

High Frequency Trading

Or, Pay No Attention to the Man Behind the Curtain

August 7, 2009

In the last letter we discussed reasons why the market has advanced over the last few months. One reason we mentioned was due to High Frequency Trading (HFT) programs and their role in the volume numbers for the stock exchanges. We would like to take a few minutes and explain how this works and what the effect has been and could be going forward.

High frequency trading is a type of computer trading that buys and sells stocks at an extremely high speed. The basis for the trades is a mathematical algorithm designed to identify very specific markers with the equity markets. In general, an HFT program buys and sells thousands of contracts every second...that's right, every second. One HFT program has the capability to trade hundreds of thousands of contracts a minute. What is even more amazing is that they don't have to "buy low and sell high" to make money. HFT programs get paid to buy and sell stocks. The major exchanges will provide rebates to traders who help provide liquidity to the markets. The general rebate is $\frac{1}{4}$ of a penny for every transaction or $\frac{1}{2}$ of a penny for a complete transaction (a buy and a sell). In most cases, the program will buy and sell in rapid succession and make a penny or two with each trade. If you add that up over the course of a day, week, month and quarter in tens of thousands of trades, that's a LOT of money! Keep in mind, these are programs sponsored by each exchange, like the Supplemental Liquidity Provider program and the NYSE and the Enhanced Liquidity Provider program at DirectEdge (the biggest exchange you never heard of!).

The issue now concerns the overall volume of the stock market. Currently, **HFT programs account for over 70%** of the volume on all exchanges. That means that 2% of the 20,000 or so trading firms are controlling 70% of the overall volume, with Goldman Sachs being the biggest at 20%. So, while we hear that volume is low this summer even though the market keeps going higher, the real story is that true volume is *extremely low*. By true volume we mean true investor volume, those that buy for investment purposes, not to provide liquidity. Without HFT programs the volume would be similar to the week before the Christmas holiday.

In an earlier article (see www.wedgewooderie.com, May 4th) we showed how the big institutions had a large holding of T Bills and were looking for more to buy. This hasn't changed. The big money remains in cash or short-term bills. So, while we have seen a great move from the March lows, the big money isn't convinced. When they get in, the *real* move will happen.

There are two causes for concern with this situation. First, the current correlation between price movement and volume is $-.81$. This means that on low volume days (which have been the majority since March) the market moves up and on high volume days the market moves down. We haven't seen this level of negative correlation since 2002. It seems that the HFT programs hit the "warp speed" button when momentum is negative.

The second concern is the recent uproar over HFT. The SEC is now trying to determine whether HFT should be banned. One aspect of the liquidity programs the exchanges sponsor is called "flash" trading, where certain participants get to see large orders a fraction of a second before they hit the actual market. HFT programs, because they are so fast, can take advantage of this before anyone else. At the time of this writing, the decision is pending.

Low trading volume during the summer months is very common and generally expected. This year, though, took the "summer doldrums" to a whole new level. "True" volume will continue to remain low as long as we still have poor top-line earnings, high unemployment and continued overall economic weakness. When the basic fundamentals of the economy return to a more normal state, so too, will the volume on the exchanges. We estimate that to emerge over the next 6 to 12 months.