





Imagine you're climbing a mountain.

As the peak nears you see a massive grizzly bear.

The bear stomps its front paws and charges toward you.

Your instincts beg you to run. You only have seconds before it will reach you.

Yet, still as a Queen's Guardsman at post, you remain in place.

You are protected by the knowledge that the charge is only a test of willpower.

A bear doesn't start a charge planning to bluff and peel off at the last second. Instead, the bear is testing your reaction. Stand your ground and the bear will call off the attack. If you run, you'll be chased down. It's your reaction that determines if the charge is a bluff or the real thing — unless the bear's cubs are nearby, and then all bets are off.

Without time to blink before impact, the bear pulls up and lopes back into the woods, appearing more like a clumsy dog than a 1,200lb killing machine.

You have defeated the bear.

PREPARATION IS MORE IMPORTANT THAN INSTINCT

Preparation is what prevents us from acting on the instinctive urges that exacerbate bad situations. Our instincts are optimized for a different era. These days, conscious effort is required to suppress those instincts for the modern world. The key is to learn how.

Nowhere is this clearer than in the world of investing, where using instincts to time the market is almost always the wrong move.

THE MISTAKE THAT REDUCES RETURNS BY 50%

The data backs this up. Recent research published by a large money manager found just how costly it is to time the market. The data showed that being out of the market for just ten of the best days over a 15-year period reduced total returns by nearly 50%. Time *in* the market always beats *timing* the market.

It's not easy to stick with an investment plan during market turmoil. Without guidance, instincts are hard to ignore.

Investment professionals can add tremendous value by accounting for the human element of finance. Comprehensive financial advice considers more than just asset allocation. Investment professionals have the training and the experience to counsel clients about the many cognitive and behavioral biases that impact returns.

Bull markets end, volatility returns, and investors must relearn the lessons of the copybook headings. In good times (e.g., the longest bull market in US history) investment mistakes don't hurt, but in bad times they can compound catastrophically. It is far easier to prevent bad decisions than to rectify them. Are you prepared to stand your ground?

Q3 FIVE KEY MARKET UPDATES

- 1. The US Economy is Still Robust. Q3 continued 2018's positive economic momentum. Economic growth is strong, inflation is muted, and the unemployment rate remains near record lows.
- 2. The US Equity Market Continues its Bull Run; Global Markets Consolidate. The US stock market continued its record run, with both the S&P 500 and DJIA both reaching all-time highs in September. Volatility was range bound. Outside the US, equity markets were mostly down. Oil prices hit a 4-year high on supply concerns.
- 3. Credit Markets Stable; US 10-Year Yield Hits Seven-Year High; High Yield Outperforms Investment Grade (IG) as Rates Rise. In October, the US 10-Year crept past 3.26%, up 80 basis points from the start of 2018. IG and High Yield (HY) rebounded slightly off their H1 losses. Concerns have been raised about BBB-rated bonds, which now account for 50% of the IG market.
- 4. As Expected, the US Fed Raised Rates and Reduced its Balance Sheet. At the FOMC meeting in September, the Fed raised rates another .25%, while hinting at another raise in December. The Fed continues to reduce its balance sheet, albeit slowly.
- 5. Geopolitical Tensions Result in Muted Market Reaction. Ever-present trade disputes faded into background noise as markets appear to ignore the chatter. The US, Canada and Mexico signed a trade agreement to replace NAFTA. Rumblings in Italy caused Italian sovereign debt to decline. In emerging market headlines, turmoil in Turkey and Argentina dominated the news.

Below we expand on key market updates and on significant headline events that occurred during the quarter.

1. THE US ECONOMY IS STILL ROBUST

For the third quarter in a row, economic momentum and fiscal stimulus have won the battle against trade concerns and inflation.

We summarize the major economic headlines from Q3 and share what recent research says about the biggest financial decision a young adult can make.

GDP Growth and Sentiment Indicators Show Strength

Q2 GDP registered 4.2%, beating the advance estimate of 4.1% and resulting in the highest quarterly GDP reading since Q3 2014. GDP is expected at 3.0% for Q3 and is trending toward 2.9% for FY 2018, according to recent consensus.

Real GDP: Percent Change from Preceding Quarter



Data Source: Bureau of Economic Analysis.

Other major economic indicators, e.g., inflation measures, unemployment, etc., also remain sound.

People feel good about the economy. In September, the Conference Board's Consumer Confidence Index hit an 18-year high and is currently nearing its all-time high from 2000.

Consumers are not the only ones feeling buoyant; businesses are in high spirits with the NFIB Small Business Optimism Index reaching a record high and topping the previous record high from 1983. This type of exuberance causes the Fed to reach for the punch bowl.

How Quitters Win the Employment Game

Positive employment trends continue.

The US job market is the best it has been in recent history. As noted in last quarter's update, the combination of low unemployment and increased job openings encourage people to explore new job opportunities. The Labor Department measured current open positions at 6.9 million, an all-time series high, in its JOLTS report (Job Openings and Labor Turnover Survey).

The rate of people quitting their jobs is at a 17-year high, with over 3.5 million people quitting their jobs in May. In this case, quitting is a good thing because it suggests that workers are leaving for better pay and/or benefits. Employees are confident in their ability to find new positions quickly. However, job market tightness has not yet increased real wages. The combination of high and increasing student loan debt and stagnant real wages form a potent mix for change.

College Degree Analysis Gets Granular – Which Degrees are Worth it?

- "I will reiterate that I am a thirty-year-old married man with more than \$100,000 of debt, who makes less each year than what he owes. Buying a pair of pants is a major financial decision for me."
- Been Down So Long It Looks Like Debt to Me,
 Michael H. Miller

Outside of going to college, no one would suggest that a teenager take on massive amounts of non-dischargeable debt. Today 44 million borrowers hold a collective \$1.5 trillion in student loan debt, on average more than \$37,000 each.

For decades, borrowing to get a college degree has been a safe bet. Students are told that a college degree is a necessity. A frequently cited statistic is that a bachelor's degree holder can expect to earn 66% more than someone with only a high school diploma. Students listened. From 2008 to today, the amount of outstanding student loan debt has increased over 250%.

As outstanding student loan debt has gone parabolic, more effort has gone into determining which degrees are worth the expense. To that end, Bankrate.com released a report of the most valuable and least valuable college majors.

- "Being an actuary is the best job in America because you get paid like doctors and lawyers, but you don't have to work with blood or visit your clients in jail"
- Krzysztof Ostaszewski, Director of the Actuarial Program at Illinois State University

The most valuable major: actuarial science. No surprise there. The subject is math-heavy and credentialing exams are so difficult that they make the notorious CFA exams seem like a falling off a log-test. With a six-figure average income and 2.3% unemployment rate, borrowing to fund this degree is a no-brainer.

At the bottom of the list are Fine Arts degrees. The survey revealed an average income of \$41k and an unemployment rate of 9.1%. By contrast, those without a high school diploma have an unemployment rate of 5.9%. Yes, fine arts degree holders actually have a higher rate of unemployment vs. not having a high school diploma at all. Do any colleges offer refunds?

Long Actuarial Degrees, Short Fine Arts

Modern portfolio theory created a formalized way to think about risk and return from an overall portfolio perspective. Yet the most expensive asset for a young adult is typically not subject to much scrutiny at all. Student loan debt is hobbling millennials even during the greatest bull market in US history. A college degree is a financial asset that has a measurable track record of risks and returns. Student would be well served by investing in a college degree only when it is an overall benefit to their total portfolio.

2. THE US EQUITY MARKET CONTINUES ITS BULL RUN; GLOBAL MARKETS CONSOLIDATE.

Another quarter means another chance to say: We are in a historic bull market. But, now we are able to say, this is the longest bull market in US history. It was the best quarterly performance for the S&P 500 in five years, with a return of 7.2% and the index breaking through its previous all-time high from January.

European equities were mostly down during the quarter. China's equity market declined due to trade concerns. Global equity market returns have been mediocre throughout this year, consolidating some of 2017's gains.

Below we discuss the largest public company in the world and show the outsize impact of a certain sector on the S&P 500.

TLDR: Tech firms are massive.

¹ Although, like the birthday of a baby born on a leap day, there is some dispute over when we should actually celebrate this milestone. Some say it's not the longest bull market in history just yet. Nevertheless, we defer to consensus over trivial points of measurement, and here consensus has ruled.

Trillion Dollar Babies: Apple and Amazon Enter into Four-Comma Territory

Extremely large numbers are hard to conceptualize. Past a certain size they fall into the mental category of *really, really big* and orders of magnitude disappear. So how much is \$1 trillion dollars? In stock market terms, \$1 trillion is more than the entire market cap of the S&P in 1980. Now in 2018 there are individual companies that size.

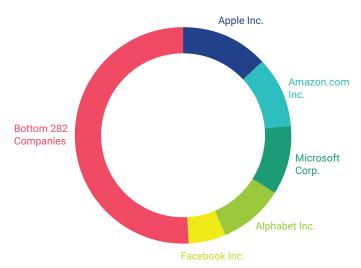
In Q3, Apple became the first company with a \$1 trillion dollar market capitalization (nearly same as the GDP of South Korea). Shortly after, Amazon became the second company worth over \$1 trillion, although the market cap quickly retreated to a mere \$970 billion. Jeff Bezos was, for a short time, worth as much as Bill Gates and Warren Buffet combined. Unfortunately, now he is only as rich as Bill Gates and Mark Zuckerberg.

What will be third one-trillion-dollar company? Most likely another tech firm. Microsoft has the third largest market cap at \$877 billion and Google (Alphabet) is fourth at \$834 billion.

Technology Dominates the S&P 500

The below chart, created by Ritholtz Wealth Management, shows the dominance of large tech companies in the S&P 500. The five largest S&P 500 companies are worth just over \$4 trillion, equal to the value of the bottom 282 companies.

Dominance of Large Tech Companies in the S&P 500



Data Source: Michael Batnick, Ritholtz Wealth Management, July 2018.

3. CREDIT MARKETS STABLE; US 10-YEAR YIELD HITS SEVEN-YEAR HIGH; HIGH YIELD OUTPERFORMS INVESTMENT GRADE (IG) AS RATES RISE.

During the quarter, US 10-year bond yields reached a four month high and then surged in October to a new seven-year high. As of quarter-end, the yield curve (the difference between the 2-year and 10-year rate), although tighter than at the end of Q2, had yet to invert, which would signal an imminent recession.

Leveraged loan performance has been favorable throughout Q3 and default rates remain low. Fitch Ratings noted that the month of September had no US institutional leveraged loan defaults, and it forecasted the loan default rate to be 2% for the year. Floating rate instruments continue to outperform fixed income in this rising rate environment.

Analysts have expressed increasing skepticism over certain segments of the Investment Grade credit market. In particular, bonds with the lowest IG credit rating of BBB.

Investment Grade Investors Face Challenges

Investors in IG bonds face challenges meeting their target returns. Now with rates rising, IG investors have to navigate declining bond prices as well. Best case scenario: low yields. Worst case scenario: large losses. Bonds are typically unsecured and have no covenants. When they start to teeter, bondholders can't do much else than to monitor the investments

If ratings decline, IG holders may be forced sellers at the worst possible time, as many investors are not permitted to hold anything lower than BBB. The combination of high target returns and a mandate to hold only investment grade instruments has led to a curious distribution of ratings in the IG world.

The Battle of the BBBulge

There is a bulge in Investment Grade credit. Triple-B bonds account for approximately 50% of the total IG bonds outstanding, according to Bloomberg. The amount of outstanding BBB rated bonds has increased significantly since the financial crisis. There are nearly \$3 trillion worth of BBB bonds outstanding, up from \$700 billion in 2008. In that time, the credit quality has experienced a decline.

Leverage has also increased from 2.1 in 2007 to 3.2 today. Leverage is measured by the debt divided by EBITDA. Lower leverage results in a safer (and, generally, lower yielding) bond.

Many large fixed income holders must sell any holdings that are below investment grade. They could be forced sellers if the sector has significant rating declines. Forced sellers drive down prices as they simultaneously rush for the exits. The beneficiations of these sales would be investors without similar investment restrictions. Those who invest in all segments of the credit markets are able to take advantage of relative value discrepancies between market segments that more restricted investors cannot.

4. US FED RAISES RATES AND REDUCES ITS BALANCE SHEET, AS EXPECTED.

As expected, the Federal Reserve raised interest rates at its September meeting. This is the eighth hike since 2016 and an additional hike is expected in December. The Fed removed the word "accommodative" from its monetary policy statement, which caused a minor market freak-out. Chairman Powell reassured Fed watchers that: *The change does not signal any change in the likely path of policy.* In other words, normalization will continue.

Below we update on the status Federal Reserve's efforts to reduce its balance sheet and what also global central bank balance sheets look like.

Central Bank Balance Sheet Update

The Fed's current balance sheet reduction, i.e., quantitative tightening, is proceeding at a measured pace. Instead of actively selling, the Fed is letting bonds roll off as they mature and not replacing them. The Fed's balance sheet has declined about 6% since starting quantitative tightening one year ago. According to Fitch research, the Fed balance sheet will shrink by \$752 billion by the end of 2019, from \$4.2 trillion today.

Globally, central banks are engorged with assets. The US Fed, ECB, and BoJ collectively hold \$14.5 trillion in assets. With central banks as large asset buyers there are fears that this intervention has distorted the normal price discovery mechanisms of the market. For example, the Bank of Japan, through its ETF holdings, is a top-10 shareholder in more than 40% of listed companies, twice as many as one year ago. There are concerns about central

banks' eventual balance sheets reductions. No one knows if the market will decline or if there is sufficient demand without central bank support to keep prices where they are.

With an inflated balance sheet, already low or negative rates, what will the world central banks do to combat the next crisis? Unless central banks can raise rates and reduce their balance sheets, combating the next recession with existing policy options will be like pushing a rope uphill.

5. GEOPOLITICAL TENSIONS RESULT IN MUTED MARKET REACTION.

As headlines focused on trade and other tensions with China, the main trade story was positive. The US, Canada and Mexico signed a historic trade deal to replace NAFTA. The agreement covers nearly \$1.2 trillion worth of trade, making it one of the largest trade deals in US history.

Although China's equity market declined on trade concerns, equity markets have generally ignored tariff news. The International Monetary Fund, however, is not so sanguine about growth.

A recent IMF report reduced its global GDP growth estimates for the first time since 2016. The global economy is now expected to grow 3.7% in 2018 and 2019 v the prior estimate of 3.9%. Trade wars have impacted the growth forecast, as have slower growth forecasts for certain Emerging Market countries. The IMF singled out the economies of Argentina, Brazil and Turkey as reasons lowering the forecast. Overall, Emerging Markets are still expected to have a higher growth rate vs. advanced economies

CLOSING THOUGHTS

Awareness lets us know what to expect. Preparation tells us what to do when those expectations become reality. Both help fight the biases that cause financial mistakes. Fortune favors fools and the young, but the rest of us need to plan.

Imagine a different market environment. As you think through potential market scenarios—higher rates, more volatility, and equity declines—are you comfortable with your current holdings? The time to plan is before the bear arrives. If you can confront a bear market free from panic, then you'll be able to ignore the desire to flee toward safety. But if you find yourself wanting to run, then it's time to prepare for whatever comes next.

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