Stock Market Perspective: "Flash Crash" and Trading Dangers

Unless you were stranded on one of the few remaining desert islands that does not have satellite or internet access, you certainly heard about the crazy market action on May 6. Stocks had been falling for the most part since the opening and were off by over two percent in mid-afternoon. Around 2:30, the system suffered a near-instantaneous meltdown, and a one point, the Dow was down over a thousand points, about ten percent for the day. Almost as quickly, prices recovered most of the drop in the prior few minutes as the Dow moved up to be down less than three points before finishing the day down about 350. The sudden drop and recovery has been dubbed the "flash crash." Several possible causes, including a 1000-fold typo that almost certainly did not happen, have been cited.

The "flash crash" on May 6 holds lessons for investors, particularly those who trade exchange traded funds (ETFs).

There are lessons for those who trade stocks and exchange traded funds (ETFs), and they do not depend on the underlying reasons for the flash crash. They apply to volatile conditions in any market and will be the focus of this perspective. Before getting into that, I will describe how I reacted in the management of your accounts and my personal ones.

When the markets opened on May 6, client and personal accounts held an ETF that closely tracks the Nasdaq 100 index, the so-called "Qs" with the ticker symbol QQQQ. Some accounts held the Fidelity OTC fund (FOCPX), which is highly correlated with that index. Stocks had been weak for the prior two weeks and the model I use to make trading decisions for those funds was going to give a sell signal if stocks fell very much that day. Around 2:15 the Dow was down around 250 points, and I decided to sell those holdings unless the market made up most of the loss before the close. I had an errand to run, which would take 20-30 minutes, and decided to go out then so I would be back in plenty of time before the close to see how the market had moved without watching it all the time.

When I got back about 2:45, I was stunned to see that the Dow was off by over 600 points, having fallen almost 400 in less than half an hour. I wondered what could cause that. It would normally take some very shocking news. Looking at the intraday chart, I was even more surprised to see the Dow had been down a lot more and was bouncing back. A few minutes later, I saw the loss had been cut to under 300 points. The action made me wonder what sort of fantasy world we had morphed into since I could not find any news to explain what had happened.

I decided to wait before placing any orders to see if the recovery would continue. Given the crazy market, I would not have been surprised to see the Dow close ahead a couple hundred points by the time all was said and done. However, I decided given the craziness to sell the QQQQ if the market started to fall because there was no way to estimate how much it might continue. About 3:20 the market had been falling for the past 15 minutes or so, and I sold that ETF. I placed orders to sell FOCPX, which being an ordinary mutual fund would execute at the closing price, the only price of the day.

▶**Trading Dangers:** The QQQQ ETF did not do anything exceptionally out of line with the market that day, but the same can't be said for some less liquid ETFs and stocks. I have seen reports of issues that had been trading at $50 a share having transactions at a price of few

cents. Those were eventually declared erroneous and the trades were canceled.[1]

The danger that made such ridiculous and other not quite so out of line transactions possible is due to the nature of modern securities markets. Most trading is done not by people interacting as used to be the case, either on the floor of an exchange or through "over the counter" orders placed with a human broker, but entirely electronically using communications networks. Even exchange listed stocks have the majority of their transactions done not via specialists on the floor of the exchange, but electronically. Human specialists, the market makers on the floor, are supposed to maintain an "orderly" market, so $50 stocks suddenly trading at under a buck would not happen. The market making firms that operate only through networks are supposed to have realistic quotes in return for the privileges and profit opportunities made available to them.

However, there is no enforcement and nothing prevents a firm from effectively refusing to trade certain issues. They are required to always show a price at which they will buy, a bid price, and a price at which they will sell, an asked price. Those are determined by the firms' computer programs. On May 6 seeing the extreme volatility, too many decided to cease trading certain issues. Their computers did this by posting bid prices of a few cents and ask prices of many thousands. Certain sell orders got stuck with the phony bid prices. In short, market making firms did not fulfill their function and some traders got burned. The most extreme cases were undone, but other less egregious ones were not.

[1] Canceling such trades undid the extreme damage to the sellers, but caused potential problems for some buyers. I read that an individual investor had put in a very low bid for a stock and got it for a couple of dollars and then sold it later that day at a much higher price. If his sale was not reversed, he would end up with a short position that he did not want and could move against him without his realizing he was short. I did not see how that worked out.

The worst cases were due to market orders, often so-called "stop loss" orders. Due to their nature as a collection of stocks rather than an individual issue, ETFs were particularly vulnerable. The May 30 *Wall Street Journal* reports that an investor who purchased a less liquid ETF at $15 a share placed a stop-loss order at $14. That means if the ETF trades at $14 or lower, the order becomes a market order to execute at the current bid price. Some of his shares were sold for 13 *cents*. Fortunately for him, the trade was ultimately canceled.

▶**Lessons:** There are some lessons illustrated by the flash crash that anyone who trades should have learned.

1) Avoid trading in volatile markets. This can be very hard to stick to because such markets often generate emotional reactions, fear being the most powerful, that compel some to take action. Thinking of October 19, 1987 when stocks fell by over 20% in a single day or October 1929, the fear of seeing one's investments lose a substantial portion of their value can easily take hold. If that happens to you and you can't avoid panic selling, then it is likely you have too much of your portfolio in stocks.

More practically, markets normally will recover and stabilize shortly, which will provide an opportunity for less emotional decision making and a much better trading environment. After "Black Monday" in 1987, the Dow moved lower the next morning before gaining almost six percent on October 20 and another ten percent the next day. Those who had the courage to be contrarians and buy stocks they liked (if they could get through to their brokers—a real challenge those days) likely were nicely rewarded for that.

2) Use the right type of order. Market orders or those that can become market orders, such as the stop-loss example above, can be dangerous in highly volatile markets. Limit orders are a better way to go. The advantage of a market order is that it will be executed, which can be

important if you are worried and want to close a position. However, a sell limit order below the current market should be just as effective. Suppose a stock or ETF is at 20 and you decide you want to get out of it. If you place a sell order at 19 or better, you will get out in all but the craziest markets. Your broker has an obligation to get you the best possible price, so placing the order at 19 won't work against you. If the market drops so fast, more than 5% in the short time it takes you to place the order, that likely means it has gone crazy and that you are better off waiting for it to stabilize. That certainly would have paid off on May 6.

What about "stop" orders? I personally do not like placing them and prefer to use "mental" stops where I watch the price and place a sell order if it gets to the level that triggers action. There are times when I won't be able to watch, and a stop-loss order can be useful. Most brokers allow a stop-limit order. In the case of the ETF trade above, the investor could have placed a stop-sell order at $14 with a limit of $13.50. That means if the ETF trades at $14, it becomes an order to sell at $13.50 or higher. It would not have executed in the example, which likely would have been to the investor's benefit. He was lucky that the price he got was so silly that the trade was canceled, but one should not count on that happening. If he had sold at $10, that may not have been canceled and probably was also an unrealistically low price.

3) It is important to understand the differences between ETFs and ordinary mutual funds. Although ETFs are often promoted as mutual funds that can be traded any time the market is open, which has advantages and disadvantages, that is simplistic. Ordinary funds trade once a day at their closing net asset value (NAV), and possibly a sales charge called a "load." An ETF trades at a market price. It is possible to exchange ETFs shares for their underlying holdings and the other way around in sufficiently large quantities, which more or less insures that an ETF will trade at close to its NAV just about all of the time. However, as the example showed, there may be times when that may not be true. The current actual NAV for ETFs is available, so it is possible to determine whether the price it is trading at is out of line.

Depending on where you trade them, mutual fund transactions may or may not incur a commission. With a few exceptions due to promotions by brokers, ETF trades are charged commissions. With a discount broker, those are usually quite modest, a small fraction of one percent of the value of the transaction. However, ETFs have a bid-ask spread. Very liquid ones, such as QQQQ, have a spread of a penny or two, which is inconsequential. However, low liquidity issues may have a spread of a percent or more, which is likely to widen during volatile market periods.

One can trade ETFs more or less like mutual funds by using "market on close" orders or placing market orders right at the close of trading. In normal conditions, the trade will execute very close to the closing NAV. If you want to trade them at other times, it is critical to be aware of how they differ from ordinary mutual funds and individual stocks.