CHAPTER 1

Intraday Volatility

Intraday share price volatility is on the rise.

Volatility is a word that usually strikes fear into the hearts of investors. Many who hear or read about it almost instantly imagine cliff-like drops in share prices or scenes of battered traders being dragged off the exchange floor—casualties of an especially nasty bout of market turbulence. Like rainy days and Mondays, volatility often seems to get people down, and positive associations are usually hard to come by. However, choppy, wide-ranging moves are not, in themselves, inherently negative, nor should they automatically be interpreted as a sign that participants should pull back and sit on their hands. They can, in fact, trigger profitable opportunities for patient and well-disciplined investors looking to take advantage of favorable entry points when acquiring new positions or to lock in extraordinary gains on existing holdings. Nonetheless, increasingly unstable market conditions can pose a threat to investing success—one that must be understood to be challenged and outmaneuvered to be overcome.

The first difficulty, of course, is that volatility is one of those concepts, like "beauty" or "quality," that everybody believes they have a handle on, but which few can really explain in any great detail. A dictionary provides some guidance with descriptions such as "changeableness" or "fickleness," but these meanings seem somewhat vague in the context of

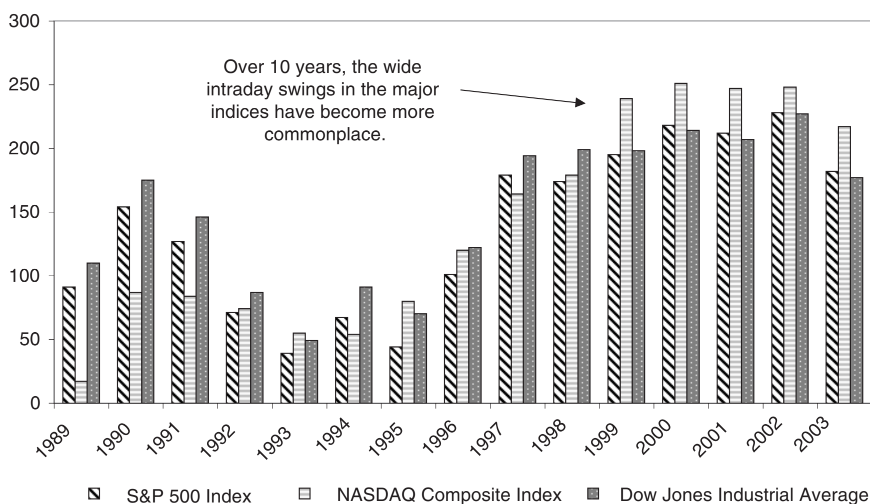

Figure 1.1 Number of Days per Year When the Range Between the High and Low Exceeds 1 Percent (Source: Bloomberg LP).

modern financial markets. For academics and investment professionals, the term does have a more precise technical meaning, though it is something of a mouthful. Essentially, it refers to a measure of the annualized standard deviation—or statistical variation from the average—of the daily percentage price changes of a security or commodity. In other words, it is a degree of uncertainty based on historical moves over some set period. While critical for fully understanding derivatives and a variety of related strategies, this definition is not necessarily what matters to most investors.

In general, when traders and money managers discuss share price volatility, they tend to look at it in terms of the impact it is having—or will have—on their own bottom-line performance, rather than in any academic or technical sense of the word. Consequently, it is the relevant time frame and nature—or character—of the unpredictability, as well as the underlying directional bias of the shares or index they are making reference to, that seems to give it real meaning. Although it is correct to say that equity markets have been more volatile in recent years because the annual totals of daily swings of more than one percent have gone up compared to earlier periods—as noted in Figure 1.1—it does not seem to completely capture the essence of the term as it applies to everyday buying and selling.

In the case of those with a very short-term perspective—day traders, for example—fluctuations in the "ticks"—the smallest changes in price that a security can make—are almost always the primary focus of attention. For these players, the moves that unfold over the course of a minute—tracing out, perhaps, a series of uneven peaks and valleys on an intraday graph—are the main triggers for increased stress and worries about profits and losses. That is the case even if things settle down only moments later. For traditional investors—those whose outlook stretches beyond the reaches of today's closing bell—it is usually the range between the daily or weekly high and low, as well as the most recent price compared to the level during some earlier reference period, that determines the indigestion point.

The emotional "flavor" is important, too. Those who follow markets closely—usually on a real-time basis—can often detect subtle distinctions rarely picked up on by casual observers. As with lightening or love affairs, the intensity of the volatility can vary a great deal: Occasionally it is slow and smooth, and at other times it discharges with a kick that is frantic and draining. It may suddenly let rip, like the bullfrog's long tongue snapping out to capture its unsuspecting prey, and then recoil, returning prices to the steadiness of a few moments earlier. At other times, the intraday price action might resemble the motion of a downed electricity cable, sparking wildly as it whips and thrashes throughout the course of a stressful and seemingly neverending trading session.

Volatility can also follow a series of progressions. Now and again, the build-up resembles the one-two-three burst of a triple-jumper, quickly escalating to peak form. It may increase gradually, in a well-ordered stair-step move to higher and wider levels of choppiness. Occasionally, the variability is, strange as it sounds, completely unpredictable. In those instances, the market might be merrily rolling along in one direction, when it will suddenly turn on a dime, sputtering off on some new bearing before slipping back, perhaps slowly but often quickly; then, it will veer off again in a jerky new series of stumbles and bumps. Interestingly enough, depending on their perspectives, some equity players might notice and react to every gyration, however small, while others might see nothing at all.

Action Point

Certain kinds of volatile price action can provide useful information about underlying market conditions. For example,

when a stock abruptly breaks out of a clearly defined trading range on relatively heavy volume, creating visual "gaps" on a daily bar chart, this is often a sign that a dramatic change in the outlook has taken place. Although such moves sometimes turn out to be false starts or overreactions to unexpected developments, investors should nonetheless pay heed to this sort of technical message, especially when there is follow-through momentum in the days ahead. What this sort of pattern often signals is that the bulls—on an upside breakout—or the bears—on a move to the downside—have gained the upper hand and are not keen to let it go. More information on relevant screening tools can be found at Web sites such as *www.marketscreen.com* and *www.incrediblecharts.com.*

Market direction can have a lot to do with what people see. On the whole, it seems that perceptions about volatility, as well as investors' responses to it, are often lopsided, depending on which way the investment wind is blowing. If the overall trend is up, erratic twists and turns, while tiring, do not seem to have much impact on spirits or sentiment. Although the reasons are unclear—perhaps it is because of the warm and fuzzy optimism that bull moves bring out or the fact that most investors tend to be long—filters in the brain appear to dull the senses and make people believe prices are steadier than they are. When a company releases better-than-expected results, for example, causing its stock to open sharply higher and zoom to new highs in the days that follow, there seems to be little fear—or even recognition—that prices are more unstable than they were previously. In a roaring bull market, dramatic intraday moves are often seen as "noise" that only serves to liven up nightly financial reports.

When the economic outlook is questionable, the trading environment is unsettled, and many portfolios are underwater, topsy-turvy price action seems to be anything but irrelevant to investors. As with the anxiety stirred up when night falls in the scariest parts of the city, feelings of fear and uncertainty are often magnified by random outbursts and strange goings-on in the stock market when people are prone to see things that way, especially in light of the difficult conditions and dramatic events of recent years. Nowadays, many participants have almost been trained to expect the worst and are often very sensitive to bad news. Volatility under such circumstances is not only viewed as a negative for stocks, it is some-

times seen as a measure of how terrible things are across the board. Although the long-term betting has generally favored better times and higher prices, a noticeable decline seems to promote and gain momentum from greater instability.

There are various reasons why prices seem to swing more often and more widely in a general downturn—apart from the nervous energy stirred up by negative emotions. On the whole, market instability reflects doubts about underlying conditions, growth prospects, and a variety of other factors that influence investor perceptions. When people are unsure about what a stock is worth, what the economic future will look like, whether they will have a job in six months, and even about their own abilities to make informed judgments, they tend to be insecure and somewhat passive in their investing approach. In trading terms, they are likely to be price "takers" rather than price "makers." In other words, they will more readily allow random influences or the actions of other operators to define at least a momentary sense of what the "right" level of a security should be.

In contrast, when participants are confident and self-assured, know where they are and where they want to be, and have been conditioned by positive circumstances or long-term success to rely on their own judgment, they are usually more than willing to vouch for a price they believe is the correct one. They will also be prepared to adopt a view that goes against the grain of short-term supply-and-demand influences and back it up with cold, hard cash. Generally speaking, it takes extra energy and resources to move values away from equilibrium levels that have been established by a solid consensus with a strong conviction. During a garden-variety bull market, commonly held views, supported by widespread faith and enthusiasm, are difficult to shake, and volatility often—though not always—remains somewhat dampened as a result.

Available "trading liquidity" can have a strong influence on volatility. During an upswing, money seeps into the market in various ways, serving as a sort of shock absorber that cushions share prices from the ripples of short-term activity. Investors of all shapes and sizes may leave multiple buy and sell orders in place, market-makers and specialists[1] stand ready to honor sometimes sizable customer demands to smooth the flow of business, and investment banks, reassured by the belief that rising markets will bail them out if they make a bad call, allocate a significant proportion of their resources to speculative activities such as overnight position-taking and block trading. Whether through confidence or complacency, stock traders are generally less worried about being exposed to near-term uncer-

tainty when overall circumstances seem favorable, and will often get involved even if they do not have a strong view. Consequently, the pool of liquidity in the good times is notable for its consistency, depth, and reach.

Since share prices peaked in 2000, however, various cracks have appeared in this backstop. Faced with unsettled economic conditions, falling commission revenues, and diminishing client interest, sell-side institutions have taken a fresh look at some of their activities. They have become more selective in terms of how they use their capital. Large and small investors, meanwhile, hit by large losses and a host of other threats, have become less willing and able to provide consistent support for the market, either on a day-to-day basis or with respect to overall equity allocations. There are also fewer players in the game now than there were during the late 1990s, as the post-Bubble decline chased out some shaky operators who lent a measure of support to a wide range of issues. The result is that there are more temporary air pockets appearing throughout the day that can be popped by short-term supply-and-demand pressures.

Action Point

When volatility begins to intensify after share prices have fallen for an extended period of time, it often indicates that a downtrend is nearing an end, at least in the short run. In other words, if the daily range between the highs and lows of a stock or index expands significantly beyond recent bands and volume picks up following a decline of 10 percent or more, it is likely that emotional decision-making has started to take over and many investors are throwing in the towel. As during the U.S. stock market selloffs in September of 2001 and 2002, such a phenomenon frequently reflects negative sentiment extremes that can spell a major buying opportunity. While somewhat less reliable, a similar sort of signal is sometimes given after extended upswings. To look for such opportunities, check out the screening tools at Web sites such as *www.marketscreen.com, www.incrediblecharts.com,* and *http://moneycentral.msn.com.*

Falling values have also had an effect on volatility for fundamental, as well as mechanical, reasons. Historically, institutions on either side of the Street have avoided investing in or researching companies with low

share prices, even if they were brand-name businesses or former high flyers, because of the limited impact such investments could have on the performance of large portfolios. Typically, the capitalizations of these firms made it impractical to accumulate large enough holdings to make their efforts worthwhile. There is also the view that these sorts of securities—sometimes referred to as "penny stocks"—are inherently dangerous and unsuitable for long-term investors. Moreover, as is common knowledge in the field of marketing, there are strong biases associated with price: A low figure suggests little value and vice versa, regardless of how irrational that might seem at first glance. All of these factors have led to a decrease of support for a broad range of issues, making them more vulnerable to being knocked around by sporadic buying and selling.

The relatively wide bid-offer spread and minimum price change increment of lower-priced securities also creates the impression that they are more unstable than their double or triple-digit counterparts. The reason? A one cent move—about the minimum these days—in a two-dollar stock equals one-half of a percent. That is significant, considering the same adjustment on a $40 share price works out to about two and a half basis points, or one-twentieth as much. Moreover, with some broad-based indicators, such as the NASDAQ Composite Index, now made up of many more lower-priced issues than they were at the height of the Bubble, the overall variability of the these popular market measures has seen at least some slight increase because of the larger percentage moves that now take place in a greater number of their underlying shares.

Interestingly, the move to decimal pricing that began in August 2000 seems to have made shares more volatile, too. Under the old system, where the smallest ticks were generally denominated in eighths,[2] it was only natural that greater energy and conviction were needed to shift values away from existing levels. This was because of the built-in transaction costs associated with the gap between the buying and selling terms. For example, if a stock was quoted on the exchange at $40-1/8 bid, $40-1/4 offered, an investor who sent an order down to acquire 100 shares "at the market" would need the indicated price level to move up by one-quarter of a dollar—around 62 basis points—to make a profit—excluding any commission costs—on the $40-1/4 purchase price. Otherwise, that individual would have to offer out the security at $40-3/8 and hope someone else stepped in and purchased the shares. Although this might not matter much to long-term investors, the math tended to limit participation by various speculative operators. That, in turn, curbed some measure of short-term supply and demand.

After "decimalization," the prospective cost of buying and selling shares fell sharply. It became possible for a trader to make money even if the displayed market moved in the desired direction by only two cents, or roughly five basis points—again, excluding any commissions—if the quote was $40.10 bid, $40.11 offered, for example. Furthermore, the greater number of increments from one "big figure" to the next—say, from $40 to $41—softened up any sense of price "stickiness" that seemed to exist when there were only eight steps between the round dollar values that many share traders focused on. Psychologically, at least, the existence of more than twelve times as many potential stopping points seemed to reduce the "anchoring" effect that was in place when prices had to travel through a smaller number of gaps. In addition, the fact that liquidity was spread out, instead of being concentrated, also had the effect of encouraging institutions to break up large orders and deal more actively, as Figure 1.2 seems to suggest.

Declining commission costs have played a role in stirring up instability by helping to cut expenses for short- and long-term operators. As was the case with decimalization, this development reduced another barrier to increased turnover. For most investors, the break-even hurdle on every trade was now set at far lower levels than before. In the early 1990s, there were $100 per order minimum commissions and variable charges—

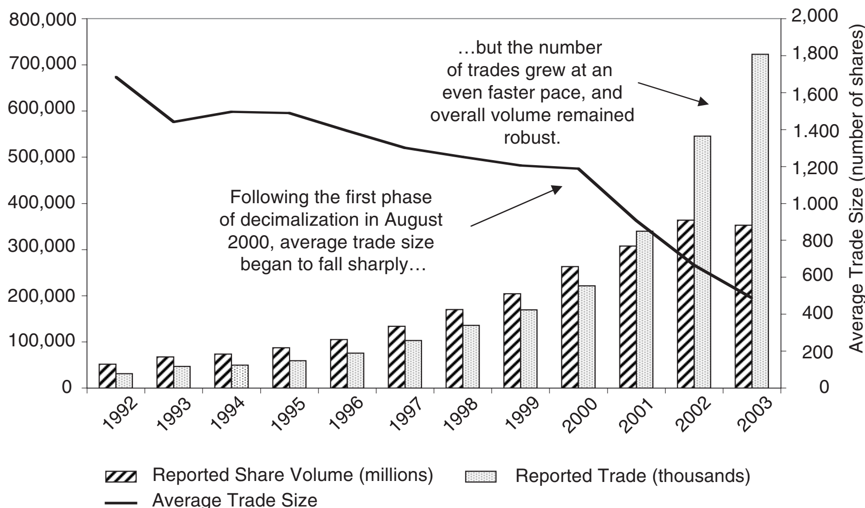

Figure 1.2 New York Stock Exchange Annual Reported Share Volume, Reported Trades, and Average Trade Size (Source: New York Stock Exchange).

depending on whether the client was an individual or an institution—of six cents a share and up. Now, flat-rate or ultralow-cost fee schedules are common—and readily negotiable. It is not unknown for hedge funds to pay one or two cents a share for domestic equity trades done through a full service broker, or even half as much—or less—to execute transactions by way of electronic trading systems. It is even possible to receive a rebate or credit for some orders routed through ECNs because those venues are trying to lure business away from traditional exchanges.

This has had several effects. First, it has encouraged a pick-up in short-term speculation, because some of the dangers associated with trying to capture minor moves in the market have been reduced. If a trade goes wrong, it no longer has to cost a fortune in terms of round-trip commissions and wide bid-offer spreads to unwind it. This has also helped to accelerate the trend by institutional and individual operators across the investment spectrum towards increasing activity levels. Consequently, there has been a general uptick in intraday buying and selling which has added to temporary price pressures. Along the same lines, falling commissions have removed at least some of the obstacles that stood in the way of careless and sloppy investing behavior such as overtrading. It has become easier for operators to boost their involvement when it might not necessarily make sense for them to do so.

As noted, lower fees have also encouraged many traditional money managers to adopt more flexible strategies for acquiring new investments and getting out of existing holdings. They could use tactics that were more opportunistic than in the past, and orders could be worked with an eye focused almost exclusively on current supply-and-demand considerations. Already motivated to some degree by competition and a broader shift towards more active participation in the market, buy-side institutions have steered the emphasis away from upfront costs in favor of minimizing the negative impact of moving in and out of large positions. Ironically, while this has often benefited managers' performance, it has likely added to overall instability. With operators now handing out orders that are more unpredictable with respect to size and timing, it has become increasingly difficult for sell-side counterparties to anticipate their needs and position themselves accordingly.

Action Point

With the depth of available liquidity decreasing, average quote sizes getting smaller, and institutional activities becoming less

visible, it can make sense for individual investors to rethink execution strategies and trade smaller amounts than they used to when buying or selling stocks. While it is more labor intensive than the alternative, breaking a 5,000 share order—or one for a tenth as much—into five or more pieces can help to minimize slippage and reduce the incentive for short-term "scalpers" and others to step in front of potentially market-moving trades. Arguably, such adjustments will probably mean very little in the case of the most active shares or at the beginning and end of the session. However, with air pockets increasingly cropping up in various issues over the course of the day, the strategy may help to minimize the long-run costs of consistently giving up a larger-than-necessary edge.

Although increased uncertainty, reduced liquidity, heightened speculation, and declining share values have likely been the main culprits behind rising intraday volatility, it seems a good bet that other influences have also served as catalysts or magnifiers. In all markets, of course, there is a certain amount of truly random noise, triggered when buyers and sellers act for reasons that have little to do with valuations, news, or recent price swings. Shares get sold to finance weddings or bought as birthday presents, people experience lifestyle changes, judges make legal rulings, and sometimes simple mistakes get made. These are all factors that can exert at least a short-term influence on equity prices in the absence of "real" fundamentals. Even some sudden and supposedly relevant event can occasionally cause a reaction that is little more than a blip when the realization takes hold that the item was inconsequential or otherwise misunderstood when it was first released.

Nonetheless, much of the activity that occurs during market hours seems to have at least some link, however tenuous, to where values are and what they are expected to be, and all of it can significantly affect prices. This includes program trading in particular, and electronic trading in general, which contrary to what some would argue, appear to make stocks more unstable than they used to be. There are several reasons for this. In the old days, players depended on what is now seen as a relatively inefficient telephone calling chain to execute one or more trades, and the idea of sending out simultaneous orders in a large number of stocks was viewed as somewhat impractical. Now, with sophisticated computers and

trade routing systems, it is easy to transmit virtually any request to nearly every exchange and electronic network with little effort or worry.

Some mechanisms, in fact, require very low levels of active involvement or do not depend on real-time interaction with a human being at all. There are systems in place—some based on off-the-shelf products, others using customized software—that can be programmed with simple "limit minders"[3] or complex formulas to trigger pop-up messages on a computer screen or send orders directly to a trading venue when interesting opportunities develop. Once executed, the details are usually sent back electronically to be input, either manually or automatically, into order management systems. Arguably, such methods help to eliminate potential emotional and psychological biases, and they can ensure that successful investment strategies—presumably based on extensive analysis—are properly implemented. The problem, as with all mechanical approaches to investing, is that the realities of the marketplace can sometimes differ from theory or the expectations resulting from back-tested success.

Indeed, despite the apparent benefits modern methods offer, the "ancient" voice-based approaches actually had an advantage: intelligent safeguards built right into them. Specifically, clients, brokers, clerks, traders, and others would naturally query orders that seemed out of line with previous transactions or were viewed as impractical under current conditions. In other words, a human element was routinely available that allowed for one-off changes and alternative strategies when the situation warranted. However, in cases where orders are sent out electronically, there is usually not much analysis performed except for simple checks that certain limits are not being breached. Consequently, requests made by mouse click that would not get past the first gate in an investor-to-broker telephone call can easily slip through. Mismatches then crop up between what players want to do and what the marketplace can handle, and prices can be knocked askew.

Here is an example. When a dealer decides to execute a "program" in the shares of an index such as the S&P 500 and transmits an instruction to buy or sell the underlying securities[4] as one "basket trade," some orders in thinly traded issues can stir up brief imbalances when they hit the market. Under those circumstances, the crowd often ducks, like bathers at the ocean, to avoid being blindsided by the sudden swell, and prices shift to absorb the volume. While there are some simple measures in place that are designed to prevent transactions from being executed on completely ridiculous terms, the general idea is that orders in thinly traded securities are not given any special handling. The market will likely be out of kilter

in those stocks, at least for a while, and prices may vary considerably from where they were only seconds earlier. While not a problem, of course, for a potential buyer in the moments after a sell program arrives, it can put other vendors at a temporary but distinct disadvantage.

Sometimes when a large cluster of orders hits the trading floor, the overall effect, like the concentrated beam of light generated by a laser, triggers a burst of energy that has a widespread effect on players and conditions, especially if traders are somewhat sensitive to unusual flows and events—as they often seem to be nowadays. A sudden surge can cause people to react abruptly and erratically. When there is a flurry of activity, they may withdraw bids and offers or reduce the size of outstanding orders, weakening support for current values. This sets prices up to slide easily out of equilibrium. Even though many operators are tuned in to the factors that can set off program or other arbitrage trades, wariness remains—large flows into or out of the market might mean something else. As recent history has shown, they could represent the fallout from an unexpected and unwelcome geopolitical event.

Electronic execution techniques, even in single securities, have contributed to the problem in other ways. They allow participants to transmit buy and sell orders with much less effort—and consequently, less thought and analysis—than was previously required. Rightly or wrongly, there is often little reason needed to click a mouse or type a few keystrokes to kick off a trade. Moreover, once a request is made, there is limited room for reversing course. With the old-fashioned approach, which involved direct contact between two or more individuals, there was usually some underlying emotional connection that served as a restraining influence. Generally speaking, when people communicate with others, elements of judgment and approval come into play, and conversations that are meant to lead to action usually stir up some question of whether a request is logical or appropriate. Not so with automated methods—all orders, good or bad, get carried out in the same way. Regrettably, the most ill-conceived requests invariably slip through as well.

These include garden variety mishaps and those based on serious errors in judgment. As is the case with most email systems, geared as they are towards speed and efficiency, there is no "retract"[5] button to recall efforts that, after even a moment's pause for reflection, should not have been made. Once a message escapes into the network ether, the electronic genie usually cannot be put back into the bottle. How many times have people erroneously forwarded tasteless remarks or sent confidential information about salaries or business plans to a long list of colleagues by

choosing the "Reply to All" function on software applications such as Lotus Notes? Sometimes individuals attempt damage control, but that frequently make matters worse, as when the follow-up message not only fails to resolve the situation, but ends up highlighting the original error for those who missed it the first time around.

In terms of losses made and opportunities missed, the impact can be substantial when it comes to automated execution methods. Many institutional systems feature shortcuts for transaction type, stock symbols, price increments, share amounts, etc.—all packed tightly together in small menus on a computer monitor. They can be easily—and wrongly—selected in the heat of the trading moment. Although most systems have query boxes that pop up on screen and force requests to be confirmed before they are transmitted, or other built-in safeguards to prevent break-the-bank type orders from getting through, they are still part of a process streamlined for speed. And, as when individuals arrive home after a long highway commute wondering how they got there, much of the design, despite the precautions, ensures that participants, including those who are not paying nearly enough attention to what they are doing, can function with as little thought and effort as possible.

Once an order is entered—often by completing a minimum number of data fields and having the rest filled in automatically as system defaults—and then transmitted, that is it. There usually is no way of stopping the process—not even in those cases where a mistake is almost immediately picked up on and followed by a swiftly sent "cancel" instruction or a frantic telephone call to market-makers, trading counterparties, or contacts on the exchange floor. Generally speaking, it is extremely difficult to "undo" a slip-up before at least some damage is done. And given that Murphy's Law always has a way of cropping up at the worst of times, the likelihood is that the biggest blunders will be the ones that Mr. Market takes the greatest advantage of—as quickly as possible.

Whether through inadvertent error or, as has occasionally been rumored, intentional effort, clumsily transmitted orders of a sufficient size can trigger shockwaves that can have a far-reaching impact on near-term volatility. For example, on July 3rd, 2003, during a shortened and relatively quiet preholiday session, a trader reportedly entered an electronic market order to sell 10,000 contracts—an amount 100 times larger than was apparently intended—of e-mini futures on the Dow Jones Industrial Average (usually referred to as the Dow Jones, or Dow).[6] This set in motion a chain reaction that caused not only the derivative and related

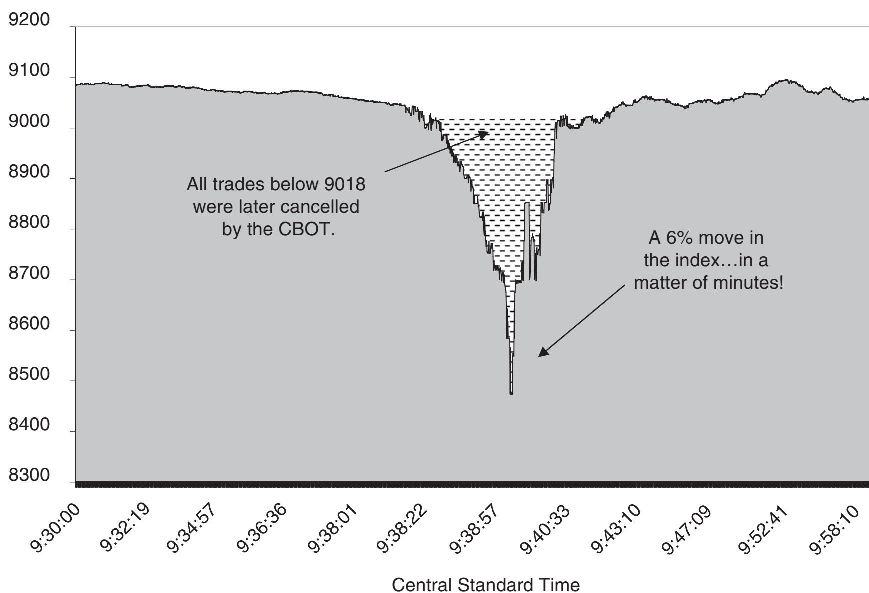

Figure 1.3 July 3, 2003. Plunge in the E-mini Dow Jones Industrials Futures: An error…or an "intentional" effort to unsettle the equity markets? (Source: Chicago Board of Trade).

index to gyrate wildly—as seen in Figure 1.3—but other well-known market measures as well, including the S&P 500 and the NASDAQ Composite—not to mention the underlying shares that comprised those indices. Partly as a result of arbitrage activities and partly because of fear among traders that the sudden surge reflected an unexpected news development, the investing crowd ended up intensifying the original disturbance. It eventually took a half hour or so for conditions to finally settle down, but the damage was essentially done.

Action Point

Technology has made many aspects of life much simpler and more efficient, but the ease with which a range of complicated tasks can now be tackled can also lead to carelessness and dangerous complacency. When using mechanical methods and computer programs for evaluating markets, assessing risks, or executing orders, take the time to purposefully focus on, read

over—out loud, if possible—and write down observed results and intended actions. These steps can force the conscious mind to pay heed to what is going on, and will go some way towards minimizing costly trading errors and lost investment opportunities.

Panicky contagions have always been a feature of financial markets. Triggered by "fight-or-flight" instincts associated with the oldest parts of the human brain, and reinforced by the same group dynamics that come into play when someone shouts "fire" in a crowded theater, automatic physical and emotional responses usually kick in to weaken individual resolve as fear and uncertainty spike. When that happens, raw emotions and basic instincts take priority over thoughtful consideration. In addition, the speed and volume of information that is circulating throughout the marketplace, and the instantly available buying and selling power that most institutional players have at their disposal, almost ensures that an efficient mechanism is in place to get everyone heading for the exits at the same time—especially nowadays, when many find themselves rushed into trades that suddenly get very overcrowded. This likely facilitates and promotes wavelike responses to significant events and trading flows.

Interestingly enough, the size of any prospective groupthink "infection" has grown as well, despite the fact that an ever-increasing number of players are located away from the trading floor. Why? Because modern communications systems have created rich and multilayered real-time links between traders, brokers, speculators, and others. All of them are now plugged into a vast electronic network that seems to convey not only words and data, but some measure of the energy and emotional intensity normally engendered when individuals are physically close to one another. Boosted by the highly charged current associated with an uncertain outlook and unsettled market conditions, the momentary buzz of trader hysteria regularly lights up share prices in a variety of ways.

That is not all. Because they are becoming increasingly skittish about the new geopolitical state of affairs—a world of random acts of violence and once unimaginable terrorist threats—market operators of all shapes and sizes have steeled themselves to respond quickly to even a hint that something big is going down. Sometimes they back away instantly from perceived supply-and-demand pressures; alternatively, they might jump on board and try to capture some part of the momentum for themselves in the form of a quick "scalp," or short-term trade. While the two sets of

actions—prompted either by choice or through instinct—are at opposite ends of the trading spectrum, the combination tends to reinforce near-term instability instead of counteracting it.

The increased use of leverage, especially among aggressive, often large-scale players, such as hedge funds, together with the widespread shift towards a more speculative approach, has also contributed to market instability. In addition, some participants now seem to be taking on additional risk exposure by operating with thinner capital cushions than in the past to protect themselves if trades go wrong, or by choosing heavily geared securities tied to short-term moves. The expansion in the quantity and availability of various derivative products has also aided these efforts. At the same time, because of restrictions imposed by prime brokers or others, and a reduced tolerance for large losses among some backers and investors, many operators are adopting tactics that professional traders have long relied on to control risk or reduce the chances of disaster. These include the use of automatic stop-losses[7] and the practice of reducing overnight positions on a regular basis.

As it happens, these mechanical measures, while designed to protect the primary users, can often have a negative impact on the activities of other participants in the marketplace. Typically, such strategies leave little room for finesse or negotiation, and they generally do not take account of conditions at the moment of impact. In fact, they often serve as a form of rocket fuel, fanning the flames of near-term chaos. They can set off a chain reaction that mirrors the impact of the bull in the china shop, smashing tables and pottery as it jerks and wobbles its way towards escape through a narrow front door. Although they clearly offer some sort of prudent safeguard against disaster, these automatic approaches occasionally fail to work out as planned for either traders or investors—or innocent market bystanders.

One reason why is that many operators tend to set trigger points for stop-loss orders at widely watched technical levels or familiar round numbers, creating a potentially large build-up of concentrated firepower that the market cannot absorb quickly enough should circumstances warrant. Similarly, when numerous operators put investment strategies into place at around the same time, either because they rely on common methods or widely followed analyst recommendations, or because they are part of the informal hedge fund idea-swapping network, the mass of get-me-out orders often seems to bunch up at familiar percentage loss levels—10 percent, for example—relative to where many trades were initiated. Sometimes the prices themselves have no specific importance, but more players

in general might be putting a greater number of protective measures in place because of an overall rise in macroeconomic and geopolitical uncertainty.

All this seemingly beneficial behavior can produce side effects that are dramatically unwelcome. It is almost a given, for instance, that many of the bunched stop-loss orders will be "elected." History has shown, time and again, that the market tends to zero in on hot spots, inflicting the maximum pain, as trading lore has it, on the largest number of participants. Sometimes the process is spurred on by aggressive speculators, such as floor traders who are only too happy to give prices a bit of a push to get them going in the "wrong" direction. Then they can cash in with a quick in-and-out transaction that involves relatively little risk. The result is often a whir of self-reinforcing orders that worsens an already unfavorable technical situation. Soon, supply and demand imbalances appear that can last anywhere from a few seconds to several minutes or longer. Once in motion, prices may also grow legs as others amplify the swing with additional purchases and sales.

Sometimes this leads to even more breathtaking moves, especially when the action triggers a series of cascading stop-losses. Placed at what were thought to be relatively safe levels outside widely anticipated short-term trading ranges, these automatic orders can sometimes cause havoc if they actually see the light of day. What happens is that prices, jolted by an unusual charge of market electricity, break through "normal" levels and move to rarefied air, with little in the way of opposing influences to hold them back. At that point, they can often travel for at least short distances on momentum alone. Then, especially in situations involving illiquid securities or issues traded on electronic exchanges lacking price-limit safeguards, the later executions end up creating a sort of "piling on" effect. As in the Dow Jones e-mini futures debacle cited earlier, the fallout can wreak temporary havoc until some semblance of order returns—and cooler heads prevail.

Action Point

Some investors automatically assume that dramatic moves in share prices happen for the "right" reasons. While this is usually the case, such a narrow view can prove to be naïve in markets that are affected by patchy liquidity, increasing sloppiness, and traders with itchy trigger fingers. It is important, of course, to try and get some sense of whether unsettled

conditions reflect changing fundamentals or a significant shift in supply and demand, but for investors who have done their homework and who are comfortable with their investment assumptions, a sudden though favorable jolt in prices often represents an ideal time to enter the fray. Whether you set formal or informal limits beforehand, be prepared to act purposefully when others seem to be reacting blindly.

The rise of a host of aggressive and well-funded operators with flexible approaches and opportunistic perspectives has most likely increased instability as well. Their trading activities often seem to account for at least a few of the odd moves that take place during some sessions. Although it is not actively commented on by the media, or even discussed in some circles, the footprint of manipulation seems especially evident when there is little else going on in terms of news or traditional investment flows. In many respects, the situation can be similar to what regularly occurs in the commodity pits. There, many have witnessed, and occasionally experienced firsthand, the odd swings and one-off spikes triggered by locals—independent floor traders—"gunning for the stops." Driven by nothing more than the urge to activate temporary buying and selling orders that automatically kick in at key trigger points, such activity is a game where players capitalize on momentary gaps in liquidity by abruptly setting minitrends in motion. After prices start moving, they let the autopilot orders take them out.

In addition, while there has generally been less money flowing through the share-trading arena in recent years to dampen choppy price action, some larger players, in actual fact, seem to have almost limitless resources at their disposal. This allows for the possibility of sizeable bursts of buying and selling that can further unsettle markets. Indeed, there has often been talk from the trading pits and exchange floors that certain operators have been the driving force behind early session swings that later evolved into much larger moves. It is difficult, of course, to prove intent, and manipulation is clearly illegal under U.S. laws. Nonetheless, market history is filled with stories about traders "cornering" markets in attempts to drive them higher or launching "bear raids" to force prices down. During the Bubble years, there was even an informal network known as the ShortBusters Club, founded in 1990 and organized by maverick stock promoter Ray Dirks, that publicly orchestrated efforts

to force short-sellers in some speculative and thinly traded issues to buy back positions at sharply higher prices.

Ironically, while manipulative tactics are generally frowned upon in traditional investment circles, governments around the globe have relied on such measures for centuries to "stabilize" economies and markets. From overt cheerleading to covert buying and selling of securities using taxpayer funds, politicians and central bankers regularly attempt to influence prices in the name of public policy. Similarly, they often act to smooth the bumps of normal cyclical activity or, on occasion, to achieve outcomes driven by less-than-honorable ends. Although it has sometimes been rumored that U.S. authorities have had a hand in steadying domestic share prices—in the same way that they regularly buy and sell currencies and fixed income securities—the allegation remains unproven. It seems likely, though, that certain official actions, such as currency intervention by some other nations, have had at least an indirect influence on short-term movements in equities, if only for psychological reasons.

One phenomenon that has also contributed to near-term volatility is the practice of short-selling. While it is covered in more detail later on, suffice it to say that the technique can trigger a range of emotional and technical responses that can often stir up markets. For many investors, it is a relatively unfamiliar animal, and once unleashed, it is difficult to keep under control. Also, it goes against the grain of a traditional investing—and even a human—perspective. Moreover, selling securities one does not own and speculating on falling share prices are two activities that require considerable expertise and a nose for danger. While it is easy to say that the process is a mirror image of going long, battle-hardened experience suggests otherwise. In the hands of novice operators, misuse of the tactic can be like walking in a minefield. Even for experienced professionals, the pain when things go wrong can be exceptionally difficult to swallow.

Information overload and the pressures of multitasking under extreme stress can also cause wide swings in share prices for various reasons. With more data to look at, a greater number of factors to analyze, and numerous actions to consider, modern operators are frequently pushed to the brink of what they can handle. Under normal circumstances, this range of activities is usually manageable, especially for seasoned professionals. However, when it all becomes too much, participants sometimes opt for the wrong choices—or they make no decisions at all. Occasionally, people seize up, as if caught in the glare of the market headlight, and withdraw—mentally or even physically—from the center of the

action. This can be a serious problem if they have open orders or positions that need to be unwound, and the fallout from cleaning up the mess can be substantial. Alternatively, they may decide to begin across-the-board actions or adjust their positions all at once, with little regard for trading conditions. Regardless, when players are out of phase with supply and demand, prices invariably bump and grind.

Investors and traders sometimes find themselves inadvertently operating on autopilot, reacting instinctively to every blip and blob that floats by. Headlines, instant messages, PA announcements—they all keep on coming, sometimes in a jumble. It can be difficult to sift through the whole lot when the flurry is intense and seemingly neverending. Even long-time veterans can find themselves reacting, zombie-like, to each and every development in a relatively disinterested manner. When conditions are right and one's state of mind resembles the "zone" that professional athletes enter when they are at the top of their game, profitable things do seem to happen. Bids appear when investors want to sell, and offers come into the market when it is time to buy. However, if it all goes wrong, the groove can soon become a rut, where air pockets continually get popped, triggering losses and unsettling prices.

Finally, a few other factors also contribute to market instability. For example, some hedge fund players, especially those without established track records or a solid base of patient investors, occasionally look to lock in monthly gains—or limit losses—if desired performance parameters are met relatively early on in a measurement period. While helping to paint a positive picture for the aggressive manager's short-term return profile, this sort of activity can create seemingly random disturbances in securities where there are no other developments around that might have otherwise knocked prices out of whack. And, because of the sizable positions a variety of modern operators can take on board, as well as the ham-fisted approach many use when they eventually decide to head for the exits, the short-term effect can sometimes be dramatic.

Regular and seasonal money flows into mutual funds and other pooled investment vehicles have always played an obvious and well-known role in pushing shares around. In the past, the pressures tended to be most acute at times when many automatic investment programs, such as employee deferred compensation plans, kicked in. Although they have occasionally had a dramatic overall effect on the market, especially around calendar turning points, the inflows and outflows in previous years generally seemed to be spread throughout the course of one or more trading sessions. This effectively minimized the appearance of disruptive

flare-ups and large intraday gyrations. Recently, however, for reasons that are not entirely clear, fund managers seem to be concentrating buying and selling activity associated with these streams at certain times of the day, usually in the first or last hour of the trading session. Perhaps they are trying to avoid creating gaps between executed prices and closing valuations, or maybe they are attempting to influence existing portfolio values. For whatever reasons, volatility and the clock now seem to be more linked than in the past.

Action Plan

Timing, of course, is usually a critical component of investing success. In fact, the returns from a solid investment idea can easily turn sour if the entry and exit strategies are poorly handled—which can happen if no allowance is made for conditions at the moment of execution. Though it may seem obvious, one of the best ways to minimize the risk of being blindsided by choppy price action is to regularly stand back and try to assess what is actually going on in the market. If trading has been volatile, what are the possible reasons? Is activity being driven by fundamental developments, or does it seem to reflect the fallout from a widespread mood swing? If unexpected data or surprise geopolitical events are responsible for increased instability, does it make sense to wait for the dust to settle before getting involved? Generally speaking, markets tend to quiet down significantly in the hours and days following event-driven disturbances.

Putting circumstances in context can also provide valuable insights. Some questions to ask when the investing landscape becomes unsettled are: Where were share prices headed beforehand? Has the overall market or the securities you have been monitoring been in clearly defined trends, or just treading water? Is it just one security or sector that is volatile, or have many different markets become destabilized at the same time? Intense price swings in a variety of arenas often indicate that the overall economic environment—or, at the very least, investor expectations about it—is changing. If the instability is confined to asset classes other than equities, could it reflect circumstances that may ultimately affect stock prices? Dramatic selloffs in the bond market, for example, may indicate that investors perceive the economy is poised to recover or inflation is set to rise—or both.

It is also possible that unsettling developments in any of the commodity or financial markets could be largely technical in nature, but which may nonetheless have implications for share prices down the road. In the modern investing environment, severe losses in one market can sometimes force heavily leveraged players to raise cash by selling other holdings. This can create a cascading effect that can put pressure on a wide assortment of traded instruments, many of which may have little in common with each other. Under these conditions, lateral thinking can often provide additional insights. Weakness in fixed income securities, for example, may signal rough sledding ahead for banks and insurers, given the substantial size of their interest-sensitive portfolio holdings.

History suggests that understanding your adversaries is the first step to victory—the same usually holds true when it comes to volatility. To make a full and accurate assessment, however, it is usually necessary to look at a cross-section of fundamental and technical data. For example, if a company's stock trades in the low single-digits or its market capitalization is below $500 million, the odds are good that its average volatility will be higher than the market as a whole, as there will often be little broker research to alleviate uncertainty or institutional support to provide a backstop of liquidity. Alternatively, when average daily volumes and intraday ranges decline noticeably from historical averages, it can often indicate that short-term buying and selling activity is likely to be dominated by floor traders and market-makers, who can move prices sharply in response to minimal stimulus.

Sometimes events on the calendar or action in related markets can provide useful insights about the nature of potential instability. If the current date is within a week or so of the day when quarterly results are set to be released, there will likely be little in the way of direct comment from the company during the period. Consequently, speculators and other short-term operators may step in and begin to hold excessive sway over the near-term price action. In addition, the information vacuum may boost the significance of updates and news from rivals, customers, and suppliers, or even those events that have little to do with the company's immediate prospects. Generally speaking, it is a good idea to stay tuned to the potentially market-impacting news and developments highlighted at Web sites such as *www.wsj.com*, *www.investor.com*, *www.bloomberg.com*, *www.reuters.com*, *http://moneycentral.msn.com,* *www.thestreet.com*, *http://finance.yahoo.com*, and *http://cbs.marketwatch.com*.

Once again, the point to remember is that while choppy prices may not matter over the course of a long-term holding period, the instability

can dramatically affect performance if it crops up at an inopportune time—say, when a position has to be liquidated to meet obligations or to adjust asset allocations. Consequently, it usually makes sense to have effective execution strategies in place from the outset that can be called on when circumstances warrant. Many institutional operators, for example, prefer to use limits, rather than market orders, when dealing conditions are particularly unsettled. The reason is because, during those occasions, the trading crowd tends to back away from even routine supply and demand flows, and they will generally treat every order as a threat rather than an opportunity.

Adjusting limits to match market swings can also be a worthwhile strategy. In other words, the wider the intraday price range, the more aggressive your limit-setting approach should be. If, under average conditions, you would normally target your buying levels at a discount of one to three percent from the previous close, a recent 50 percent increase in the daily price range would suggest that a discount of two to four percent might be more appropriate. If your level is ultimately hit, you will have a bit more margin built into the price if things go wrong. If not, you end up missing out on a trade. If that is the case and it is a new position, so be it. For most successful players, one of the golden rules of making money is to walk away from investments that cannot be acquired on favorable terms.

Of course, it may be necessary to execute an order to realize a gain or to minimize the loss on an existing position. One approach that many institutional players will often use in this case is a split strategy. They will set limits on a portion of the trade, and use market orders for the balance. While that still leaves the position open to the effects of short-term instability, at least some of the exposure will be reduced. Other operators may use a piecemeal method. Essentially, they divide the order up into relatively small chunks or gradually spread it out over some period of time. This can produce an average price that may help to cancel out some of the choppiness. Whatever the case, the goal is to have volatility as your ally, not as your enemy.