Trumbower Financial Advisors, LLC
3rd Quarter 2017
Investment Market Commentary

Goldilocks and the Missing Bears

Stock market indices continued to stoke investors' stoves during Q3, despite a few days of cold porridge in August. Emerging equities (+7.89%) sat in Papa's chair while Small Caps (+5.67%) led the bears away from US stocks. Technology and Energy triumphed over slumbering consumer-related sectors.

The story line is similar year-to-date. Less developed markets were the place to be. Emerging and Developed foreign indices have escalated 172.9% and 113.17%, respectively, since the 2009 trough - but they are still paw prints behind US benchmarks that returned 342% to 401% over the same period. Even though the S&P 500 has doubled since its 2007 peak, the levitating chair remains unbroken.

Foreign equities were bolstered by the sliding dollar. The US Dollar Index fell -2.71% in Q3 and is down -8.58% so far this year, in spite of a .7% September comeback. Tales of political chaos, tepid inflation and the Korean war of words along with expectations that the ECB will curtail their QE program dulled the greenback's appeal. The Fed reiterated its commitment to normalizing US rates but short dollar positions are at the highest level in five years.

Commodities, as measured by the S&P GSCI Index, perked up 7.5% during the quarter narrowing their 2017 losing streak. Oil prices emerged from June lows to score a 2-year high in September. Surprisingly strong demand coupled with less enthusiastic US shale production are credited with the revival – although

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3rd Quarter Equity Market Results

	3rd Qtr. % Chg.	12-mo. % Chg.
S&P 500	4.48	18.61
S&P 400	3.22	17.52
Nasdaq	6.06	23.68
Russ 2000	5.67	20.74
MSCI EAFE	4.81	15.99
MSCI Emg	7.89	22.46

Chomping at the Bit – Cryptocurrency for Dummies

Joe Kennedy made it through the 1929 stock market crash relatively unscathed and coined one of the most famous investment adages. "When the shoe shine guy starts offering stock tips, it's time to sell." These days Bitcoin, the first surviving and most well-known of the "cryptocurrencies," is all the rage among teenagers. As of this writing, there are over 1,000 virtual currencies and alternative coins with a market value that topped $170 billion this year. Is this real money? A desirable investment?

Legend has it that Bitcoin was created in the wake of the 2008 global financial crisis by a disillusioned computer coder. His name isn't important because he probably never existed. The goal was to enable payment transfers among parties, anonymously, securely and without expensive, untrustworthy, cumbersome, government regulated financial institutions. The concept was launched in a whitepaper and by the release of 31,000 lines of open sourced computer code into the Internet where it was picked up by a community of "miners." The miners use super-computers to solve complex puzzles and are compensated by the issuance of Bitcoins. The legacy Bitcoin algorithm will award 21 million coins between 2009 and 2040. When it works as intended, puzzle difficulty fluctuates to optimize the number of coins minted.

Blockchain is the revolutionary technology that makes cryptocurrency work. Each unit or coin is essentially an electronic ledger on which every transaction related to it is indelibly chronologically recorded. The ledgers are broadcast to a network of computers (validators) that authenticate and then jointly update identical versions. An adversary would have to tamper with each ledger simultaneously to alter its history. Successful miners are paid for their electricity and effort with the currency. There are very detailed guides to becoming a miner available on the Internet. Don't quit your day job!

Bitcoin's source code is not owned by anyone but it is controlled by a group of core developers who can make changes if approved by miners. Since they are compensated in Bitcoins, miners are motivated to make sure Bitcoins meet users' needs. Each currency is governed by a system of checks and balances to keep the playing field even. Dash includes stakeholders who purchase it for the right to vote on proposed changes. Ethereum, home of the Ether, is guided by a non-profit organization run by its inventors.

Cryptocurrencies promote privacy because ledgers do not contain personal information. Currencies are sent to and from public addresses. The owner uses a string of letters and numbers to access "wallets." Unlike a credit card charge, once a transaction is validated it can't be reversed. These features are appealing to criminals, underground economies, on-line gamblers, those subject to capital controls and governments evading economic sanctions.

Forking and ICOs

As of September 2017, Bitcoin and Ethereum represented 49% and 19% of the virtual currency market cap. There are five other notables who capture 17% and thousands of minor players make up the rest. The universe of participants is still limited so each new issue may take market share from the old. When factions within an existing network go in different directions, a "fork" or "spin off" currency results. For example, Bitcoin Cash was launched in July. The original blockchain became so large that it inhibited processing but the community couldn't agree on a way of fixing it so they parted ways. Bitcoin Cash quickly assumed third place in the hierarchy. Since its birth, miners and users have flip flopped between the two churning up wild gyrations in their prices. Another fork is scheduled to occur in November.

Ethereum differs from Bitcoin in that validators collectively execute computer programs known as "smart contracts." The Ether blockchain ledger is one of these programs. Software developers use Ethereum's platform to build applications. Unique tokens allowing future access to apps are created and sold to investors to raise capital. A limited supply of tokens is issued by each project. They are actively traded and become more valuable with heightened interest in the app. This is analogous to an unregulated initial private offering – available to the public. Over 100 Initial Coin Offerings "ICOs" raised $1.32 billion during the third quarter alone mainly from poorly informed retail investors. The Chinese government views ICOs as a threat to market stability and conventional venture capitalists and banned them in early September. Trading sites are prohibited from converting digital coins to real currency and banks may not offer ICO services. The price of Bitcoins and Ethers dropped -11.4% and -16% on the news before bouncing back.

Security

The blockchain itself has never been compromised - yet. Ethereum invites guest hackers to test its defenses. A Cornell computer science professor found nine lethal bugs in a virtual venture fund holding Ethers. The operation was suspended but not before a wise guy siphoned off $50 million in Ethers. Bitcoin's creator(s) acknowledged that the system is secure as long as "honest" users collectively control more computing power than cooperating attackers. It relies on profit motives to keep the process secure as the value of a hacker's bounty would tank as soon as the theft is exposed. Derivatives, currently available in Europe, could undermine this safety net by allowing short sales.

Even if the blockchain technology proves ironclad, exchanges that hold, convert and facilitate transactions have been burglarized. One such marketplace imploded after losing $480 million of other people's Bitcoin. Bitfinex was saved from extinction after a $69 million heist by cleverly spreading the damage among accounts. Skyrocketing prices wiped out theft losses and then some.

Value in the Eye of the Beholder

One of the founders' key objectives was to avoid systemic disruption caused by fluctuating exchange rates, manipulative monetary policy and hyperinflation. Growth in the demand for

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Bitcoin is 4 times higher in countries with inflation rates of over 7%. In reality cryptocurrencies are anything but stable. Remember the Tech Bubble created overnight billionaires who were later reduced to paupers when overblown stock prices withered. Crypto billionaires may be in an even more precarious situation if they attempt to monetize. There are those who will take cryptocurrency for goods and services but it is not yet widely accepted legal tender. Most buyers and miners are stock piling or trading one currency for another watching values shoot up and down.

As of Sept 7th the Ether had appreciated 4,279% in 2017. Ripple's price rose 3,415%. Bitcoin was up a measly 375%. Astounding! But so are the bumps in the road. On June 22nd someone tried to sell $1 million of Ethereum sparking a flash crash in the price from $319 to $0.10. Ether dropped -60% from June 12th through July 16th. It lost another -36% during the first half of September and remains -14% below its August 31st peak. More volatility is expected as Ethereum rolls out two consecutive "hard fork" upgrades. Bitcoin hit a record high of $5,014 on Sept 2nd after trading as low as $1,837. It ended the quarter at $4,182. Does anyone still think this stuff is "currency?"

How to?

Assuming you have money to burn, no liquidity needs and you are into extreme volatility - how do you buy and sell crypto"currency?" If you want to satisfy your inner geek, consult the guides for setting up your own mining operation. It requires high speed computer equipment, special power sources and apparently consumes a great deal of electricity – so you might want to look into solar panels at the same time. If you aren't that tech savvy, we found 42 exchanges worldwide that posted Bitcoin volume of $1 million or more on September 24th. As previously mentioned, exchanges are the weak link in the blockchain security system. Do your homework before you choose one. **Nothing in this article should be construed as a recommendation or endorsement**.

This link will take you to a *Business Insider* article showing each step in the process of setting up an on-line Coinbase account. It highlights quite a few glitches.
http://a.msn.com/00/enus/AAngNpb?ocid=se
In the inaugural whitepaper, Bitcoin's inventor(s) promise a low-cost method of payment that cuts out the middleman. Retail investors dealing with an exchange cannot circumvent evil financial institutions. You must enter a credit or debit card to pay for your play money and provide traditional account information to sell. Fidelity will include a Coinbase cryptocurrency account balance on your statement. We **strongly** discourage this, but there are ways (very expensive!) of buying Bitcoins or Ethers in an IRA.

Coinbase charges from 1.5% to 4% for all USD transactions depending on the payment method. They also mark up the published exchange rate by 50 basis points and pass on costs such as network and miner's fees. You can move coins to other users by setting up "wallets" directly with issuers. Fee structures vary depending on the type of wallet, priority assigned to the transaction, volume of network activity etc. Still, not exactly a "low cost" way of paying your bills.

Cryptocurrency owners need to stay informed about impending forks. Exchanges will provide details about their protocol, processing delays, conversion logistics and ability to support a legacy currency. Sometimes users are offered choices and are advised to consult the issuer's principal website.

Exposure to cryptocurrency is available through publicly traded Bitcoin Investment Trust (ticker GBTC). Introduced in 2015, it is actually an exchange traded note backed by Bitcoin and presently trades at a **91%** premium to Net Asset Value. The premium has been as high as 132%. Investors who like the idea of paying twice the value of an underlying asset need their heads examined, especially since the premium is guaranteed to evaporate as direct ownership gets easier. Citing the absence of regulation, the SEC has yet to approve an ETF that holds actual digital currency. Virtual currency swaps for institutional investors have been approved and The Chicago Board Options Exchange announced plans to launch Bitcoin futures in the coming months. The founders' vision has been foiled once again by the introduction of Federally regulated products into the cryptocurrency world.

Just surf the web and you will find websites pedaling ICOs. Click on a link to send your Bitcoins, Ethers and even real money in return for new "virtual tokens." You can then hope to find an exchange down the road that will take them for something else of value. Other private placements centered around virtual currencies, the blockchain technology and related enterprises are coming out of the woodwork. The Crypto Asset Fund, LLC seeks to put the "Cool" back into hedge funds by purchasing, managing and divesting all types of cryptocurrencies and ICO tokens – existing and future. Crypto Asset Management has created the Crypto30 Index and a fund to replicate it.

The Future?

Blockchain technology seems to be the real headline. Companies are experimenting with it in search of applications. Central banks are considering the merits of using the technology as a method of moving existing currencies about.

We conclude that cryptocurrencies are still in their infancy. Drastic changes and tremendous consolidation will occur before they evolve into the payment systems envisioned by early pioneers. They will remain appealing to those who live and operate in environments characterized by high inflation, government corruption and restricted capital flows, but it is hard to believe this type of demand will support prices jacked up by speculation and mania. Even as he rolls out a $500 million cryptocurrency hedge fund, one infamous manager describes it as "…the largest bubble of our lifetimes."

There is nothing wrong with having a little fun with your money – but cyber/crypto/virtual currency feels more like a video game than a solid investment opportunity.

Missing Bears

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many do not consider the trend sustainable. Metals, became more expensive. Aluminum in particular was affected by disruption in Chinese supplies. True to form the dollar's inverse, gold, ticked up.

Some investors worry they will find bears waking up in their beds as the second longest bull market in history traipses on. In the 8 years since the March 2009 bottom, US stocks have returned 18.95%(Large Cap) to 20.71% (Mid Cap), annualized, exceeding long-term averages by 8.65% to 6.92%, respectively. By this measure, international equities still have mileage in them although the rising cost of put options on the MSCI Emerging Mkt iShares evidences a high level of concern about prospects for a sharp decline.

As the saying goes, "what goes up must come down" we just can't predict precisely when and how far. Identifying changes in the forces that have kept the bears at bay so persistently may yield clues. Arguably, hardy stock market returns have been orchestrated by extremely loose global monetary policy. Money remains easy overseas for now. The US Fed, however, says it will start selling off securities in its coffers. Fed Fund futures project a 78% probability of a December rate hike (up from 37% in mid-August). Inflationary expectations are increasingly reflected in the yield curve, notwithstanding "mysteriously" stable consumer prices.

Current conditions challenge revered economic principles that dictate an inverse relationship between jobless rates and inflation. Low unemployment typically contributes to growth as higher wages translate into demand that, in turn, inflates prices. This hasn't happened. Wages are stagnant due to any number of reasons: a blast of labor saving technology; the replacement of retiring boomers with cheaper youngsters; declining participation rates that distort labor statistics. Goods and services have eluded inflation but it is amply apparent in the price of higher risk financial assets. The last time the Fed raised rates under similar circumstances was 1999, undoubtedly exacerbating the 2000 crash. While many people welcome "normality" it is possible the Fed will sit tight until the economic growth story gets a little steamier.

GDP advances are still modest, but recent corporate earnings reports have consistently outpaced forecasts. Granted, positive surprises sometimes reflect conservative guidance, but earnings growth has been healthy. 2nd quarter S&P 500 EPS grew 10% year-over-year, slightly less than Q1 but reassuring after 2 years of stagnation. Global earnings growth rates are equally encouraging. The earnings picture supports an optimistic equity market outlook. Stock prices tend to shadow earnings regardless of rich trailing PE ratios.

Stocks have weathered disappointing progress toward fulfillment of the President's pro-growth agenda largely because the economy has been gaining momentum on its own. A weaker dollar bodes well for US exports and Emerging Markets. Devastating hurricanes will probably weigh down Q3 growth modestly. Rebuilding should contribute to Q4 and Q1 2018 GDP. Growling over the debt ceiling will resume only to be kicked further down the road. Comprehensive tax reform? Unlikely, but a tax cut in some form is conceivable and seems to be priced in.

There are always dangers that could bring the bears out of their dens. Corrections are inevitable and healthy. Historically, there is no direct correlation between the length of a cycle, relative PE ratios or political unrest and deep, prolonged equity market declines. The one common culprit is recession.

Are there recessionary indicators on the prowl? Long-term rates didn't budge following initial Fed Fund hikes, threatening to evolve into the dreaded inverted yield curve – a very accurate doomsday predictor. While relatively flat, there is still a +/-1% spread between the 2 and 10-yr Treasury. Excessive euphoria among retail investors is another common sign of trouble ahead. Confidence is high, but not worrisome. Since 1970 every recession has been characterized by a ratio of cyclical spending to GDP exceeding 28%. The metric is at 24% and excess operating capacity is likely to dampen capital spending for a while.

"Experts" agree that, ultimately, this story won't have a happy ending. Passion for passive index ETFs assures that when the bears attack this bull market it will be very bloody as everyone tries to sell the same stocks at the same time.

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