The Rise of Automated Trading and Fall of Fundament al Analysis

March 2018 Client Letter

Did exchange-traded funds (ETFs) cause the February stock market correction? "Nonsense," is the response of many experts to that question. ETFs, provide access to baskets of securities that mirror indexes and can be bought and sold throughout the day, just like stocks. "ETFs

are the future of investing. Just ask anyone!"

On the surface, it is hard to find fault with ETFs. Though they are new, ETFs aren't far removed from the open-end and closedend mutual funds that have been around for decades. Paired, however, with automated algorithmic trading (another of today's innovations in finance), ETFs may not be as benign as many experts believe.

WIRED magazine recently opined on the role of ETFs and algorithmic trading in financial markets. Below are some highlights. (Emphasis is mine.)

... ETFs trade as units. If I own an ETF that mirrors all large US companies and I decide

to sell, a tiny piece of every company in that basket gets sold. The same is true for traditional mutual funds, which have been around for decades, but mutual funds can only be traded once daily. ETFs are traded in fractions of a second, which means that every company with listed shares or bonds can also be traded in fractions of a second, as quickly as a computer program can process the data. Those programs, and the algorithms that drive them, arebeginning to upend and distort the multi-trilliondollar business of buying and selling stocks and bonds.

For nearly two years,

global stock markets were calm. Eerily calm. Between February 2016 and February 2018, US stocks climbed steadily and never suffered a drop of more than a few percent. US politics were dramatic, as were global crises, but financial markets, after of turmoil vears following the financial implosion of 2008, were placid.

In early February, the calm ended, in a spectacular fashion. In rolling waves of frenetic selling and buying, the Dow Jones Industrial Average moved up and down hundreds of points within hours, as did other major global indexes. For now, the

frenzy seems to have subsided. But those weeks raised concerns that have been building for some time and are not yet understood.

Before ETFs, which have only become a substantial portion of the market in the past few years, there were certainly market panics and collapses. But the recent frenzy should be a wake-up call that technology is altering financial markets as dramatically as it has other segments of society, and we'd best figure how understand and control it.

The result is that at any given time, a majority of the market

is now determined not by humans making decisions but by computers trading with one another based on programs. There are no hard and fast numbers, though JP Morgan recently estimated that only 10 percent of trading now consists of people trading with people based on fundamental decisions about company orcompany B.

With more money pouring into ETFs and more trading dominated by algorithms, the essential nature of stock and bond markets is morphing. For now, it isn't clear

into what. So far, the effect of the machines has been to speed up cycles of selling and buying, so that you can now have a stock market sell-off and recovery in days instead of weeks and months. That in itself is no big deal assuming that everything returns to some level of stability once those computergenerated storms have passed.

Anyone who has experience with technology may immediately feel some unease with the evolution WIRED describes. It may not happen often, but software and hardware don't always work as designed. J.P. Morgan's statistic that as much as

90% of trading is no longer generated by fundamental investors is rather disturbing, and may in fact contribute to the style of correction we saw in February. I say contribute because ETFs and algorithms probably weren't the spark that ignited the correction, but rather the fuel that allowed the fire to continue burning.

The Spark

For the spark, we would look to the bond market. As I wrote last month, February's volatility may have been caused by a shifting outlook for interest rates and inflation. The US economy and stock market have benefited from many decades of declining and

low long-term interest rates. A move in the direction of higher interest rates will likely be a headwind for stocks.

3% Rates = Down Year for Stocks

If interest rates rise above 3%, stocks will end the year down. That according to Jeffery Gundlach, manager of the widely followed Doubleline Total Return Bond Fund. Gundlach is in the business of selling a bond fund, so one should take his views on stocks with a grain of salt, but he may not be wrong. Three percent yields aren't high by historical standards, but global central banks have kept rates so low for so

long economies and asset prices may now be more sensitive to smaller changes.

If Mr. Gundlach is correct, the good news is 1) rising rates are creating pockets of value in an otherwise expensive market and 2) rates are rising (more on this later).

Value is undoubtedly difficult to spot in the market-capitalization-weighted exchange-traded funds like those that track the S&P 500. By example, Apple, Amazon, Facebook, Microsoft, and Google, the top five components of the S&P 500, have an average P/E of 84X and a median P/E of 29X. A simple way to think about P/E is as the number of years it would take to earn back your

investment at the current rate of profit. We are all for long-term investing, but 84 years?

Worse than the elevated P/E of the S&P 500 and its top constituents is the average dividend yield of the top five. America's five biggest companies pay an average yield of 0.64%. The median yield is 0%, as only two of the five even bother with dividends.

To find pockets of value in this market, you should watch the hot money and look in the opposite direction. Over recent years, the low-interest rate environment created a chase for yield in dividend stocks that were viewed as "bond substitutes." That drove down yields and created an uncomfortable

correlation between longterm interest rates and these "bond substitutes."

The hot money now appears to be leaving that trade.

The FAANG-heavy (FAANG stands for: Facebook, Apple, Amazon, Netflix, and Google) consumer discretionary and technology sectors have managed to keep the S&P 500 in the black, but the highest-yielding sectors of the stock market are all down YTD. Real estate, utilities, consumer staples, and telecom stocks (the RUST sectors) have been bombed out and now offer select opportunities. We initiated a new position in the Canadian utility Fortis, which I profiled last month. I'll have more to report as new positions are added to portfolios.

That is not to say that the RUST sectors won't continue to be outdone by the more speculative areas of the market for a time. Over the last three years, the FAANG stocks (and other speculative shares) have risen at a rate seemingly unbounded by profits or dividends. Trying to predict the madness of when crowd sentiment will shift on these names is an unusually poor use of time.

The current environment has a feel similar to the late 1990s when speculation was dominant. To successfully navigate the environment then, my dad advised a focus on patience and compound interest. He recently wrote

about it at Young's World Money Forecast.

Compound Interest Is the Key

Legendary investor Phillip Carret used to say that investing genius consisted of one part patience, and one part compound interest. And Charlie Munger, Warren Buffett's long-time partner, will tell you that he is rarely without a compound rate-of-return table. As Munger says, "Understanding both the power of compound return and the difficulty of achieving it is the key to investing."

If you adhere to a base of value, keep your portfolio turnover low to cut costs and taxes, and

rely on the miracle of compound interest, you will set yourself on the safest and surest course to profit both this year and in future years. Craft your portfolio with counterweight building blocks that allow you to ride out the vagaries of the marketplace.

Last year was the third consecutive year that growth stocks outran value stocks. But remember, growth and value tend to produce similar returns long term. One sector is ahead for a period, then the other has its day. Back in the two-tier market of the early 1970s, growth stocks had a field day at the expense of value stocks.

But over the next decade, it was another matter. Value stocks clobbered growth stocks, and its value stocks that are cheaper now in 2000.

The same advice can be given today. Patience and compound interest never go out of style.

Higher Rates a Positive

Rising interest rates tend to be frowned upon by many market participants, but we take a different view. Higher rates may lead to lower stock and bond prices in the immediate aftermath of the increase, but they also provide an opportunity to earn higher yields.

Investors who have been positioned properly for a move up in interest rates should be delighted at the prospect of a 3%+ long-term Treasury rate.

How Will Your Bonds Fare in a Rising Rate Environment?

Over the last 12 months when short- and long-term interest rates have risen, Vanguard Short-term Investment Grade fund and our favored Vanguard GNMA fund are up 0.87% and 0.59%, respectively. Nothing to brag about, but higher rates haven't meant the end of the world for a properly positioned bond portfolio. If short- and long-term interest rates

rise a similar amount over the next 12 months, the returns on both funds may be better than they were over the last 12 months, as today's rates provide a greater level of interest income to cushion any price decline.

GNMA Yields North of 3%

The 30-day SEC yield on the Vanguard GNMA fund is now 3%. That is a 3% yield on an intermediate duration full-faith-andcredit pledge security. Vanguard GNMA invests in mortgage-backed securities (MBS) created by Ginnie Mae. Ginnie Mae doesn't actually lend money itself or create MBS. Mae Ginnie guarantees, with the full backing of the U.S. government, the timely payment of interest and principal on mortgage securities created using loans from the Federal Housing Administration and the Department of Veterans Affairs, among other originators.

Why is the yield so high if the risk is so low? Though GNMA investors don't have to worry about the risk of default, they do have to manage prepayment and extension risk. Pre-payment risk is most associated with MBS. During the multi-decade interest rate decline from the late 1970s, Americans had a n easy time refinancing their mortgages into lower rates, thereby paying off the original mortgage and sending an unexpectedly

early chunk of money to the MBS holder. Today, with rates coming off multi-decade lows, investors should place more focus on extension risk. Extension risk is the opposite of prepayment risk. When rates rise, homeowners are less likely to refinance, which reduces the amount of principal repaid, thereby increasing the duration of the MBS.

On balance, we view a rising rate environment favorably. Any short-term price declines in the bond portfolios we manage are likely to be offset by higher interest payments over time.

Have a good month. As always, please call us at (888) 456-5444 if your

financial situation has changed or if you have questions about your investment portfolio.

Warm regards,

Matthew A. Young

President and Chief

Executive Officer

P.S. As recently reported in Bloomberg, home prices rose almost 9% on a yearover-year basis in February. That's the biggest gain in four years. U.S. house prices are now 6.3% higher than their peak in July 2006. The ratio of house prices to income is creeping toward levels hit during the height of the last real estate bubble, yet housing affordability remains significantly better. What's the difference between today and 2006?

One of the biggest differences is the level of mortgage rates. At a maximum 28% of gross monthly income (ignoring taxes and insurance) today's median income family can afford mortgage of \$356,000. Raise those rates to 6.0%, which is what they averaged in 2006, and the affordable maximum mortgage falls about 20%.

According to Bloomberg, while sales were little changed amid the thin inventory, the median price across 172 large metropolitan areas jumped to \$285,700, according to a

report Thursday from brokerage Redfin Corp. It was the 72nd straight month of year-over-year increases since the market bottomed in 2012.

P.P.S. The WSJ recently that U.S. reported companies have announced \$200 billion in share buybacks over the last three months. That's double the pace of last year. Management teams love buybacks because they boost share prices, which in turn make executive stock options more valuable.

The problem with buybacks is that they are discretionary. And corporate boards and management teams have terrible timing. Buybacks tend to be highest late in

the business cycle. During recessions, when share prices are at their most attractive levels, buyback activity falls as companies look to conserve cash.

Buying back more of your stock at higher prices and less at lower prices probably isn't the savviest capital allocation decision.

P.P.P.S. Rail dividends: In February, Norfolk Southern increased its dividend by an impressive 18%. Confidence in the business and a lower tax rate, thanks to the tax package passed last year, motivated the dividend boost. Union Pacific, another of our favored rail names, also hiked dividends in February—the company's eleventh consecutive annual dividend hike. The February hike came on top of a dividend hike announced last November. Union Pacific's decision to increase the dividend again in February was attributed to the tax reform. UP's dividend is up 21% over the last year.