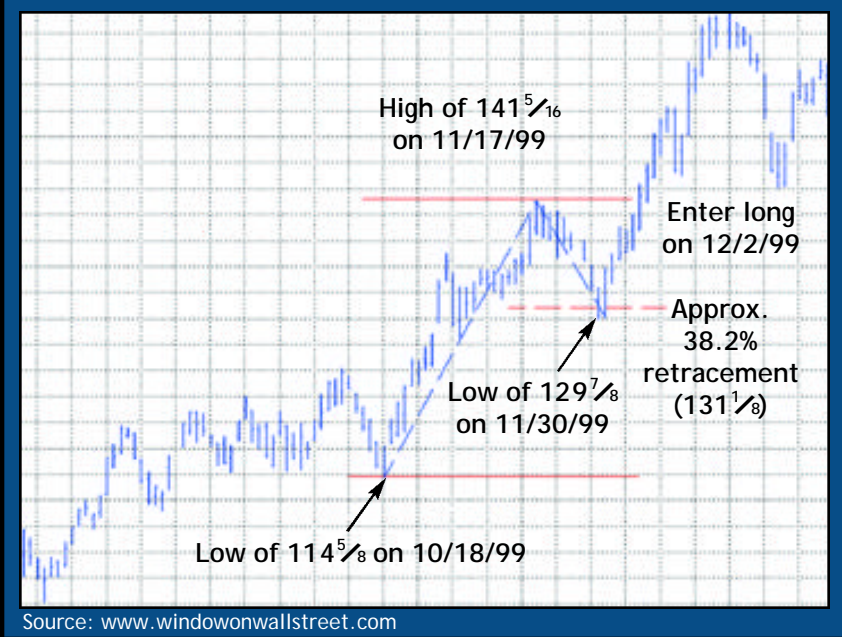
After studying various forms of technical analysis, she has settled upon pattern recognition as her trading method of choice. There are about 10 she looks for, many based on Fibonacci ratios (see sidebar).

“I approach my trading on nothing but the harmonic relationship of price and time,” Simon explains. “I’m looking at the random movement of price and I’m looking for certain harmonic levels that stocks seem to gravitate to. Stocks, for some reason, seem to gravitate to Fibonacci ratios before they make a change either up or down.”

She looks for trends, then a retracement, often based on Fibonacci levels. The retracement levels she uses could be as small as 38 percent or 50 percent, or they could be 61.8 percent or higher. She will then buy or sell at the support or resistance level implied by the retracement percentage.

When Simon spots such a pullback, she will wait one time period — one day if she’s trading on the basis of a daily chart (she uses both daily and intraday time frames) — to make sure the pattern is not violated. Then she will establish

FIGURE 1 GENERAL ELECTRIC (GE, DAILY)



from the high of the price move. In this case, levels of 43.6 [(55 - (30 \* .38)], 40[(55 - (30 \* .50))] and 36.4 [55 - (30 \* .62)] would result.

Figure 1 illustrates a trade Shelli Simon made in General Electric (GE). The stock made a low of  $114\frac{5}{8}$  on Oct. 18, 1999, and rallied to  $141\frac{5}{16}$  on November 17, a  $26\frac{11}{16}$ -point move. The stock then pulled back to  $129\frac{7}{8}$  on November 30, a little more than a Fibonacci 38.2 percent retracement of the preceding rally. Simon waited for a day (Dec. 1) to make sure the retracement was not violated, then entered long on Dec. 2.

her position.

Simon puts a protective stop two to six ticks away from the bottom of the pullback, with the exact distance depending upon the strength of the move. Once the stock moves in her direction, she will raise the stop to the break-even point.

She showed a chart of General Electric (GE) from late fall 1999 (see Figure 1). The stock was steadily climbing, then suddenly pulled back, at which point

“ The reality of what the market is saying is based upon the actual price movement of the stock. I don’t care what an analyst or guru has to say. ”

she bought.

“I’m looking for a nice-sized move that retraces itself,” she says. “I’m looking for a move either to the upside or downside, followed by a reaction.

“I like working with physical highs and lows of stocks,” Simon adds. “The reality of what the market is saying is based upon the actual price movement of the stock. I don’t care what an analyst or guru has to say. I’m not interested in the TV shows, papers or any events. A high is a high and a low is a low. There is no gray area or debate.”

There was a time Simon was studying technical indicators so heavily she began to suffer from “analysis paralysis.” She found herself trying to use too many indicators at a time, trying to have one confirm another. She was studying stochastics, the relative strength index and Bollinger Bands, just to name a few.

“I was looking for too many things to make a decision,” she says. “I realized that analysis paralysis and worrying about what everyone else was doing was hindering me from becoming what I wanted to be.

“What I found is that with indicators like MACD [moving average convergence-divergence] and the relative strength index, there is a lot of gray area. Everybody had a different way of interpreting what is oversold.

“The Fibonacci ratios, and working

with physical highs and lows, gave me what I needed,” she says.

Having eliminated the “gray areas” from her trading, Simon considers the many hours she spends studying charts to be “very relaxing.”

“There is no ego involved and I have a lot of confidence,” she says. “I know that there will always be some losers. But I’m prepared [for that] and know

my losses will most likely be very small.

“Whatever system you use, it’s a probability situation. The thing is to understand nothing is ever 100 percent. You must be prepared to reverse your decision if the market is not going in the direction you were hoping it would go.”

Simon also looks for ratios to help her decide when to capture a profit. Generally, she is looking for a move to a Fibonacci ratio of 61.8 percent or 78.6 percent. At that point, she usually takes a profit on about half of her position. She will continue to use a trailing stop for the rest of the position, so she can profit if the stock continues to move in her direction.

“If the stock is moving, stalls out and moves sideways for a couple of days, I’ll just take my money off the table and look for something else,” she says.

Simon trades only high-volatility stocks, which means a high percentage are Nasdaq issues. Greater price movement means more potential for a profit, since it’s hard to post a gain on a stock that stays flat.

Simon is a former English and history teacher who later helped her husband, Cary, run a small chain of pharmacies. Upon their move to Florida, she went to work part-time at a natural-food store

chain.

Her husband’s family always had been involved with the stock market, but Simon initially paid little attention. However, her interest was tweaked when a friend began studying stocks



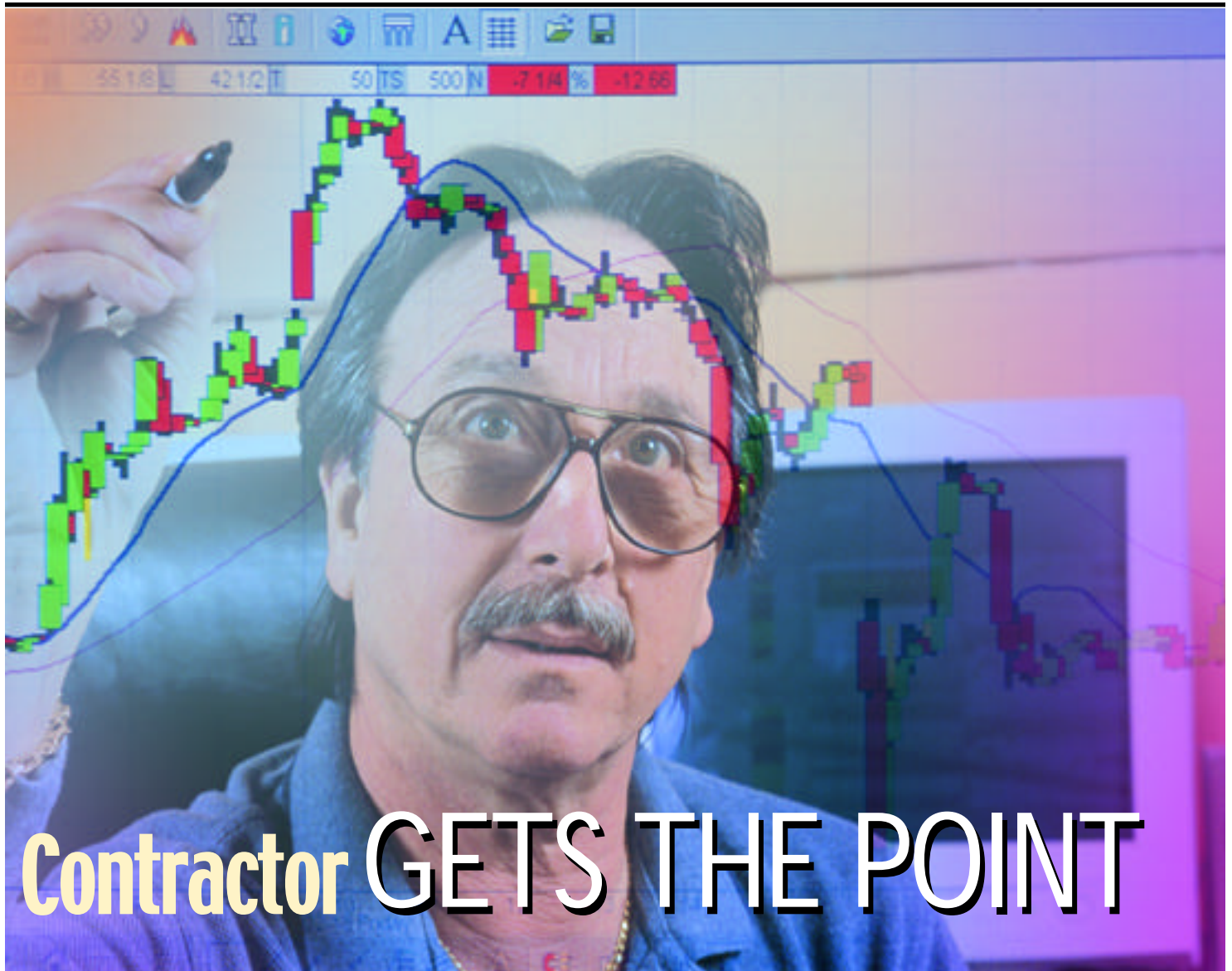
and told her about the famous chart pattern analysis book, *Technical Analysis of Stock Trends*, by Robert D. Edwards and John Magee. Simon began reading other books about trading during the next six to nine months, including those by Stan Weinstein and John Murphy.

“I was fascinated not only at how markets went up, but why they would stop, go down, go up and back down again,” she recalls. “I became very curious about why these things do what they do.”

Simon considers it important for traders to manage stress in their lives, and has read books on mental coaching.

“Stress in general, whether it be in your home life or outside forces, puts a tremendous amount of pressure on your trading,” she says. “I have found that when I was in a stressful situation, my decisions were not as good as they could have been or should have been.

“Consistent results occur as a function of trading from an objective state of mind. We make ourselves available to perceive and act upon whatever the market is offering us in any given moment from its perspective.”



# Contractor GETS THE POINT

BY ALLEN SYKORA

**W**hen Jerry Olson took up short-term trading in the mid-1990s, he studied nearly every possible form of technical analysis: Gann angles, Fibonacci retracements, cycles, oscilla-

tors and more.

“It was way over my head,” Olson says. “It was way too technical for me and left too much to interpretation. I was really pulling at straws trying to find technical analysis that would be simple and work.”

Then a little more than two years ago, while visiting the stock market chat site, Silicon Investor, the retired general contractor became aware of point-and-figure charting. He began studying it, and

that has been the basis of his trading since.

“It was the perfect technical analysis tool for me,” he says. “I realized that in the simplest terms, this is what makes the markets move.

“It’s an actual picture of supply and demand, and that’s what moves a stock. Either you have more buyers or more sellers. If you have more buyers, the stock is going to go up. And if you have more sellers, the stock is going down.”



ance are constant on both bar and point-and-figure charts.

As an example, Olson refers to a chart of Lam Research Corp (LRCX), shown in Figure 1. There is a column of Xs (each one representing two points) rising to 144. Then three Os pull back to 138 (the three-box rever-

sal amount). Then a column of three rising Xs climbs back to 144. At this level, the market is finding more sellers than buyers, resulting in resistance. If demand caused the stock to break through that level, a buy signal would result.

Instead, supply returns, resulting in three Os as the price drops back to 138.

Then demand sets back in again, and the Xs return to 144. This time the stock doesn't stop, however, but continues to climb, pushing above 144 and resulting in a triple-top breakout. Olson bought around 144, right as the market was moving through this level.

He later sold this stock at 147, taking his profit quicker than he normally might, since the trade was occurring in the week of an options expiration, when volatility is often high.

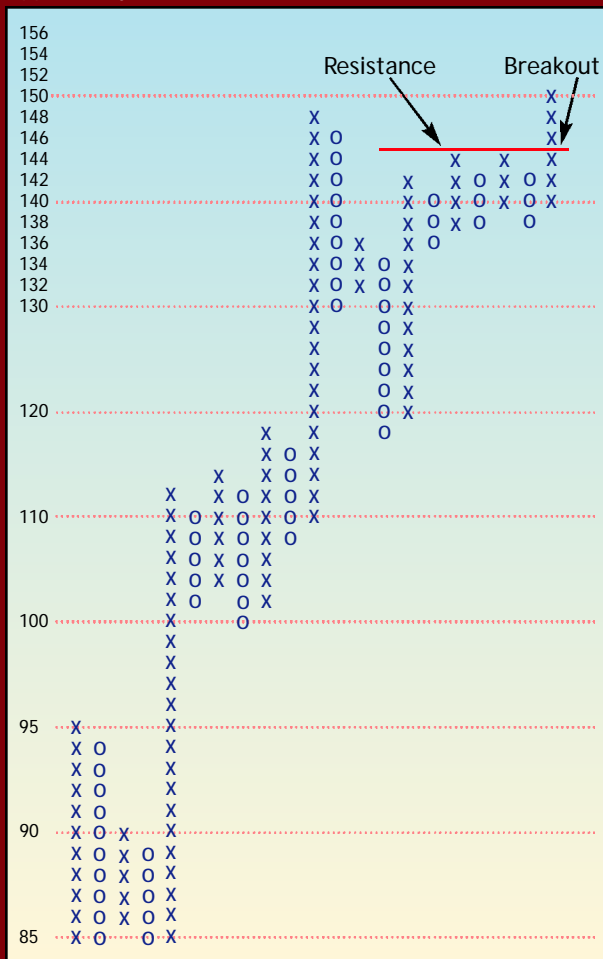
While Olson relies on point-and-figure charts, he also makes sure he only buys stocks from uptrending sectors. Likewise, he only buys when the broad market is moving ahead.

Olson will study a series of charts and determine where the breakout points for various stocks might be. Then he'll set the "alert" feature on his computer so it will let him know when these levels are reached.

"If I get an alert that we're breaking out of a triple top, before I buy I check the market to see where the S&P(500) futures are," Olson explains. "I want to make sure I'm not going to buy this stock when the market is being slammed to the ground. If the [Dow Jones] is down a couple hun-

**FIGURE 1** BREAKING ABOVE RESISTANCE

LAM Research (LRCX), 1-point box, three-box reversal: A resistance level is defined by the highs of two columns of Xs. A breakout above this level provides a buying opportunity.



Source: Dorsey, Wright & Associates

Point-and-figure charting plots price action using a series of columns of Xs (for rising prices) and Os (for declining prices). So, when a stock is rising, the increased demand is reflected by a column of Xs. And when a stock is falling, the increased supply is reflected by a new column of Os.

The method Olson relies upon is known as the "three-box reversal." The *box size* refers to the point move that must occur to add an X to a column in an up move. For a one-point box, an X would be added for every one-point gain in a stock's price. A column of Os would not be started until price moves down three points (three boxes, referred to as the *reversal size*). A new column of Xs would not begin until it has moved up three points.

Many point-and-figure chart formations are similar to their bar chart counterparts, such as double, triple and quadruple tops and bottoms. These patterns' basic principles of support and resist-



dred points, I don't think that would be a smart move, because you're moving against the tide."

He also keeps an eye on volume during breakouts, wanting to see it increase above the level of the previous few days.

"Then you know there are a lot of buyers involved and demand is in control," he says.

Olson spends two hours each evening and morning studying point-and-figure charts he accesses through the Web site of technical analysis firm Dorsey, Wright & Associates. Looking at charts is "calming" and "relaxing," according to Olson, because of his confidence in the methodology. He normally pulls the trigger on two to three trades a week, with most lasting around three to five days.

About half of Olson's trading is in stocks, with the other half in options. In fact, he says, he likes options so much he goes by the handle "Options Jerry" in chat rooms. But while he puts on options trades, he prefers to short stocks rather than buying put options when he expects a pullback.

With point-and-figure charting, Olson explains, resistance becomes obvious. Often a stock will roll over and sell off when it hits such resistance. So, he likes to short stocks near these highs, but with a buy stop just above this resistance level, in case he is wrong and the market continues to rise instead.

Olson tends not to put in a protective stop immediately after buying a stock, however, so he won't get stopped out of a potentially good trade just because the

first few ticks might not go his way. Still, he keeps a close eye on the price movement and will quickly bail out if it appears the market is moving against him.

Once the stock has gone his way for a while, however, he may put in a protective stop at the point where he entered the trade, so he is assured of at least breaking even. Then, after the stock has gone his way several points, he might raise the stop to lock in profits.

"When a stock breaks through resistance — either a double top or triple top — there is usually a huge surge accompanied with this move," Olson says. "I would say nine out of 10 trades, the stock will move up very rapidly three or four points right away. That's when I would put in my break-even stop."

While Olson may calculate what he considers to be a potential upside target for a stock he buys, he won't necessarily wait until the stock climbs that high to capture his profit. He'll simply take the profit whenever he feels comfortable, even if it's only halfway to where he thinks it could go.

Then, no matter what happens, he tries not to look back or second-guess himself.

"If you miss it, you miss it," Olson advises. "Forget about your missed trade or your last trade. Forget about how much money you made or didn't make. If you buy a stock and it goes up 10 points, you sell, then it's up 20 the next day, so what? There are thousands of stocks to trade each day."

Olson has learned to tune out what he considers "noise" — news about companies, reports about stocks put out by brokerages, analysts' comments on television and government economic reports. While these might be helpful to a long-term investor, they can "kill" a trader, according to Olson.

"I want to trade a stock by looking at a chart and seeing whether it's time to buy or time to sell," he says. "When you read about stock in the *Wall Street Journal* or *Barron's*, it's too late. The news is already out. At that point, everybody who has made money is selling you that stock at the top."

In fact, Olson won't put on a trade during the first 30 minutes each day to avoid some of the gyrations that can occur at the open after potentially market-moving news.

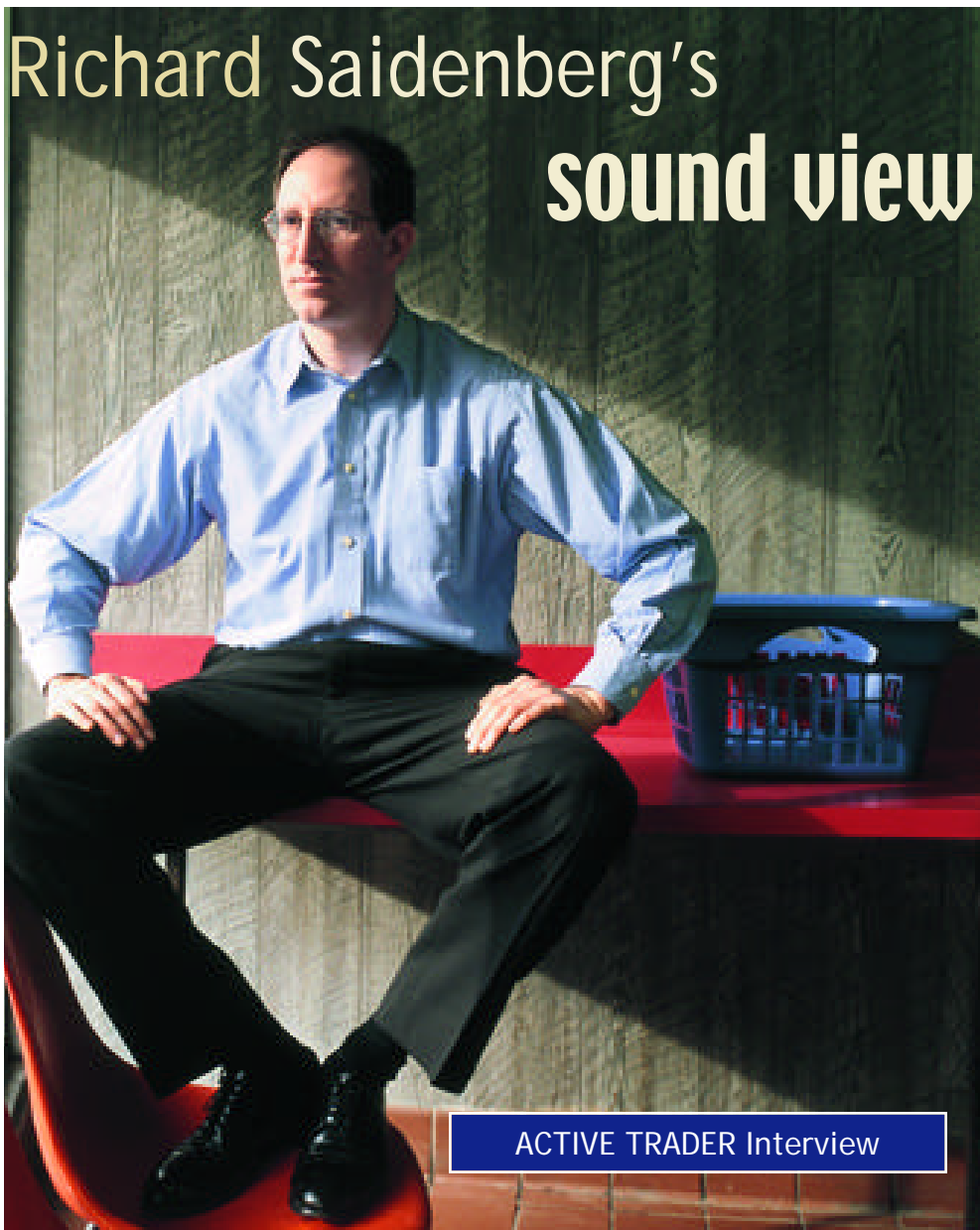
He considers it important for traders to learn to control their emotions. One way to accomplish this, he thinks, is through regular exercise. Olson hops on a treadmill daily and often "power walks" with his wife of 33 years, Arlene.

"Mentally, you have to be calm, cool and collected," he says. "I haven't been that way in my life. I am more of an outgoing, gregarious, emotional kind of guy. It has taken me years to calm myself down."

That's an accomplishment Olson attributes in part to his discovery of point-and-figure.

"[It] helps a great deal, because it takes a lot of the anxiety out of a trade." 🕒

# Richard Saidenberg's sound view on trading



ACTIVE TRADER Interview

BY MARK ETZKORN

**W**hether you've just opened up your first margin account or are managing millions of dollars, the basic rules of trading are amazingly constant: Have a game plan, control risk and strive for consistency rather than an overnight killing.

Witness trader Richard Saidenberg, president and chief trader of SoundView Capital Management in Pleasantville, N.Y. With 20 years of experience in the markets under his belt and \$10 million under management, he still attributes

much of his success to a very simple fact.

"I haven't been anything close to a perfect trader," he says, "but I think one of the reasons I'm still here is that I've never allowed myself to get wiped out."

It doesn't get much simpler than that.

Saidenberg's method of eluding wipe-outs has been to stick to mechanical trading approaches. While he may not think of himself as a perfect trader, he has done well enough to avoid having "a regular job" (as he puts it) for all but 10 months of the past 14 years, evolving from a somewhat fundamentally oriented stock-picker into a systematic S&P 500 stock index future, currency and interest-rate trader.

Through SoundView, Saidenberg has posted compounded annual returns of 252 percent, 95.5 percent, 8.5 percent and

6.6 percent for 1996 through 1999, respectively, and was up 15 percent through mid-February this year. The two trading systems he has sold to the public, R-Breaker and R-Levels, have been standouts on *Futures Truth's* list of top S&P 500 trading systems for years. (*Futures Truth* is an independent trading-system testing company.)

Saidenberg, 37, got started young in the markets, trading stocks while in high school and college, although his approach was a little more casual than the multiple-system one he uses today in the S&P500, currency and interest-rate markets.

"I just bought stocks that I knew," he explains. "I'd be long anywhere from five to 15 stocks. I liked the Value Line Investment Survey — its summary page showing all the stocks that were rated No. 1 or 2 for timeliness and safety. It was a strong bull market from the time I started college at the end of 1981 to when I graduated in 1986. The market was up pretty big over that period, and if you were long stocks you were making money."

After graduating with a degree in economics from the University of Michigan, Saidenberg took a job as a specialist arbitrage clerk on the floor of the American Stock Exchange. The job lasted 10 months, but Saidenberg managed to squeeze some value out of it.

"One of my jobs was to make copies of different market letters and give them to the big guys in the company who liked to see them," he recalls. "One of the market letters I really liked and always made an extra copy of for myself was *Systems and Forecasts*, by Gerald Appel."

Saidenberg got a feel for both the equity options and futures markets during his tenure and decided to leave the floor and trade on his own. On the basis of *Systems and Forecasts*, Saidenberg further explored Appel's research and writings.

"I purchased a group of reports Appel wrote called the *Scientific Investment*

Research Group reports, which were about technical analysis and systematic trading and showed historical back-testing results," he says. "That was my first exposure to trading systems.

"I also bought Time Trend II, Appel's stock index timing system. It was a trend-following system that used inputs like advances and declines, new highs and new lows, the closes of the NYSE and Value Line indexes and other calculations using the McClellan oscillator.

"The system was either long mutual funds or stocks, or out of the market and earning interest. But I traded NYSE stock index futures with it, either long or short the futures, so I was always in the market," Saidenberg explains. "That was a pretty heavy risk for one contract — the maximum drawdown might be somewhere around \$25,000 per contract. But I didn't know that at the time."

Saidenberg was a full-time trader at this point, but he noticed a difference between his discretionary trading and the trading system he was following.

"I found the only thing that was making me money was the Time Trend system," he says. "I kept a position in that system consistently from late 1988 until 1995 — that's a long time to follow a system. That systematic style was something that really stuck with me as the proper way to trade and make money. It was the actual experience of seeing something work that attracted me to systematic trading.

"Here I was, believing I could read the market by watching indicators and price action, but I was making many, many trades and not generating much in the way of profits from that process," Saidenberg says.

"With all the commissions I paid, I think I was, on balance, profitable — I had an account that went from \$20,000 to \$28,000 in approximately 2,000 trades. But at the same time I had this parallel account that I started with \$15,000 and was trading one NYSE stock index futures contract that was at \$45,000 in around five trades using a trading system."

In the early '90s Saidenberg had added another item to his trading résumé, one that helped further expand his understanding and appreciation for systematic trading approaches.

At a trading seminar, Saidenberg's computer proficiency (he helped out a speaker who was using a software program

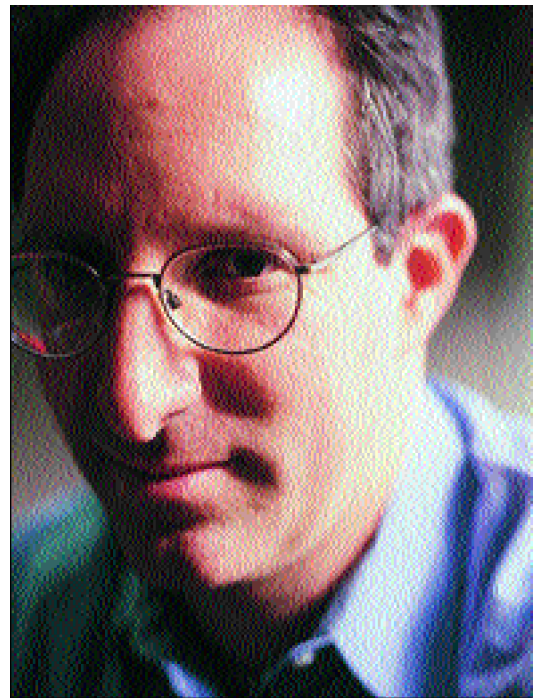
## The trade-off:

"The most profitable day trading systems are the ones that let the trade run all the way until the close, or until the [initial] stop gets hit. Systems that use some kind of exit rule that creates a higher winning percentage and prevents large winners from turning into losers makes your equity growth more consistent, even if it's not as large."

Saidenberg was familiar with) brought him to the attention of Alexander Elder, author of *Trading for a Living*. Elder invited Saidenberg to help out with computer duties at several other trading seminars. Besides exposing him to new trading ideas, it led to Saidenberg becoming something of a technical-analysis programming guru in the trading community.

"When somebody in the class would go up to Alex and say, 'Wow, this stuff is great. How do I set up my computer to do this on my own?' he would send them to me," Saidenberg says. "Most people didn't know much about computers at the time. So I started doing technical-analysis computer consulting for traders.

"I started doing this in late 1992, right when I started using TradeStation (Omega Research's system testing program), and turned it into a business," he says. "I probably worked with over



1,000 traders. I was not necessarily as good at creating concepts as much as learning concepts and then being able to 'realize' them on the computer. Programming sort of matches my style of thinking. People would say, 'I'll share my wonderful system ideas with you if you'll do the programming.'"

Saidenberg continued to trade, consult for other traders, and design and test his own trading systems. In 1995, he began trading client capital, implementing his trading ideas on a large scale and managing accounts with a multi-system, multi-market approach.

One afternoon, promptly after the closing bell, he discussed his evolution as a trader and shared some insights on several trading ideas and about what works and what fails when put to the test of the markets.

**AT:** When did you start designing your own trading systems?

**RS:** I started experimenting with many different ideas while I was consulting with other traders. I was programming fairly complex systems three or four weeks after I started using TradeStation. I was still trading the Time Trend system at this point, but I put together my own half-hour-based S&P trading system that I followed religiously as well. It was one of the first complex things I programmed.

It was an always-in-the-market system based on 30-minute price bars and a nine-bar relative strength index (RSI) with overbought and oversold lines of

“ There’s a tremendous desire for people to be able to buy low and sell high. I don’t know how to make it profitable on a purely mechanical basis. ”



70 and 30. The rules for buys and sells were identical.

When the RSI moved below 30, I’d watch for the lowest value it reached after moving below that threshold. Then I waited for it to move back above 30. If it made a bottom by coming down and then turning up, and the new bottom was within 10 RSI points of the initial bottom below 30, that was a basic buy signal.

So, if the RSI made a bottom at 15, rallied above 30, then came down and made another bottom between 15 and 25, that was a buy. If the spread was more than 10 points, I wouldn’t allow the buy — I’d wait for a subsequent bottom.

Sometimes I had two different bottoms working at the same time — the RSI would make a bottom at 5, move up above 30, then make another bottom at 25 and again move up above 30. So, now I could have a following bottom to get a buy that was either between 5 and 15, or between 25 and 35. If it went up from

there and made a top above 70, I reversed the rules to generate sells.

Those are the basic buy and sell signals. There was also a breakout component that allowed you to get out of a trade if a basic signal in the opposite direction didn’t trigger.

I tracked that system by hand even before I was using TradeStation. (*He searches through old records.*) I have charts for this system dating back from October 1990 to January 1992 — 319 signals.

*AT: Did doing things by hand like that give you a better understanding of the strategy?*

*RS:* Of course. It forces you to look at every trade very closely and makes you realize what all types of trades look like, good and bad. So when you experience all the different kinds of trades in real life you are ready to take them and continue with your trading system, as opposed to someone who just looks at a performance table or equity curve and

thinks, “Yeah, I can make that money,” and then tries to trade it, not realizing there is a whole, long process to trading that can be difficult to endure.

*AT: Did you have a preference toward a particular time frame?*

*RS:* Trading very short-term — one-minute or five-minute time frames, for example — seemed like overkill. I might have eight trades in a month with a system triggering off 30-minute price data. But I could stand position trading, even though I preferred day trading.

But at the beginning I thought there was a big advantage to position-trading systems that were also sensitive to intraday movements and would adjust positions during the day. For example, my 30-minute RSI system was always in, long or short, with some positions lasting a few weeks even though I was tracking the market intraday with trading signals which were sensitive to intra-

day price movement.

One of the things I discovered was that I could use systems that didn’t have overnight exposure, but were similar in style to the original 30-minute systems I was using. I turned my intraday position systems into day-trading systems. One of the biggest risks of trading in the S&Ps is overnight exposure — what can happen between the close and the next day’s open.

I found that using intraday triggers for entry was a good concept. But to eliminate the risk of overnight positions, I turned my 30-minute position systems into day-trading systems. I’d have a lower overall return, but much lower drawdown.

*AT: Was this a matter of adjusting the time frame of the bars you used, or did you put in an automatic exit rule on the systems?*

*RS:* An exit-on-close rule. Also, I found that I moved away from indicators and toward complete price calculations just using highs, lows and closes. I moved toward trading threshold levels and price breakouts: one level to first set up a trade and another level to enter the trade.

The levels are generally based on either the range of a certain period of a day, the entire day’s range or the previous day’s range. It really didn’t matter which time frame chart I was using for those types of systems, because I was not using any indicator calculations that would require a specific number of minutes for the bars. Instead, I was using price action within a certain time interval. I found that by working with one-minute or five-minute charts I could be most accurate for system testing, even for a day-trading system which would trade only a few times per month.

*AT: Do you still use any indicators?*

*RS:* Yes. I still like to look at the stochastics and RSI on my charts. Also, I create custom indicators that are helpful in system development for making sure that when I’m writing a system it’s doing what I expect. An indicator can help you track trades to make sure they’re behaving correctly. I write all kinds of indicators that apply to certain systems.

*AT: You’re trading multiple markets, multiple systems and multiple ac-*

counts. What kind of position sizing and money management techniques do you use?

RS: That's taken a long time to develop. I put together a group of trading systems I want to use, and call that my "trading plan." Since I trade different-sized accounts, I want to make sure the percentage drawdown is approximately the same in all of them. If an account is big enough to trade my complete trading plan, I will use six different S&P day-trading systems, six systems in each of the four major currencies and systems in the T-note futures.

I take the single-contract equity curves of the individual trading systems and I combine them to get a net combined equity curve. That gives me the performance of the group of systems as a unit.

Now, if I have an account of a certain size, say \$100,000, and I want to make sure the maximum drawdown in an account is 30 percent — \$30,000, peak to valley — I pick a specific combination of systems where the combined maximum drawdown is \$30,000. That gives me the trading position size for that particular account. I trade one contract for each system that account uses, so the total number of contracts is based on the number of systems followed.

AT: Are your S&P systems literally day-trading systems — they're flat at the end of the day?

RS: Yes. I like S&Ps for day trading because of the large intraday price moves, but I like the currencies and the interest rates for trend-following or longer-term position trading because of the consistency of trends in those markets.

AT: What kind of time frame do you use for these longer-term systems?

RS: One of the things I do, since I'm following, say, six different systems in the yen, is have them vary in time frame. The shortest-term system will change positions on average about 20 times per year, and the longest-term system will change positions around four times per year. If I'm going to use two systems, for example, they'll overlap so my position either is long, short or flat.

AT: How do your systems typically get in and out of the market?

RS: A system is just something that tries



**" I found that by turning 30-minute position systems into day-trading systems, I'd have a lower overall return, but much lower drawdown. "**

to determine when and at what price to place your order. For triggers, regardless of time frame, I like to use stop orders for entry. I sell as the market goes down through my price level or I buy as the market goes up through my price level.

One style of day-trading system that I use is to take an average of the ranges of the previous days, maybe two to four days, then multiply that average by a factor, maybe a third, and now I have a volatility amount.

Then I'll use today's open, and add and subtract that volatility amount to the open to get buy and sell levels for the day. There are a couple of other things that go into this though, which I can summarize briefly: First, it pays to have those levels operate only at certain times during the day, as opposed to all day. Second, it also pays to have some days when the system is filtered out, so there would be no trades, either because the open doesn't satisfy certain conditions or a trend filter, or some other factor.

A really simple example of one of these conditions is to look at the gap between today's open and yesterday's close. Some people define gaps as the difference between today's open and yesterday's close; I also like the difference between today's open and yester-

day's high or low. If that gap is, say, more than one-third the previous day's range or more than some other absolute amount, then that day that is acceptable to trade.

AT: Does this kind of system use a stop to control losses?

RS: All my systems control losses. Once I get a trade on, the simplest thing to do is have a money-management stop to know what my maximum loss is. I use stops anywhere from 400 to 1,200 S&P points.

AT: How do you determine exactly how big that stop is?

RS: There are all sorts of things you can do. You can use an arbitrary fixed amount, you can have it be a percentage of the price level — half of 1 percent is a reasonable percentage.

Looking at an absolute dollar risk amount on a trade is not great for extensive historical testing because the S&P has gone from the 200s to over 1,400 (see "Playing the percentages," p. 72). The actual stop amount is not crucial to long-term performance. You really want to look at the risk of the system as a whole, following the system through multiple trades.

There are some other commonly used stop techniques, like using a volatility factor to determine the stop, that I don't really like — there is something fundamentally wrong with having a volatility-based stop. If the recent volatility is very low, your stop will be smaller. But break-outs out of small volatility situations are often very good trades, and I don't want to have that trade get knocked out with a tight stop.

Also, when there's extremely high volatility, your stop will be very large. On those trades, the market often reacts violently against the position right away and if it does, I don't necessarily want to wait for a very large stop to get me out — I'd rather get out sooner. I prefer to have consistent, similarly sized stops, in a particular system.

AT: Do you use any kind of profit-taking or trailing stop techniques?

RS: Well, I've been working things like that for many, many years, trying to come up with better stuff. The most painful aspect of profit-target develop-

ment is that the systems that give you the most total profit are the ones that let the trade [in a day-trading system] run all the way until the close or until the initial stop-loss gets hit. So even if you're up a huge amount, you have to be willing to give back that profit and let it turn into a loss.

A system like that does give you the most total net profit in the long run, but it's not as easy to trade as a system that trails a stop, which sometimes will knock you out of a trade that could grow into a much larger profit. The way to get long-term, large, total net profits is to make sure you capture all of your really large trades. So, eliminating the trailing stop makes sure you don't ever get knocked out of a really large profit.

However, there is a degree of consistency you can get by using some kind of exit routine that gives you a higher percentage of winning trades and prevents large winners from turning into losers, so your equity growth is more consistent, even though the long-term total profit is less.

What I specifically don't like about trailing stops is that you generally end up getting stopped out of a long trade in a low price area. I would prefer to exit with a limit order as the position is moving in my favor. I have some complex routines where I place limit orders for exit, but I don't want to place a target exit when I first enter a trade because I want to allow that trade to grow very big if it happens to do so very fast.

I'll give you an example. Say I'm running a one-minute chart, and on it I have a 15-bar stochastic. If I go long on a breakout the stochastic reading is going to be up pretty high. If this trade gets profitable — the market is rising — the stochastic is still going to be in its upper zone. But at some point in the trade there's going to be a consolidation and that stochastic is going to go down.

One of the things I might do is wait for the stochastic to drop below some value, say 30, and at that time I'll make some calculation of the price bars from when the stochastic was at its peak, to where it is now — the range of those bars — and add it to a certain value, perhaps the middle of the range of the bars. Now I have a target price.

I call this a "late in the game" target because the absolute profit is not known at the beginning of the trade, as it is with

a typical profit target. This allows the trade to grow as big as it can initially, but then when the market settles down, there's a mechanism for placing a profit target at some high level so you're exiting a long trade as the market is going up and price is moving in your direction.

That routine also works pretty well for trades that don't work out well at first. When the stochastic ends up going below 30 relatively quickly, you may be at a loss during that period, but not quite at your stop-loss level, and you end up placing a profit target in this manner — a very small profit target.

I've found that kind of exit routine is certainly satisfying to watch when it works in real time, but again, it does cut into your total net profits because there are some trades that exit at the profit target when they might have turned into



**“ It was the actual experience of seeing [a trading system] work that attracted me to systematic trading. That style was something really stuck with me as the proper way to trade and make money. ”**

much bigger winners.

**AT: Do you trade on the open?**

**RS:** For day trading, I never trade on the open because the opening price is often going into the calculation of the rules of the system. If it's not, I still have some kind of time factor — 10 or 10:30 a.m. EST — and I don't do anything until then.

For position trading, if the market opens through my stop level, either to exit a position or to enter a new position, then I execute the trade at the open.

**AT: Would you characterize most of your trading ideas as breakout-based?**

**RS:** (Laughing) I wouldn't characterize most of them that way, but I would characterize the ones that actually work that way.

By contrast, most of the things I've programmed for people are things I would say *don't* work. There's a tremendous desire for people to be able to buy low and sell high. I don't know how to make it profitable on a purely mechanical basis.

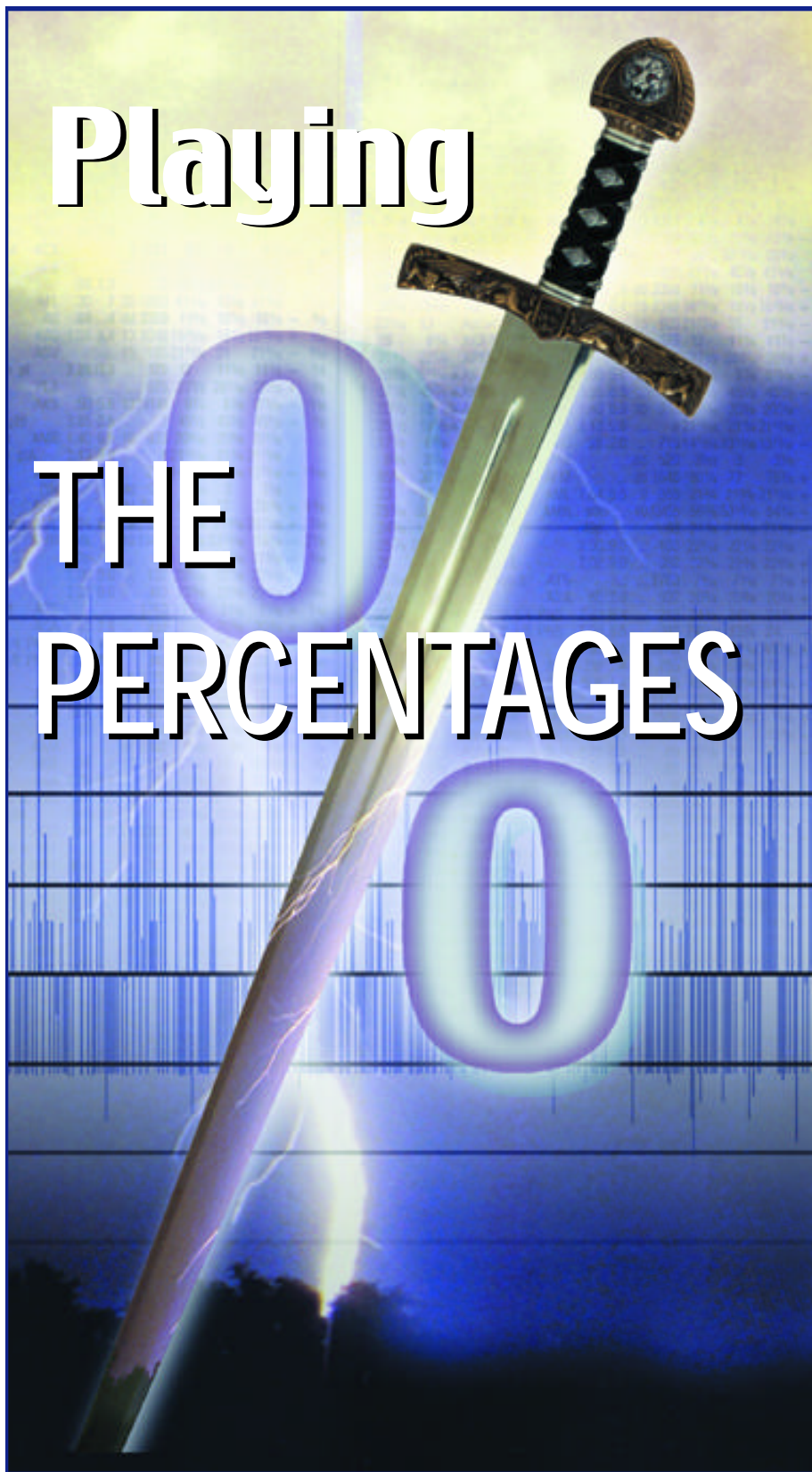
I have worked out systems when the market goes into an extended flat period. Say, the market has been going down for two weeks in a flat area — I would allow a buy stop to come in the lower section of that range, so if the market turns around in that low area and then goes up through the buy stop, the system goes long. If you look at a chart, you'd say, "Look, you bought a low area," but you're still using a buy stop for the entry. Movement in your direction at the time of entry is crucial to profitable systems.

**AT: How rigid are you with your systems? Do you stick with them regardless of circumstances — are you on auto-pilot?**

**RS:** Well, the process of becoming a systematic trader was not something that just happened overnight. But the biggest problems I have, and the most uncomfortable feelings I get, are when I'm not following the rules of my systems.

**AT: So you do use discretion?**

**RS:** Technically no, I'm not supposed to, but you can't be perfect. Right now, I'd say the reason I've been successful as a trader is because I've followed systematic rules; the problems have come when I've tried to override those rules. 🕒



You know the risks of trading, so you always use a conservative stop order. Risk-control mission accomplished, right? Well, there's more than one way to calculate a stop level, and some of the more popular ones can blow you right out of the water. Find out about a rational way to approach the problem.

BY THOMAS STRIDSMAN

**A**

hhh, stops. Can't live with 'em, can't live without 'em.

No trading advisor worth his salt would recommend you follow his advice without also suggesting a stop loss. The same goes for most trading-system vendors. That's fine, but there are stops and then there are *stops*, as the old saying goes. It's how stops are determined that will really define how good your trading plan is. If the stops have been poorly calculated, sooner or later they will do you more harm than good.

Many traders think limiting risk is a matter of making a personal decision about how much money they want to (or can afford to) lose and then sticking to that figure like glue: "I'll only risk \$750 per trade on any stock I trade — not a penny more."

The problem is that the market may be telling you it is necessary to risk \$1,250 per trade to succeed — and that's just for a particular stock; the figure may be different for other stocks and it may be different for the same stock tomorrow. The market does not care how much you want to risk or how much you can afford to risk. It dictates the terms of risk. It is up to you to listen to what it has to say and structure your trading plan — including stops and other risk control measures — accordingly.

### The good, the bad and the profitable

To fully understand this, you first need to understand the difference between a good trading strategy and a profitable

On the other hand, a profitable, but market-specific strategy is not necessarily a good strategy when applied to other markets. Eventually — and sooner rather than later — it will turn into a losing strategy. Sometimes, this holds true even if applied to the same market at two different points in time.

For instance, say you are about to put together your own trading strategy that shows a historical back-tested profit of \$150,000 by consistently buying and selling 100 shares of a stock that trades at \$90. Suppose that at the end of the trading day, the stock splits 3-for-1 and opens the next morning at \$30. At that point, the profit derived from your strategy has decreased to \$50,000.

Does this mean that the system suddenly does not work? Of course not. It's exactly the same system, but because of the split you need to trade in 300 share lots. Further, if you had a \$9 stop-loss built into the system, you would need to change it to \$3. And as luck would have it, things aren't always this easy in the

a \$138 profit. In doing so, though, you transform your original strategy from one that worked well in several different markets and time frames into one that is profitable only in one market.

What will happen the day the market is trading twice as high as today when, for instance, a 1-percent move for the S&P 500 will be worth \$6,750? Will that mean your average trade will be worth \$2,375? Actually, it will probably mean you are no longer trading, because this original strategy would have made you go bust. Why? The higher the market is trading, the greater the volatility, in dollar terms, is likely to be. As a result, you are more likely to hit your stop loss than your profit target, because the price movement that would result in a \$2,000 loss would only be a ripple on the surface compared to the 1-percent gain you are looking for in a winning trade.

### The truth about volatility

Figure 1 shows the absolute monthly change for the S&P 500 from January

If you use a **fixed-size, dollar-based stop** in a market consistently trading higher, you will suffer more and more losers.

one. For example, suppose you have developed a strategy that will let you catch all 1-percent moves in any stock. If you apply this strategy to an S&P 500 index futures contract, with the market trading around 1,350 points, a 1-percent move would equal 13.5 points and be worth approximately \$3,375 ( $1,350 \times .01 \times 250$ ).

However, if you instead were trading the E-mini, the same move would be worth only \$675 (one-fifth the standard contract). For the Dow Jones and Nasdaq indices, with the markets trading at 10,500 and 2,500, respectively, the same trade would be worth \$1,050 and \$250. For several individual stocks, the dollar value would be too low to make a trade worthwhile. So, for a good working strategy to also be profitable, it needs to be applied to a stock that has a high enough dollar value (or to a market that is trading at a high enough level).

real world.

Consider another hypothetical situation. Say your 1-percent system is right only 50 percent of the time. Because of this, you place a \$2,000 stop on every trade in case things don't work out. Again, using the S&P 500 futures contract as an example, you will still average a \$687.50 profit per trade (you'll make \$3,375 half the time and lose \$2,000 the other half, when you get stopped out).

Not bad, but what about the other markets we mentioned? For the E-mini, the average trade would result in a \$663 loss. For the Dow Jones and Nasdaq indices, the same number results in losses of \$475 and a \$250 profit, respectively.

Of course, you could adjust the stop accordingly for each market, as you did in the stock trading example. A stop for the E-mini would be set to \$400, which would result in an average trade making

1983 to April 1999, while Figure 2 shows the absolute percentage change. The straight lines that run through the charts are best-fit regression lines — they reveal the underlying trend. As you can see from Figure 1, the line has increased from near zero to more than 30 points per month. Contrast this to the regression line for Figure 2, which has stayed close to level (the slope is slightly down, around 3.5 percent per month).

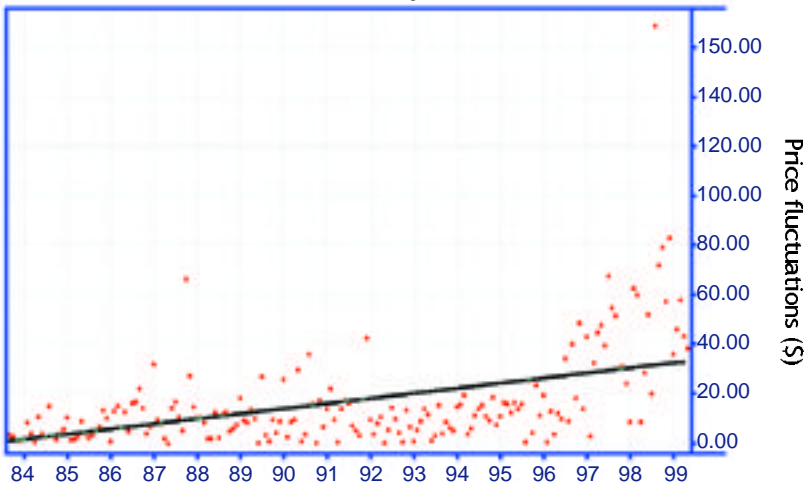
What these charts reveal is people who say the volatility of the stock market has increased over the years, making it more difficult to trade, are wrong. Yes, the dollar, or point-based volatility has increased considerably (Figure 1), but this is only a natural consequence of the market trading at higher price levels. In percentage terms, the volatility, if anything, has actually decreased somewhat.

This means if you use a fixed-size, dollar-based stop in a market consistent-



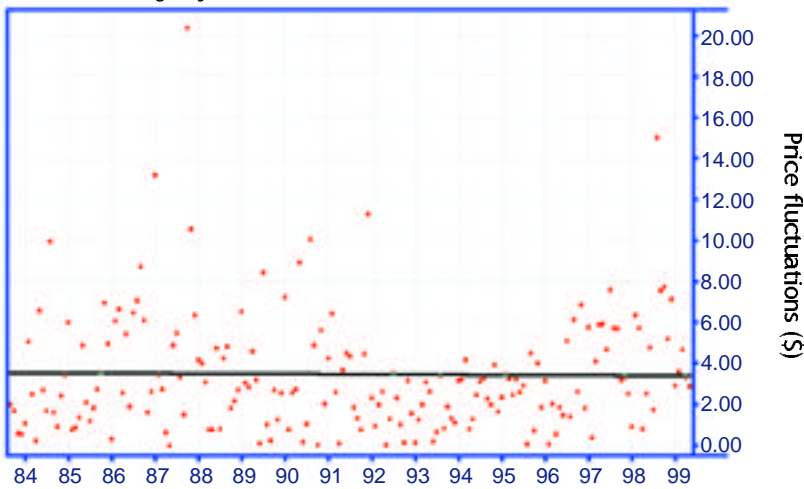
**FIGURE 1 S&P 500: DOLLAR VOLATILITY**

*On a dollar-for-dollar basis, the fluctuations in the S&P 500 have increased because of the steady rise in the index.*



**FIGURE 2 S&P 500: PERCENTAGE VOLATILITY**

*On a percentage basis, the S&P 500's fluctuations have actually decreased slightly.*



ly trading higher, you will suffer more and more losers. If that is not scary enough, the following example will make plain just how quickly the losing trades can pile up if you use this approach.

Back-testing a standard breakout system (buy the highest high of the last  $n$  days, sell the lowest low of the last  $n$  days) on the S&P 500 beginning in January 1983 — using a \$5,000 money management stop, equal to approximately 1.5 percent of current market value with the market trading around

1,350, and a \$10,000 trailing stop, approximately 3 percent of current market value — it took 55 trades (out of 197) before either of the stops got hit (in October 1987). After that, it took another 35 trades before they were hit (October 1990) and they did not get hit again until March 1996.

From then on, however, the hits just kept on coming. From December 1996 to June 1999, 25 out of 33 trades were stopped out, and for the last year in the test, all 13 trades were stopped out. As prices get higher, the fixed-dollar stop

actually decreases in size (on a percentage basis) because the market is trading at increasingly higher prices.

Those are the results from an uptrending market. What would happen in a declining market? Reversing the logic used in our example, any fixed-dollar stop would be hit less frequently. That means the number of winning trades would increase, but the dollar value of the 1-percent move would decrease because the market is trading at lower and lower levels. In other words, when the market declines, you will experience a higher percentage of smaller profits. That might be fun in the beginning, but that \$2,000 stop will wipe you out, because by then each loss will be huge in comparison to each small winner.

Consequently, applying the same dollar-based stops to any type of trading strategy or system will only work in the short run on one specific market or stock at a time. However, even if you decide to do only that, you probably still are in big trouble, because the market value is constantly changing and there is no way to use historical back-testing to come up with a dollar value that would work best here and now.

### The percentage difference

Figure 3 shows the dollar profit for every trade made with a simple strategy tested on the S&P 500 index contract over the same time as in the previous example. Notice how the profits (or losses) per trade have increased dramatically for the last 100 trades or so. By measuring the trades in dollars, the size of the profits will increase at the same rate at which the market trades higher (and vice-versa for declining markets). This will give more weight to the more distant results and, consequently, lower the value of the average trade because the dollar value of the past winning trades was not as high as it is today. In this case, the average profit per trade comes out to \$402.

Now, contrast this to Figure 4, which shows the same sequence of trades, except that they all are measured in terms of percentages. By measuring the profit per trade in percentages, all trades are given an equal weighting. Notice how the profits and losses per trade are much more evenly distributed. This means for a robust trading strategy, the percentage returns for both the profits

and the losses will stay the same no matter what the market is doing.

Once the system-building process is over, it is easy to transform the average percent return into a dollar value applicable to today's market. In this case, the average profit per trade is 0.23 percent, which comes out to \$781 in terms of today's market value. If you were to start using this system today (and provided it is robust and your reasoning is sound), this is the average profit per trade you could expect to make in the immediate future — not \$402 as is implied by the dollar-based calculations. That's a big difference and it obviously would impact how you place stop orders.

### Trading systems

Let's follow up with another example that also ties into both "Short-term strategy, long-term perspective," and the Trading System Lab.

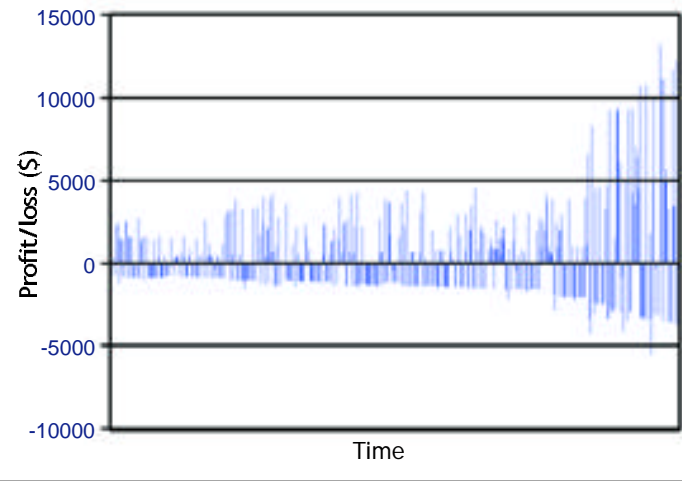
The Trading System Lab shows the results of trading a short-term system on the S&P 500 futures index that risks 3 percent of account equity per trade. It goes long if the market has been down two days in a row within a week, following a down week, except if this coincides with the market also setting a new 60-day low, which suggests a possible downside breakout. Reverse the rules for the short side.

The exits are exactly the same as in "Short-term strategy, long-term perspective": stop out immediately if the market moves against you 1.1 percent; always lock in a profit after a move of 0.6 percent or more in your favor; exit immediately if the market moves 2.8 percent in your favor. If still in the trade, always exit after eight days.

As should be clear by now, all stops are calculated as a percentage of the market value at the time of the trade. This means that a 1.1

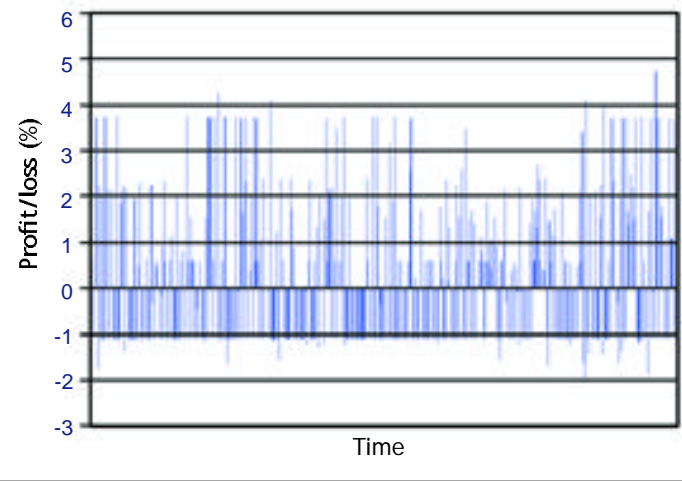
**FIGURE 3 AVERAGE TRADE: DOLLAR VALUE**

The trades of a simple system, shown increasing in size as time passes and the market rises in value.



**FIGURE 4 AVERAGE TRADE: PERCENT VALUE**

The same trades from Figure 3 shown in percentage terms. The trades are much more consistent.



**TABLE 1 DOLLAR-BASED STOP RESULTS**

Using a dollar-based stop resulted in a -52 percent return over the test period. (For an explanation of any of these statistics, see our Trading System Lab page on p. 96.)

Profitability		Trade statistics	
End Eq (\$)	47,796	No trades:	445
Total (%)	-52	Avg. Trade (\$):	-126
Year (%)	-7.26	Tr/Mark/Year:	9.1
P factor:	0.95	Trades/Month:	3.8
Risk measurers		Time statistics	
Max DD (%)	-83.93	Long. Flat (m):	45.57
Lrg. Loss (\$)	-58,463	TIM (%):	35.71
Winners (%)	50.79	Avg. days:	4.00

Source: CSI, Unfair Advantage

percent stop loss would have been worth approximately \$975 in early 1990 with

the market trading around the 350 level. Today, with the market trading around 1,350, the value would be closer to \$3,700. This means, with everything else equal, a \$3,700 stop loss should work the same today as a \$975 stop loss did 10 years ago. The results of using the percentage-based stop is shown in Active Trader's Trading System Lab.

For comparison, suppose in early 1990 you started to trade the same system outlined above, but instead of using percentage-based stops you decided to use a stop based on the dollar value that seemed to be the most appropriate when you started trading the system. What would have happened? Table 1 shows you would have lost more than 50 percent of your initial equity.

Now, when you know you should work with percentage stops, where and when should they be placed for best results? This will be discussed in greater detail in upcoming issues. For now, here's some food for thought: You should

always strive to trade your average trade (as determined by historical testing or actual performance). Yes, your average trade, not your best trade.

The reason is quite simple: The further away a trade is from average, the further you are from familiar trading ground. And the further you are from familiar ground, the more insecure you will be and the worse you will function as a trader — both in managing this particular trade and managing all trades to come.

Besides, if all your trades looked exactly the same, your average trade would also be your best trade. But that's another

discussion for the future. ☺

# A fool and his money

How do I pick a broker?

When can I sell short?

Should I position trade or day trade?

If you've never traded and these are the questions you're asking yourself, you'd better take a step back. There's a far more important question to answer first.

BY MARK ETZKORN

**T**he market has a knack for regularly making fools of even the best-prepared and conscientious traders and investors; it will utterly humiliate (or worse) the unwary, lazy or foolhardy.

That leads to a question almost never asked — one that gets lost amid all the excitement over a stampeding bull market and point-and-click order-entry technology — but is nevertheless the most important thing would-be traders should ask themselves:

Should I trade?

That very few people bother asking themselves this question before putting money at risk at least partially explains the low success rate of new traders.

If you were an engineer and wanted to start your own business in a completely new field — say, open a restaurant — you probably wouldn't do it on a whim. You certainly wouldn't quit your job one day, dump your life savings into your new business, and, without knowing the first thing about what you were doing, expect to make an easy killing.

If you were smart, you'd probably:

- Spend a great deal of time researching your new field, consult with professionals in the business and even try to gain some hands-on experience.

- Put together a plan outlining the

goals of your business and establishing steps to accomplish them.

- Make sure the business is adequately capitalized, using the most conservative possible estimates.

- Start slowly, and put in the time and effort required of any entrepreneur attempting to launch a new business, expect your business to go through rough times initially, and prepare yourself psychologically and financially to survive this incubation period.

- Make sure the business is adequately capitalized. (Yes, that's twice.)

Sounds fairly reasonable, right? But this is precisely what many — maybe even a majority of — new traders don't do.

Why? Maybe people tend to think they know more about trading than they really do. Everyone sees the recaps of the day's market action on the nightly news (or watches round-the-clock financial coverage), gets their quarterly 401(k) reports, or logs on to the Internet to check quotes and graphs and enter orders for their favorite stocks.

It makes it easy to feel like they really have a handle on things, especially when the Greatest Bull Market In History has had a nice habit of bailing people out of bad (i.e., seat-of-the-pants) trades by consistently rebounding — usually sooner rather than later. Anyone can do it, right?

And if you think being a part-time trader means you don't have to put in the time and effort a full-time trader does, think again. You'll still be competing against full-time traders, and full-time traders tend to be people you'd describe as Type-A personalities only because there isn't a letter that comes

before A in the alphabet.

Trading is never a hobby. It probably requires more work than most other businesses and often carries the unique risk (if you trade on margin) of losing more than you initially invested. But, for those who approach the profession soberly and with reasonable expectations, the rewards are there.

## So you want to be a millionaire

There are certain realities to trading. They don't have anything to do with wanting to trade or having the right or privilege to trade, but rather with being able to determine whether you're likely to benefit from trading. After all, the goal is to make money. If circumstances exist that make this a less-than-likely prospect, perhaps the best trading decision you can make is not to trade.

The simple truth is that trading is not for everyone. Just as some people are not cut out to be engineers, lawyers, grammar school teachers or NBA point guards, some people would do themselves huge favors in the financial and mental-health departments by not trading. One study estimated there are fewer full-time professional traders in the United States than professional athletes — a sobering thought. (Maybe that point guard dream isn't so unrealistic after all.)

Obviously, trading for a living is not easy and it's not something that can be mastered overnight. It's a business, and to succeed in it you should expect to invest the same kind of time and equity (both real and sweat) you would to launch any other business. You shouldn't trade because you think it's an easier or faster way to make money than open-



Trading is **never a hobby.**  
It probably **requires more work**  
than most other **business ventures.**

ing a restaurant. You should trade because you think it's a *better* way to make money than opening a restaurant. And there should be a reason you think that way, a reason that has nothing to do with luck or wishful thinking.

Sufficient time (both for learning the profession and practicing it), persistence, a love for the business and, yes, some aptitude are a few oft-quoted characteristics of successful traders. These certainly are key components to tackling the markets (or any other business, for that matter), but they are rendered moot by something far more academic.

Money.

### **Money changes everything**

The No. 1 reason, by far, most new traders fail is the same reason most new businesses of any kind fail: lack of capital. You can talk about discipline and strategies all you want, but the greatest trading approach in the world won't do you any good if you don't have the money to trade it.

Determining how much you need to

trade is more complicated than simply meeting your brokerage's minimum account balance requirement. It's the end result of the interaction of your age, net worth, outside financial responsibilities, risk tolerance and specific trading plan you intend to follow.

Pressured traders are never good traders, and if you have too little money — or your trading equity represents too big a portion of your total worth — you will be apt to make poor (read: emotional) trading decisions, or you simply will not be able to weather the natural volatility that accompanies many trades before they are profitable.

A little common sense goes a long way here. Putting half your net worth in a trading account is one kind of proposition for a single 29-year-old with no debt, and another entirely for a 49-year-old with a mortgage who also is facing putting two kids through college in the next couple of years. Similarly, someone in or approaching retirement would be wise not to risk a substantial portion of his or her wealth in short-term specula-

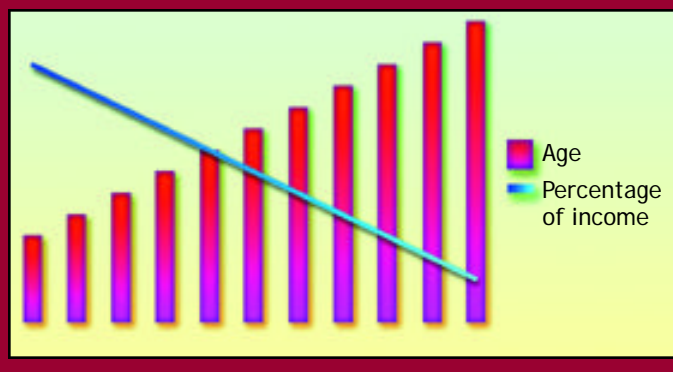
tion. "Risk slope," shows the inverse relationship between how much money (in terms of percentage of income or net worth), relative to age, a person could probably devote to short-term trading.

The downward slope of the money line is based on a few assumptions. First, when people are younger, they generally have few financial obligations and are thus freer to speculate with more of their money — they have more time, and years of future income, to bounce back from any setback. As people get older, they tend to assume greater financial burdens (mortgages, children), so the percentage they can risk probably will be limited — you don't want the kids' education cut short because you risked the college fund on a "hot" IPO that went cold. Finally, as people approach retirement, preservation of capital hopefully becomes the key goal. Speculating with a large percentage of the funds you need to take you through the rest of your life — when you will have less time and ability to replace them — is hardly prudent.

Keep in mind, though, that because

FIGURE 1 RISK SLOPE

As we get older, the percentage of our income or worth we devote to short-term trading generally declines.



people tend to earn more as they get older, the absolute dollar amount they can devote to trading can increase, even if it is a smaller percentage of their total capital. The 49-year-old with the two college-bound children may have more money with which to trade, even if he's only risking 10 percent of his investment capital compared to 40 percent for the 29-year-old. "Equity arc," (Figure 2) shows how the line from "Risk slope" might look

when adjusted for income and a 5-percent annual increase in earning power over someone's working lifetime.

Obviously, every trader's situation is unique. The object is to trade with as much money as possible while minimizing the impact — psychologically and financially — on the rest of your life. Nervous money tends to become someone else's money.

When you start talking about putting specific dollar amounts on what it takes

restrictions put on the kind of trading you can engage in.) A decade-old study of future trading accounts found the odds of success jumped dramatically with accounts \$50,000 and larger. Things haven't gotten any cheaper since.

Still, you should not measure your suitability for trading by whether or not you meet a brokerage's requirement, but by whether you can stand up to a much more stringent measuring stick: How much money it will take to successfully

mine what their potential loss in real trading is likely to be and plan accordingly. That means our strategy would probably produce at least a \$30,000 loss in the real world.

What if you had \$20,000 to trade with? Should you trade the strategy and hope you didn't run into a losing streak until you had had enough winning trades to bump your account equity above the \$30,000 mark?

You could, and this is exactly what many traders — losing traders — try to do. (That dirty word, *hope*.) The professional, however, would take one of three tacks: refrain from trading the strategy, wait until he or she has adequate capital to trade the strategy safely or determine if trading fewer shares (or some other adjustment) will reduce the strategy's risk to the point that a \$20,000 account is sufficient.

This is a simplification, but it at least

## Nervous money tends to become someone else's money.

to trade, another layer of considerations unfolds. First, there is no fixed amount that gains your entry into the trading club. For example, all brokerages have certain financial requirements customers must meet — minimum account equity, net worth, annual income. Some are more stringent than others and they may limit the kind of trading you can do depending on how much you have in your account. But for the most part, these requirements are designed to protect the solvency of the company, not the individual trader (although they may also function in this respect).

A typical online discount broker may let you open an account with as little as \$2,000, but such brokers are generally used by more traditional investors and less by active traders. If you're a more active, shorter-term trader (and especially if you're day trading), a quick survey of several direct access brokerages tells a different story: \$35,000-\$50,000 is a typical account minimum, and they would "prefer" you to have \$100,000. (Sometimes you can open an account with less, but again, you may have

trade a particular strategy.

How can you determine this? Research. Testing. Real trading results from someone who has used a strategy or approach you're interested in. For example, there are several software packages that will allow you to program trading ideas and test them over years of historical price data. Say you test a strategy you're interested in and discover that over the last 10 years, this approach has been down as much as \$15,000 on several different occasions, even though it was profitable over the long haul. Common sense would tell you that you need at least \$15,000 to trade this system successfully. If you had less, the expected loss would knock you out of the game, sooner or later.

But wait, there's more. Professional traders will quickly tell you the maximum potential suggested by such historical testing will almost certainly be larger in real-life trading. The biggest loss is always in the future, the old saying goes. Accordingly, professional traders will typically double (or more) the maximum loss estimate of a historical test to deter-

mines an idea of the kind of due diligence necessary to get your trading career off on the right foot. The great thing about today's technology is that it gives you more direct and immediate access to the market and the ability to take charge of your own trading and investing than ever before. But, as in all areas of life, this freedom comes with a great deal of personal responsibility.

It's no coincidence that many top traders claim to focus more on limiting risk than reaping profits. Take care of the risk, and the profits will take care of themselves. No one can be careful for you when it comes to trading — you have to do it yourself.

### Preparation

After money, the new trader's best ally is time — both on a daily basis and in terms of committing to a potentially lengthy apprenticeship.

You can go to any number of trading seminars and listen to someone tell you that, no matter what, you have to "pay your tuition" in the market — i.e., you'll lose \$5,000 (or \$10,000, or \$20,000, etc.)

before you begin making money. Just as you would have to spend money to learn to become a lawyer or doctor, this line of reasoning goes, so must you pay to learn to trade.

Maybe so. Losses are part of the game, and one of the distinguishing characteristics of successful traders is that they are able to accept losing trades (relatively) unemotionally and move on. But, there is no rule that states you must kiss away a sizable chunk of money because of impetuosity or impatience.

There are other ways to pay your trading tuition — namely, giving yourself time to learn about both the market and the process of trading, and even more time to research, design and test trading strategies. You may still lose money out of the gate (not necessarily a bad thing, since overconfidence has claimed more than its fair share of traders), but your tuition bill might be a little smaller than it would have been had you dived into the market headfirst.

There's no rule that says you have to start trading in the next 90 minutes. For many years, one bit of sage advice from conscientious traders was to "paper trade" — instead of placing real trades, keep track of the performance of trades you would have made to see (without risking actual dollars) how your strategy might fare. It's a sound (if not foolproof) concept, and one made easier today with various kinds of software and online trading aids to help with the process.

The truth is that there is simply no excuse for blundering into the market unprepared. The ease with which potential traders can access price data, financial research, analytical software and sophisticated trading simulators leaves no excuse for foolhardiness. Give yourself time to learn — read a book (or, ahem, a magazine article) or two, study and practice. Time is on your side. The market will still be there 10 weeks, 10 months or 10 years down the line.

There's always a psychological shift when your paycheck is finally on the line, and no amount of paper trading or

simulated trading can totally prepare you for it, but being as thorough as possible before you risk real money can make the adjustment much easier.

And when you start trading, start trading small, far below what you've determined to be your normal risk level. Doing so will allow you (even more so than simulated or paper trading) to master the actual process of trading without

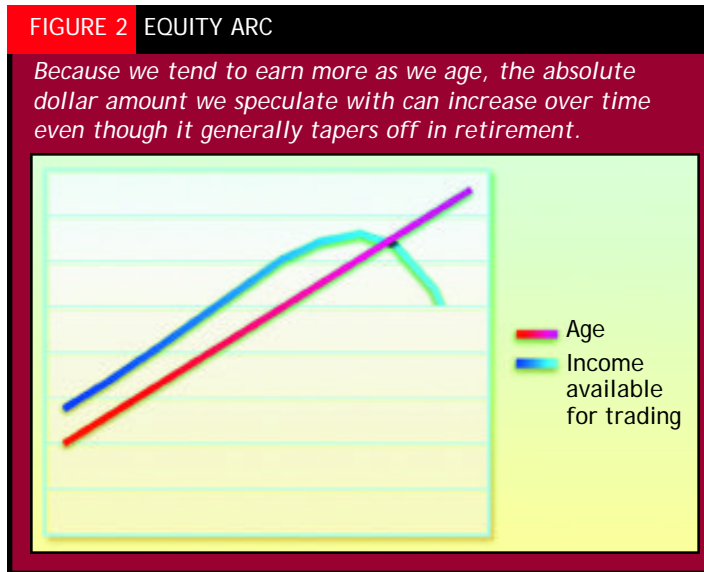
well, you'll second guess yourself — a major hazard considering executing a plan is half the trading battle. You must understand your approach — it must be based on sound market principles — to be able to trade it effectively.

Neither the hows nor whys can be based on casual observations or "gut feelings." They must be based on logical market behavior and confirmed by extensive research. You must prove to your own satisfaction that your basic trading idea is sound and your plan for executing it is practical.

If you're not willing to do what it takes to get to this level, you probably shouldn't be in any rush to trade. How do you get there? Well, that will be the subject of a steady stream of future articles in this section of the magazine.

Most people only understand the stove is hot when they burn their fingers on it, and unfortunately, many people will ignore the advice outlined on these pages.

But then again, they'll be the ones giving you their money.



putting undo stress on your psyche — or wallet — when you make the switch to real money.

### Full circle

Building on our original proposition — that trading is a business like any other — it's possible to give an idea of where a trader should be when he or she is finally ready to place a trade.

It's all about having a plan — be it a rigid system or a set of general rules you modify depending on circumstances. Such a plan should determine:

- **how, when and why to enter a trade (which implies there are times you don't take a trade),**
- **how, when and why to take a profit on that trade and**
- **how to control losses on that trade (stops orders, etc.).**

The "why" part of the equation cannot be downplayed. If you don't understand why you're doing something, you won't be able to do it under adverse circumstances. When things aren't going

### Should I or shouldn't I?

For those with the proper capital, patience, persistence, time and a certain proclivity, trading can be a great way to make money independently, either on a full- or part-time basis. But it's not for everyone, and it's much better for certain people to devote their income to longer-term, less risky investment options if the odds of trading success are not in their favor.

A very successful trader once said, "Trading is not an IQ contest." This may offer comfort to some and dishearten others who had hoped that what they thought was superior gray matter would be the key to their success.

But if trading isn't about matching wits with others in the market place, what is it about? Maybe it's fair to say trading requires a specific kind of intelligence — the kind that recognizes the realities of the business and is dedicated to approaching it professionally. To the professional go the spoils. 🎯

# Short-term strategy,

You're a short-term trader — what do you care about investing, the long-term trend or what's happening in the larger economy? Find out why traders who understand longer-term approaches (and investors who understand trading) have an edge over their one-dimensional competition.



BY THOMAS STRIDSMAN

**C**all it the Titanic rule.

You cannot, in an instant, turn around a massive ship sailing full steam ahead. Its mass and momentum will make the process long and slow. The same goes for the economy, or any smaller part of it, such as an individual stock. Strong trends generally keep going — with some twists and turns along the way — until something big happens to reverse them.

To be sure, strange things happen in the markets now and again, bringing short-lived fame and fortune to a lucky few. However, you cannot count on such exceptions to be the rule. Generally speaking, you are much better off going with the current flow of events — swimming with the economic tide instead of fighting it.

For short-term traders, this means going with the flow of the market and only placing trades in the same direction as the trend, either as a long-term bet to catch the beginning of a move (but being prepared to get out as soon as the market makes it clear it is not heading where

you expected it to), or as a short-term bet that allows you to jump from one “ship” to another — if that ship can take you to your destination more efficiently. One major advantage of trading short-term in the direction of the long-term trend is that you can dare to work with limit orders, trying to pick tops and bottoms.

Of course, doing so takes discipline and a thoroughly researched arsenal of entry strategies, and stop and exit techniques, but that is a topic for another article (or an entire book). For now, we will focus simply on trading with the trend and how that trend can be measured with the help of different technical analysis tools.

## Using the long-term trend

Basically, there is one way to fish out high-probability trading opportunities. First, ask yourself, “Is it better to trade with the long-term trend, and can the short-term volatility help determine the outcome of the trade?” Then, do the necessary research to find the answers.

Well, there is another way, but it does not work — even though it is especially popular among new traders (and, horrifyingly, some brokers who make their livings exclusively off your commission dollars instead of in the markets).

This method is called “indicator pil-

ing,” and it consists of combining several related indicators and so-called “expert commentaries” on top of each other in the hope that one day, when all these signals simultaneously flash green lights, you will have a sure winner. (And in the meantime, it sure looks fancy.) The problem is that these indicators will all give different signals; with 10 indicators on your screen and only one being “right,” you actually have a 90 percent chance of coming to the wrong conclusion if you look at them one at a time. The odds get even worse if you start combining them.

Once you are past the piling stage (which you probably are, since you have read this far), the next step is to see if there really is anything to be gained from trading only with the longer-term trend.

You can determine the longer-term trend several ways. The simplest (but certainly not the easiest) approach is to use your own fundamental and discretionary judgment about where the economy in general, and your stocks in particular, are headed, and then stick to that prognosis over a long period of time. Other ways could be to trade only in the same direction as a lengthy moving average (e.g., 50, 100 or 200 days) or some other “long-term” indicator.

Table 1 (opposite) compares the results

of randomly entering (long or short) from January 1990 to October 1999 all 30 stocks that make up the Dow Jones industrial average vs. entering only in the same direction as a 200-day moving average.

Each market was traded 10 times, creating a total of 3,000 unique yearly trading sequences per approach. In both strategies, all trades were exited after five days, rain or shine.

Comparing a few statistics that shed light on the risk-reward characteristics of these approaches — profit factor, standard deviation, the percentage of profitable trades and its standard deviation — reveals some interesting (and significant) differences. (For an explanation of these concepts, see “Understanding the stats”).

Table 1 shows that without the trend filter, 18 markets had an average profit factor above one, but we cannot say with 68 percent certainty the true profit factor will be above 1 for any of them. Why? Because of the standard deviation of the results. For instance, for Wal-Mart, with an average profit factor of 1.11 and a standard deviation of 0.28, we cannot say with 68 percent certainty that the true profit factor for Wal-Mart will be above 1 — the “margin of error” determined by the standard deviation suggests the results, with some rounding of the numbers, could range from 0.83 (1.11 - .28) to 1.39 (1.11 + .28). For all stocks, the true profit factor is

## On Balance Volume (OBV)

Here's the cumulative OBV formula, ready to be used in a spreadsheet (just substitute the variable names with actual values):

$$OBV = \text{Sum}[(C_t - C_{t-1}) * V_t / \text{Abs}(C_t - C_{t-1})], \text{ where}$$

$C_t$  is the closing price for the last period.

$C_{t-1}$  is the closing price preceding the last period.

$V_t$  is the volume for the last period

(with 68 percent certainty) likely to be somewhere between 0.83 and 1.19.

Now look at the results of using the trend filter: This time 21 stocks had an average profit factor above 1, and for 10 of the markets there was a 68 percent probability the true profit factor would be above 1 (marked in red). Furthermore, of all stocks tested, 19 had a higher profit factor and 21 had a higher percentage of profitable trades

Without trend filter:							With trend filter:					
Company	PF	St Dev	Lower limit	% Win	St Dev	Lower limit	PF	St Dev	Lower limit	% Win	St Dev	Lower limit
3M	1.05	0.15	0.90	52.52	2.66	49.86	0.85	0.12	0.74	48.14	2.48	45.66
Alcoa	0.99	0.07	0.91	52.69	2.27	50.42	1.00	0.13	0.87	48.10	2.12	45.98
Amer Expr	1.05	0.14	0.91	51.28	2.76	48.53	1.14	0.16	0.97	53.59	2.66	50.93
AT&T	0.96	0.22	0.74	49.85	4.71	45.14	1.11	0.26	0.85	51.70	2.69	49.01
Boeing	1.08	0.11	0.97	51.88	1.42	50.46	0.91	0.12	0.80	52.19	2.54	49.64
Caterpillar	1.06	0.11	0.94	52.84	2.26	50.58	0.94	0.22	0.72	50.62	2.56	48.06
Citigroup	0.99	0.12	0.87	51.02	2.82	48.21	1.29	0.22	1.06	57.01	3.85	53.17
Coca Cola	1.08	0.18	0.90	51.97	3.32	48.65	1.01	0.19	0.82	52.96	2.68	50.28
Disney	0.96	0.18	0.78	50.73	2.41	48.33	0.97	0.20	0.78	52.22	3.62	48.60
Du Pont	1.05	0.21	0.84	50.56	2.67	47.89	0.93	0.15	0.78	48.39	3.07	45.32
Exxon	0.92	0.12	0.80	50.33	2.57	47.76	0.91	0.15	0.76	50.73	1.22	49.52
GE	0.95	0.11	0.84	50.10	1.86	48.24	1.37	0.25	1.12	55.10	2.48	52.62
GM	1.03	0.12	0.91	51.17	2.79	48.38	0.96	0.11	0.85	49.61	2.25	47.36
Home Depot	0.94	0.18	0.76	50.37	2.10	48.27	1.29	0.16	1.12	54.86	3.05	51.81
Honeywell	1.09	0.22	0.86	52.53	3.62	48.91	1.11	0.10	1.00	54.90	1.73	53.18
HP	1.00	0.18	0.82	50.53	1.53	49.00	1.07	0.14	0.92	50.96	1.43	49.53
IBM	1.00	0.27	0.73	50.73	3.16	47.56	1.22	0.22	1.01	58.36	1.75	56.61
Int Paper	1.01	0.18	0.83	51.89	3.14	48.75	0.78	0.14	0.64	48.42	2.86	45.56
Intel	1.01	0.11	0.89	50.15	2.38	47.77	1.26	0.20	1.06	52.39	2.50	49.90
J & J	1.02	0.19	0.83	51.16	1.61	49.55	1.17	0.17	1.00	54.03	2.84	51.19
JP Morgan	1.07	0.23	0.85	51.69	3.67	48.02	1.06	0.14	0.92	51.68	2.57	49.11
Kodak	0.99	0.18	0.81	51.43	2.61	48.81	0.96	0.16	0.79	50.70	3.38	47.32
McDonalds	0.89	0.12	0.77	49.85	3.15	46.70	1.01	0.19	0.83	51.98	1.91	50.06
Merck	1.08	0.20	0.88	51.58	2.19	49.39	1.07	0.16	0.91	57.32	3.08	54.24
Microsoft	0.92	0.13	0.79	50.96	2.85	48.11	1.49	0.41	1.08	56.52	2.61	53.92
P&G	1.02	0.23	0.79	50.83	2.39	48.43	1.06	0.18	0.88	49.58	2.35	47.23
Philip M	1.12	0.20	0.92	53.42	2.09	51.33	1.26	0.17	1.09	55.33	2.05	53.28
SBC Comm	0.98	0.15	0.83	50.07	3.41	46.66	1.01	0.20	0.81	50.24	2.44	47.80
United Tech	1.04	0.29	0.75	52.34	2.53	49.81	1.26	0.19	1.07	55.51	2.87	52.64
Wal-Mart	1.11	0.28	0.83	51.40	3.14	48.27	1.42	0.24	1.17	58.61	3.58	55.03
Total	1.01	0.18	0.83	51.26	2.79	48.48	1.10	0.25	0.85	52.73	3.96	48.77



(marked in bold), with the trend filter. With the filter there also were 14 stocks with a 68 percent probability the percentage of profitable trades would be more than 50 percent.

For all markets combined, the average profit factor comes out to 1.10, with a standard deviation of 0.25. This means that we still cannot be 68 percent sure the true profit factor for all markets will lie above 1, but somewhere in the interval between 0.85 to 1.35.

We still cannot be sure that the average profit factor for all stocks will be above one because there were a few stocks that didn't "like" this particular trend-filtering technique at all, which consequently

both lowered the profit factor and increased the standard deviation.

However, considering the trend filter was arbitrarily chosen, all trades were entered randomly and the five-day exit technique is rudimentary, a simple test like this still clearly shows the benefits of always trading with the long-term trend. Imagine what you can do by optimizing a trend-monitoring strategy with a set of market-specific entry and exit techniques.

For now, however, we will continue to keep things simple and look at what a basic trend filter will do for a specific market, and what will happen if we substitute the random entry with a simple entry technique and a more complex set

of exits and stops. This time, we will use the S&P 500 stock index futures to illustrate our point.

## Verifying the results

In this example, we measure the long-term trend with the 200-day moving average of the *on-balance volume* (OBV) indicator, which weights each day's price action with its volume (see box on p. 83 for formula). The indicator increases and decreases in value depending on how much volume accompanies the price move.

OBV is interpreted the same way as a moving average of price (i.e., when the OBV indicator is above its long-term moving average the trend is up, and when it is below its long-term moving average the trend is down. This is one of the "smartest" indicators you can use for such a task, because by incorporating both price and volume in a single calculation, the OBV covers everything there is to know in terms of technical analysis — namely, the psychology of the masses. Figure 1 shows you what this indicator looks like plotted together with price.

One important thing to remember when looking at this chart is that the trend, as you decide to define it, does not necessarily have to coincide with the actual trend of the price chart. For example, according to this indicator, the trend for the stock market had been down since July 1998, although prices have not fallen that much (if

at all). In this case, however, the OBV indicator tells us the downside volume has increased while the upside volume has decreased, making it increasingly difficult to trade any rallies successfully. (Keep in mind there is nothing to prevent you from using several different strategies based on several different trend-filters. The main thing is that you stay consistent with your beliefs and trust in your research.)

Now let's see how this long-term trend filter combines with a short-term trading technique. The rules for entering the market, at the close, on the long side will be:

## Understanding the stats: profit factor and standard deviation

**P**rofit factor simply is the ratio of every dollar gained and every dollar lost by a trading strategy. For example, if you have a strategy that makes two trades, one a profit of \$2 and the other a loss of \$1.50, the profit factor for that strategy is 1.33 ( $2 \div 1.5 = 1.33$ ). This means that for a strategy to be profitable, it must have a profit factor greater than 1. The higher the profit factor, the greater a strategy's expected profitability.

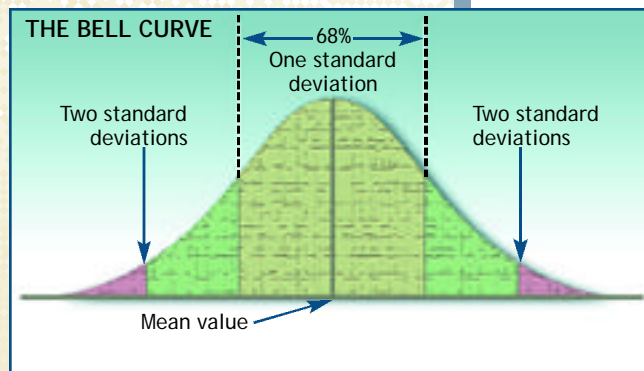
Standard deviation, on the other hand, measures the disparity of the trades a strategy produces — that is, how much they vary from an average value.

For instance, if we calculate the average of a random series of values (say, trade results from a particular strategy) several times, the closer each individual average is to all the others, the lower the standard deviation; and the lower the standard deviation, the more secure we can be about how representative the average is for future samples.

Measuring risk: To use standard deviation as a risk measurement, you simply analyze the cumulative trades of a particular strategy. The larger the standard deviation, the less confidence we can have in projecting the strategy's results forward in time, and the larger risk we take if we go ahead and place a bet on these results. What we are looking for is a lower standard deviation — more stability, and thus predictability, in our trading approach

Also, if a distribution of trading results is said to be "normally distributed" (remember the bell curve from your old math class?), a one standard deviation calculation will hold approximately 68 percent of all results. In other words, if the average of several samples is 1.21 and the one standard deviation boundary comes out to 0.11, we can say that we are 68 percent sure the true average for the whole population of values will be somewhere between 1.10 ( $1.21 - 0.11$ ) and 1.32 ( $1.21 + 0.11$ ).

If you are interested in more of the mathematics, check out HyperStat Online (<http://davidmlane.com/hyperstat/index.html>). It's an excellent resource for information on standard deviation and other statistical concepts.



1. The OBV indicator must be above its 200-day moving average.
  2. The high of the day must cross above its six-day moving average today.
  3. The close must cross above its six-day moving average today.
  4. Never enter on the same day as an exit.
- The exit rules will be:

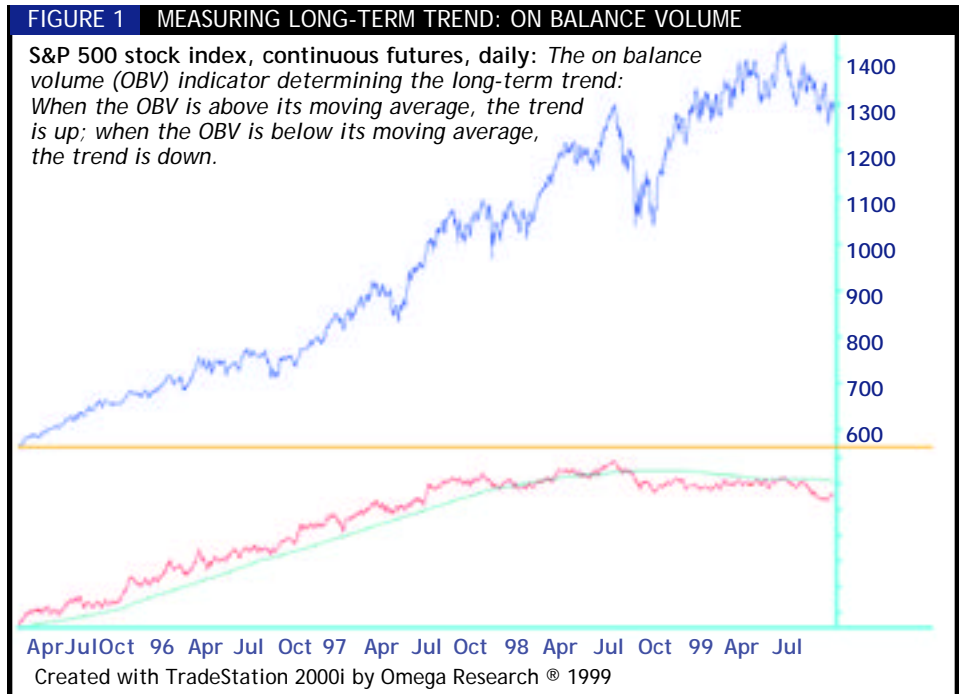
1. Stop out immediately if the loss reaches 1.1 percent.
2. Always lock in a profit of 0.6 percent.
3. Exit immediately if the profit reaches 2.8 percent.
4. If still in the trade, always exit after eight days.

(For the short side, simply reverse the rules.)

To test this strategy, we will trade the S&P 500 stock index futures contract with data covering the period from January 1985 to October 1999. No money will be deducted for slippage and commissions. Table 2 shows the results of trading the S&P 500 with the trend filter and Table 3 (also below) shows the results without the filter.

As you can see, using the filter provides a great advantage. The average move we managed to catch with the filter strategy was 0.27 percent, with the average winner being 1.32 percent. With the S&P futures trading at the 1,360 level and a point value of \$250 (in late January 2000), moves like these in today's market would be worth approximately \$935 ( $1,360 * \$250 * 0.0027$ ) and \$4,486 ( $1,360 * \$250 * 0.0132$ ), respectively, per contract.

If you would like to estimate the net average profit per trade (after slippage and commissions), simply deduct the appropriate value from the average profit figure. For instance, if you believe the costs come out to approximately \$75 per contract traded, the average profit per



trade in today's market will be approximately \$840 ( $935 - 75$ ). If the market continues higher, this value is likely to increase; if it starts to decline, so will the value of the average trade.

The *drawdown* (the total loss from a new equity high to an equity low) and cumulative profit numbers assume you would have been able to reinvest all profits. In that case the worst drawdown would have been a mere 9.25 percent, which would equal \$31,450 in today's market. For the no-filter strategy the same numbers would have come out to 25.49 percent and \$86,666, respectively, which is not too good. The percentage of profitable trades would have been 58.19 percent. However, because we did not deduct anything for slippage and commissions, the number in actual trading is likely to be somewhat lower.

Another important thing to remember is with less time spent in the market and the increased security of a filter strategy, you can opt to trade the strategy more

with more contracts (or stocks) per trade, which will add to your bottom line.

Trading should never take place in an informational vacuum. A short-term trader who does not appreciate or understand longer-term trading or investing approaches is operating with blinders on. Even if you do not actively trade longer-term strategies, paying attention to what these strategies are telling you will help you make wiser short-term decisions. Also, short-term traders who blend longer-term indicators and systems have a distinct advantage over their one-trick brethren — kind of like a baseball pitcher who has a wicked curve ball to complement his fastball.

If you have a clear opinion about where the market is heading in the long run — and dare to stick to that opinion, no matter what the newspapers and the “gurus” say — you probably will not gain fame and fortune overnight, but you will gain an advantage that, in the long run, is hard to beat. 📈

TABLE 2 BASIC S&P 500 STRATEGY, WITH TREND FILTER

Total trades	177	Winners	103	58.19%	Losers	74	41.81%
Profit factor	1.56	Lrg. winner	4.04%	\$13,736	Lrg. loser	-3.09%	-\$10,506
Avg. profit	0.27%	Avg. winner	1.32%	\$4,486	Avg. loser	-1.18%	-\$4,007
		Cum profit	59.25%	\$201,450	Drawdown	-9.25%	-\$31,450

TABLE 3 BASIC S&P 500 STRATEGY, WITHOUT FILTER

Total trades	332	Winners	177	53.31%	Losers	155	46.69%
Profit factor	1.21	Lrg. winner	4.04%	\$13,736	Lrg. loser	-6.29%	-\$21,386
Avg. profit	0.12%	Avg. winner	1.32%	\$4,567	Avg. loser	-1.27%	-\$4,309
		Cum profit	44.68%	\$151,912	Drawdown	-25.49%	-\$86,666

# Give me trader status or give me...

*So, you had a good month? A good year? If you want to hold on to those profits, you better start thinking about taxes and why qualifying for "trader status" may be critical to your bottom line.*



BY TED TESSER

In 1783, the United States finally won its independence in a war started over unreasonable taxation. The issue at that time was an annual tax of approximately \$1.33 per person — a tax rate of less than .03 percent.

Imagine what the Founding Fathers would say today, when federal, state and local income taxes; social security, Medicare and self-employment tax; and excise, sales and real estate taxes usually absorb more than 60 percent of a taxpayer's

something, considering the high cost of commissions and slippage, data feeds, hardware and software, trading advisory services, trading seminars, books and other expenses.

Here is an even more shocking fact: The average trader or investor will pay more in taxes over his or her trading or investing career than on all other expenses combined.

Yet few traders take the time to incorporate tax strategies and planning into their overall trading plan. They are so caught up in the trading process they fail to plan for the tax consequences of what

systems in this country today — one for those with businesses and one for those without. Non-business owners are entitled to a few itemized deductions, taken "below the line" (as subtractions from adjusted gross income). In the 1986 tax act, the non-business owner investor got doubly whacked: available deductions were increasingly phased out.

Business owners, by contrast, have always been given special treatment. They get to deduct all kinds of ordinary business expenses — dollar for dollar — "above the line" (to arrive at adjusted gross income). These deductions are far greater, both in number and amount,

The **average** trader or investor will **pay more in taxes** over

er's income. And if that were not bad enough, death is no relief from taxation. When you die, the government takes what they missed while you were alive: Federal and state estate taxes can decimate the wealth you have built up over a lifetime, often escalating to another 60 percent tax on what is left for your heirs.

Obviously, taxes still have a great impact on everyone's life. But nowhere is the impact greater than on active traders.

One of the biggest reasons for this is the Tax Reform Act of 1986, which turned traders and investors into second-class citizens. Because of this law, taxes are often traders' and investors' single largest expense — which is saying

his or her trading or investing **career** than **all other expenses** combined.

they are doing.

Although traders will routinely tell you they are shooting for 20- to 30-percent average return on their capital, by disregarding tax issues they are not considering their true return.

After all, it is not just how much money you make trading, but how much you keep.

## Separate but unequal

I have always thought there are two tax

and are taken in a much more advantageous place (that is, one that will save more money) on the tax return.

From a tax vantage perspective there is now a new breed of investor — the "active trader." Savvy active traders who know about their benefits under the tax law can reap all of the advantages of a business owner. This knowledge can impact his or her bottom line immensely.

To understand the exact nature of what a trader does, and his or her tax

# It is not just how much **money you make** trading, but how much **you keep.**

advantages, you must first understand the other types of market players.

## The market playing field

**The broker-dealer/market maker.** Reg. Section 1.471-5 of the tax code defines a dealer in securities as “someone who engages in the purchase of securities for resale to customers, with the intent of making a profit.” The broker-dealer/market maker is a merchant with an established place of business who regularly engages in this practice. He or she, therefore, treats securities or commodities as inventory that is held for sale to his or her customers and is treated as ordinary, not capital, assets. This results in the generation of *ordinary income* or loss, not *capital income* or loss.

Dealers can deduct, dollar for dollar, any expense they incur in transacting business. Also, the broker-dealer/market maker is not limited to the \$3,000 per year capital loss that restricts other taxpayers (including most traders). This is a major distinction. In addition, any income generated from these assets is considered ordinary with regard to self-employment tax, retirement plan contributions, self-employed health deduction and, as of 1993, market-to-market considerations (Section 475). Finally, broker-dealer/market makers must pay self-employment tax on their trading income.

**Investors.** An investor, on the other hand, is clearly defined in the tax code under Section 263(a) as a person who buys or sells securities for his or her own account, as opposed to a dealer who buys and sells for resale to customers. All expenses of the investing activity are considered to be investment expenses, treated as miscellaneous itemized deductions on Schedule A of an investor's tax return and subject to significant limitations and phase-outs.

All income is considered to be capital gain income and not subject to self-employment tax, not eligible for retirement plan contributions (unless structured through an entity) or the self-employed health deduction, and, hence, reported on Schedule D. Furthermore, an investor is always limited to a \$3,000 per year net capital loss deduction, which can be carried forward for his or her life-

time (or even carried back for three years, in the case of Section 1256 transactions — commodities, futures and certain types of index or futures options).

**Traders** constitute a hybrid category. There is no election on the tax return you can make to indicate you are a trader. But the cases decided over the past 65 years in the Supreme Court and various district tax courts have recognized this hybrid category and have established that traders are investors who engage in the purchase and sale of securities for their own accounts. However, they do so at such a high level of activity that it becomes a business to them.

There are no objective requirements in the tax code to qualify a person as a trader and, until the Taxpayer Relief Act of 1997, the distinction was barely acknowledged in the tax code. It was agreed that a trader was someone who trades in stock, securities, futures contracts or options on a relatively short-term and active basis, but this classification was purely subjective.

Now, in paragraph 341 of the 1997 tax act, Congress has distinguished a trader from a broker-dealer/market maker as follows:

*“Traders are taxpayers who are in the business of actively buying, selling or exchanging securities or commodities in the market. On the other hand, dealers deal directly with customers when they regularly buy or sell securities in the course of their business...”*

Further, on December 17, 1997, the Joint Committee on Taxation issued its report (a.k.a. the Blue Book), to explain the new tax law. Page 180 of this report, Title X, Section A (financial products), sub-section 1001(b), states:

*“Traders in securities generally are taxpayers who engage in a trade or business involving active sales or exchanges of securities on the market rather than to customers . . .”*

This section was codified into law in 1998.

## What makes a trader a trader?

It is obvious these definitions are, at best, vague. What Congress has done is allude to, but not strictly define, the status of

## GLOSSARY

**Capital income or loss:**  
Any income or loss generated from the sale of a capital (investment) asset.

**Ordinary income or loss:**  
Any income or loss not generated from the sale of capital assets or passive activities.

**Schedule A:**  
The schedule to report itemized deductions, Schedule A is used by any taxpayer not taking the standard deduction. This schedule is where investors must deduct their investment expenses.

**Schedule C:**  
The schedule for reporting profit and expenses from running a business. This is the schedule traders use to deduct their trading expenses.

**Schedule D:**  
The schedule for reporting the sale of a capital asset and reporting a capital gain or loss. This schedule is where (non-Section 475 electing) traders and investors must report their income or loss. The capital loss is limited to a maximum net of \$3,000 in any one year. Traders who elect Section 475 can report more than \$3,000 net loss in any one year, and can report income and loss on schedule C.

## STATUS SYMBOL: TRADERS VS. INVESTORS

Calling yourself a trader or an investor is more than just a matter of words. When it comes to taxes, the distinction can seriously impact your bottom line.

Traders	Investors
Can qualify as a business	Cannot qualify as business
Expenses do not need to exceed 2 to 5 percent of adjusted gross income to be deducted on Schedule A, but can be deducted dollar for dollar on Schedule C.	Expenses must exceed 2 to 5 percent of adjusted gross income to be deducted on Schedule A.
Itemized deductions not necessary to deduct trading expenses. A trader can take a standard deduction and still deduct trading expenses on Schedule C. Income is not subject to self-employment tax, not eligible for retirement plan contributions (unless structured through an entity) or self-employed health deductions, except for floor traders.	All income is considered capital gain income, not subject to self-employment tax, not eligible for retirement plan contributions or self-employed health deductions and is reported on Schedule D.
"Section 475" election can allow traders to deduct trading losses in excess of \$3,000 in any one year.	Limited to \$3,000 per year net capital loss deduction

"trader." It is the court cases throughout history that have really defined what determines trader status and what distinguishes a trader from an investor.

From my 25 years of experience in this field and through filing thousands of trader tax returns, I can boil down the distinguishing characteristics of a trader as being someone who:

- trades on a **frequent, regular and**

that the seven listed characteristics of a trader are necessary.

They also tell you trading expenses must be on a Schedule C. Although they do not discount a home office, they do require an office to exist. In fact, part of the provisions of the new tax act has liberalized the deduction of a home office.

While the definition of a trader is still unavoidably ambiguous, the tax benefits of

fully deductible.

4. Investment interest expense, which was severely limited under the 1986 tax act, is now considered to be trading interest (a normal business expense) and is 100 percent deductible.
5. Section 179 depreciation (the ability to write off a business asset all in one year instead of depreciating it over many years), which is unavailable to investors, is now available to traders.
6. The home office expense, which can not be deducted by investors, now becomes one of the criteria for establishing trader status.
7. As of 1997, a "Section 475" election can be made on a trader's tax return. This enables traders to deduct trading losses in excess of \$3,000 in any one year. This is one benefit that must not be overlooked, as it often results in a much more advantageous tax position for the trader knowledgeable enough to know about the election, knowledgeable enough to make it correctly and knowledgeable enough to make it on a timely basis. Constraints on this election were recently enacted by an IRS Revenue Procedure issued in March of last year (Rev. Proc. 99-17). While the rules and criteria for qualifying as a trader are still relatively subjective,

## Savvy active traders who **know about their benefits**

under the tax law can **reap all of the benefits** of a business owner.

continuous basis (i.e., an active trader).

- has a **substantial number of trades**.
- trades **short-term**.
- spends a **substantial amount of time trading**.
- has a **small percentage of income derived from dividends**.
- **takes these expenses on a Schedule C**.
- has an **office** — either home or otherwise.

Again, we are still in murky waters. What this does *not* tell you is how "frequent, regular and continuous" trading must be, how many trades constitute a "substantial number," how short is "short-term" and so on. For these answers we still have to look at the court cases that have indicated, but not unequivocally stated, in their rulings

acquiring trader status are very tangible.

### The trader status advantage

Here is a brief summary of the major advantages a trader has over an investor.

1. Expenses are not subject to the 2- to 5-percent floor that investment expenses are subject to on Schedule A. They are deducted on Schedule C, dollar for dollar.
2. Itemized deductions are not even necessary to deduct trading expenses. A trader can take a standard deduction and still deduct trading expenses (in addition) on Schedule C.
3. Investment seminars, which were determined as non-deductible to investors in the 1986 tax act, are now considered trading seminars and are

it is crucial to understand the tax implications of your trading. In short, with proper tax planning, the distinction of active "trader" can be the difference between getting wealthy or just getting by.

In next month's column, we will go into more detail on the criteria for trader status and the advantages the active trader has over the investor and the broker-dealer/market maker. In future columns, we will explore the advantages of the latest twist in the tax code, the section 475 election — how to make it, when to make it, when not to make it and why it is significant. 📞

Note: For a free "trader status" evaluation questionnaire, and free information on making the election, e-mail [tbteaser@aol.com](mailto:tbteaser@aol.com).

# Gold Digger system

**Market:** Stocks, stock indices, index share instruments (SPDRs, DIAs, QQQs).

**Rules:** Go long if the market closes down two days in a row in the same week (following a down week), except if this coincides with the market setting a new 60-day low (which suggests a possible downside breakout). Reverse the rules for the short side.

**Exits:** Stop out immediately if the market moves against you 1.1 percent; lock in a profit after a move of 0.6 percent or more in your favor; exit immediately if market moves 2.8 percent in your favor. Exit any open positions after eight days.

## EQUITY CURVE



Source: CSI, Unfair Advantage

## SYSTEM SUMMARY

Profitability		Trade statistics	
End Equity (\$):	374,383	No. Trades:	474
Total (%):	274	Avg. Trade (\$):	610
Year (%):	14.42	Tr/Mark/Year:	48.4
P factor:	1.23	Tr/Month:	4.0
Risk measurers		Time statistics	
Max DD (%):	-29.61	Longest Flat (m):	14.33
Lrg. Loss (\$):	-58,448	TIM (%):	47.63
Winners (%):	55.91	Avg. Days:	5.00

Source: CSI, Unfair Advantage

## Glossary

- Total (%): Total percentage return over test period
- Year (%): Annualized avg. return per year
- P Factor: Profit factor = gross profit/gross loss
- No. trades: Number of trades
- Avg. trade: Dollar amount of average trade
- Tr/mark /year: Trades per market per year
- Tr/month: Trades per month
- Max DD (%): Maximum drawdown (equity loss)
- Lrg. Loss: Biggest losing trade
- Winners (%): Percentage of winning trades
- Longest flat (m): Longest period spent between two equity highs, in months
- TIM (%): Amount of time system is in the market
- Avg Days: Average trade length

**Test period:** Oct. 9, 1990 to Oct. 27, 1999.

**Test data:** daily S&P 500 stock index futures prices; \$50 deducted for commissions and slippage per contract traded.

**Starting equity:** \$100,000 (nominal).

**System drawbacks:** Prolonged consolidation periods result in too few maximum-profit trades. Breakouts against the trade may drastically increase slippage in less liquid markets. Too many bad signals during deep retracements, following prolonged explosive moves.

**Buy-and-hold stats:** Total return — 267 percent;

Max DD — 22 percent;

Longest flat period — 12 months.

While there is not much of a difference on the surface between buy-and-hold and the Gold Digger system, buy-and-hold is always risking 100 percent of equity, spending 100 percent of the time in the market. Gold Digger only risks 3 percent of your equity on each trade, and is in the market less than 50 percent of the time. (Note also that commissions and rollover costs have not been deducted for the buy-and-hold strategy.)

*The Trading System Lab is intended for educational purposes only, to provide a perspective on different market concepts. It is not meant to recommend or promote any trading system or approach. Traders are advised to do their own research and testing to determine the validity of a trading idea. Past performance does not guarantee future results; historical testing may not reflect a system's behavior in real-time trading.*