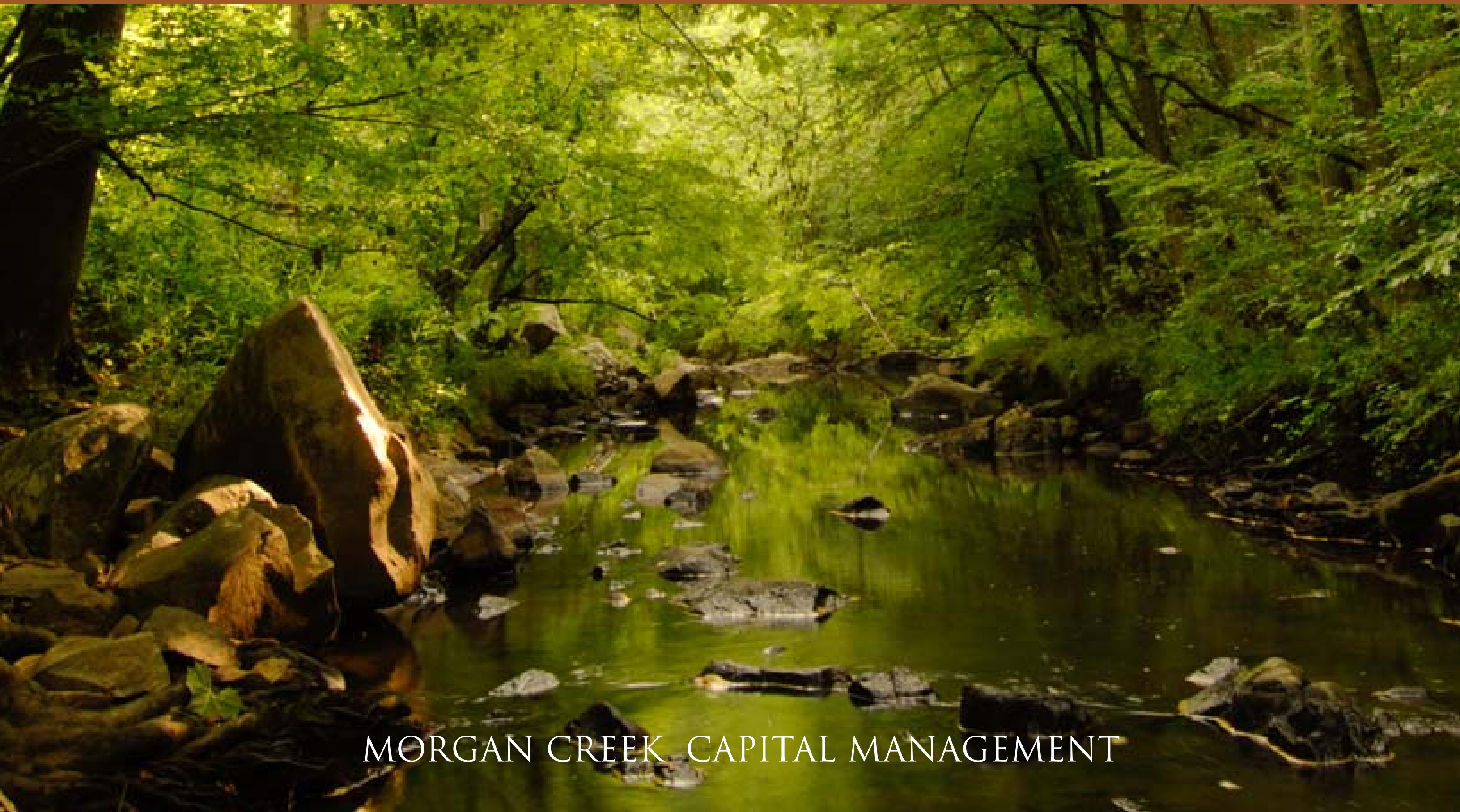
Q2 2017 Market Review & Outlook

Morgan Creek Capital Management



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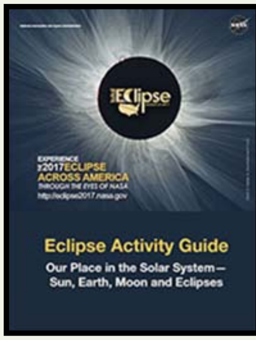
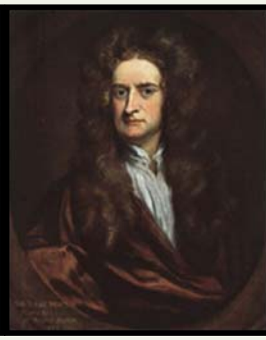
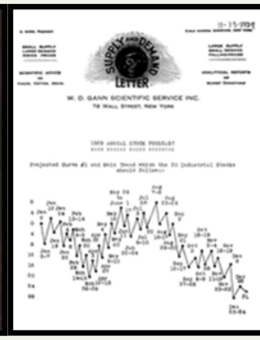
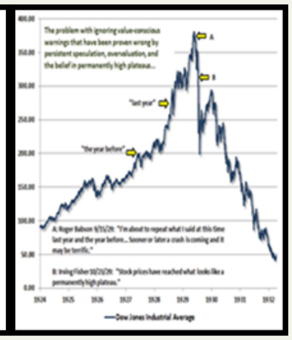
Letter to Fellow Investors

What Goes Up, Must Come Down: #DarknessFalls



Source(s): eclipse2017.nasa.gov, firstscience.com, webtrading.com, silverbearcafe.com

Amos 8:9 in the Bible says, ***"And it shall come to pass in that day, sayeth the Lord God, that I will cause the sun to go down at noon, and I will darken the earth in the clear day."*** In their book, *Totality: Eclipses of the Sun,* Mark Littmann, Ken Willcox and Fred Espenak describe the events leading up to the precise moment when darkness falls, saying, ***"The darkness in the west is very noticeable and gathering strength, a dark amorphous form rising upward and spread-ing out along the western horizon. It builds like a massive storm, but in utter silence, with no rumble of distant thunder."*** They describe the feeling of anticipation as the transformation begins to occur, ***"the acceleration of events intensifies. The crescent Sun is now a blazing white sliver, like a welder's torch. The darkening sky continues to close in around the Sun, faster, engulfing it."*** Then they follow with a description of the transition itself, as the moon moves across the sun, ***"Minutes have become seconds. The ends of the bare sliver of the Sun break into individual points of intense white light, Baily's Beads, the last rays of sunlight passing through the deepest lunar valleys. Opposite the crescent, a ghostly round silhouette comes into view. It is the dark limb of the Moon, framed by a white opalescent glow which creates a halo around the darkened Sun."*** Next, they describe the corona, which they refer to as the most striking and unexpected of all the features of a total eclipse, saying ***"Almost instantaneously, the incredibly thin crescent Sun fragments into a series of brilliant beads and short arcs which dwindle and vanish in rapid succession. And now, there is only one bead, set like a single dazzling diamond in a ring, but its penetrating brilliance rapidly fades as if it were sucked into an abyss."*** Finally, they describe the actual moment when the Moon completely engulfs the Sun, ***"where the Sun once stood, there is a black disk in the sky, outlined by the soft pearly white glow of the corona, about the brightness of a Full Moon. You are standing in the shadow of the Moon. Totality!"*** *Writer* Peter Coles, in discussing the Great Eclipse of May 29, 1919 (used by scientists to prove Einstein's theory of relativity and replace Newton's static view of the universe) described a total eclipse of the Sun as ***"a moment of magic: a scant few minutes when our perceptions of the whole Universe are turned on their heads. The Sun's blinding disc is replaced by ghostly pale tentacles surrounding a black heart."***

On August 21st at 10:15 AM PDT a dark shadow moving at 2,955 mph will leave the Pacific Ocean and engulf the Yaquina Head Lighthouse in Newport, Oregon. Three minutes later, the seventy-mile wide swath of blackness will sweep over neighboring Salem and then will proceed to devour Casper, WY at 11:43 MDT, swallow Carbondale, IL at 1:21 CDT (the point of maximum totality at two minutes, forty one seconds, and, interestingly, the only city that will also experience the next eclipse in 2024), consume Hopkinsville, KY at 1:25 CDT (the point of maximum totality width), envelop Columbia, SC at 2:37 EDT and, finally, surround Charleston, SC at 2:47 EDT (where the shadow will have slowed to 1,502 mph due to the curvature of the earth) before heading back out to sea in the

Atlantic moments later. This will be the first solar eclipse visible from the contiguous United States since February 26, 1979 and the first total solar eclipse visible from coast to coast since June 8, 1918. This eclipse will be the 22nd of the 77 members of Saros Series 145, which also produced the solar eclipse of August 11, 1999 (interesting that these are related, more on this later).

Eclipses occur thanks to a unique scientific coincidence that the Moon and the Sun have the same "angular size," that is the Sun is 400 times wider than the Moon, but is also 400 times farther away. That coincidence makes these celestial orbs appear to be the same size in the Earth's sky. An eclipse occurs when there is a syzygy (such a great Scrabble word), a linear alignment of two astronomical bodies. Astronomical alignment leads to an aphorism that all eclipses are syzygies, but not all syzygies are eclipses. For example, Full Moons and New Moons are syzygies (an alignment of the Sun, Earth and Moon), while lunar and solar eclipses are syzygies as well. When a smaller astronomical body passes across another, but does not eclipse it, it is called a transit. For example, planets such as Venus and Mercury can be seen making transits across the Sun regularly. Eclipses follow Saros cycles, which repeat every 6585.3 days (or 18 years, 11 days and 8 hours). One Saros period after an eclipse occurs, the Sun, Earth, and Moon will return to approximately the same relative geometry (nearly a straight line) and a near identical eclipse will occur. The similarity results from the fact that the Moon will have the same phase (same node and distance from Earth). Because a Saros is approximately 18 years long, Earth will be roughly the same distance from the Sun and have the same orientation (same Season). The tracks differ slightly over time in that each total solar eclipse track is similar to the previous one, but shifted 120 degrees west. The longest total solar eclipse during the period from 4000 BCE to 8000 CE will occur on July 16, 2186 and will last seven minutes, twenty nine seconds (maximum duration in any one place), sweeping across Colombia, Venezuela and Guyana. By contrast, this eclipse will last only a third as long and will be one of the shorter events (70% of eclipses last longer than this). That said, the entire spectacle, for those on the path of totality, will last about two hours, from the moment the Moon first bites into the Sun (first contact) until the Sun is finally whole again (fourth contact).

History is replete with evidence of the importance of eclipses and we find references to the astronomical events everywhere around the globe over the millennia. In the earliest observations, there are often fantastical explanations of how the eclipse might occur, from angry gods to mythical creatures. We also learn of the mysterious effect that an eclipse has on earthly beings during and after its occurrence. Irish archeoastronomer (now there is a unique profession) Paul Griffin discovered what is believed to be the first recorded observation of a total solar eclipse at the Loughcrew Cairn L Megalithic Monument in Ireland. He found a set of spiral-shaped petroglyphs that are believed to correspond with an eclipse that occurred on November 30, 3340 BCE. The symbols show a consistent coding of the Sun and Moon on the horizon. His work showed that of 92 tracks of total solar eclipses, only this particular one (visible at this location) displayed identical geometric formations. In ancient China, eclipses were believed to be heavenly signs that foretold the future of the emperor (so clearly important to him). Solar eclipses were believed to occur when a celestial dragon devoured the Sun. In fact, in Chinese, the word for eclipse was "shi," meaning "to eat." The ancient Chinese custom was to bang drums and pots (make loud noises) during eclipses to frighten the dragon away. The story is told that Chinese Emperor Chung K'ang (r. 2159 – 2146 BCE) learned of an eclipse from the noise in the streets (his subjects trying to drive the dragon away) and was so displeased that his two court astronomers, Hsi and Ho, did not predict the event, he had them beheaded. Their tombstone reads ***"Here lie the bodies of Ho and Hsi, whose fate, though sad, is risible; Being slain because they could not spy, the eclipse which was invisible,"*** (clearly some serious life impact here). In ancient Babylon, stone tablets were kept with recordings of eclipse events from approximately 1700 to 465 BCE. The Babylonian eclipse of May 3, 1375 BCE is thought to be the oldest successfully predicted eclipse in the western world and, even more impressive, there is evidence the Babylonians knew how to use the Saros cycle (the period of 223 synodic months, or 18 years and 11.3 days) to predict eclipses. The Ancient Greeks also recorded eclipse events and the poet Archilochus wrote of the total solar eclipse of April 6, 647 BCE in mythical terms, saying, ***"There is nothing beyond hope, nothing that can be sworn impossible, nothing wonderful, since Zeus, father of the Olympians, made night from mid-day, hiding the light of the shining Sun, and sore fear came upon men,"*** (again, making reference to how feared these events were in ancient times). The famous Ptolemy (in 150 CE) recorded observations of eclipses in the *Almagest* and later developed a sophisticated method for predicting both lunar and solar eclipses based on the orbit of the Moon. Lunar eclipses were simple to calculate due to the large area of the Moon covered by the Earth's shadow, but Solar eclipses required much greater knowledge. Based on his work, eclipses could be predicted with much greater accuracy by the second century, and the seeds were sown for some great scientific discovery to come.

As we noted above, prior to Ptolemy's work, eclipses were events of great mystery and were considered to be bad omens or messages from angry gods or supernatural forces, but since then they became recognized for what they were, the simple regularity of the orbits of the Moon and Earth about the Sun. Up to that point, there was serious fear and trepidation about eclipses as harbingers of evil as we see often in writings of the ancient period. Homer's, *The Odyssey,* has a line referring to the total solar eclipse of April 16, 1178, ***"and the Sun has perished out of heaven, and an evil mist hovers over all,"*** making direct mention of how evil descended from the heavens. The Holy Bible raised the stakes to End of Days allusions, as Joel Chapter 2, 30:31 quotes ***"I will show portents in the sky and on earth, blood and fire and columns of smoke; the sun shall be turned into darkness and the moon into blood before the great and terrible day of the Lord comes."*** In fact, in three of the four Gospels of the New Testament (Mark, Luke and Matthew) the moment of Jesus' death is described as coinciding with a massive eclipse, ***"From mid-day a darkness fell over the whole land, which lasted until three in the afternoon; and about three Jesus cried aloud, 'My God, my God, why hast thou forsaken me?'"*** The disciples are likely taking a little literary license here as while there was a total solar eclipse in 33 CE, the path of totality came nowhere near Jerusalem. From Japan, we have *Nihon Kiryaku*, referring to a total solar eclipse of August 9, 975 chronicling the strange impact on the birds and triggering a general ill mood saying, ***"The Sun was eclipsed, during the hours mao and ch'en (five and nine) it was all gone. It was the colour of ink and without light. All the birds flew about in confusion and the stars were all visible in the daytime. There was a general amnesty (on account of the eclipse)."*** Al-Biruni wrote in *Kitab Tahdid* in 1025 CE about the impossibility of looking away from an eclipse as if some mystical pull takes control of reason (your brain knows not to look) saying, ***"The faculty of sight cannot resist the Sun's rays, which can inflict a painful injury. If one continues to look at it, one's sight becomes dazzled and dimmed, so it is preferable to look at its image in water and avoid a direct look at it, because the intensity of its rays is thereby reduced. Indeed, such observations of solar eclipses in my youth have weakened my eyesight."***

King Henry I of England (son of William the Conqueror) died in 1133 CE. His death coincided with a total solar eclipse on August 2nd (lasting over four minutes). Historian William of Malmesbury recounted this event writing, ***"Hideous darkness agitated the hearts of men."*** After King Henry's death, that agitation led to a struggle for the throne that plunged the kingdom into chaos and civil war.[1] Shakespeare wrote about eclipses in King Lear in 1605, attributing similar negative outcomes to the powerful impact of the eclipses on people. In the play, Gloucester makes the point that an eclipse can portend of powerful evil, ***"These late eclipses in the sun and moon portend no good to us: though the wisdom of nature can reason it thus and thus, yet nature finds itself scourged by the sequent effects: love cools, friendship falls off, brothers divide: in cities, mutinies; in countries, discord;***

1. https://eclipse2017.nasa.gov/what-was-most-famous-total-solar-eclipse-history

in palaces, treason; and the bond cracked 'twixt son and father. This villain of mine comes under the prediction; there's son against father: the king falls from bias of nature; there's father against child. We have seen the best of our time: machinations, hollowness, treachery, and all ruinous disorders, follow us disquietly to our graves." In response, Edmund explains how humans are controlled by the Sun, Moon and stars saying, ***"This is the excellent foppery of the world, that, when we are sick in fortune, often the surfeit of our own behaviour, we make guilty of our disasters the sun, the moon, and the stars: as if we were villains by necessity; fools by heavenly compulsion; knaves, thieves, and treachers, by spherical predominance; drunkards, liars, and adulterers, by an enforced obedience of planetary influence; and all that we are evil in, by a divine thrusting on: an admirable evasion of whoremaster man, to lay his goatish disposition to the charge of a star!"*** He goes on to explain that because he was conceived under Ursa Major, it is perfectly fine (in fact to be expected) that he is "rough and lecherous" (blame it on the heavens). Edmund goes further, saying, ***"What should follow these eclipses? I promise you, the effects he writes of succeed unhappily: as of unnaturalness between the child and the parents; death, dearth, dissolutions of ancient amities; divisions in state, menaces and maledictions against king and nobles; needless diffidences, banishment of friends, dissipation of cohorts, nuptial breaches, and I know not what."*** To which his brother Edgar asks, ***"How long have you been a sectary astronomical?"*** (since when did you believe in astrology, more on this later). John Milton wrote of similar effects of eclipses in Paradise Lost, saying that rulers should be concerned (constant theme over the millennia), ***"As when the Sun, new risen, looks through the horizontal misty air, shorn of his beams, or from behind the Moon, in dim eclipse, disastrous twilight sheds on half the nations and with fear of change perplexes monarchs."*** Milton writes further in *Samson Agonistes* words that foreshadow our theme of #DarknessFalls, saying, ***"Oh dark, dark, dark, amid the blaze of noon, irrecoverably dark, total Eclipse, without all hope of day!"***

Here is where Sir Isaac enters our serial once again. In the first installment, #BabsonsBrilliance, we learned of Roger Babson's obsession with Newton and gravity (Babson spent his later years, unsuccessfully, searching for a way to defeat gravity), and we learned in the second installment, #GravityRules, how Sir Isaac shared the fate of being intelligent people who got swept up in bubbles with Ben Graham, as they had both lost their fortunes by chasing equity market bubbles (Newton in the 1720 South Sea Bubble and Graham in the 1929 bubble). In this third installment, we learn about how Newton discovered the Universal Law of Gravity and reflect on some Newtonian wisdom that we can apply to investing. We also learn that eclipses play an interesting role in Newton's work (they are the result of the movement of the heavenly bodies that Newton studied to create his great works), changed his legacy (Einstein's Theory of Relativity was proven using an eclipse to photograph stars in a gravitational field) and bring us right up to the point at which #DarknessFalls on August 21st.

As the story goes, young Isaac (the Sir comes later) was having tea under an apple tree when an apple struck him on the head and he had the epiphany, ***"What goes up, must come down."*** This began the process of analyzing the relationships between the mass, height, velocity and acceleration, which ultimately led to his formulation of his notion of gravity. Newton's eureka moment was in his deduction that there must be some "force" acting on the apple to bring it toward the earth, and his hypothesis that this force must act on the apple no matter how high the tree, but his genius moment was extrapolating that this force was not limited to the earth and must extend to the stars, Moon and Sun. Newton's largest insight was then applying the notion of that force on the motion of the Moon around the Earth, reasoning that the force caused by the rotation was similar to the force that would drag a cannonball fired from a cannon toward the ground.

Newton's theories were set forth in his monumental work, *Philosophiae Naturalis Principia Mathematica*, published in 1687. The *Principia* laid out a set of three mathematical laws that described all forms of motion in the Universe. Newton considered these to be Universal Laws, insofar as they applied as much to the motion of the stars and planets as to objects as seemingly trivial as apples falling from trees. To this end, the work within the *Principia* (the quantitative mechanics portion) was an exact quantitative description of the motions of the visible heavenly bodies. His thesis rested on his three laws of motion; I, ***"Every body continues in its state of rest, or of uniform motion in a right line, unless it is compelled to change that state by forces impressed upon it,"*** II, ***"The alternation of motion is ever proportional to the motive force impressed; and is made in the direction of the right line in which that force is impressed"*** and III, ***"To every action there is always opposed an equal reaction; or, the mutual actions of two bodies upon each other are always equal, and directed to contrary parts"*** (Roger Babson's favorite, and our primary thesis on bubbles and crashes). Newton's analysis viewed all circular motion (including star and planets) in terms of these laws and he derived a formula of the quantitative measure of the necessary centripetal force (in terms of mass and velocity) which would divert a body from a rectilinear path into a given circle. When Newton substituted his formula into Kepler's third law, he was able to calculate the centripetal force holding the planets in their orbits around the Sun decreased with the square of the planets' distance from the Sun (he could also show a similar relationship between Earth and the Moon). Newton had a great line when asked about the enormity of his achievements, in acknowledging others' impact on his work, saying ***"If I have seen further than others, it is by standing upon the shoulders of giants."*** (We should all be so humble…a very important trait in investing).

Newton knew the size of the Moon's orbit and could observe the distance traveled in one second when diverted from a tangential path. He also knew that the Moon's distance from the Earth was 60 times the radius of the Earth and when he observed that that distance was 3,600 times (60 x 60) as great as the distance an object falls in one second on Earth, he concluded that there was one constant force acting equally on all objects in the universe. Newton applied the ancient Latin word *gravitas* (meaning heaviness or weight) to his force and the rest (as they say) is history. The Law of Universal Gravitation states, ***"Every object in the universe attracts every other object with the force directed along the line of centers for the two objects that is proportional to the product of their masses and inversely proportional to the square of separation between the two objects".*** Quite interestingly, while the enormity of Newton's discovery cannot be overstated, he was again incredibly humble in the recognition that while he could calculate the gravity existed, he could not explain *why* it existed, saying ***"I have not as yet been able to discover the reason for these properties of gravity from phenomena, and I do not feign hypotheses. For whatever is not deduced from the phenomena must be called a hypothesis; and hypotheses, whether metaphysical or physical, or based on occult qualities, or mechanical, have no place in experimental philosophy. In this philosophy, particular propositions are inferred from the phenomena, and afterwards rendered general by induction."*** He went further to create his Rule #1 in the Rules of Reasoning on Philosophy that, ***"We are to admit no more causes of natural things than such as are both true and sufficient to explain their appearances."*** (Sounds very similar to Occam's Razor and Sutton's Law). Over time, Newton's Law of Gravity has been confirmed to govern all manner of phenomena from tides and the orbits of comets, to the states that rule every particle of matter in the universe (and we will add investment markets). At the heart of Newton's view of the Universe were some very strong beliefs about space and time. Newton believed space was inflexible and immovable, it followed from ancient Greek mathematician Euclid's laws of geometry. In the Newtonian world, bodies acted out their motions while time was absolute, ticking away inexorably at the same rate for everyone in the Universe. That notion would change many years later when another giant, Einstein, would stand on Newton's shoulders, courtesy of an eclipse.

In our last letter, #GravityRules, we spent a lot of time discussing the links between Babson, Newton and Graham and how the story of Newton's foray into the South Sea Company Investment Bubble tied them together. To that end, we wrote how Babson would agree that, *"Serious physicists read about Sir Isaac Newton to learn his teachings about gravity and motion. Serious investors read Benjamin Graham's work to learn about finance and investments."* It also turned out that Babson wasn't the only person with an interest in Newton. Jason Zweig of *The Wall Street Journal* included an anecdote in the Foreword to the Revised Edition of Benjamin Graham's 1947 classic *The Intelligent Investor* about Newton's (mis)adventures with the South Sea Company. We wrote how Newton, *"invested around £3,500 (about $800k today) in March of 1720 after the company convinced the government to allow it to assume more of the national debt in exchange for its shares (sounds a little like QE here). As investor confidence mounted (and the mania began to grow) Newton sold out in late April at £350 a share, having doubled his money to £7,000 (intelligent trade). If the story ended there, we wouldn't have a theme for our letter."* We went on to describe how Newton (although he had cashed in at a tidy profit) could not stand watching his friends getting rich, *"so he dove back in at twice the price he had exited and this time invested his entire life savings of £20,000 (about $4.5 million today) at £700 a share. In the words of Lord Overstone, "no warning on earth can save people determined to grow suddenly rich."* We described how during the dog days of summer SSC shares went parabolic (classic bubble shape), and, *"the mania turned to a delusional, speculative frenzy as investors from all walks of life begged, borrowed and stole to get money to invest in the South Sea Company. The share price quickly rose toward £900, which prompted some investors to sell, but the company instructed their agents to buy the shares to support the price and the shares surged to £1,050."* Proving his own Universal Law of Gravity, the bubble finally burst in September (as it seems all bubbles are prone to do, perhaps where #SeptemberToRemember comes from) and by October SSC shares had fallen back to their January price.

"Sir Isaac had finally had enough and he exited in October and November, losing nearly his entire life savings and prompting him to famously quip, ***"I can calculate the movement of stars, but not the madness of men."*** *It is said that for the rest of his days he forbade anyone to utter the words South Sea in his presence."*

We can learn much about the power of human nature observing a world-renowned scientist, the man responsible for creating the foundational laws of physics, the man who discovered gravity, being powerless to avoid the speculative frenzy that, for a short time, seemed to defy the very law he invented (similar to our friend above who could not look away from the eclipses). In the end, Gravity Rules and what goes up, must come down. We wrote last time about the problem for Sir Isaac (and for all investors) is that, *"Greed is an insidious emotion and it clouds the judgment even of the very smartest people on the planet. Sir Isaac Newton obviously was a very intelligent person, as he invented calculus and created his three Laws of Motion, but it couldn't protect him from becoming a not so intelligent investor during a mania, when he let emotions overtake reason and was swayed by the irrationality of the crowd."* Ben Graham described this same phenomenon saying, ***"Even the intelligent investor is likely to need considerable willpower to keep from following the crowd. For indeed, the investor's chief problem, and even his worst enemy, is likely to be himself. Individuals who cannot master their emotions are ill-suited to profit from the investment process."*** One of the most worrisome parts of stories such as the South Sea Bubble is how the participants find myriad ways to rationalize their behavior. We discussed how John Martin (prominent banker in Newton's day), who also lost a lot of money in the SSC fiasco, was quoted as saying, *"When the rest of the world are mad we must imitate them in some measure."* We also quoted former Citigroup CEO Chuck Prince who said a month before the collapse that became the Global Financial Crisis in 2007, *"As long as the music's playing, you've got to get up and dance, and we're still dancing."* We reiterate the point vehemently that, *"We would argue that, no, you don't, you can believe that gravity does exist and choose not to chase the bubble and destroy your wealth."* The biggest problem is that investors have been falling for get-rich-quick schemes and chasing bubbles for many centuries. We noted last time that the South Sea Company still reigns as one of the greatest investment bubbles in history; in fact, it was the first time that the word bubble was used to describe a speculative surge, and subsequent crash, in an asset. Sir Isaac Newton gave us the Universal Law of Gravity and then taught us (the hard way), ***"to every action there is always an equal and opposite or contrary, reaction."*** We would add the following corollary, the bigger the speculative bubble, the worse the crash on the other side.

Samuel Taylor Coleridge wrote in his *On the Constitution of the Church and State* in 1830, that, ***"All Science is necessarily prophetic, so truly so, that the power of prophecy is the test, the infallible criterion, by which any presumed Science is ascertained to be actually & verily science. The Ptolemaic Astronomy was barely able to prognosticate a lunar eclipse; with Kepler and Newton came Science and Prophecy."*** Coleridge makes his case that being able to accurately predict a future event that follows from hard, mathematical calculations, determines the veracity of science and that this power of prophecy should be the determinant factor in judging scientific progress. We might take issue that the idea of prophecy is simply forecasting something that we know will occur, such as the waxing and waning of the Moon, or, to suit this letter, a lunar or solar eclipse. To us, prophecy connotes something more, insofar as it conjures up thoughts of the ability to forecast indeterminate events (like market crashes perhaps) and speak to the aspects beyond the physical event (particularly when heavenly bodies are involved). George Wilson, a British professor, gave his *Introductory Lecture on Technology* in 1858, bringing this point to life in describing astrology, saying, ***"We speak of it, Astrology, as an extinct science; yet let but an eclipse of the sun happen or a comet visit the evening sky, and in a moment, we all believe in Astrology. In vain do you tell the gazers on such spectacles that a solar eclipse is only the moon acting for the time as a candle-extinguisher to the sun, and give them bits of smoked glass to look through, and draw diagrams on the blackboard to explain it all. They listen composedly, and seem convinced, but in their secret hearts they are saying "What though you can see it through a glass darkly, and draw it on a blackboard, does that show that it has no moral significance? You can draw gallows, or a guillotine, or write the Ten Commandments on a blackboard, but does that deprive them of meaning?" And so, with the comet, no man will believe that the splendid stranger is hurrying through the sky solely on a momentous errand of his own. No! He is plainly signaling, with that flashing sword of his, something of importance to men, something at all events that, if we could make it out, would be found of huge concern to us."*** In modern times, Gloria Vanderbilt would agree, saying, ***"I was born during an eclipse. I believe very much in astrology. If you were born on an eclipse it indicates your destiny is chaotic."*** Most people would agree that there is no evidence that eclipses have any physical effect on humans. Those same people would be hard pressed to take the same firm stance that eclipses have no psychological effect on humans. There is much evidence over the millennia that eclipses have had a profound psychological impact, triggering responses like confusion, fear, awe and wonder. Eclipses have catalyzed various and sundry reactions, from the innocent banging of pots in ancient China, to the horrific, human sacrifices. Much has been written about the effects of gravitation on humans (some think related to the human body being 70% water) and an eclipse magnifies those normal effects since the Sun and Moon are on the same side of the Earth. Two fun (or scary) facts here are that 1) in the path of totality, the tidal force will actually cause the Earth's crust to bulge, and those privileged to be on that hallowed ground will actually be 40 millimeters closer to the Sun and 2) based on the Newtonian calculations for the gravitational forces acting on your body at that precise moment, you will be 1.7 ounces lighter during totality (for an 80kg adult).

If you ask the average investor if they use technical analysis, most will probably say no (some might even say that is for tin foil hat wearing types), but the vast majority actually do look at charts and while they may not draw actual technical patterns on their charts, the human mind is prone to looking for patterns and cycles in data, so they are using technical analysis techniques nonetheless. If you asked the average investor if they used astrological analysis, most would say absolutely not (some might even say that is for crazy people), but the vast majority of people do pay attention to cycles (business cycles, liquidity cycles, interest rate cycles). While investors may not think of where those cycles originate (and would clearly dismiss the idea that they are caused by the motion of heavenly bodies), there is a great deal of evidence (and a large number of incredibly famous investors who believe) that the Newtonian movement of the planets and Moon around the Sun has an impact on the markets. One of the most notable proponents of financial astrology and the direct impact of cycles on securities and markets was William Delbert (W.D.) Gann. Born on June 6, 1878 in Lufkin, Texas (six weeks before a total solar eclipse that passed over TX), Gann was the first of 11 children born into a poor cotton farming family. He never finished grammar school, as he was needed to work on the farm, so his education came from the Bible (he was raised Baptist). His life education came in the cotton warehouses where he worked and that is where he learned about commodities trading. Gann took a shine to trading and joined a brokerage firm in Texarkana, while attending business school at night.

In 1903 (after only one year of trading experience), he moved to New York City to work for a Wall Street brokerage firm, but left soon thereafter to open his own firm, W.D. Gann & Company. Gann described a very unique element of his trading philosophy was that he learned from observing the mistakes made by his clients (given the track record of the average investor is so low, his insight is quite interesting). The core of Gann's philosophy, however, came from his study of the Bible, and he often quoted from Ecclesiastes, 1:9, which says ***"That which has been is what will be, that which is done is what will be done, and there is nothing new, under the Sun."*** Gann was convinced that everything that occurs in the markets had historical reference points and that (like the Bible says) every event has happened before and will eventually repeat itself (cycles). He studied ancient Greek and Egyptian geometry and astrology to understand how significant market events and specific patterns (even specific numbers) repeated over the course of various cycles over time. Gann believed that, ***"To make a success you must continue to study past records, because the market in the future will be a repetition of the past. If I have the data, I can tell by the study of cycles when a certain event will occur in the future. The limit of future predictions based on exact mathematical law is only restricted by lack of knowledge of correct data on past history to work from."*** In 1919, Gann began publishing a daily market letter, *The Supply and Demand Newsletter,* covering stocks and commodities and making yearly forecasts for the markets as a whole. Gann identified a number of cycles of great importance and considered the 60-year Cycle, ***"the greatest and most important cycle of all, which repeats every 60 years or at the end of the third 20-Year Cycle."*** Gann applied this cycle to the periods from 1861-1869 and from 1921-1929 and found great similarities between the two bull markets and subsequent great panic that followed. In November 1928, Gann issued his *Annual Forecast for 1929* (pictured above) which presciently predicted the end of the Roaring Twenties bull market on September 3, 1929 (his chart nearly nails the downturn to the day). Gann also believed in the 90-year cycle, which also predicted the 1929 crash, which occurred roughly 90 years after the Panic of 1837 (and calls for the next crisis in 2019). It is interesting that 90 years is equivalent to five Saros cycles (18 years each) and that there would be a link between the eclipse periodicity and market panics. As noted above, the imminent eclipse is part of the same Saros series and the eclipses in the summers of 1999, 1981, 1963, 1945 and 1927 were all (other than 1945) followed within a couple of years by a significant economic downturns and equity market correction (1929, 1966, 1983 and 2001). For shorter term analysis, Gann devised a system based on his study of ancient geometry that led to his Gann Angles and Gann Fans (pictured above) that intuited that markets will cycle around certain days of the year (following the lunar calendar) and he found that December 22, March 21, June 22, September 21/23 were very important trading days, as prevailing patterns would tend to turn on these Gann Dates. For example, this quarter, the commodity complex had been very weak right up until June 22nd and turned sharply higher. Given the next Gann Date is this September, perhaps just one more omen that this could be a #SeptemberToRemember.

Coming back to Newton, he was born on Christmas Day 1642 outside of Lincolnshire, England to a poor family. His father died before he was born, and his mother remarried leaving Newton to tend to his grandmother, which caused some family disharmony (some contend it is why he never married). He attended King's School where he studied the classics and took a particular interest in mathematics. Newton enrolled in Trinity College on the recommendation of his uncle, Rev. William Ayscough, and he went on to a distinguished academic career leading to the incredible discoveries and work highlighted above. After moving to London, he was appointed warden of the Royal Mint in 1696, through the patronage of Charles Montagu, 1st Earl of Halifax, the then Chancellor of the Exchequer. Newton took his position seriously and was feared by counterfeiters (prolific at the time) and, curiously, developed an interest in alchemy. Newton enjoyed a privileged life resulting from his prominent discoveries and achievement and was appointed as the President of the Royal Society (scientific society) in 1703 and was later Knighted by Queen Anne in 1705 (only the second scientist to be knighted after Francis Bacon). After his debacle in the South Sea Company, Newton became very eccentric in his later years and died in his sleep in 1727. Upon examination, it was discovered that Newton had significant levels of mercury in his body (from the alchemy) that likely explained his erratic behavior and may have contributed to his death (although he did live to 84, which at the time was a very long life). Sir Isaac Newton was a brilliant man, one of the brightest lights in science the world has ever seen, and some of his vast wisdom is highly applicable to investing.

We have long believed that the study of the sciences was one of the best foundations for investing because of the similarities between the investment process and the scientific method. The scientific method is defined as a series of sequential steps 1) identification of a problem, 2) accumulation of data, 3) hypothesis formation, 4) empirical experiments to test hypothesis, 5) objective interpretation of the data, and 6) repeat steps until acceptable solution is discovered. Further, both disciplines require a rigorous, systematic approach, designed to eliminate subjective biases to identify, measure or validate facts and relationships from which scientific laws (or investment opportunities) can be deduced. One of the most important points is to begin the process without prejudice about your subject matter, and to this point, Newton said, ***"resistance is usually ascribed to bodies at rest, and impulse to those in motion; but motion and rest, as commonly conceived, are only relatively distinguished; nor are those bodies always truly at rest, which commonly are taken to be so."*** In other words, things are not always as they appear. An investment opportunity could appear to be cheap, but because of fraudulent accounting (Enron), changes in the competitive landscape (Blockbuster), poor management (Tyco) or myriad other reasons, it could be a "value trap." Conversely, an opportunity could appear to be expensive, but due to a secular shift in an industry (Amazon), a geopolitical change (India) or a huge innovation (Netflix), the underlying growth may make that investment very attractive. One has to start with a beginner's mind free from preconceived notions about whether an opportunity is attractive, and let the process work to prove/disprove the hypothesis. Newton, despite his incredible intellect and sizeable accomplishments, brought a constant humility to his work, saying, ***"What we know is a drop, what we don't know is an ocean."*** Mark Twain made the same point from the opposite perspective saying, *"It's not what we don't know that hurts us, it's what we know for sure, that just ain't so."* Newton would implore us to constantly ask questions and search for more data in order to continue to expand our knowledge of any particular investment idea. Oftentimes, we have to make decisions in investing when we don't have perfect information or all the facts that we would like to have before we move forward with an idea. Newton's approach to this dilemma was incrementalism. Start small and look for confirming information before making a sizeable commitment. To this point he said, ***"'Tis much better to do a little with certainty and leave the rest for others that come after than to explain all things by conjecture without making sure of anything."*** George Soros was famous for using this approach as he would try ideas in small amounts and look for the market to confirm whether he was right in his original assertion. He also was adamant about never being certain of anything and having the discipline to admit when you were wrong and step to the sidelines (the opposite of the average investor who needs to prove they are right so they keep averaging down). There is a famous picture of Paul Tudor Jones in his dorm room next to a poster that says, *"Losers Average Losers."* Soros has said, *"I am only rich because I admit my mistakes faster than everybody else."* Newton believed that to make a meaningful impact you had to be willing to venture into uncharted territory; in other words, take a risk, and said emphatically, ***"No great discovery was ever made without a bold guess."*** Investing is the same, to make a truly great investment requires an investor to venture away from the warmth of the consensus and make a guess (what we call a variant perception) about how a company will perform in a manner differently (can be better or worse) than the market believes and take a position contrary to the masses. The problem is that these guesses will not always turn out the way we anticipate. Newton said, ***"Trials are medicines which our gracious and wise Physician prescribes because we need them; and he proportions the frequency and weight of them to what the case requires. Let us trust his skill and thank him for his prescription."*** That is, making mistakes, enduring them and learning from them is how we become better investors. One of our favorite managers has a similar saying that we love, *"With each investment, we get richer or wiser, never both."*

Newton would argue (and we would agree wholeheartedly) that what makes someone truly skilled is the ability to recognize errors and correct them through careful thought, analysis and reasoning, saying ***"A vulgar mechanic can practice what he has been taught or seen done, but if he is in an error he knows not how to find it out and correct it, and if you put him out of his road he is at a stand. Whereas he that is able to reason nimbly and judiciously about figure, force, and motion, is never at rest till he gets over every rub."*** Colloquially, *"to a carpenter with a hammer, everything looks like a nail,"* but if that carpenter is placed in a situation bereft of nails, he comes to a standstill and cannot act. We equate the vulgar mechanic with an index fund or ETF (or a smart beta fund) where there is no judgment, but simply a mechanistic predisposition to act in a certain way (how they have been programmed), which can succeed in only one environment. Active managers and hedge funds have the ability to use judgment and reason to nimbly maneuver so that they can "get over every rub." We believe these words will be even more important as #DarknessFalls. Newton also believed in a sort of sequential focus, spending time dedicated to one pursuit, but leaving himself open to the vast ocean of opportunities that were yet to be discovered. ***"I do not know what I may appear to the world; but to myself I seem to have been only like a boy playing on the seashore, and diverting myself in now and then finding a smoother pebble or a prettier shell than ordinary, whilst the great ocean of truth lay all undiscovered before me."*** Newton loved the game, the pursuit of that better approach to solving a scientific problem or making that theoretical leap across a previously uncrossed chasm. All great investors have this love of the business and understand that the game is never ending thanks to the great ocean of opportunity before them to explore. What Newton understood (and we could not agree more) is that truth (as a metaphor for great investment ideas) comes from solitude, from taking time to think deeply about ideas and let them hatch slowly in your subconscious as you consider and reconsider all of the components of the idea. ***"Truth is the offspring of silence and meditation. I keep the subject constantly before me and wait until the first dawnings open slowly, by little and little, into a full and clear light."*** Again, Newton comes back to focus (not the intense "pressing" which leads to hitting slumps), but the inner focus of meditation and deep thought that taps into what Michael Steinhardt called, *"the internal supercomputer that is the subconscious."* Newton understood that the most valuable things take time and said, ***"If I have ever made any valuable discoveries, it has been due more to patient attention, than to any other talent."*** Again, with amazing modesty and humility, Newton hits one of the most critical elements of the most successful investors – they are content to sit and wait for the right opportunity, the right environment, the right structure and the right timing to deploy their ideas. You don't have to be a Newtonian genius (thankfully) to be a great investor and you don't even need to have ideas that are superior to others; rather, you need to have patience and discipline to remain focused on identifying and executing a small handful of truly extraordinary ideas that come your way. Once, Newton was asked how he discovered the law of gravity and he replied, ***"By thinking about it all the time. If others would think as hard as I did, then they would get similar results."*** Not from genius intellect or even from toiling longer and harder than others, but simply from persistently thinking more than others, did Newton gain his edge. We say often that persistence = #Edge.

As we have moved into a market environment where valuations are stretched and investors have to resort to making new and somewhat tenuous (well, maybe very tenuous) assumptions to rationalize continuing to deploy capital into the emerging bubble in equities, Newton had some wisdom to share. ***"We are certainly not to relinquish the evidence of experiments for the sake of dreams and vain fictions of our own devising; nor are we to recede from the analogy of Nature, which is wont to be simple and always consonant to itself."*** In performing empirical scientific experiments, it is critical to observe the data in a manner free from bias and to be sure to see what is there, not what you wish was there. Newton said very elegantly that we cannot substitute our own fictions and desires for the actual hard data from experiment (no matter how much we want to) as facts are facts (even in a time of #AlternativeFacts). He goes further to say that in science (like investing) the simplest solution (or investment idea) is the best and we should not create a more complex explanation that is antithetical to the simple outcomes we record. Newton said that no matter how many times you repeat the experiment (trying to reach your pre-conceived outcome) ***"It is the weight, not numbers of experiments that is to be regarded."*** The data speaks. It has been said that, *"Figures lie and liars figure,"* and Newton goes on to say, ***"A man may imagine things that are false, but he can only understand things that are true, for if the things be false, the apprehension of them is not understanding."*** The data is what it is and you cannot make it what you wish it to be. In investing, the outcomes are what they are (the company executes or it doesn't), but human beings are prone to this behavior in investing and must guard vigilantly against those urges.

When we look at investment markets we have found that the simplest ideas seem to be the best, and when you can't explain something quickly and easily, it is probably unlikely to work out as planned. Michael Steinhardt has the ultimate test for simplicity. He said to his analysts that they had to present ideas to him in the following manner 1) the idea 2) the consensus, 3) their variant perception (idea materially different from consensus) and 4) the catalyst (for realizing the upside potential), and they had to be able to do it under two minutes (no exceptions). Newton observed that simplicity was the order of the world, saying ***"Nature is pleased with simplicity. And nature is no dummy. Truth is ever to be found in the simplicity, and not in the multiplicity and confusion of things,"*** and he found over and over in his work that simple was superior to complex (like an apple falling to the ground subject to a constant force). Newton was able to take the simplest of ideas and turn them into a set of universal laws that govern all of our physical world and he discovered a universal force that forever changed the world. Newton said, ***"Plato is my friend, Aristotle is my friend, but my greatest friend is truth."*** We might say that gravity is truth and that no matter how hard people try to escape it, or rationalize it away, it is constant and unrelenting. In investing, there are many who attempt to rationalize valuations when they escape the normal orbit around fair value, coming up with complex explanations for why we are in a new paradigm or why it is different this time (Sir John rolls over again). Newton understood that in the end, no matter how much force you exert on an object, not matter how high you drop the apple from the tree, it will return to earth as the truth of gravity takes over. He also understood that, ***"the one as much as it advances that of the other. If a body impinge upon another, and by its force change the motion of the other, that body also (because of the equality of the mutual pressure) will undergo an equal change, in its own motion, towards the contrary part."*** Every action has and equal and opposite reaction. For every bubble, there is a crash. Predicting the timing is hard, but the outcome is always the same. Newton had some wisdom on communication, saying that, ***"Tact is the art of making a point without making an enemy."*** It is our job to deliver our views based on the weight of the facts, not on the hopes and dreams of what we wish might happen. The challenge of calling a bubble is that you run the risk of losing your credibility, your clients and your job, or as Jeremy Grantham calls it, career risk. We hope that we have made our case for why caution is the appropriate stance to take in this market environment.

We wrote last time that "*Roger Babson was so intrigued by Newton and his theories that he titled his own autobiography, Actions and Reactions and he incorporated the construct of action and reaction into all of his inventions and business endeavors, including his proprietary economic assessment technique called the Babsonchart, made famous when he used it to predict the Great Crash in September of 1929."* We believe his prophetic words from September 1929 are critical to hear again today, ***"I repeat what I said at this time last year and the year before, that sooner or later a crash is coming which will take down the leading stocks and cause a decline of 60 to 80 points in the Dow Jones Barometer (it was 381 at the time). Fair weather cannot always continue. The Economic Cycle is in progress today as it was in the past. The Federal Reserve System has put the banks in a strong position, but it has not changed human nature. More people are borrowing and speculating today than ever in our history. Sooner or later a crash is coming and it may be terrific. Wise are those investors who now get out of debt and reef their sails. This does not mean selling all you have, but it does mean paying up your loans and avoiding margin speculation. Sooner or later the stock market boom will collapse like the Florida boom. Someday the time is coming when the market will begin to slide off, sellers will exceed buyers, and paper profits will begin to disappear. Then there will immediately be a stampede to save what paper profits then exist."*** We know with absolute certainty that on August 21st at 10:15 AM PDT darkness will fall on America and millions of people will witness totality. What we don't know for sure is what the eclipse portends for the capital markets, but from all of our empirical testing and analysis we believe it could be a #SeptemberToRemember as the #WelcomeToHooverville scenario plays out. Should the data change, we will change our minds and formulate a new hypothesis, but for now we think it is wise to prepare and be ready for when #DarknessFalls.

Second Quarter Review

We have previously discussed how, at the end of 2015, we created our #2000Redux thesis which hypothesized how the period from 2016 to 2018 might resemble the period of 2000 to 2002 in the U.S. economy and equity markets. As we discussed in detail last quarter, 2016 was indeed playing out in a similar pattern to 2000 right through the election (including the Democrat winning the popular vote and the Republican winning the Electoral College), but the similarities rapidly faded in the wee hours of the morning on Election Night. Not only did the equity markets not fall in Q4, but surprisingly (we say surprisingly because all the pundits predicted end of the world scenarios should Trump win) surged 10% in the weeks following Trump's surprise victory, removing any chance that 2016 would turn out like 2000 in the equity markets. Interestingly, the slowdown in economic growth in 2016 followed a very similar pattern to 2000 (albeit from much higher starting levels in 2000), but equity investors looked through the negative economic data and focused squarely on the promise of the Trump Trifecta trade, believing the new administration's promises of decreased regulation, decreased taxes and increased fiscal spending. One thing that was truly remarkable was the speed at which prices moved in securities related to these events (which had not happened, and still has not happened) as some stocks in infrastructure sectors surged 30-40% or more in a matter of days, interest rates surged the most since the Taper Tantrum and global growth stocks got absolutely pounded (including the FAANGS) as the prospect of higher rates lowered the NPV of future growth. We wrote last time how in Q1 *"the ebullience surrounding the Hope Trade based on the Trump Trifecta (tax reform, deregulation & fiscal spending) began to fade as investors saw that the actual implementation of Mr. Trump's proposals might be a wee bit (ok, a whole lot) more difficult than anticipated."* The prospect that the new administration might not (or could not) deliver on those promises turned to reality in March, as the Healthcare bill failed in the House and there has still been no progress on any of the Trifecta promises. Q2 saw an acceleration of that trend as an increasing number of investors fell off the Trump bandwagon and abandoned the Hope Trade of lower rates, lower taxes, higher fiscal stimulus and more inflation and went back to their obsession with the #FANG stocks (FB, AMZN, NFLX, GOOGL and maybe AAPL, MSFT and a few Chinese Internet names like BABA and JD thrown in for good measure). We noted last time that *"the panic buying in the #FANG names was so strong that these stocks rose nearly twice as much in Q1 as they did in all of 2016 when they were "only" up 10%, 10%, 8% and 2%, respectively,"* and Q2 witnessed more of the #FOMO, as they surged another 6%, 9%, 1% and 10%, respectively (then kept rallying in July, jumping 12%, 2%, 22% and 2%, respectively). Two quarters ago we discussed the idea that Trump turns out to be more like Herbert Hoover than Ronald Reagan or George W. Bush, and that rather than a 2000 to 2002 replay, we get a 1929 to 1932 replay and #2000Redux gets replaced by #WelcomeToHooverville. We led off this section last time saying, *"Let's review the results and see if we look more like 2001, 1929 or perhaps another path altogether."* So, with another quarter of data to analyze, let's dive into the Q2 results.

2017 started off looking eerily like 2001 in economic terms as the Q1 Atlanta Fed GDPNow estimate came crashing down from 3.5% in January to 0.2% in April and when the first estimate for Q1 GDP actually came in at 0.7% there was some discussion that revisions could take the number below zero (which would have clearly resembled the Q1 2001 negative GDP print). Those revisions, however, went the other way (some observers have suggested due to some creative inventory accounting) and the final Q1 GDP clocked in at a meager (but not negative) 1.4%. Hope sprang eternal in the land of economic forecasters as Q2 began and the consensus was that GDP would somehow breach 4% and the GDPNow initial estimate was 4.3% back in April. Three months later, that estimate has collapsed to 2.5% and full year estimates are hovering just over 2%, which is far below the promises made by the administration for 4%-plus growth and well below the Fed estimates, again (remember the Fed is zero for 230-something in estimates of growth and inflation). All that said, a slowdown in GDP growth is not a contraction, therefore the direct comparisons to 2001 are moot at this point, so how does the GDP trend compare to 1929? Interestingly, the Fed began to raise rates in the spring of 1928 and kept increasing them through the summer of 1929, which actually does correlate well with the Fed actions over the past year. In August of 1929, the economy entered a shallow recession and the stock market reached its famous peak in the first week of September, so it appears that we will know sometime in Q3 whether we are indeed on the road to Hooverville, or down a different path. Mark Twain famously quipped that, "History doesn't repeat, but it rhymes," so we are unlikely to see a precise repeat of the events of 1929, but there are enough similarities to make the next few months very interesting for students of market history. As we have discussed before, the real test for the economy and markets will be how Congress and an inexperienced president respond to these events, should they unfold, and will they make the same policy errors that turned a garden variety recession into the Great Depression (i.e., raising rates to defend the dollar and passing Smoot-Hawley Tariff Bill in an attempt to protect U.S. jobs).

Part of the Reflation Hope Trade at the end of 2016 and into Q1 was a bet that corporate earnings would recover quickly under a pro-business president intent on reducing regulation and lowering corporate taxes, which were theoretically going to allow companies to drop more profits to the bottom line. The headline numbers in Q1 were consistently trumpeted to be double-digit EPS gains, but when the dust settled, the final increase in operating earnings (Earnings before Bad Stuff) had slipped to 9.1%. While not as robust as earlier estimates, it was a welcome relief from three years of stagnant earnings. One small problem with the headlines was that when looking at reported EPS without adjustments (actual earnings), the gain was a less robust 6.1%. A second problem was that after starting the year with forecasts of double-digit gains over multiple quarters, economic reality has set in and the estimates for Q2 have fallen to a 7.2% gain for operating earnings and only 4.5% for as-reported earnings. The biggest development this year (and change from consensus) has been the absolute collapse of EPS estimates in the Energy sector as oil prices have fallen. The energy complex was supposed to be the savior of S&P 500 EPS in 2017 (it had easy comps from 2016), but the environment shifted rapidly when the recovery in U.S. production exceeded original forecasts and negated the impact of the OPEC production cuts. As an example of the swift fall in EPS expectations, XOM was projected only three short months ago in April to make $0.99 a share in Q2, but reported EPS was just $0.78. The challenging issue for market valuations is that investors haven't gotten the memo on the actual numbers, so they have continued to buy on the expectations of the higher estimates and therefore have continued to push up the P/E ratio of the S&P 500 from 25X at the end of Q1 to 26X at the end of Q2 (remember these P/E ratios are based on actual reported EPS, not pro-forma, adjusted or forward forecasts, the only data we know is real). When we try to understand the source of the broad enthusiasm for earnings, we reiterate what we wrote last quarter, *"we couldn't find a logical answer and we still struggle to see where truly meaningful EPS growth is going to come from given the utter collapse in economic growth during the course of Q1."* Given continued signs of economic weakness in the reported data (as reflected in the poor Citi Economic Surprises Index readings), the unexpected weakness in the oil markets (although not unexpected by us in that oil is following MCCM Surprise #5 nearly perfectly) and the potential for an actual downturn in GDP later in the year, we would expect overall earnings growth to be a modest headwind for the balance of the year instead of the brisk tailwind so universally predicted at the beginning of the year (in other words reality will trail expectations).

Similar to most prior periods during the QE Era, the equity markets didn't really care much about what was going on in the real economy, didn't really pay attention to whether earnings were coming in above or below expectations, and pretty much ignored all the political and geopolitical noise during Q2 and just went up, registering another solid quarter of gains. The S&P 500 was up 3.1%, NASDAQ Composite was up an even stronger 3.9% (on the back of #FANG) and the Russell 2000 small-cap index was up a respectable 2.5%, but it was the international equity markets where the real fiesta was going on, as the MSCI ACWI ex-USA jumped 5.8% and the MSCI EM Index surged 6.3%. We will dig into the specifics of the various markets below, but one thing to discuss here is how the most recent advance in U.S. equities has occurred in an environment nearly devoid of any volatility whatsoever. The lack of volatility in the S&P 500 is unprecedented. There are a handful of historical periods where a particular measure of volatility was very low, but some other measure was more normal, but never has there been a period where every measure of market volatility is registering extreme lows. Starting simple (and moving to more complex), the standard deviation of the SPX has fallen to its second lowest level ever at the end of Q2, hitting 6% (it hit 5% in 1965), compared to an average of 18.6% since 1871. Using standard deviation to calculate the Sharpe Ratio, the Q2 reading of 2.34 is the second highest ever (it hit 2.6 in 1954), compared to an average of 0.4 since 1928. The lower-than-average volatility is reflected in the lack of any sort of correction over the past year as the current streak of 275 days without a (5%) correction is the fourth longest since 1950 while the intra-year correction (so far) in 2017 of (2.8%) would be the second smallest since 1950 (only the 1996 pullback of (2.5%) was smaller). The biggest outlier statistic is the lack of intra-day volatility in 2017 as in an average year there are 114 days where the S&P 500 has greater than a 1% trading range and the lowest number since 1980 has been 40 (in 1993), but in 1H17 there were astonishingly only six days.

The most actively watched (perhaps overly watched) measure of market volatility is the CBOE Volatility Index (commonly referred to by its ticker symbol VIX), which is a measure of the implied volatility of the S&P 500 over the next 30 days as calculated by the prices of options on the SPX. VIX is quoted as a percentage that expresses the expected range of movement of the S&P 500 Index over the next year at a 68% confidence interval (one standard deviation); in other words, a VIX level of 15 would imply that the S&P 500 has a 68% probability of moving up or down less than 15%. The VIX has been referred to as the Fear Index (or Fear Gauge) and has been mistakenly thought of as an indicator of the level of fear of market participants, which is not the case. Rather, VIX is the collective perception of options market participants of future expected volatility. Simplistically, when market participants anticipate there will be large market movements (up or down) the VIX will be high (option sellers require higher prices) and when they anticipate small market movements, the VIX will be low (option sellers accept lower prices). Herein lies the reason that those trying to use VIX as a contrarian timing tool to predict market events have been consistently frustrated, as they don't understand/appreciate the complexity of its calculation and the fact that VIX measures the collective expectations of market participants that are as likely to be wrong as much as right about future market events. Another insidious problem with the VIX today (that we will not give nearly enough attention to here) is that as investors have engaged in the global search for yield, the strategy of option selling has become increasingly popular as a means to capture option premium by using an SPX put writing overlay. Basically, the implied volatility in the put options exceeds the realized volatility over time (the put seller gets paid) because there is greater demand for portfolio protection than willing put sellers coupled with the upward bias of equity markets. With a growing cohort of investors (including large pension funds and SWFs) participating in these strategies, there has been increasing downward pressure on the VIX. Like all "free money" strategies, there is a catch: they only work in one market environment and can cause meaningful losses in alternative environments. When equity markets are in a low volatility upward trend (think central bank assisted markets like mid-90s and now), these strategies work like a charm. They work so well that 14 of the lowest-ever 25 readings of the VIX Index have occurred in the past three months. There have been huge amounts of money lost trying to time the next big spike in the VIX and many have (erroneously, in our humble opinion) attempted to use VIX related strategies to hedge their portfolios (or speculate) and two examples paint the most extreme picture. VXX is an ETN (exchange traded note) that provides investors with the short-term VIX Futures total return and has an astonishing $975M invested despite having fallen from $831 to $11 over the past five years and currently having 95% of the shares outstanding borrowed and sold short. Even more astonishing is TVIX, an ETN that provides a 2X leveraged exposure to the short-term VIX Futures total return that somehow still has $195M invested despite having fallen from $840,000 to $16 (that is not a typo) over the past five years. As we mentioned, the VIX market is very complex and investors need to proceed with caution in trying to utilize it as a market timing or hedging tool. History has shown that periods of low VIX readings have been associated with strong equity returns right up until the point that they are associated with horrible returns and it is then (and only then) that the VIX will be at much higher levels and everyone will claim (mistakenly) that the high volatility was caused by the low levels of VIX finally breaking (a Minsky Moment). Minsky was right that the absence of something (volatility in this case) eventually causes its presence, but the VIX is not an indicator of that eventuality (however, it will be a beneficiary of it when the tide suddenly turns).

We feel the need to give another update on the craziness going on in small-cap stocks as investors continue to believe that the benefits of the Trump Trifecta (remember it is August and we're still zero for three) will accrue to a greater extent to the smaller companies that have reportedly been overly burdened by regulation and who can't afford lobbyists to get their effective tax rates lowered. We wrote in January, *"One last point here is that as scary as the surge in the S&P 500 P/E ratio has been, it barely registers on the crazy scale compared to what is happening in small-cap land. The R2000 Index P/E was 108 one year ago and now is listed as "nil" because there are so many companies with negative earnings they have decided not to calculate the ratio."* Back in Q4 there were so many companies with negative earnings in the R2000 Index that the WSJ couldn't calculate a P/E ratio. As we said back then, *"That is kind of a Wow."* Last quarter we noted that wasn't even the strangest part of the story (amazingly), and that when the WSJ actually did find a way to calculate the P/E in February, it was an astonishing 295X (we did not forget a decimal point). Then the story got really strange. As we were writing the Q1 letter in April, the Market Dashboard section of the WSJ website literally vanished for a period of weeks. We joked that *"perhaps they got tired of defending the silliness of saying they couldn't calculate a number or maybe they are pulling a "Colonel Jessup" (famous commander under investigation for atrocities at Guantanamo Bay in the movie A Few Good Men) when he says, "You want the truth? You can't handle the truth."* Much ink has been spilled about the R2000 P/E issue and we found some very astute analysts who had gone company by company and calculated the actual PE for the Russell 2000 using actual reported earnings (including losses) and came up with a number as high as 693X (one might consider that overvalued). This quarter, the WSJ website is back to fully functioning and the current P/E (using pro-forma EPS, or #EarningsBeforeBadStuff, and excluding negative EPS) has magically shrunk from the astonishingly high 295X to only a ridiculously high 92X. But wait, there's more. We know that no one in the world of the New Abnormal looks at trailing earnings anymore (even though those are the only numbers we know are true), everyone looks at the P/E ratio using Forward EPS (next year's fantasy numbers, of course excluding negative earnings), and by that calculation the R2000 is downright cheap at 19.3X. So, let's do the math together. From the December 9, 2016 Trump Bump peak of 1388, the R2000 Index has been basically dead money, finishing Q2 at 1415, up 1.9% over the seven months. The index has run another 0.7%% in July, so let's be nice and say it can rally 10% over the next twelve months. For the P/E to fall from 92 to 19 with that 10% increase in P (price), the E (earnings) would have to rise over five times! Seriously, does anyone actually believe the EPS can grow from $15.40 to $80.60 in the next year?! Just for fun, let's look at the last decade of R2000 EPS. Earnings were negative for the entire index (2000 companies) in two of the years, actually declined year over year in three of the years and the highest year over year growth of the remaining five years was 51%, but hey, a 500% increase in earnings should be no problem over the next twelve months. Oh, one last thing, in each of the last three years, implied EPS growth (forward P/E versus current P/E) has been around 300%, yet the highest actual EPS growth was only 12% (one year saw EPS shrink). We are not sure which is worse, that people who get paid millions of dollars to generate EPS forecasts for companies can be so brazenly wrong year after year (with no remorse), or that investors ignore the horrific dispersion between the forecasts and the actual results and continue to pile into the R2000 index funds and ETFs?

On that cheery note, let's turn to the U.S. style index returns in Q2 and examine the huge reversal in style trends that has occurred in 2017 and accelerated this quarter. We wrote last summer that we remained skeptical that the shift from Growth to Value was durable, saying, *"It is possible that there is a meaningful shift underway in global equity allocations to favor more value and cyclical names. While this shift doesn't fit exactly with a slowing global economy and stress in the financial sector, this trend will be worth monitoring very closely in the months and quarters ahead."* Value indeed won in 2016, but the trend has completely reversed in 2017 as the inability of the administration to get any of their economic agenda passed has triggered fears that the Reflation Hope Trade may not play out as quickly as expected and investors flooded back into Large Growth companies. The RTop200G surged another 4.8% (on top of 9.6% in Q1) while the RTop200V was up only 1.3%, the RMidG was up 4.2% (on top of 6.9% in Q1) while the RMidV was up only 1.4% and the R2000G was up a solid 4.4% versus the R2000V managing only a scant gain of 0.7%. The spread between Large Growth and Small Value was only about half as large as Q1, at 4.1%, but the spread of 14.4% over 1H17 was as large a gap as we can remember. When looking at the trailing twelve months, Growth has surged past Value for the bulk of the indices as the RTop200G is up 21.6% versus the RTop200V up 15.4%, the RMidG jumped 17.1% versus the RMidV up 15.9%, but the massive recovery in Small Value off the bottom in 2016 was too big a lead for Small Growth to overcome and while the R2000G was up a very strong 24.4%, the R2000V was up a style beating 24.9% (even besting Large Growth). Last quarter we noted, *"There were plenty of letters touting how clear it was to be overweight Small Value. The truth is that it was far from clear for the first ten months of the year and, most importantly, there was almost no time to reposition a portfolio after the election as much of the big moves in the small-cap Trifecta sectors and stocks occurred over a matter of hours and days."* It is a little funny that the letters this year are trying to explain why being overweight Small Value was not a mistake, as no one could have foreseen how narrow the market would get and that it wouldn't be prudent to only be invested in #FAANG. We will see in the coming quarters if the rally's lack of breadth proves to be its undoing as the advance becomes increasingly narrow. One amazing stat on this point was that in the four months from March 1st to the end of Q2, the #FAANG stocks had added roughly $230B of market cap while the other 495 stocks in the S&P 500 had shed roughly the same amount of market cap (the index was roughly flat over the four-month period).

Within the S&P 500's industry sectors during Q2 the reversal from the performance of 2016 accelerated and there has been a definitive worst to first and first to worst transition. Last year's darling sector, Energy, has collapsed this year and was down another (6.4%)

in Q2 to be down (12.7%) YTD, while Healthcare had a good "year" in Q2, surging 7.1% (as details of the Healthcare Plan were released and proved less onerous than campaign rhetoric) on top of a solid Q1 and is now up a leaderboard-topping 15.9%. We discussed why we believed Healthcare would get discharged from sick bay (worst performing sector in 2016) in 2017 in our #MCCMSurprises #8 in January and why Healthcare and Biotech were a couple of the last places left to look for value in a very overvalued market. We wrote again in the Q4 letter in January *"Safety was punished for the full year and Healthcare brought up the rear, down (2.7%) and was the only sector with a negative return (beautifully setting up a worst to first trade for 2017, more on that in Surprise #8 below)."* We love it when a plan comes together. One of the issues with ETFs generally is that they tend to be fairly top heavy (a small number of names make up a large percentage) and the healthcare ETF, XLV, is no exception. Johnson & Johnson (JNJ) is a 12% position, followed by Pfizer (PFE) and United Healthcare (UNH) at 6% each, so three names make up a quarter of the portfolio. With that kind of concentration, the performance of the ETF will usually resemble the performance of those large positions, but while JNJ was up 6% and UNH was up 13% during Q2, PFE was actually down (2%), so this triumvirate only contributed about 1.5% to the 7.1% return for the period and it was broad strength across many of the other top names (Medtronic (MDT) up 10% and AbbVie (ABBV) up 11%) and some very strong performances from many of the smaller components (Vertex (VRTX) up 18%, Aetna (AET) up 19%, Anthem (ANTM) up 14%) that helped drive the strong returns. The strength in healthcare continued in July and a number of names are now up more than 20% YTD including UNH up 20%, MDT, Allergan (AGN) and Amgen (AMGN) up 22%, Boston Scientific (BSX) and AET up 26%, ANTM and CIGNA (CI) up 30%, Regeneron (REGN) up 40% and VRTX up an astonishing 121%. While many of the names in XLV have now become less cheap, there are still a number of companies with P/E ratios that are well below the overall market including Express Scripts (ESRX), Gilead (GILD), Bristol-Myers (BMY) and AMGN. Last quarter we said, *"Healthcare didn't quite make it all the way back to first in Q1, but there is still a lot of year left and we think the valuations in Healthcare continue to be very attractive (particularly in Biotech and Specialty Pharma) so there is plenty of upside left in this sector,"* and Q2 results corroborated that view. We continue to see attractive opportunities in Healthcare, Biotech and Specialty Pharma and expect to have more to write about in quarters to come.

One of the favorite sectors during the Q4 Trump Pump was Industrials because investors believed (we are not sure why) that the $1 trillion of fiscal spending that Trump promised on the campaign trail was going to miraculously materialize as soon as he took office. XLI surged nearly 15% in the four weeks following the election before settling down to finish up a little less than 7% for the quarter. Industrials were up solidly again in Q1 of 2017, rising 5.6%, and were the second best performing sector in Q2, up another 4.7% to bring YTD returns to 10.6% (trailing Healthcare, Tech and Consumer). Perhaps the most interesting thing about the performance of XLI in Q2 (and 2017) has been that the sector has done well despite poor performance from the bellwether stock General Electric (GE), which was down (9%) in Q2 and was down (15%) for 1H17. With a nearly 8% weight in the ETF, the rest of the companies in the sector had to work extra hard to generate the strong returns for Industrials, and work hard they did. Industrial stalwarts including 3M (MMM) up 9%, Boeing (BA) up 12%, Honeywell (HON) up 7% and United Technologies (UTX) up 9%, more than carried their weight and this Fantastic Four is up 17%, 26%, 15% and 10%, respectively, for the first six months of 2017. Another contributor to the Industrials strength has been the Defense stocks including Lockheed Martin (LMT), General Dynamics (GD), Raytheon (RTN) and Northrop Grumman (NOC), which were up 4%, 6%, 6% and 8%, respectively, in Q2. We have written about the theme of #PlayDefenseWithDefense for a couple of years now and these stocks just continue to generate strong gains quarter after quarter. For the first half of the year, LMT was up 10%, GD was up 13%, RTN was up 11% and NOC was up 9%. As the saying goes, "defense wins championships," and, looking back over the past two years, we would have to concur as LMT jumped 50%, GD rose 40%, RTN soared 68%, NOC surged 61% and we'll throw in BA (up 42%) for good measure., Each handily beat a very solid showing of 17% for SPX.

After sprinting out of the gate in Q1 and surging 12.6%, Technology slowed down to a brisk jog in Q2 and rose "only" 4.1% (before sprinting again in July, up another 4.5%) as the #FAANG stocks performed well for the most part. Semiconductor companies remained "en fuego" from Q1 and software and business services companies overcame the drag of telephone companies and payment processors. XLK may have the most challenging concentration issue given the massive size of Apple (AAPL), which makes up 15% of the ETF, followed by GOOGL and MSFT at 11% each (three names more than one-third of the ETF) and FB at 7%. AT&T (T) and Intel (INTC) pale in comparison as #5 and #6 holdings at 4% and 3%, respectively. AMG may be the tricked-out version of a BMW, but it is also the primary driver of the Technology sector in the S&P 500 and Q2 was mixed as AAPL was flat, MSFT was up 5% and GOOGL was up 10%, so AMG only contributed 1.5% to XLK during the quarter so there was lots of work to be done by names such as AMZN, up 9%, FB, up 6%, AVGO, up 6% and NVDA, up another astonishing 33%. NVDA has become the dominant player in GPUs (Graphics Processing Units) which have become increasingly important as algorithms, AI and big data have become an increasingly large component of everyday technology. GPUs essentially allow parallel processing of computer graphics and images and are superior to CPUs (Central Processing Units, the brains of traditional computers) in enabling algorithms to process vast quantities of data. GPUs can also be embedded more easily in mobile devices and are more energy efficient. To give a sense of how big a deal GPUs are, NVDA, which had been left for dead as a washed-up video board manufacturer a few years ago, is up 58% YTD, up 190% over the past year and up an amazing 1,100% (yes, 11X) over the past five years. We wrote last quarter about another washed-up tech company that has surged recently, saying, *"AMD was the leader of the pack in 2016, up 300%, so with another 28% jump is now up 410% for the last fifteen months (very gaudy returns indeed, but recall what we wrote last time about what often happens after gaudy returns)."* As if on cue, nearly to the day of the letter, AMD disappointed on their Q1 EPS release and fell (14%) in Q2. We also compared AMD to their arch-rival INTC, adding, *"Just for some fun perspective, in the nine years leading up to Q1 2016, AMD was down 90% while INTC was up 65%, but over the past year the alligator jaws have closed hard and AMD is now down just 10% over the decade while INTC has been frozen at up 65% for the ten years."* To update the race, INTC had another rocky quarter falling (6%), but regained a little of its lead over AMD (which fell more during the quarter), but AMD came surging back in July, jumping 9%, while INTC climbed "only" 5% (on the back of surprisingly strong earnings) and all of this jockeying puts INTC up 50% over the trailing decade to AMD's gain of 10% (jaws keep closing). Technology is likely to continue to be a great place to invest, but the challenge will be to pick your spots as valuations have gotten very frothy in some areas (#FANG springs to mind), while other sectors like semiconductors have decades of amazing growth ahead as technology becomes more ubiquitous. Repeating what we wrote last time, *"One futurist group has calculated that today there are 4 active microprocessors for every person on the planet and they estimate that this number could rise to 1000 over the next few decades. Sounds a bit fantastical, but when we think about what it means to have truly automated and connected functionality, the demand for semi-conductors will indeed grow exponentially. Only takes a couple handfuls of doublings of capacity to get to very large numbers (4, 8, 16, 32, 64, 128, 256, 512, 1024…)."* The key to success here is to invest ahead of the #PathofProgress. One last thing to remember about Technology is that it was the best performing sector for many years in the late 1990s leading up to the bubble peak in 2000. The S&P Technology Index recently crossed the previous high, *seventeen* years later, so valuation does matter and it is not a big stretch to think that some of the most egregiously valued companies, like AMZN and NFLX, could be at the same price a decade (or more) from today (suffering the same fate as MSFT, CSCO, etc. in 2000).

Consumer Discretionary had a great "year" in Q1, surging 8.5%, and followed up in Q2 with a more sedate, but still respectable 2.4%, to bring YTD returns to a very strong 10.9%. We wrote last time that hearing the Consumer Discretionary sector is doing well, *"may sound a little funny given all the negative headlines about how bad retail has been and how AMZN is turning the big box retail business into Road Kill. We have discussed the huge opportunity on the short side in traditional retail for a number of quarters and have a material short position in our discretionary portfolios in the department stores and general retailers."* Retail names like JCP, TGT, M, KSS, GPS, DDS and JWN were pounded (with two exceptions) again during Q2, with the first five dropping (24%), (5%), (22%), (3%) and (10%), respectively, while there were rumblings about private equity buyers sniffing around JWN and the majority family at Dillard's (DDS) bought up some stock, so these names managed small gains of 2% and 10%, respectively. As we explained last time, *"One would think with these kind of horrible numbers, that the Consumer sector would have been down, but when you dive in a little deeper into the makeup of the ETF you find that it has a lot of technology exposure*" and names like AMZN, CHTR, CMCSA and PCLN trade more like tech stocks than consumer companies. These stocks were strong again in Q2, rising 9%, 3%, 3% and 5%, respectively (and jumped more in July). Other core holdings like DIS, HD and MCD have bucked the weak retail trend and McDonald's has actually surged over 30% YTD to a new all-time high. In Q2, these stocks were mixed, returning (6%), 4% and 18%, respectively, but combined, they were accretive to the returns of the sector. The concentration issue rears its ugly head again in the Consumer Discretionary ETF as XLY has 16% in AMZN, 7% in CMCSA, 7% in HD and 6% in DIS. Once again more than one-third of the portfolio in just four names. We also want to repeat a warning from last time about another danger of ETF investing. *"These results point to one of the dangers of ETFs (and mutual funds too) insofar as many of them have holdings that are not fully consistent with their names. For example, if an investor had an inkling that they wanted to be short (or long) the retail sector and didn't want to use single name shorts, they would be challenged with the two choices in the SPDR ETF family, XLY (Consumer Discretionary) and XLP (Consumer Staples) as both were up smartly in Q1 despite many of their components being down big, but capitalization weighting and lack of choices (only 10) make tactical investing difficult as the instruments are too blunt to truly express many tactical views."* Capitalization weighting is one of the most insidious problems with so-called passive investing as the built-in momentum of the strategy means that you will have the maximum exposure to the most overvalued assets precisely at the peak if you are long, or conversely you will always be fighting against positions that have a systematic upward bias if you try and short them to use them as a hedge.

Looking across the other sectors, the second best performing sector last year, Financials, has performed a nicely executed first to (nearly) worst as after riding the 2016 momentum into early 2017, XLF rose a scant 2.5% in Q1 and while posting a very respectable up 4.2% in Q2, is still second from the bottom YTD, up only 6.9%. Some managers we respect have very high hopes for Financials and see a clear path to double digit gains in years ahead, but we can't make the math work as our view is that interest rates won't surge higher, so net interest margins won't explode upwards. The actual data in lending shows a very rapid contraction that should hurt profit margins in the second half of the year. Utilities and Staples slightly underperformed the broader market in Q2, rising only 2.7% and 1.6% versus the SPX return of 3.1%. This says to us that investors are caught between wanting to believe the Trump Trifecta Narrative and the Trump NoFecta Reality and so are hedging their bets (kind of) by going all-in on stocks, but diversifying into some more defensive sectors in addition to the momentum sectors (we think all-in equities is a really bad idea here). At the bottom of the barrel (for the second quarter in a row) we find Telecom, down (7%) on dramatic earnings declines (not surprising since they complicated the smart phone purchase model and are engaging in cut-throat competition for subscribers). Energy was the second worst performer, down (6.4%) as we mentioned above, which is not a surprise to us given our view in #MCCMSurprises #4 that oil prices would decline toward $40 in 1H17 (despite OPEC's best efforts to cut production). Energy is now down the most of all the sectors for 2017. We wrote last time about this common phenomenon, saying energy, *"is completing another perfect first to worst transition (very common for best sector in prior year to come under selling pressure in Q1 as investors push gains into next tax year)."* That negative momentum continued into Q2, but we see some likelihood that momentum shifts back in favor of the bulls in the second half and we might be writing about a worst to first transition come Holiday Season.

Going back to the U.S. equity market as a whole for a moment, there seems to be a disconnect between the consensus of rising rates and ever-expanding P/E multiples on equities. While we may differ on the view of rates (#MCCMSurprises #1 calls for lower global rates due to the Killer D's of Demographics, Debt and Deflation), let's assume for the sake of argument that the consensus is right and the long bull market in bonds is over and rates are headed higher. Why is it that the P/E ratio for stocks keeps rising? Mathematically, if rates rise, discount rates rise and a dollar of earnings in the future is worth less today, so an investor should want to pay less, not more for each dollar of E (thus P/E ratios should fall). But, once again in Q2, the P/E of the S&P 500 (using actual reported earnings) increased from 23.5X to 24.2X (a 3% increase). Given the 3.1% return in the Index, multiple expansion apparently accounted for the entire rise in stocks during the period. By this calculation (despite all the crowing about the massive recovery in earnings), actual reported earnings during Q2 must have been basically flat, so the 4.5% increase that has been trumpeted in the media may not actually materialize when all the counting is done. We wrote last time that, *"The real problem will be whether that EPS momentum can be maintained as economic growth has come crashing down during the quarter and companies are slashing earnings forecasts at an alarming rate. More alarming is that the slashing of revenue growth is even more dramatic as accounting tricks can make EPS look better (like stock option expensing and stock buybacks), but it is really tough to fake revenues and without solid revenue growth it is hard to see from where the big earnings jumps are going to come."* So, it appears that perhaps the early estimates for SPX earnings growth were a little overly optimistic (shocking, we know) and there will likely continue to be a torrent of downward revisions (as we have seen in the energy complex, noted above). If a deceleration in the earnings recovery becomes a slight headwind, the continued injection of liquidity into the markets by the Fed (through their Treasury repurchase activities) will continue to be a modest tailwind. We have written many times about the great analysis created by Larry Jeddeloh at TIS Group that outlines how QE purchases translate into S&P 500 points. We have quoted the results on numerous occasions saying the, *"model showed that for every $100 Billion of QE it has translated into 40 S&P 500 points."* We noted last quarter that the Fed was scheduled to buy just shy of $200B of bonds in 2017, so if we assume those purchases average about $50B per quarter, there should be about 20 S&P points of equity tailwind each quarter during 2017. The S&P Index rose 60 points during Q2. If we attribute 20 points to QE and 70 points to multiple expansion, that would leave negative 30 points for earnings impact (we can see zero, but not negative), so it is more likely that the QE boost can't be finely tuned down to a quarter and we should expect some 80 points of impact over the course of the full year.

The other big event that impacted equity returns in Q2 was the Fed decision to raise the Fed Funds rate in March. As we wrote last time, *"Despite an abundance of evidence to the contrary (GDP growth estimates collapsing, Citi Economic Surprise Index falling off a cliff) the Hawks at the Fed have convinced the Dove in Chief (Dr. Yellen) that there is a "risk of an overheating" (actual phrase from Fed speech) in the economy and they bumped rates 25 basis points,"* and we went on to discuss how that move had halted the momentum in markets that had accumulated in January and February. The S&P 500 peaked at just under 2400 on March 1st and fell for the first six weeks of the quarter, before rallying over the last six weeks of the quarter to finish at 2,423. The trajectory was down during the first week of July. The SPX sat at 2,409 on July 6th, virtually unchanged for the four preceding months. Suddenly, an army of Fed talking heads came back from vacation to make speeches, saying perhaps rates didn't need to rise much more and that it was highly unlikely that the Fed would raise rates in July (they didn't) and with the another all clear signal from the Fed, investors went right back into risk-on mode. The probabilities for another rate hike in 2017 have plummeted in recent weeks with the September probability hitting 5% and the December probability hitting 35%. There is increasing evidence of a slowing economy and, more worrisome to the Fed, an abrupt decline in Core PCE Inflation to 1.39% and a collapse in inflation expectations back to 1.66% on the 5-year breakeven inflation rate (the level where the Fed was starting QE II and III rather than contemplating raising rates). The other Fed related event that could have an impact on equity markets is the decision to begin to normalize its balance sheet (sell bonds back into the marketplace), which most pundits believe would cause significant turbulence for stocks. Dr. Yellen made hints at this eventuality in the two most recent Fed meetings and Fed watchers believe that her language from this week saying it would occur "relatively soon" means the Fed move is imminent. However, we read the signal the other way. Dr. Yellen changed the language from "by the end of the year," which sounds like an extension rather than an acceleration. The biggest problem we see here is that the central banks have been called the "Buyer of Last Resort" for a reason. If the BOJ experience can be a guide (it has been for every other step in the QE process), "relatively soon" means a long, long time. Nearly a decade ago, the BOJ held JGBs equal to 26% of GDP on its balance sheet and made noises about reducing those holdings, but today hold 90% of GDP and have yet to sell a single bond. We will take the over on the definition of soon.

The other "sure thing" (defined as 100% of economists surveyed responded the same way) besides the Fed raising rates 4 times this year was that rising interest rates would be bullish for the dollar. We were a very lonely wolf on our #MCCMSurprise #7 that King Dollar had made its last stand and the cover of the Economist magazine in December (with George Washington all jacked-up on steroids) would turn out to be the top for the greenback (the DXY was 103 at the time). We have spent a lot of time talking about the dollar in the last couple of years and summarized why in the Q4 letter saying, *"Getting the dollar right might be the most important investment decision we could make during the year. The reason for the hyperbole on the Greenback (beyond my normal hyperbolic style) was that so many of the other market opportunities had become so tightly correlated to the dollar and if you got the dollar call right you could make better returns in equities, bonds, commodities and (obviously) currencies."* There has always been an impact of currencies for any global investor in that a movement in exchange rates relative to your home currency can add or erase significant value. But there are other impacts that have risen to the collective consciousness of investors given the rhetoric from the Trump Administration about trade wars, border taxes and energy policies. Fortunately, to this point the bark has been worse than the bite and we highlighted last time that there was actually a bit of an about face on the stance toward the dollar. We wrote, *"Interestingly, the rhetoric from the Trump camp has softened dramatically since Q4 and they have backed down from labeling China a "Currency Manipulator" (resulting in a very stable USDRMB cross rate) and actually have had multiple spokespeople say that the administration favors a weaker, not stronger dollar (presumably to try and manipulate the currency to help U.S. exporters, but wait, isn't that what we were presumably so mad at China for doing?)."* One of the funny things over the past two years has been the perception in the marketplace that the dollar was so strong, yet the facts paint a very different picture than the narrative. After hitting 100 in the first week of March 2015 the DXY remained locked in a channel between 95 and 100 right up until the election last year. DXY spiked ever so briefly to 103 over the weeks following the election, as the Reflation Hope Trade took hold, but drifted down during Q1 to settle back at 100.56 on 3/31. We wrote at the end of the dollar section in April that *"the danger zone for the dollar is if DXY breaks below 99 (as it recently did…), as there is not a lot of support below that level and it feels like the downward trend could accelerate fairly quickly,"* and the dollar has been in freefall during Q2, with DXY falling all the way to 95.62 on 6/30, a loss of (4.9%) for the quarter. It has continued downward to 93.90 on 7/27, another (1.8%) loss. Curiously, the world is suddenly piling on the short dollar trade today, and there has been a dramatic reversal from a very net long position to begin the year to a net short position in the non-commercial traders' overall positioning. It is highly likely that there could be a short-lived relief rally in the dollar in Q3, before resuming the downward trend (which we expect to run for many years).

When making international equity investment decisions, we discussed last time the importance of understanding that, *"with every investment decision you make there is also an embedded decision on which currency you want to have (or not have) exposure to during the duration of the investment. The investor can choose how to manage that risk/exposure through hedging (or not hedging) or through actually swapping exposure through derivative instruments."* U.S. based investors have been conditioned to think about the dollar in relation to the DXY Index, but we noted last time that *"an important thing to keep in mind about DXY is how the index is dominated by the Japanese yen and the euro (even more euro than yen) and that there are other more diversified currency indices as well (e.g. trade weighted) which have different return profiles."* We have been very active over time in hedging yen exposure for clients as we believe that the BOJ has no way out other than to weaken the yen. We even made the statement in November of 2012, borrowed from our friend Hugh Sloane, that the yen will be weaker against the dollar for the rest of our lives. We have been less active in hedging the euro as we felt that there was a higher likelihood of euro strength (good for U.S. investors) as the dollar weakened. Given our predilection toward Emerging Markets, we have had to be vigilant in thinking about the impact of FX on those investments and creative in thinking about hedging given the very high FX trading costs in many of the markets. Generally speaking, we have chosen to accept the currency volatility as part of the diversification benefit of investing in these markets, but we do utilize the broader trend in EM FX as a whole to help with portfolio positioning. For example, after a very challenging period for EM currencies in 2014 and early 2015, as the dollar ripped higher (along with the oil price collapse), we became more constructive that EM FX would be a tailwind beginning in Q1 of 2016. The Trade Weighted Dollar basket is a good tool for tracking this trend and that basket strengthened 3.7% versus the dollar in Q2 and has strengthened another 2.1% in July. Similar to the ETF problem of making sure to know what exposures you have, we think investors who try to hedge currency exposure in EM with DXY will be deeply disappointed.

Looking at a number of key currencies in Q2, we see a fairly consistent trend of strength versus the dollar except in Japan. Kuroda-san has been working overtime to try and talk down the yen this year, but as we mentioned last time, *"the Safe Haven Trade has trumped the Hope Trade so far in Japan this year,"* and the USDJPY moved very little in Q2, rising 1 point from 111.2 to 112.2 (it has since fallen back to 111). We also mentioned last quarter that, *"Japan turns to Kuroda-san to weaken the Yen the same way Princess Leia turned to Obi-Wan Kenobi in the original Star Wars movie saying. "Save us Obi-Wan, you are our only hope."* Kuroda-san ramped up his game recently by saying he would buy "unlimited" amounts of 10-year JGBs as part of his Kurve it Like Kuroda strategy to "pin" the yield curve (fix the short end and try to increase the long end to steepen the curve) to try and help the banks with their net interest margins, while simultaneously weakening the yen to help exporters (why yes, he does appear to think he can do it all). There are short-term risks of a stronger yen should the U.S. equity market correction materialize this fall (flight to quality), but we continue to see a higher USDJPY (target 130), so keep hedging those investments in Japanese equities. The euro was basically flat in Q1 as it marked time waiting for the French elections. With the victory by Macron over Le Pen, the EURUSD has surged, rising 7.3% in Q2 from 1.065 to 1.143, and has continued upwards in July, hitting a new high of 1.169 on 7/27. Germany cannot be liking this sudden strength in the euro as the world's greatest mercantilists (they need a weak currency to sell lots of cars and machine tools around the world), so perhaps there will be a change in this trend sometime in the coming quarters (likely after the German elections in September).

The most surprising currency in 2017 has to be the RMB. Once again there was near universal consensus that the Chinese had to devalue the yuan and that would lead to a hard landing in China. We had it on good authority from a number of our best contacts in China that there was no chance that Premier Xi would allow a currency event in 2017 given this was the year of the 19th Party Congress and he wanted stability above all else as he sought to consolidate power. Stability is what he got as the USDCNY was basically flat in Q1, moving slightly from 6.94 to 6.89, and then had a modest strengthening in Q2 to 6.78 (really more the USD weakening). As we have said before, the Chinese leadership is very skilled and they continue to play Go while the rest of the world (particularly the U.S.) argue about how to set up the checker board. Mexico was the other very surprising story in 2017 as the USDMXN shocked everyone (except Ben Melkman at Light Sky Macro) and the peso rallied hard in the face of Trump's trade rhetoric (perhaps investors are really figuring out the more bark than bite pattern). After jumping 10% in Q1, the peso has run another 6% in the past four months. The commodity currencies in Australia and Canada marked time in Q2, but have begun to break out in July, so they will be worth watching (and writing about next quarter). We closed this section in January saying, *"currencies matter, and in a world of political uncertainty and volatility in which we seemingly have plunged into, they will continue to matter even more, so being sure to have a sound hedging plan will be critical to investment success."* Those words rang true again in Q2, and we expect they will be words to live by for many quarters to come.

We opened the section on Europe last quarter by saying, *"Last year, it seemed that just about every quarter an event in Europe threatened the very existence of the European Union, whether it was another crisis (Greece), another referendum (Brexit) or another "do or die" ballot initiative (Italy), there was no shortage of excitement in the markets on the far side of the pond."* Given the uncertainty about these political and economic events, European stocks were flat in 2016 and we noted that coming into 2017, there was a sense that all it would take to unleash some strong returns in Europe was a few of the big elections to go as expected and not lean too far toward the populist candidates. Things played out according to that script and European markets surged in Q1, rising 7.4%, without a single developed country having a negative return. It was more of the same in Q2 as animal spirits were unleashed when the French election avoided the populist outcome and once again every country in Europe was up and the MSCI Europe Index surged 7.4% to be up a very strong 15.4% for 1H17. Granted, the vast majority of the returns were currency related (local currency returns were only 1.8%), but the ebullience toward the European equity markets was palpable and there was a tenor of panic buying as global portfolio managers who had been underweight Europe for that past few years scrambled to rebalance. The best performing markets in Europe were Austria, up an amazing 21.8%, and Denmark and Finland, up a nearly equally amazing 15.3% and 13.4%, respectively, for the quarter. The dramatic moves in these country indices were driven, to a large extent, by their extreme concentration (courtesy of capitalization weighting – each features a top two that comprise around a third of the index). Austria's top two holdings are Erste Group Bank (21%) and OMV (14%), Denmark's top two holdings are Novo Nordisk (21%) and Danske Bank (9%), and Finland's top two holdings are Nokia (19%) and Sampo (12%). In fourth place, the French market celebrated Mr. Macron's victory by rallying 9.1% to bring YTD returns to 17.1% (quite a different outcome from the predictions of down double digits should Ms. Le Pen win). With no negative returns, it is hard to call any country a laggard in Q2, but Norway was only up 4.1% due to oil market challenges, Ireland was up only 3.8% thanks to Brexit uncertainty and Portugal was the true laggard, up a still respectable 3.1% as some banking concerns limited upside. For 1H17, the leaders in Europe were Austria (relief rally post-election), up 32.8%, Spain (economic recovery), up 23.8% and Denmark (monetary policy changes), up 22.4%, which were all more than double the U.S. returns and in line with some of the best performances in Asia. The less fortunate EU members YTD were Norway (oil market woes) up only 5.6%, Ireland (Brexit fallout), up only 7.7%, and the U.K. (FX problems & Brexit fears), up a not so bad 10%. Dr. Draghi was noticeably absent again in Q2 and we believe he is keeping his head down because, as we mentioned last quarter, *"There is a growing chorus of people making the case that Europe is recovering rapidly and that inflation is surging to the point that not only will Draghi have to Taper, but he may have to raise rates soon and even Super Mario would not be immune to the bullets that would be fired by global investors if he were to take away the ECB punchbowl just as the party was starting to get good again."*

We have been perplexed for a number of quarters that the transmission mechanism for QE in Europe has not functioned like it has in the U.S. and, as we summarized in January, *"The fact remains that the Euro Stoxx 50 Index has not moved up since the beginning of the ECB program (and is actually down (13.7%) since the peak on April 2015 right after purchases began) and could not manage any return again in 2016 despite large volumes of bonds being purchased by the ECB."* We have hypothesized that there should be a similar correlation between QE and equities between Europe and the U.S., and have fashioned a version of the TIS Group model to link Euro Stoxx 50 moves to ECB bond purchases. Our final formula that, "*for every €100 billion of purchases you get 20 Euro Stoxx 50 points,"* failed in 2016 as the ECB bought nearly €1 trillion in bonds last year, yet the index didn't budge from January to December (although it was wildly volatile in between). We wrote last quarter that there was some theoretical relief in that, *"Based on the model and the expected ECB purchases, the Euro Stoxx 50 Index should have risen around 200 points to 3500 from the starting point of 3268 at the end of 2015 and it turns out we were only off by 91 days as the Euro Stoxx 50 Index finished on 3/31 at 3501."* We added a construct last quarter that perhaps there was some lag in Europe and that the bond purchases in one quarter would be reflected in index performance in the next quarter. Given €180 billion of QE in Q1, there should have been 36 Euro Stoxx 50 points in Q2 and all looked great in April as the index rallied 59 points during the month on the post-election euphoria before something strange began to happen. We mentioned last time that there was a risk that Dr. Draghi would take the punch bowl away (or that he had run out of bonds to buy), and wrote, *"We will keep our eye on the ECB for signs of Tapering, but for now there will continue to be some* *tailwind of liquidity for European Equity investors and we will see if our model holds up better this year than it did in 2016."* The model was indeed looking better, but then the rumors started flying again about ECB tapering, and the euro began to strengthen more rapidly while stocks began to leak downward in local currency terms over the next two months. By the end of Q2, the Euro Stoxx 50 has actually fallen (1.7%) to 3442 and after being flat in July, the entire gain from April has been wiped out and we are back to where we began, wondering where the QE stimulus is going (since it is not showing up in stock prices). If QE isn't going to drive equity returns, then we need a good old -fashioned economic recovery to drive stocks higher. As we said last quarter, *"There were some hints of a recovery in GDP growth on the Continent in Q1 and even some signs of rising inflation early in the year that triggered some "animal spirits" and were likely responsible for the strong gains in stocks during the quarter."* But as we moved into Q2, the transitory impact of rising oil prices began to fade, inflation data rolled over and GDP momentum weakened. We warned that, *"If the hard data continues to come in less positive there is potential for the fundamentals to swamp the sentiment and technical momentum that emerged in Q1,"* and it appears that we may be at that point in Europe. We will be watching closely to see how the rest of 2017 plays out, but we are becoming less convinced that European equities will turn out to be the sure thing that the consensus began to assert after the French elections.

In Japan, we have been positive on the ability of Abenomics to engineer a weaker yen, stimulate a stronger economy, generate modest inflation and push stock prices higher. We have been eyes wide open in the realization that Abe-san's success (or failure) as prime minister really rests in BOJ Governor Kuroda's hands and that he must continue to weaken the yen. We wrote in January that, *"We are back in the Kuroda-san fan club, so much so that Surprise #3 for this year is Kurve It Like Kuroda and we are back in the Yen to 130, and the Nikkei to 22,000, camp."* We didn't actually get much help from Kuroda-san in Q2 toward the yen target, as the USDJPY managed only a one point move up to 112, but we did get some movement toward our Nikkei target as the index jumped 5.9% from 18,909 to 20,033 during the period. We also wrote how *"it should not go unappreciated how powerful a move from the Trump Election Day panic low this rise has been in the Japanese Index."* The Nikkei has surged 23% over the past eight months and to put that move in context, the S&P 500 is up about half as much, around 12%, the hedged Japan ETF (DXJ) is up 17%, Japanese Financials (DXJF) are up 22% and there have been a couple of big winners in Sony (SNE) and Nintendo (NTDOY), which have surged 27% and 45%, respectively. We have talked a lot (some might say too much) about the Japanese Mega-Banks that just haven't been able to break out, despite continuing to be very cheap. The big three, SMFG, MTU and MFG, were up a bit in Q2 (as a group handily beating the SPX 3% rise), rising 8%, 7% and 0.2%, respectively, but they just can't seem to attract enough foreign buyer interest. Just like in the U.S., Technology was the super sector in Japan in Q2 as SNE continued to surge, jumping another 14%, on continued strength in camera sensors. Softbank (SFTBY) has just been incredible and their latest coup is truly dazzling in that they raised a $100 billion (yes, you read that right - not yen but dollars) private investment fund, the Softbank Vision Fund (from SWFs like Saudi Arabia and Abu Dhabi, corporations like Apple and Qualcomm, and super wealthy families), and have been going on a shopping spree making multibillion dollar investments in some of the leading technology companies around the world. Investors liked the idea and SFTBY rose 15% during the quarter. Trend Micro (TMICY), Japan's largest security software company, surged another 15% (after soaring 25% in Q1), as frenzied investors piled into stocks that could help companies defend against hacking attacks. The biggest winner in Japanese Technology in Q2 was Nintendo on the strength of its new console launch (the Switch) and NTDOY soared 44% over the three months. Unlike Q1 when not much happened in the Nikkei as a whole, despite seeing some bifurcation between "Old Japan" (losing) and "New Japan" (winning), Q2 had a marked feeling of growing momentum as investors around the world are beginning to return and are finding rapidly growing earnings across a broad swath of companies as prices that are substantially lower than the U.S. and Europe.

Given all the hype (and resulting fear) about the Fed raising interest rates (which they did in both December and March), Emerging Markets weren't supposed to be the best performing markets in 2017 (like they weren't supposed to be in 2016 either), and it was a surprise to most that EM outperformed all the other markets in Q1. Certainly, lightning couldn't strike twice, and clearly the second increase in the Fed Funds rate would have to put pressure on EM currencies and equities, so EM stocks couldn't possibly be the best performing asset again in Q2? As is often the case, when everybody believes something is going to happen (or not happen), the opposite happened, and Emerging Market equities delivered very strong returns again in Q2, rising 6.3%, beating the S&P 500, the MSCI World Index, the MSCI ACWI Index, the MSCI ACWI-ex U.S. Index and even the MSCI EAFE Index (which was helped by strong FX returns in Europe), as these indices rose 3.1%, 4%, 4.3%, 5.8% and 6.1%, respectively. Adding on to the stellar returns in Q1, the MSCI EM Index is now up an astonishing 18.4% through the first half of 2017, more than double the return of the S&P 500 (and were up another 6.3% in July, 3X the SPX gain of 2%). The Emerging Markets are ideal places to find Sir John Templeton deep value (the more miserable, the better, he would say) and George Soros is always quick to remind us that the worse a situation looks, the less it takes to turn it around and the greater the profit potential. We wrote last time that, *"A year ago things were awfully miserable in EM and investors were throwing in the towel (what the trainer does when his fighter has had enough) and selling in droves, just in time to miss a great run as growth surprised to the upside and currency markets settled down after a tumultuous 2015."* Rather than follow the crowds, we sided with Sir John and Mr. Soros and began to build up our exposures to EM, with a particular emphasis on India and China. Last quarter, we recounted how *"In hindsight, we should have taken Soros not just figuratively, but literally, as it was the B and the R of BRIC where the most misery was and Brazil and Russia trounced India and China in 2016."* Our EM portfolios had a solid year in 2016, rising double digits, but we did leave some money on the table by heeding the wisdom of the legends to focus on the massive sentiment and momentum shifts that were taking place in the most beaten up (read miserable) markets. The tides turned slightly in Q1 as oil prices slipped a bit and there were some political tremors in Brazil, so the China/India overweight helped, and even with EM surging 11.4%, the EM portfolios were able to keep pace. The strong EM returns in Q2 were driven by more traditional EM countries like Korea, Taiwan and Mexico (places where we have been underweight), so the index returns were much tougher to track. Further weakness in oil and more political noise also hurt the BR portion of BRIC, so our EM portfolios (heavily overweight BRIC) trailed slightly.

The second quarter was similar in many ways to the first, most notably in the lack of dispersion that we normally see within the EM index components, as there were only five countries (out of twenty-five) with negative returns during the period. Starting with the laggard markets, Russia took the honors as the worst performer again in Q2, falling (10%), adding to the (4.6%) loss in Q1. Mounting tensions with the U.S. on Syria, heightened scrutiny on the reports of Russian meddling in the election and falling oil prices all helped keep Russia in the gulag. Equally discouraging performance came from Brazil, which fell (6.7%), as the corruption scandal just won't seem to die and President Temer seems to have few friends and plenty of enemies who would like to see him implicated in the sweeping dragnet that deposed Ms. Rousseff and gave him his job. There have been some very strong signals of an economic bottom forming in Brazil and it appears that with the indictment of former President Lula, perhaps the headhunters have a big enough trophy to leave Temer alone (or maybe they realized they didn't really have a viable alternative) and Brazil has rallied sharply in July, up 10.7%. The last laggard in Q2 was Pakistan which, after being a market darling in 2016 (surging 40% in off the bottom last February) on the expectation of being upgraded from Frontier Market status to the EM Index, suffered a bit from the "buy the rumor, sell the news" phenomenon and fell (6.2%). EM markets tend toward extremes in both directions so don't be surprised to see these cellar dwellers back at the top of the leaderboard in coming quarters. Performance has been so strong and so broad-based over the past year that there are only three markets with negative returns over the trailing twelve months: Philippines, Qatar and Egypt, which fell (6.2%), (2.3%) and (2.1%), respectively. Once again, these countries with poor performance have (at least) one thing in common: poor leadership. It makes sense to repeat something we wrote last time (and last fall), *"The common thread with these three is the poor leadership and we could see continued weakness from these regions (and others with poor quality leadership) in the coming quarters. The rising Nationalism, Populism and Protectionism trends are hurting global trade and if those trends accelerate some of the Developing Markets countries could suffer disproportionately."* Developed Markets' leaders (and citizens) should take notice and heed the warning of the paths of these dysfunctional markets as it would not take much for some of the very poor leadership we are witnessing in the U.S. and other developed markets to plunge us into a similar downward spiral.

The best performing countries in EM during Q2 were Greece, Hungary and Turkey, which surged 33.8%, 19.4% and 19.3%, respectively. These are dramatic numbers in and of themselves, but they are even more dramatic when paired with the fact that both Greece and Hungary had negative returns in Q1 and Turkey was a total basket case in 2016, down (30%) in the second half after a failed (some say staged) coup attempt against President Erdogan.

We started watching the situation in Turkey early last summer, and it was amazing to watch Erdogan gain power. We wrote last quarter about how he was able to, *"create a power structure very similar to Putin's position in Russia. With the latest vote to eliminate the position of Prime Minister (even one upping Putin who still has to manage the ceremonial PM, Dmitry Medvedev), Erdogan has solidified his position in such a way that there actually could be some positive momentum in the economy and markets."* We wrote last summer that, *"Some EM observers have been saying that Turkey is beginning to look a lot like Russia during the early phase of the sanctions and that stocks are looking cheap,"* but we believed it was still too early to try and catch the falling knife and Q3 and Q4 were not good in the Turkish equity markets. We highlighted last time that, *"As Mr. Erdogan continued to win support for his constitutional changes and solidify his power, Turkey is actually starting to look pretty interesting, as prices have fallen to very cheap levels."* As we so often note, investing is the only business we know that when things go on sale, everyone runs out of the store (and the cheaper the price gets, the further they run), and as value investors, we like to stay in the store and buy the marked down merchandise. The Bazaar was definitely open in Istanbul this spring.

We also wrote last quarter that, *"since we are on the topic of uninvestable markets, Greece continues to be a place where global investors fear to tread and concerns about the Troika debt relief deal breaking down rose sharply in Q1."* The Greek markets struggled during Q1 on those concerns and the index fell (3.5%). In April, the IMF made noises indicating it was on board with the proposed plan and the Tsipras-led government seemed to have made all the concessions needed to get the third bailout. We have often written that in EM the banks represent the best way to play a recovery and Greece was a textbook example. We noted that we favored, *"Alpha Bank, National Bank of Greece, Eurobank & Piraeus, in that order of riskiness."* After another poor showing by the banks in Q1, we discussed our belief in the likelihood of getting, *"a final resolution of the bailout terms in Q2, so we will likely be writing about some big returns from Greece over the summer."* Indeed, Tsipras has managed the Troika ordeal admirably and confidence returned swiftly that the deal would get done, causing the Greek equity market to roar higher (law of small numbers - it doesn't take much to make big returns). As if on cue, GREK surged 27% in Q2 and the banks were up 29%, 38%, 70% and 27%, respectively. As we like to note when we talk about EM, Arjun Divecha (Chairman of GMO and head of the EM team) has taught us, *"You make the most money in Emerging Markets when they go from truly awful to merely bad,"* and Greece was pretty darn awful over the past couple years and has now moved up to merely bad. In fact, with the recent return to the debt markets to sell new bonds (remember two years ago yields on Greek bonds yielded over 30%) at sub-5% yields, perhaps Greece is not so bad after all. If you had asked anyone in early 2017 which markets to avoid in EM, they would have quickly named Greece and Turkey (and perhaps Egypt, which has not bounced back yet), but these markets proved once again how buying what is on sale can be an excellent money-making strategy.

Given all the media attention around Russia, it makes sense to spend a little time digging deeper into what has gone on in the markets there. The vitriol toward Russia is reaching levels we have not seen in decades and there are some who believe Russia is not investable. Conspiracy theories abound about how Russia and Putin interfered with the U.S. election (to put Trump in power) and not a day goes by lately without another story about some illicit meeting between Trump Administration personnel and some Russian official. On top of the cloak and dagger stuff, there are the real issues of the decline in oil prices (which certainly impacts the Russian Government's budget and finances as well as many of the largest listed companies in Russia – 51% of the MSCI Russia Index is Energy companies) and the extension of economic sanctions that were recently approved by Congress. With all of the negativity surrounding Russia today, it is no surprise that the Russian equity market was down (10%) in Q2 and is down (14.2%) YTD. With all that said, we wrote last quarter that, *"We have a variant perception on Russia, as we believe the assets there are very cheap, the markets are quite liquid and the economy has been recovering well since the trough in oil prices last February."* To those points, Russia is truly the cheapest market in the world with a CAPE ratio of 4.9 (second place is the Czech Republic at 8.8), a TTM P/E of 7.1, a P/B of 0.8, a P/S of 0.7 and a dividend yield of 5.1% (better than HY bonds). Just for fun, let's compare those statistics to the U.S. today where CAPE is 28, TTM P/E is 22.4, P/B is 3.1, P/S is 2.1 (highest ever) and the dividend yield is a paltry 1.9% (less than Treasurys). The Russian economy has been recovering steadily since the 2014 collapse in oil prices plunged the country into a deep recession and GDP has been positive for the last two quarters. With inflation having fallen back close to 4% and the ruble stabilizing with oil prices, there is a lot of room for the Central Bank of Russia to cut interest rates which are very high at 9%. That increased liquidity could provide a nice tailwind for equities. Something just doesn't sit right that the entire market capitalization of all the listed companies in Russia ($600 billion) is less than the market cap of GOOGL ($620B), particularly when GOOGL has $89B of revenue compared to the top twenty listed Russian companies' revenues of $505B. We have a feeling that long Russia, short #FANG, may be a winning trade in the coming years, and we would expect to be writing about some outsized returns from investing in Russia for many years to come.

Turning to China, we have been amazed in recent years at the incredible negativity toward the country and the complete dismissal of the investment potential there by Western investors. We wrote last time about Home Market Myopia (people believe the only great opportunities are in the markets where they live) and wrote how, *"that myopia is enhanced by the cultural divide between the West and the East, fomented over the past few decades by Western media as the economic, political and military power of China* *has expanded."* When China was a small, backward, Communist basket case, global investors were right to ignore the Chinese markets, but as China has developed into a modern, powerful, economic powerhouse, investors who choose to ignore the Chinese markets are now missing some of the best investment opportunities of our lifetime. To make matters worse, there has been a dramatic flip-flop in the quality of leadership in China and the developed Western world (particularly the U.S.). We wrote about the rise of the quality of leadership in China last time saying, *"The real trouble (as we see it) stems from the fact that China focuses on long-term planning and execution and the Western Developed Markets continue to get increasingly more focused in the short-term."* We went on to say that the cacophony of negativity toward China was enough to make even the most ardent China supporters think twice about what they might be missing (we resemble that remark). We described it as follows, *"If one were to simply listen to the press and Western social media it would appear that China was on the verge of total societal collapse as excess debt, poor financial institutions and corrupt leadership drag the country into the abyss."* Arguing with a zealot is usually not very productive, so we have suggested over time that it is simply better to look at the actual data. The true Chinaphobes will say that the China numbers are wrong (offering no evidence of how they are wrong or what the "right" numbers might be) and will assure you that the hard landing is imminent (has been for as long as we can remember). For our money (and that of our clients), we will stick with the data and continue to deploy capital into what we believe to be some of the very best investment opportunities on the planet, both in the public and private markets.

Let's dive into the numbers for China during Q2. GDP grew a little faster than expectations at 6.9% (matching Q1 and a little above the 2017 target of 6.5%). Retail sales growth continued to be strong in June, clocking in at 11%. June Manufacturing PMI nudged upwards to 51.7 (above expectations of 51 and well above 50 which signals expansion). The June Non-Manufacturing PMI was even stronger, at 54.9 (might be the most important number as China transitions toward a consumer driven economy). Finally, Industrial Production continued to expand strongly in June, up a robust 7.6% (matching the Q1 number). Maintaining high levels of economic growth requires continual expansion of the money supply and credit. The PBoC has kept the M2 money supply growth consistently above 10% for many years, but has been rolling back the rate of growth slightly to cool an overheated real estate market, so M2 grew "only" at 9.4% in June (actually the lowest rate since the data began being collected in 1996). Total loan growth continued to be robust, coming in at 12.9%, but was considerably lower than economists' expectations of 16.3%. Some might say these are worrisome trends, but we would argue that once again the leadership in China is many moves ahead of China observers and is managing the growth rate effectively. The Chinese know when to hit the brakes and when to hit the accelerator (like they did in 2009 when they grew loans 34% that June despite widespread fear that the sky was falling). Both exports and imports continue to expand rapidly, accelerating again in Q2, with exports jumping 11.3% and imports surging 17.2% (both well above economists' forecasts of 8.7% and 13.1%, respectively). As we noted last quarter, *"The relationship between these growth rates shows the transition from "Made in China" to "Made for China" that is underway as the Chinese economy transitions and also shows why it will be very challenging for Mr. Trump to wage a trade war with China now that U.S. companies will benefit more from open borders than closed."* One of the most closely followed indicators of health in the Emerging Markets is inflation in China as historical bouts of deflation have been exported around the world and caused stress in the capital markets. China has seemingly fixed the problem as PPI transitioned from being negative last year to solidly positive this year, coming in at 5.5% in June (there is some slight concern that PPI has dipped from the 7.6% high in Q1). We closed this segment last time by saying, *"Chinese equity markets struggle when the PPI is* *negative and do well when PPI is positive, so the current surge in PPI likely foretells positive returns in Chinese equities in 2017,"* and Chinese equities followed the script very well in Q2 with MSCI China up 10.6%, MSCI Hong Kong up 7.2% and the MSCI China A50 up a very strong 15.2%. Those hefty returns bring YTD numbers to some of the strongest in the world, up 24.9%, 21.6% and 22.3%, respectively.

Transitioning from the macro to the micro, one of the critical elements of Chinese equity markets is that they are still quite cheap (even after the recent rally). We wrote last time that, *"valuations in China continue to be extremely attractive. History has shown that investors with patient capital have been amply rewarded when buying Chinese equities at these levels (MSCI China P/E is 13X trailing and 11.4X forward)."* History rhymed again, and investors who bought into the weakness in China created by the Trump rhetoric were rewarded in recent months. But even after the outstanding performance of the China equity markets in Q2, the valuations remain attractive and the MSCI China P/E is still only 15.1X and the forward P/E is only 12.7X, the MSCI HK Index P/E in 15.1X and the forward P/E is 16.2X and the MSCI China A50 (A-Shares) Index is the cheapest of all with a P/E of 12.1X and a forward P/E of just 10.8X. These valuations compare very favorably to other global equity markets, and while the China valuations are now in line with the MSCI EM Index P/E levels of 14.9X current and 12.2X forward earnings, they remain very compelling relative to broader global benchmarks. The MSCI ACWI Index P/E is 20.4X and the forward estimate is an unattractive 15.9X, the MSCI World Index has a P/E of 21.5X and a forward P/E of 16.5X and the MSCI USA Index are fully 50% higher than Chinese valuations with a P/E of 23.3X and a forward P/E of 18.1X.

We know that many investors are frozen, sitting on the sidelines, fearing an RMB devaluation that they believe would erase gains captured by investing in Chinese equity markets. But as we shared last time, *"We continue to believe that these fears are misguided and that investors are missing out on a tremendous investment opportunity in China today by listening to the growling of the China bears."* Waiting patiently on the sidelines in 2016 had very little opportunity cost as the MSCI China Index was basically flat, but the opportunity cost has risen quite dramatically in 2017 as markets have surged, the RMB has actually strengthened (rather than weaken as consensus predicted) and the decision to include China A-Shares in the MSCI indexes going forward will only drive ever increasing assets flows into the China equity markets. We really can't overstate the importance of this decision as there is no going back for MSCI now. Given that the China markets are the second largest equity markets in the world (behind the U.S.), and the initial weighting is just under 3% with a long-term normalized weighting closer to 20%, this tailwind will blow for many years to come. On the yuan FX fears we wrote last time that, *"We were adamant last year that there would not be a meaningful depreciation of the Yuan in 2016 or 2017,"* for three reasons, 1) the banking system NPL issues were overblown, 2) the trade flows did not support the math, and 3) there was no way President Xi was going to allow a devaluation during the 19th Party Congress year (stability was job number one in 2017). In quite a radical statement in January we wrote that, *"A number of the managers we met with in HK in January said the RMB was actually more likely to strengthen than weaken in 2017 (a truly variant perception) due to the trade balances that favored the RMB over the dollar,"* which nearly led to fisticuffs (not literally, but plenty of verbal sparring) on numerous occasions with those who were in the Kyle Bass camp that a massive RMB devaluation (and HK$ de-pegging) were imminent (for the record, we are still waiting on both in August). We have favored industry groups related to consumption and have been overweight e-Commerce, Healthcare and Retail in our portfolios, and while results have been volatile, the returns from these sectors has been outstanding overall. Many of the individual names that we like did quite well in Q1 as consumer related stocks surged on higher growth and rising profits and long-time favorites HK:700, JD, BABA, SINA, TAL, EDU jumped higher again in Q2, rising 25%, 25%, 30%, 27%, 15% and 17%, respectively, and the only laggard was VIPS, down (20%). The consumer story in China is a growth story that will unfold over the next couple of decades, and will dwarf the emergence of the Baby Boomers in the U.S. and Europe over the past few decades. The opportunities for wealth creation in both public and private markets are profound.

Frontier Markets are a little like the girl (who had a little curl) from the Henry Wadsworth Longfellow poem "There Was a Little Girl," *"when she was good, she was very good indeed and when she was bad, she was horrid"* as these markets tend to run very hot, or very cold, it is either feast or famine. After famine in 2016, it has been all feast in 2017, as the MSCI FM Index rocketed out of the gate in Q1, surging 9%, and was up another 6.1% in Q2 to finish 1H17 up a very strong 15.6%. The positive returns have been broad based this year, as within the index there were ten countries (of thirty) that jumped more than 10% during the quarter, five that surged more than 20% and three that soared more than 30%. We have discussed the power of the Templeton Misery Index many times (Sir John would say people always asked him where was the best place to invest and he would tell them that was the wrong question; instead they should ask where is the most miserable). The strategy of investing where things look the darkest seems to work particularly well within the Frontier Markets. There are many reasons why volatility is higher in these markets, from being less developed and diversified economies, having lower market liquidity, less available investment research, fewer investable companies, poor governmental systems and infrastructure and myriad other challenges for investors. In aggregate these factors make Frontier Markets more prone to booms and busts. Further, when things are booming, investors tend to overwhelm the markets with demand (pushing prices to bubble extremes) and when things turn down, investors sell first and ask questions later (pushing prices to bargain levels). We wrote last time that, *"Sir John was constant in his insistence that investors steer clear of opportunities that everyone is flocking toward (consensus) and to seek out those places where no one wants to go (variant perception)."* One of the other challenges of investing in Frontier Markets is they tend to be prone to armed conflict. We discussed this point last quarter with regard to opportunities in Ukraine, saying, *"Buying what is on sale has always been a good money making strategy and Lord Rothschild told us that the best time to buy is when 'the blood is running in the streets,' but that said, there are very few investors (including ourselves) with the courage to consistently run towards markets where real bullets are flying and real blood is flowing."* Almost on cue, the top two markets in Q2 were in African countries where actual bullets have been flying. If you had asked anyone coming into 2017 what countries to avoid in FM, Zimbabwe and Nigeria would have been near the top of the list. Zimbabwe was up a stunning 64.6% in the quarter (price adjustments can happen fast when markets are really illiquid) and Nigeria was up an impressive 33.6%. We had mentioned last quarter that investors were selling Nigeria because of low oil prices, political upheaval, and terrorist related violence. We also wrote how the biggest problem for Nigeria was that they were being demoted by MSCI, but noted that news might already be in the price saying, *"MSCI had bad news for Nigeria (the hits just keep coming), as they will be removed from the FM Index this year, but the bad news may already in the market given the 2016 drop."* Bulgaria rounded out the top three in FM during Q2, jumping an impressive 30.6%, another example of how volatility can be exaggerated by very low levels of liquidity in some of these markets.

One of the other very important factors impacting returns in Frontier Markets is the opportunity to graduate from FM to EM, as the subsequent increase in demand from global investors who are "forced" to buy (within EM index funds) swamps the available liquidity in the equity markets and significant gains occur. The MSCI Index Inclusion Trade impact can be very large as we have highlighted in the past, writing, *"History shows that markets included in the*

Index rise between 60% and 120% in the year leading up to the actual inclusion (see UAE, Qatar and Dubai as examples)." In Q2, the countries up for inclusion (or exclusion) had varying results, as Pakistan, Vietnam, China, Nigeria, Argentina and Saudi had very different outcomes based on the final decisions of MSCI which they recently announced in June. The MSCI inclusion process is quite odd if one steps back to think about it. It is a multi-year process shrouded in secrecy (mostly - leaks seem to be quite common) and it often includes surprise announcements that seemingly come capriciously out of the blue and 2017 had all of this intrigue. Pakistan was a textbook example of buy the watch list announcement (rumor) and sell the inclusion announcement (news) as, after a torrid 2016, rising 40.4%, Q2 was much less fun when the market dropped (2.3%) to bring YTD returns to (4.3%). Things were worse for Vietnam, where MSCI went totally dark after teasing about inclusion for two years. There was no mention of Vietnam this year, but investors decided to focus on improving fundamentals and the index was up 2.9% in Q2 bringing YTD returns to 13.1%. We did a review of China and Nigeria above and will do a full review on Argentina and Saudi below as these two countries have some unique characteristics that make them attractive long-term opportunities.

Argentina has been one of our favorite markets over the last two years and had another solid quarter in Q2, rising 5%, a pedestrian gain in comparison to the blistering 34.8% return in Q1, but is still a 21.6% annualized return. We wrote last time how the past few years have been transformative in Argentina, saying, *"Argentina has been an amazing story over the past few years as they have transitioned from a country trapped in the past being exploited by a despot, to a rising star in the international community trying to recapture their position of prominence from a century ago."* We went on to discuss how the lack of institutional investment interest in Argentina was one of the primary reasons for the magnitude of the investment opportunity. We wrote that concerns about past government malfeasance were the primary driver and said, *"Fears about past defaults, currency devaluations and corruption have made global investors skittish about re-engaging with Argentina. However, there was a silver lining in the reluctance of global investors to come back quickly to Argentina as it has extended the investment opportunity (so far, so good) and we expect to see meaningful opportunities to make excess returns in this market for many years to come."* The MSCI inclusion decision had the potential to change this dynamic in the Argentinian market, and there was rapidly growing interest (and accompanying capital flows) which pushed the markets higher in anticipation of the June announcement. Then in June, the MSCI Inclusion Committee left Argentina standing at the altar and didn't promote the country from FM to EM. Curiously, the Merval Index had fallen almost (8%) in the three weeks leading up to the announcement (seems a little leaky to us), had the expected negative reaction to the news, falling another (3%), but then suddenly surged back to the previous peak over the next two weeks, only to give back most of those gains in the last couple of weeks. It appears that it will take a little bit for investors to decide if they believe the decision was a change in timing (one more year) or a change in direction (no inclusion). We will take the former and would be buyers of Argentinian equities every time they go on sale. While returns in the Merval have been very strong, a few individual companies have been real standouts. Pampa Energia (PAM), the electric utility, Macro Bank (BMA), Grupo Galicia (GGAL), another large banking group, and YPF (oil) have seen truly stupendous returns in the past few years. The first three were up again in Q2, rising 8%, 6% and 12%, respectively, while YPF was dragged down by lower oil prices, falling (10%).

We discussed Saudi Arabia last time, saying the country, *"has been rumored to be included in the EM Index in 2017 and we believed this was one of a number of tailwinds that was creating tremendous opportunity for investors in the Saudi market in the coming year."* The interesting thing about this rumor was that there was absolutely no comment from the

MSCI group and there had been no normal update to their stepwise progression where countries traditionally went from watch list to consideration for inclusion to the actual inclusion decision and then the implementation (normally the following June). We wrote last time that, *"One of the reasons for the belief in the Saudi inclusion (despite no formal indication from MSCI) was the sudden, sharp rally in Q4 where the Tadawul Index surged 27% and there continue to be some positive signals from the MSCI group as they have visited with Saudi Officials multiple times in recent months."* This radio silence made handicapping the inclusion decision very challenging, but one of our favorite managers has had a team working tirelessly on the Saudi situation for the past year. The team has met with some of the highest-ranking members of the Saudi government, and they were convinced that the MSCI committee was going to make a favorable decision. Their thesis was that a yes vote would begin the process of a huge volume of global capital rushing into a market historically starved for capital and the returns could be spectacular. We wrote last time that, *"On the other hand, clearly a no vote from MSCI would be a short-term blow for the Saudi markets, but the margin of safety in many of the core companies (sell at meaningful discounts to their global peers) will offer some downside protection. We have positioned our portfolios to benefit from a run in Saudi stocks, but we believe that we can wait a little longer to see the actual outcome as we will be able to move faster than those starting from scratch should the Inclusion decision in June be a favorable one."* With no advance warning (and very little fanfare) MSCI did indeed put Saudi Arabia on the watch list and began the countdown for inclusion in June and the markets rallied sharply to finish Q2 up 10.6%. These returns are likely to be the tip of the iceberg, as there are a number of attractively valued assets in the Saudi markets (remember the bulk of listed companies have nothing to do with oil). We also wrote last time that, *"Sometimes the problem with a big event, like MSCI inclusion, is that it diverts attention away from other developments in the market that in many cases are just as important (sometimes even more important long-term). Such is the case with Saudi today, as all eyes are on MSCI, the Kingdom has stabilized their budget with a recent debt issuance (well oversubscribed), the recovery in oil prices has bolstered the government budget and the youthful leadership of the country has rekindled confidence and enthusiasm that has become palpable in the markets."* Markets rise on growing confidence and we expect to be writing about positive returns from the Kingdom for many years to come.

An interesting battle has been raging in the bond markets that gets very little media attention when compared to the equity markets, but may actually have more far reaching implications for investors over the coming years. The warring factions are the active managers who contend that the bond bull market is alive and well versus the academic talking heads (like Alan Greenspan) who are calling a bond bubble and an imminent crash. In January while discussing the rapidity of the change in market opinion following the election, we said, *"what is interesting is how quickly the narrative changed from deflation to reflation and the threat of negative interest rates to the end of the bond bull market."* We noted last time that the energy surrounding that narrative was fading and interest rates were falling again. Rates fell further in Q2 (confounding the consensus yet again) as the 10-year slipped from 2.39% to 2.3% (it was actually 2.1% with 4 days to go in the quarter on 6/27) and the 30-year dropped from 3% to 2.83% (2.7% on 6/27). We continue to find it amusing that the White House continues to crow about the Trump Trifecta and the impact that the administration's economic plan is having on GDP, jobs and the markets, despite few tangible accomplishments toward any of the three objectives. Former Press Secretary Spicer, Treasury Secretary Mnuchin and National Economic Council Director Cohn kept promising 4% GDP growth and we got less than half that rate in 1H17. All the reflation jawboning fell on deaf ears in the bond markets as rates continue to fade. We wrote last time about, *"If equities deal in dreams and bonds deal in realities, then the direction of Treasury yields was a* *great indicator that GDP growth was going to disappoint in Q1,"* (it did, with the final number coming in at 1.2%, well short of the 3.5% estimate from January) and it did in Q2 as well (coming in at 2.6% versus the original estimates of 4.3%). In defiance of the bond bears (and the administration), the Barclay's Aggregate Index rose another 1.5% for the quarter and the Barclay's Long Treasury Index rallied a very strong 4% as well, bringing YTD returns to 2.3% and 5.4%, respectively.

Looking closer at the long end of the Treasury curve may give us some insight on the fragility of the bond markets (and perhaps equity markets as well). There has been a consistent flight to quality at the slightest sign of turbulence in the equity markets this year. As we started 2017, TLT (long bond ETF) was up 2% in the first couple of weeks, while SPX was flat until the administration started making claims about passing a tax bill (which still does not exist). From that point, stocks surged and bonds took a beating until the Fed announced its March rate hike, when TLT began to regain ground. By Tax Day, TLT had overtaken SPX, and was up 4% versus 3.5%. With some good corporate earnings news and more promises of pending legislation (still nada), SPX rallied through mid-May and TLT fell behind again. That changed with the debacle on the Healthcare Bill (not even part of the Trifecta), and Bonds surged over the next month. TLT actually caught SPX and both were up 7% in the third week of June, but the trends reversed again as more jawboning by the Fed about reducing the balance sheet rekindled the reflation fears. We will continue to take the over on any date that the Fed throws out for selling bonds back to the market as there is a reason the central banks are called the "Buyer of Last Resort." We expect this game of promising bond sales to go on for many years (as it has in Japan). We wrote last time that, *"The other indicator that was important to pay attention to, the net short position of speculators betting against bonds, was at all-time record highs (always a contrarian signal) and it was likely that rates were due for a turn back down."* Those words have turned out to be prescient, as rates confounded the talking heads who unanimously predicted higher rates in 2017. However, now we have seen one of the most rapid shifts in net position of the COT (Commitments of Traders data and speculators have gone from net short to significantly net long, which bodes ill for rates in the near term (they will likely rise for a few weeks or months). Raoul Pal of the Global Macro Investor Letter writes about the "Chart of Truth" on the 10-yr Treasury bond, which says that the primary trend is down until the yield passes the previous cycle high, which was 3.01%. We reiterate what we have written many times, *"We continue to side with Van Hoisington and Lacy Hunt who believe that the secular low in rates is ahead of us, rather than behind us,"* and reaffirm our call that TLT will beat SPX for 2017. It will be interesting to watch the battle rage during coming quarters. It is important to remember too that, as we said last time, *"If the economy really does slow and markets begin to really struggle, long bonds will once again become the Safe Haven trade and protect investors if we end up headed down the road to Hooverville."* To this point, the correlation between equities and bonds has plunged in recent months and you can see it in the above comparison of TLT and SPX, which may make it a very interesting trade to be long bonds in the second half of the year.

Global bond markets have been locked in a unidirectional trend (prices up and yields down) caused by central bankers providing an endless bid for Developed Market government bonds and global savers who are desperately grasping for whatever yield they can find. We discussed this golden age for bond investors last quarter saying, *"Actually, the most important age today is the age of financial repression, when central bankers have artificially held interest rates down in order to encourage speculative activity and hopefully trigger a wealth effect."* As with many things from central bankers, this is a fine theory, but the translation from theory into the real world has been meaningfully lacking. The biggest issue is that the normal transmission mechanism in the real economy seems to be broken (or perhaps temporarily disabled) due to the explosion of debt having choked off the demand for additional credit (except in China), as evidenced by the rapid decline in bank lending activity. One thing the artificially low interest rates have done is transfer wealth from savers to debtors, (punishing prudent behavior and rewarding speculative behavior). Low rates have also allowed banks to borrow from central banks basically for free and buy government bonds and arbitrage the spread. The largesse provided to the banks is so astonishing that JPM had zero (read that again, zero) unprofitable trading days in the past year. We wrote last time (and it applies again this quarter) that, *"Financial repression forced many investors back into a sleep-walking state of yield chasing and global bond yields rolled over and the index rose,"* up a very solid 3.2% in Q2. It is clear that some portion of the return for U.S. investors during the quarter was actually dollar weakness, but there is definitely a tug-of-war going on between the deflation and reflation camps around the globe. In July, the reflation narrative took the upper hand again and yields moved sharply higher in a few markets (like Germany), but much of that move seems to be attributable to a short-squeeze triggered by some well-known self-proclaimed Bond Kings talking their book (they are short Bunds in their hedge funds). We have a real problem with this activity, as these managers have tens of billions in long bond portfolios where they are fiduciaries (but are paid low fees) and they have hundreds of millions in hedge funds (where they are paid high fees), so it seems that they are favoring one class of client over another.

When we look around the world at global bond markets, the fact that JGBs are flirting with negative yields again says that deflation has not given up the battle and the reflation trade may actually be just another Hope Trade (you know how we feel about those). As we like to say, hope is not an investment strategy. In fact, it is kind of funny that we are hearing about the "short of a lifetime" again this summer. The same Bond Kings were saying the same thing last July (only to have rates fall again after a brief rise), so we will reiterate what we wrote last quarter that, *"We continue to hear about how this recent move in rates in the 'End of the 35-year bond bull market' and we even wrote in Q3 that 'there is a rising cacophony that this time is the big one' and everyone says that foreign government bonds are the short of a lifetime, but we contend that until we surpass the 0.92% 2015 high on the Bund, the downward trend remains intact."* The yield on Bunds was incredibly volatile in Q2, collapsing from 0.3% in March to a trough of 0.15% by mid-April, rallying sharply back to O.44% a month later and then collapsing again in the first three weeks of June to 0.25% before soaring to 0.47% to end the quarter (as the Bond Kings started talking their books). After another little surge in the first half of July to 0.6%, gravity reasserted itself and yields headed back down to settle at 0.49% on 7/31. It will be interesting to see if Bunds take out the series of lower lows (at 0.15%) and head back toward negative territory, which would be another indicator that deflation is still in control and the primary trend in yields is still down. Let's look again at our checklist of criteria to evaluate the likely path of European rates, specifically to see if anything has changed in a positive direction indicating that rates must now rise. First, is European and German GDP growth better? There were some positive developments on this front as EU Q2 GDP came in at 2.2% (up slightly from the 1.8% of last summer, but only equal to the rate from summer 2015), but German GDP remains stuck below 1%, and while Q2 edged up slightly to 0.6%, that level of growth will not help profits much. Second, has European inflation reemerged? EU CPI did jump last year from 0.2% in June to 1.8% in January (thanks to a rise in oil prices), but those gains proved transitory and CPI has now fallen back to 1.3% (and forward estimates put it below 1% by year end). Third, are European politics stable and supportive of better growth? With Ms. Le Pen losing to Mr. Macron in France, the talk of EU dissolution has nearly vanished. In fact, there has been an interesting phenomenon occurring in which the leaders of the EU countries seem to be banding together against a common foe, President Trump. The tension at the recent G20 meeting was palpable and the decision by President

Trump to start the process of the U.S. leaving the Paris Accord on Climate Change had a catalyzing effect on the balance of the group. We are not yet willing to say that populism, nationalism, and protectionism are dead, but there are encouraging signs on this front (and the euro has surged all the way to 117 as a result). Fourth, have European demographic trends improved? In a word, no, and the populist rhetoric on immigration following a spike in terror activity won't help this problem. Fifth, are European banks extremely healthy and rapidly growing new loans? European banks are significantly healthier, as they have been successful in recapitalizing their balance sheets. Recent stress test results were quite strong, but there has been a consistent struggle to grow their loan books, not from lack of effort, but from lack of demand (it appears that many corporations and individuals are fully levered). Repeating what we said last quarter, *"We clearly don't have an abundance of Yeses here, but there are some positive signs in the EU that may support somewhat higher global bond yields."* With that said, we will paraphrase the Hoisington yields thesis for the U.S., that the final trough in global bond yields lies ahead of us, but we are not going to step in front of any trains if yields do begin to creep up in the near term.

Credit markets continue to demand the use of superlatives as the global reach for yields has reached epic proportions and "investors" (we use quotes because intentionally buying an asset above fair value is speculating rather than investing) are seemingly willing to pay any price for pieces of paper (no matter how low quality) that pay some yield. As we described last quarter, *"one of the conundrums in the high yield space is that the adjective high doesn't seem appropriate any more as junk bond yields have collapsed from 6.2% to end last year to 5.65% today."* The conundrum took a vacation in Q2 as yields stopped falling, settling at 5.71%, and the Barclays High Yield Index rose another 2.2% during the period to be up 4.9% for the YTD. We feel compelled to reiterate our caution on the "Not So High Yield" (NSHY) market, even though we were wrong to be cautious over the past year. We summed up our feelings last quarter by channeling Ben Graham saying, *"Just for the record, there is a reason they are called junk bonds – many of them finance really bad businesses and don't actually pay the money back. The idea of lending money to companies that may not have the capacity (or willingness) to pay it back and only extracting mid-single digit returns compensation seems suspect at best and unintelligent at worst."* It appears that the bulk of investors believe low levels of defaults imply little risk in these bonds. We will take the other side of the argument. Just because the Fed is pushing market participants toward risky assets, and banks (and shadow lenders) are willing to make low (or no) covenant loans (a loan with no covenants feels like equity to us) doesn't mean that their errors of judgment have eliminated the risks from the companies' businesses that support these loans (they were wrong). Further, buying an asset above fair value is wrong too, and two wrongs definitely don't make a right. A point that may turn out to have been the peak of craziness in these markets is that Moody's recently declared the overall quality of bonds issued, as measured by strength of covenants protecting investors, hit the lowest level ever. However, NSHY is simply oblivious to fundamentals and spreads keep tightening due to the mad dash for yield. Option Adjusted Spreads (OAS) collapsed further from 3.92% at the end of Q1 to 3.77% on 6/30 (remember this is the spread to risk-free Treasuries). If we dig down a little deeper into the NSHY market, we find that the really, really, risky stuff, the CCC rated bonds (a CCC rating implies a 50% risk of default within four years) continue to be prized the most. In a world where market participants believe there is no risk, why not buy the bonds with the largest yields? We discussed an alternative perspective last quarter saying, *"A reasonable investor (we put ourselves in this camp) might assume that buying bonds with a 50/50 chance of getting paid back is a rather risky undertaking and that as prices surged and yields plunged taking that risk becomes less attractive (not more),"* but in a riskless world reasonable is clearly frowned upon and NSHY buyers continued to scoop up the CCC's, pushing the Index up another 3.9% in Q2. We have discussed in the past that one possible explanation for the conundrum is that there was a stealth recession (not called by NBER) in late 2015, early 2016, and that the economy is not in the late stages of an expansion, but rather in the early stages of a recovery. While there are plenty of data points that make this argument tough to make, the return profile of many risk assets, NSHY bonds in particular, would clearly support this view.

Our job as investors and advisors is to continually survey the global landscape for opportunities where the potential for returns exceeds the risks required to achieve those returns. There are many places around the globe that are perceived as risky for any number of reasons (political, growth, demographic, market structure), but when an investor is compensated for taking those risks, they are appropriate places to deploy capital. One market that fits this profile, where the returns compensate investors properly for the risks, is Emerging Markets Debt, and we wrote last time that, *"We have discussed on many occasions how there has been very significant development in the quality and depth of the markets for EMD and that there had been evidence over the past few years of the asset class even taking on some of the role of safe haven during crises."* That variant perception is still not widely shared by global investors (although it is gaining traction) and the Western perspective is that EMD is still dominated by Banana Republics. We wrote that contrary to popular perception, *"Today, the vast majority of EMD issuers are very high-quality companies and the governments, in most cases, are in meaningfully better financial condition than their DM counterparts, so the risk in EMD has fallen dramatically over the years."* In fact, we continue to stress that in a head-to-head comparison between EMD and DM HY it would not be a fair fight. The quality in EMD is better and the yields are higher too. When President-Elect Trump sucker punched Emerging Markets right after the election in a tweetstorm threatening many of the U.S. Developing Market trading partners (specifically China and Mexico) with a trade war, EM equities and EMD hit the mat, and many thought they would be down for the count, but we wrote *"Given our view that the Trump Bump in the dollar will be short-lived (has actually almost fully reversed in January), we remain more bullish on EMD than other forms of debt as there is higher growth, better cash flows, lower leverage and higher average quality across these markets versus the developed markets."* Trump's wild swings actually ended up cold-cocking the dollar which has collapsed in recent quarters (as we said was likely in the MCCM Surprises) and EMD has come out swinging in 2017, jumping 3.9% in Q1 and rising another 2.2% in Q2 to be up a very strong 6.2% YTD (nicely ahead of NSHY). EM Corporate bonds continued to perform well as well, with the JPMorgan CEMBI rising 2% in Q2. Local currency sovereign debt was the big winner (EM FX smacked King Dollar again) as the JPMorgan GBI-EM surged 6.5%. We believe strongly in the Ben Graham differentiation between investing and noted in our Q4 letter, *"The problem with any investment decision is when you shift from buying an asset that you feel is undervalued or has substantial investment income to generate return to a decision to buy an overvalued asset because you expect some "greater fool" will pay an even higher price in the future, you move from the realm of investment to speculation."* There are plenty of greater fools roaming the capital markets today willing to pay prices well above fair value for assets of all types, but we continue to believe that buying assets below fair value (buying things when they go on sale) is a far superior strategy. In liquid debt markets, that requires true investors to focus on EMD over NSHY (and perhaps long bonds in traditional fixed income). That said, other forms of income assets over (BDCs and MLPs) seem more attractive than all fixed income assets as they have more consistent cash flows and there is reduced risk of capital loss in the event that interest rates do actually rise. We still think believe rates rising is unlikely anytime soon, but when you get a free hedge, take it (like Yogi Berra said, *"When you come to a fork in the road, take it"*).

The yield-oriented assets, particularly the REITs & MLPs, have historically been perceived by the bulk of investors as equivalent to one another and fell into the category of "yield is yield," so they had tended to move in synch with one another up until the big collapse in oil prices into 2015. We wrote about how this correlation broke down (in a violent way) much to yield investors' surprise (and chagrin) saying, *"Not all yield assets are created equal; different structures, different leverage levels, and different underlying asset quality "should" produce different return streams. The problem lies in those times when investors ignore all the differences and simply buy the yield of what they consider to be comparable assets (REITs and MLPs)."* Those differences were on display again in Q2, as REITs up slightly (continue to be caught between hope of better growth and threat of rising rates) while MLPs got smashed as oil prices fell with the surprising production increases in the U.S. that offset much of the OPEC cuts (ironically, that will be great for transport volumes which means higher EPS for MLPs). The S&P U.S. REIT Index was up a modest 1.5%, while the Alerian MLP Index was slammed down (6.4%), completely reversing the Q1 results and bringing CYTD returns to 2.1% and (2.7%), respectively. Interestingly, when looking at the trailing one-year numbers, the 31% disparity we saw at the end of last quarter has vanished, with REITs down (2.3%) while MLPs are basically flat, up 0.4%. Quite an astonishing change, but in markets today, one of the things I tend to tweet about the most is that #RiskHappensFast. We did warn in the last letter not to take the short-term performance of MLPs in 2016 out of context, saying *"Now before we get too excited and declare that MLPs are far superior to REITs remember that over two years the number are 3.4% vs. (6.5%), over three years 9.9% vs. (5.2%) and over five years 9.7% vs. 2.6% (that little hiccup in late 2015 caused a capital loss that erased many years of income)."* Updating those numbers with one more quarter of data, the two-year numbers are 10% and (6.6%), the three-year numbers are 7.9% and (11.2%) and the five-year numbers are 9.2% and 1.8%, respectively, for REITs and MLPs. Reversing the warning this quarter, don't assume from these trailing period numbers that REITs are far superior to MLPs and we will go further to say that fundamentally things look increasingly less robust for RE and we are quote constructive on the prospects for the MLPs (particularly the mid-stream focused companies), so we would expect the next five years to look very different than the last five years.

We wrote a few quarters ago that *"the most impressive thing about REITs is that, interestingly, they have outperformed equities over nearly all trailing periods during the past twenty years, so perhaps there is something to this yield construct after all."* Once again, #RiskHappensFast and things can change very quickly. The S&P 500 has absolutely obliterated REITs in the past year, surging 17.9% versus a decline of (2.3%) and has reclaimed the lead over REITs in all but one of the trailing periods over the past twelve years (the eight-year still favors REITs since they bounced harder off the 2009 bottom). REITs dominate all of the trailing periods out to twenty years, with the biggest dominance in the seventeen and eighteen-year periods. Why highlight these seemingly random periods you might ask? Precisely because in 2000, the S&P was so egregiously overvalued (and REITs were so cheap) that it was a slam dunk to buy REITs and sell the S&P 500, but no one was doing that, as the REIT yield hit 9% (inversely related to demand, so sub-4% today is not so good…) and record amounts of money poured into passive Index Funds (sounds eerily familiar). The return since 2000 for the S&P 500 has been just 5.1% (half the long -term average and well below barely above 2% on a real return basis), while REITs compounded at 11.3% over the same period (more than double stocks with a huge chunk in cash yield). Once again, the construct of getting a large portion of your return in yield is a really good thing, the one requirement is that yields actually have to be high when you buy (this concept seemingly lost on market participants in REITs, NSHY and other forms of debt today). Over the full twenty years, the gap virtually disappears with REITs compounding at 9.76% while the S&P 500 was 9.57%

and as we noted last time something that market observers have said over the years, *"Maybe REITs really are stocks rather than Real Estate after all."* We want to come back to the point we made last time that when looking at the trailing ten-year period, it appears that REITs (and other yield oriented assets) *"really have been overrun with refugee bond investors which have pushed prices up too high (and hence yields too low),"* as over the decade REITs returned 5.8%, which has been pulled down toward the Barclays AGG return of 4.5% rather than tracking the 7.2% of the S&P 500 (MLPs coincidently were 5.7%). Interestingly, we wrote a year ago that *"We can't help but feel that this is not a particularly good time to put new capital to work in REITs as it is beginning to feel a little like 2007 (when we made a lot of money for clients going short REITs along with short Sub-Prime) where investors seem to be willing to pay any price for real estate related assets. When the margin of safety disappears, usually forward returns disappear."* Over the past year, the REIT loss of (2.3%) is not that bad, but we have the same concerns today and would repeat the warning that returns in this space may be below normal for the foreseeable future. In January, we jumped on a sub-sector of REITs as extremely vulnerable, the Malls (since we were finding so many of our favorite managers short retail stocks based on the #AMZNRoadKill thesis), and wrote *"We will keep it short and sweet and say that the risk/reward is unattractive and there are plenty of better places to deploy capital (although we can't help but think shorting mall REITs like SPG, GGP and MAC is a really good idea)."* Since we penned those words six months ago, the REIT Index actually managed a 4.8% gain, but SPG, GGP and MAC got slammed, plunging (14%), (9%) and (16.5%), respectively (#AMZNRoadKill indeed).

Coming back to MLPs, they were one of the very best performing assets in 2016, finishing behind Small-Cap Value stocks that surged on the Hope of Tax Reform, surging 28.3% (versus 29.4%). We wrote last quarter that *"we got excited about commodities and MLPs in Q1 of last year as it appeared the Bear Market that began in 2011 was finally nearing a crescendo and the decimation that had come to the MLP market in the wake of the collapse of oil prices in late 2014 appeared to have reached a nadir."* With some great insights gleaned from our private exposure in the oil patch and some manager friends in Texas (and surprisingly Kansas City), we were able to buy some very nice bargains during the Q1 2016 Sale. We had made the case last year that buying core mid-stream assets like ETE, PAGP and WMB would provide investors with strong returns from that point and we noted last quarter that *"The strategy clearly worked as planned in 2016 as ETE, PAGP and WMB were up an impressive 250%, 135% and 130%, respectively, from their babies thrown out with the bath water phase in February (awfully good compared to the AMLP Index ETF up 60% and the S&P 500 up 23% for the same period)."* As investors that have deployed capital across all asset classes and utilized myriad investment strategies over many decades, we believe we have a significant #Edge in that we have a very broad and deep global network of experts in every asset class that we can turn to for ideas, research, diligence and insights. In the MLP space, we had very specific knowledge of these particular pipelines as we had invested privately in the ETE and WMB assets back in 2002 (while at UNC) and had invested in the PAGP assets in a private transaction in 2011. We also knew from conversations with our private energy managers who investment in E&P companies in the Permian Basin that *"large production volume increases were occurring in our private portfolio of energy assets in the Permian Basin,"* which would clearly be beneficial to the owners of transportation infrastructure in the region. We wrote in January that *"Going forward, we see a confluence of events that could stimulate further MLP gains, from a less environmentally sensitive (maybe just less sensitive overall…) President who is likely to accelerate drilling and pipeline projects (would be huge win for ETE) to better technology that continues to defy pundits claims that depletion of existing wells must reduce volumes and a rapid recovery in rig counts in the Permian as E&P companies are extremely profitable at $50 oil (much* *to OPEC's chagrin)."* After a number of positives on the policy side in Q1, MLP returns were looking good, but as oil prices declined in Q2, MLPs followed those prices downwards and AMLP, PAGP and ETE fell (6%), (16%), (9%), respectively, while WMB eked out a 2% gain, during the quarter. We have to say we are a little surprised by these drops, but are always willing to buy assets we like when the prices fall below fair value (and we get a nice dividend while we are waiting), so we will continue to do so here. Additionally, with yields of 7.2%, 8.3%, 6.6% and 3.9%, respectively, it is not that painful to wait for the markets to realize the values here. The data is very supportive here, more rigs are being stood up, more wells are being drilled and, therefore, more hydrocarbons will need to be transported, so we should see continued upside from the MLPs.

One certainty in commodities is cyclicality, which is a direct result of the reflexive behavior of the producers and users of commodities. When prices are high (or rising), producers ramp production (sometimes a lot), causing prices to fall (supply exceeds demand). As prices fall, user demand increases and prices begin to rise again (in a reflexive circle). Similarly, when user demand falls, prices slump (supply exceeds demand again) and producers must curtail production (sometimes a lot), eventually triggering the reflexive user demand to increase and prices rise. With prices rising, the cycle starts again. This cycle can best be summed up by the old commodity saw *"The cure for low prices, is low prices and the cure for high prices is high prices."* We wrote last time that we expected commodities to continue to be volatile and wrote, *"We will clearly get to write a lot more about commodities in the coming quarters and we will see if the Sokoloff Test shakes out the weak hands in the near term with one last cathartic down turn or whether the first half of 2016 was just a short-covering rally resulting in a false break out and the primary trend is still lower as Deflation creeps back into the system."* The Sokoloff Test is a pattern of behavior in the early days of a primary trend change described by Kiril Sokoloff in his weekly publication, *What I Learned This Week* (simply the best research service we have seen and if you aren't already a subscriber, you should be…), where he says that when a long-term theme is in the process of changing (in this case disinflation turning to inflation), the related markets will experience rapid movement in the direction opposite the old primary trend (in this case the big move up in commodities last year after a brutal five-year bear market from 2011 to 2016), but will then experience a rapid reversal that shakes the faith of the early investors in the new trend. That is exactly what happened in the first half of 2017 as commodities struggled in Q1, GSCI fell (5%), and got pounded again in Q2, GSCI was down another (5.2%), to be down (10.2%) for 1H17. We mentioned back in April that *"The Sokoloff Test is now testing the resolve of commodity investors big time, as all of the momentum indicators have shifted to negative with GSCI having now made three lower highs (bad sign), crossed below the 50dma and the 200dma (bad sign) and also now on the verge of breaking the series of higher lows (last straw?)."* GSCI was quite volatile in Q2, starting at 2,295 of 3/31 and rising nicely, up 2.7%, to 2,357 on 4/13, only to plunge (8.3%) to 2,161 on 5/9 (Ben Graham's birthday), then rebounded like a spring, up 6.6%, to 2,304 by 5/22, rolled over again and crashed (10.8%) to 2,055 by 6/21 (day before the Bradley Turn Date of 6/22 which is also a Gann Day) and jumped back to 2,170, up 5.6%, on 6/30. The volatility continued in July, but the direction was notably upwards and from the 6/21 bottom, GSCI has made three higher highs and three higher lows, so if the Index can break through 2,434 the primary upward trend will resume. Recall that since the beginning of the Commodity Bear Market in August 2011 GSCI is still down (60%), so there is plenty of headroom for commodities to recover if we have indeed changed the primary trend to positive. Further, over the last six years the S&P 500 and the GSCI make a giant Alligator Jaws pattern with SPX up 105% and GSCI down (60%) and you know what we say about Alligator Jaws (they always close, the tricky part is the timing…). One final point on Commodities is we recently saw a great chart that

Incrementum AG included in their most recent white paper (sourced from BofAML) that shows how Real Assets are the cheapest relative to Financial Assets they have been since 1925. When things are the cheapest in a century, Value Investors like us get excited and we believe now is time to #GetReal.

Oil prices had surged a bit after the election on the Hope Trade that the Trump Trifecta would spur economic growth (we said we would take the under and there would be a NoFecta in 2017, so far, so good…). There was also a Hope Trade that OPEC would cut production and address the serious supply glut that was depressing oil prices. The Saudis coerced the other members in November into committing (or saying they would commit) to meaningful cuts, but we were skeptical that the agreement would hold up. We incorporated that view into our MCCM Surprises #4, *When OPEC Freezes Over…* saying *"After the ceremonial show of OPEC unity in November, where members agreed to production cuts to attempt to firm up oil prices, it turns out that members of Cartels actually cheat and excess supply continues to dog the oil market. In hindsight, it becomes clear that the agreed upon "cuts" were merely normal seasonal production declines and 2017 brings a chorus of "you cut first, no you cut first…" Global crude inventories remain stubbornly high and prices fall back toward the bottom of the New Normal, $40 to $60 range, before bouncing back to end the year at $60."* We did acknowledge coming into the second quarter that the unexpected (well, actually expected by us) dollar weakness *"could help buffer Oil prices in the near term, but the ramp in U.S. Shale production appears to be gaining momentum so the big inventory draws that the Oil Bulls are relying on for higher prices seem more like Hope than Reality at this point."* In point of fact, Q2 was a volatile one for oil prices, but after three months of ups and downs, oil headed for the $40 hard deck and settled at $45.18, down (8.4%), and is now down (14%) for the CYTD (so much for the Hope Trade). Oil started on 3/31 at $49.33 and was strong in the first half of April, jumping to $53 around Tax Day before plunging (15%) over the next three weeks as there was indeed some cheating from OPEC members and U.S. Shale production began to accelerate upwards and instead of draws on inventories, there were actually builds. Some quick Draghi-esque jawboning by the Saudis (promising to do whatever it takes) triggered a short covering rally back to $51 by the end of May, but prices rolled right back over when more inventory data was released and fell (17.6%) this time, all the way to $42 (nearly hitting the bottom of our range) and then like being pulled by some anti-gravitational force bounced right off the 6/21 Bradley Turn date (interesting how many things turned on this date) and jumped back to $45 to end the quarter. The bounce continued in July (and Saudi cut exports to try and force the U.S. inventory numbers down) and after four months of gyrations, oil ended almost right back where it began at $50 on 7/31. One of the most interesting things that happened during Q2 in the oil markets was the stealth bear market claimed two monster trophies in two well-known hedge funds. One was forced to cut risk after suffering large losses on long bets, while another was forced to close its core fund as his bullish thesis on oil prices did not play out. These are actually quite extraordinary events, as these are two of the most talented and successful oil traders in modern history (they have forgotten more about oil than we will likely ever know), traders who have produced huge returns for their investors over many years, and it shows how even with massive research resources, deep industry relationships and large capital bases, commodity markets can be very humbling. Sometimes, when the public markets become difficult to navigate (as we would say many market segments are today), it pays to spend more time in the private markets where there are greater opportunities for patient capital. To that point, we will repeat something here from previous letters that, *"we have been spending a disproportionate amount of time with our private energy manager this year (that is an indication of how attractive we think the opportunities are) and every time we talk to one of the teams in the oil patch we come away even more excited about the potential to make outsized returns in the private oil & gas* *markets."* We continue to see strong deal flow in the private energy markets and with the recent downturn in oil prices (and related increase in stress in the oil patch) we expect to see even more attractive opportunities arise from those oil & gas companies that took on too much leverage in 2014. Like we said last time, we have always like to traffic in areas *"where returns on the new money invested are likely to be measured in multiples of capital rather than percentages of capital."*

Oil and gold grab all the media attention, but there are plenty of other commodities that are making news recently, many of which have produced solid returns for investors over time as well. Natural gas, copper and Iron Ore are commodities that play a huge role in the global economy and astute investors who look beyond the glamour commodities of precious metals and black gold can generate profits within the industrial complex. Generally speaking, industrial metals *"are normally associated with global GDP growth (more specifically of late, China GDP growth) and the price trends in these industrial metals are very closely watched for clues as to the state of the global recovery (or lack thereof)."* With the recent acceleration in the economic growth numbers coming out of China (detailed above), once again the predictive power of the industrial commodities appears to have been confirmed. It is a little curious that U.S. economic activity continues to disappoint, but given the low level of manufacturing activity (relative to services) in the U.S. economy, perhaps there is something more fundamentally wrong with the Developed Markets (we would say the #KillerDs, bad Demographics, too much Debt and Deflation) that the economic growth in the U.S., Europe and Japan will stay muted for longer than people think. We discussed the risks in the U.S. economy last quarter, saying *"It is possible that economic growth is rolling over as the Citi Economic Surprises Index (CESI) has fallen off a cliff lately, so we will be watching Dr. Copper very closely in the quarters to come to see if the Reflation trade can resume or whether it was simply a 2016 China stimulus induced Hope Trade."* It may also turn out that Dr. Copper will be speaking Mandarin for the foreseeable future and the industrial metals complex will be a better indicator of Chinese (and other Emerging Markets) growth than the historical linkage to domestic economic growth. Copper has been considered to be a strong leading indicator of economic activity, so much so in fact that it was nicknamed Dr. Copper for its uncanny ability to diagnose the health of the economy. The problem since 2011 was that the phrase *"Physician heal thyself"* was applicable during a long, bruising, five-year Bear Market in Commodities from 2011 to 2016 where copper process had collapsed nearly (60%). Interestingly, that correlation broke down a bit, as global economies slowed, but certainly didn't crash.

We wrote last quarter that *"most commodity markets turned in February of 2016, but Dr. Copper wasn't released from Intensive Care until October the long-time patient came out of the hospital feeling very frisky and went on a run from $2.10 to a peak of $2.80 in mid-February of this year (a surge of 33%)."* If the Dr. Copper correlation was still working, the global economy (and U.S. economy even more so) should have picked up dramatically in Q4 of last year and Q1 of this year, but the exact opposite occurred as GDP growth actually fell dramatically since last October. Copper prices were strong in Q1, but that strength masked some very serious volatility "*as the Reflation versus Deflation debate reappeared when some of the promises made by the Trump Administration didn't actually occur during the First 100 Days and some doubt began to creep into the collective minds of investors who had piled into commodity and infrastructure stories in Q4."* The ups and downs of the copper markets have been exacerbated even more by the ongoing debate over the health of the Chinese economy, but as the China economic numbers started to roll in very positively, Dr. Copper was feeling perky again. We closed the update on copper last time by saying that *"Despite all the volatility, it appears that the copper markets are simply consolidating the huge gains from the end of last year and so long as the* *patient doesn't regress below the $2.53 level, the primary trend is still upwards."* It appears that our eyesight was a little off, as the actual low was $2.47 on 12/23, but Dr. Copper could see just fine and followed the primary trend script beautifully. After some early downside volatility in April, copper fell from $2.65 and nudged right up against that lower low boundary, hitting $2.49 on 5/10, before careening upwards to finish the quarter at $2.71 on 6/30 for a slight gain of 2.2% during Q2. But as summer got into full swing, Dr. Copper broke out in a big way, surging 6.6% to $2.89 in July. A combination of additional strong economic data from China (sadly, very little from the U.S.) and some very curiously timed activity in the commodity futures markets were behind the rally. It appears that each time China tries to crack down on speculation in one part of the markets (stocks in 2015 and real estate this year), the money finds another bubble to inflate. Call it a hunch, but we will likely write more about the Chinese activity in the commodity futures markets in coming quarters. Finally, copper related equities didn't like the lack of activity in copper prices in Q2 (probably just digesting the huge moves over past year) and fell across the board, with SCCO (Southern Copper) down (3.5%), FM.TO (First Quantum) down (22%), GLEN.L (Glencore) down (8%), UK:AAL (Anglo American) down (16%) and FCX (Freeport-McMoRan) down (10%). We noted last time that *"As Kiril Sokoloff of 13D warned us earlier this year, primary trends will be tested (to try and shake out the weak hands) so until the facts change on supply or demand trends, we will aspire to remain strong hands and buy what is offered at a discount."* As usual, Kiril was right as these companies, which were all being offered at big discounts on 6/21, turned on a dime (along with many other assets) and surged an astonishing 17%, 40%, 21%, 30% and 30% over the past six weeks as copper prices recovered.

We wrote last time that *"The surge in Iron Ore last year makes the copper jump appear to have feet of clay as the triple play of China shutting in excess capacity for the first time, increasing fiscal stimulus and Beijing pushing the One Belt, One Road (OBOR) project pushed prices up over 100%."* The rally kept right on going through the middle of March and came to a screeching halt on the day of the Fed meeting when they voted to increase interest rates. Iron Ore went into a tail spin and spiraled down hard over the next 90 days falling from a peak of $86.80 to a low of $54.01 on 6/13, a stunning drop of (38%). There was a little rally in the last week of June, but Iron Ore still finished down (35.5%) for Q2. Things were looking pretty bleak and the talking heads were declaring the end of global growth in the Iron Ore markets because China was going to crash any moment, Trump was going to play tough with China and Korea on steel imports and the Chinese commodity speculators were tapped out (or so they thought). We contemplated *"the big question"* last time, asking *"whether this is a pause the refreshes, or the beginning of a broader trend in the rolling over of the Reflation Trade."* As we have said in many sections so far, we are sticking with Kiril (Sokoloff) here, as the case can be made *"that there have been fundamental positive changes in the supply/demand balance across the commodity complex (less supply, more demand)"* and those changes will push commodity prices higher. Suddenly (and with little fanfare at first), China reported stronger than expected GDP numbers at the end of June, pushing Iron Ore prices higher, finishing on 7/31 at $66, now "only" down (17.5%) year-to-date. The question remains are we closer to Reflation of Deflation? We will stay in the Killer D's camp (for now) and do expect lower growth overall, but we can also see a path to how the supply cuts will allow for rising commodity prices over the intermediate term. Iron Ore related equities struggled in Q2 as process ripped lower (but were not decimated) with VALE down (6%), BHP was flat (0%), CLF down (14%), AU:FMG down (15%) and only RIO managed a gain, rising 7%. Astonishingly, since the Gann Day/Bradley Turn Date of 6/22, these stocks have been completely on fire, surging 26%, 24%, 30%, 26% and 24%, respectively. Maybe the metals are even more sensitive to gravitational forces and lunar cycles than other assets.

Natural gas ("NatGas") was an investor's dream in 2016, rising 34% (with very little volatility) and there was a growing consensus that La Niña would lead to a colder winter (and hotter summer) so $4 NatGas was a sure thing in 2017. We wrote last time that as usually happens when everyone thinks one way (means not a lot of thinking going on…) things didn't go quite as planned, saying *"We clearly meant interesting in the sense that predictions of colder than average weather would lead to better prices for NatGas, not that warmer than average weather would lead to outrageous volatility."* Q1 was filled with crazy volatility in NatGas (all of it negative) and we wrote that *"The only thing chilly during winter 2017 was NatGas, as it fell (17%)."* There was a little bit of inclement weather in the first week of April and NatGas prices rallied a bit, to "only" by down (12%), but then prices flat-lined until the end of May at around $3.23. In the last week of May, some storage numbers spooked markets and prices fell (12%) to $2.85 and have now flat-lined there for the past two months to end July at $2.87. For Q2, NatGas prices were down, falling (4.9%), but given the wild weather and the stubbornly high production numbers, it could have been worse. In January, we wrote that there might have been some information content in the rapid reversal in the NatGas equities, saying *"something to keep an eye on is many of the NatGas equities that had been star performers in 2016 (SWN, RRC, COG, RICE, where prices were up between 40% and 160% through September) have turned down hard, and are down between (15%) and (30%) over the past four months."* It turned out they were telling us something, that NatGas prices were about to turn down as La Niña decided not to show up this winter. In Q1, we noticed another change in these names and wrote that *"there was a bifurcation between the lower quality (SWN, RRC) and higher quality (COG, RICE) companies (quality based on acreage and leverage) and SWN and RRC continued to fall, down another (16%) and (18%), while COG and RICE rallied 8% (actually were up as much as 20% at the beginning of April)."* This phenomenon is being repeated across many asset classes and sectors as the winners gain ever increasing advantage and the losers fall behind increasingly quickly. Suddenly, it seems, Capitalism is back and that is excellent news for Active Managers and Hedge Funds who get paid for doing fundamental analysis to determine who will be the winners/losers. Over the past three months, this trend continued in NatGas as RICE was purchased by EQT and rallied 30%, EQT rose 10% (perhaps got a good deal) and COG rose 5%, while SWN, RRC and GPOR continued to spiral downward, falling (25%), (20%) and (20%), respectively. We want to lean into the bullish thesis in NatGas, but the production volumes are so high and the "free" gas that comes along with the ramp up of oil production in the Permian keeps us from getting too excited in the near term. This is an area to watch and a place where there may be some good bargains soon.

Turning to the Precious Metals, we wrote last time that *"With continued weakness in the dollar, we continue to see a positive environment for the PMs and should markets get a little more volatile in the summer or fall, Safe Haven demand could pick up and drive more capital in search of stores of value."* Over the past months the dollar has indeed weakened further and geopolitical risks have increased as the rhetoric from the White House around North Korea, Russia and Syria continues to escalate, so the stage was set in Q2 for PMs to rally. There is a great quote from Kyle Bass of Hayman Capital that says, *"Gold is a hedge against the stupidity of governments"* and while there has seemingly been an ample supply of government stupidity in recent quarters, the response in Precious Metals prices has been more muted than expected. In fact, the price activity over the past months and quarters could best be described as erratic and unpredictable, prompting some market observers to hypothesize that there is some kind of intervention (some might go so far as to say manipulation…) in these markets. In Q2, gold was flat, silver got smacked around, falling (9%), platinum fell (3%), and only palladium managed a gain, jumping 6%. We recently spent some time with a very experienced manager who has made a very compelling case for gold today.

Oftentimes when someone is pitching a particular asset they happen to be a specialist in that particular area, which often leads to a level of discounting of their view because of the proverbial *"to someone with a hammer, everything looks like a nail"* issue. The nice thing about this particular manager is their broad experience across many assets classes over many years dismisses that concern (he is not a gold bug) and we were compelled by the logic of the construct. The basic idea is that during times of high market valuations (like today) one normal response (followed by some of the smartest investors we know like Seth Klarman) is to raise cash as a hedge, so you have liquidity to buy when prices inevitably get correct and get cheap. What this manager proposes (and has a great deal of data to support the conclusion) is that in these times of extreme valuation (1929, 1972 and2000) there is a risk that many ignore, currency devaluation risk, which is solved by owning a superior currency (gold). History shows that gold actually rises in value in these times when financial assets are falling (particularly equities) and therefore the purchasing power differential grows not linearly, but exponentially, when using gold as the hedge. It is a very compelling argument and one that compels us to want to begin to accumulate a meaningful position in gold. One caveat is that it is critical to own physical gold, not paper gold (ETFs, etc.), in order to have the lowest risk of counterparty issues or exchangeability issues. When prices get cheap, it is easy to sell physical gold and use the proceeds to buy the distressed assets that have gone on sale.

When deciding how to participate in Precious Metals, investors can choose to invest directly in the actual metals or to invest in the companies that mine, process and distribute the metals. There is a rule of thumb that says when the Miners outperform the Metals it has usually been a Bullish sign, and vice versa when the Metals outperform the Miners, it is a Bearish sign. Last year, there was some explosive performance in the Miners (Bullish for Metals) and the returns were strong across the board; in fact, in some of the mining sectors, we described the returns as "gaudy." We wrote last time that we should have reminded ourselves of something we wrote last year, *"Note to self for future letters, when you use words like gaudy to describe returns it is time to think about the other side of the trade. We have always liked the old saw, "if a trend is unsustainable it will not be sustained." We will update the rule even further this time saying that if one uses a word like gaudy to describe returns the right answer is not just to sell, but go short."* Clearly going short would have been a good idea coming into 2017 as the Miners got drilled in Q1 and there was money to be made capitalizing on the unsustainable not being able to be sustained. The challenge for investors is that there is a fundamental disconnect in this sector between valuations (which are incredibly attractive) and sentiment (which is incredibly negative). We discussed this last quarter, saying *"Something doesn't feel right in this sector as the Miners are incredibly cheap, capacity has been rationalized, costs have fallen as oil prices have stabilized at much lower levels than 2014 and global demand for precious metals continues to rise (individuals and Central Banks), but as we have written in this section before it just doesn't appear that the Miners can find their "natural buyer" and they have been relegated to the momentum trading crowd, which is not great for us long-term investors."* Caution seems to have been the proper stance in the Miners this year as Q2 was another challenging period and while the Metals were positive, the Miners continued to get no love from investors. GLD was able to eke out a flat return, but SLV fell (9%), GDX dropped (3%), GDXJ sank (7%), SIL plunged (9%) and SILJ fell (6%). Once again, since Gann Day, those same ETFs all outperformed equities, rising 2%, 2%, 3.5%, 2%, 3.5% and 9%, respectively.

We said last time that the time might come where we might have to create a section for crypto currencies and after the wild ride in Q2, that time has come. Specifically, we wrote that *"One wild card in the PM story is the emergence of the crypto currencies (Bitcoin, Ethereum, Ripple, etc.), which are gaining in popularity as Alternative Currencies (long the sole* *role of Precious Metals) so it will be interesting to watch developments in this area and we may have to start tracking the performance of the cryptos in future letters."* Bitcoin started 2017 at $968 and everyone (well, not completely everyone, but most people) thought it was a full-fledged Bubble and would crash any moment. The Haters got their wish (it appeared in the first week of January as the price dove to $775 on 1/11, down a quick 20%), but then surged right back up 67% to $1,291 over the next two months, only to gap back down (18.5%) over two weeks to finish the quarter at $1,051, up 8.5% for the quarter, so what's the big deal? (Phew…). But in Q2, the fun really began as BTC nearly trebled over the next ten weeks, peaking (or so the haters said this time was the final peak) at $2,894 on 6/10, before gapping back down (14%) to $2,486 to end the quarter. The final gain for Q2 was an astonishing 237% (read that again). But wait, there is more. With the threat of a "Hard Fork" on 8/1 (division of the underlying Blockchain) creating massive stress, Bitcoin flash-crashed in the first two weeks of July, falling (20%) to $1,992 before bouncing right back up 37%, to $2,731, to end the month, as investors realized that August 1st was the BTC equivalent of Y2K (Wow…). So, YTD, Bitcoin is up a tidy (almost used the word gaudy, but don't want to jinx it) 182% over seven months (not shabby at all). As a side note, Ethereum was just as volatile, starting the quarter at $51 and peaking at $380, collapsing back to $163 and finishing at $198, for a four month gain of 388%. Some really, really, smart people are getting really, really excited about crypto currencies and we are beginning to feel less strange about writing about them (at $450…), which is a trend that we expect to continue.

Shifting to Hedge Funds, the bottom line for us is that after an extended period of underperformance, we expect forward returns (both absolute, but particularly relative to traditional strategies) over the next decade to be much more favorable for hedged strategies. One of the challenges of the term Hedge Fund is that it is as useless as the term Mutual Fund insofar as it simply describes a legal and compensation structure and is not very helpful in describing the myriad strategies that can be utilized by managers in a hedge fund structure. Most people tend to think of Long/Short equity when they hear the term Hedge Fund (similar to how people think of large LBOs when hear term Private Equity), but there are many other strategies including (but not limited to) Market Neutral, Distressed Debt, Long/Short Credit, Macro and CTA, just to name a few. So, making a blanket statement that Hedge Funds will do this or do that is usually not very useful, but given the level of valuations today in traditional assets, we actually do believe that most (if not all) strategies in the Hedge Fund area will outperform in the coming decade. If we take things down to their most basic level (stocks, bonds, Long/Short Equity, Absolute Return) and utilize the GMO forecast returns (using a 2.2% inflation/T-Bill rate) for traditional assets (could use First Quadrant of AQR as they are all nearly the same) and the long-term historical returns for hedged strategies (which is likely conservative given they have just had a seven-year period of below average returns), we get the following expected returns. Long-only equity strategies are expected to produce essentially no nominal return (T-Bills – 2%) in the Developed Markets and T-Bills + 3% in the Emerging markets and Fixed Income strategies are expected to produce T-Bills - 1% (expectation that yields will rise) in the Developed Markets and around T-Bills + 1% in the Emerging Markets. Long/Short Equity Hedge Funds should generate T-Bills + 5% in that type of environment (similar to 2000 to 2010) and while we think the returns could actually be higher, better to under promise and over deliver. Absolute Return Hedge Funds should generate around T-Bills + 3%, which is nothing super exciting, but better than all of the traditional asset expected returns.

The vitriol against Hedge Funds is as extreme as it was back in 2000 (when a number of Legendary fund managers shuttered, including Tiger Management) and one thing we know from having been involved in the Hedge Fund business for twenty-five years is that the lean periods of returns are followed by strong periods of returns, usually on about a seven-year cycle. Hedged strategies tend to outperform traditional equity strategies during periods of declining economic growth and declining liquidity and, predictably, traditional equity strategies (especially Passive and Index Funds) outperform during economic expansions triggered by abundant liquidity. We remember vividly how no one perceived there to be any need for hedging back in 2000 and how every month set a new record for funds flowing into Index funds (sounds eerily familiar). We also vividly remember how the next decade played out for investors as those who piled into Index Funds and Passive lost money for ten years, while investors in Hedge Funds made double-digit compound returns (and some did materially better than that). We believe we are in the first year of a new cycle of HF outperformance, so let's review how the various hedge fund strategies fared in Q2. The HFRI Equity Hedge Index was up a very solid 2.4% during the quarter brining the 1H17 returns to a very healthy 6.3% (TTM return was solid, if unspectacular 12.5%). By healthy, we refer to the fact that given the average net exposure is around 50%, the expected return just from Beta (50% of the SPX) would have been 4.6%, so there was a healthy 170 basis points of Alpha in the first six months of 2017 (a welcome sight given the lack of Alpha in 2016). Even better news was that many of the very best managers (who don't report data to HFR) were up significantly more than the benchmark and the best news was that the Alpha was coming from both the long and the short side. One of the most interesting developments within equity markets in 2017 is that while the Indices appear to be quite strong (and the returns are strong), those averages mask some extreme volatility where certain sectors have soared (technology and healthcare) and other sectors have been smashed (retail and energy). This type of dispersion is precisely what we observed back in 2000 as the unidirectional market of the late 1990s (everything went up, a lot…) began to fade and eventually turned down for good in September. As we discussed last time, *"correlations within equities fell to levels not seen in over a decade (a positive for active management)"* and these developments provide further support for our view that hedged strategies are likely to have superior returns in the quarters and years ahead. We wrote in January how our view on hedged strategies might be comparable to Roger Babson's now famous warning about the perils of the stock markets in 1929, saying *"Just because we were early (some would say wrong) in predicting when the mean reversion in performance of long/short strategies would begin, does not impact whether we would be correct, or not, when making a similar forecast today because they are independent events (based on new and different information)."* As new data continues to roll in, we believe it continues to support the view that investors will be hard-pressed to garner meaningful returns from Beta and will have to be increasingly reliant on Alpha in the coming years. We wrote in our letter last fall that, *"we believe that Alpha generation across long/short equity managers has troughed at levels we have witnessed only a few other times in history (most recently in 2000 and 2008)"* and while we were a quarter early (Q4 was rough on hedged strategies because of the surprise election outcome) Alpha returned in Q1 and expanded in Q2 (interestingly strongest in the long/short equity space). To that point, we will repeat what we said last year, that buying the strategies that others are selling (Hedge"d" Funds) is likely to deliver meaningful returns for investors (and they could be terrific).

Activist strategies have had a rough go of it over the past couple of years as many of the most high-profile names have stumbled into disastrous situations (VRX and SUNE to name a couple) and lost significant amounts of capital for their investors. Not every manager got caught in the bad names, however, and collectively the group of Activist Funds have generated "fine" returns in the past year. The HFRI Activist Index notched its fifth consecutive positive quarter, rising a robust 3.2% to bring the CYTD return to 4.2% and the trailing twelve-month return to a very strong 16.4% (nearly in line with the well above average TTM return of 17.9% for the SPX). The broader HFRI Event Driven Index also continued its winning ways during Q2, rising another 2.1% (after gaining 2.2% in Q1) to bring 1H17 returns to 4.3% and the trailing one-year return to a solid 12.8%. Event Driven managers have had a brisk tailwind behind them over the past year as credit markets have been extremely (and we mean extremely) supportive. We have described the NSHY market in past letters (using Space Balls terminology - no, Elon didn't invent these terms…) as moving into Ludicrous Speed and now bordering on Maximum Plaid. We wrote last time that *"We don't believe that this trend of tightening spreads can continue forever (or even much longer for that matter) so we will be a tad more discerning when looking at opportunities in this segment as the future environment is likely to be a bit less hospitable."* As usual, we were a bit early (the bane of Value Managers), but some cracks did appear in the façade, that is an over-leveraged corporate sector, in Q2 and we can see a path to an even less hospitable environment for these strategies in the next year. One could argue (and we have), that our concerns about the weakness of the U.S. economy have been well placed given the very weak GDP numbers in Q1 and Q2, but as we said last time *"Our concerns about the potential for rising defaults in the credit markets have been completely off base, as after a brief rise in mid-2016, defaults have fallen back and there has been a much lower level of bankruptcies in 2017 versus 2016."* Another factor that we underestimated was the willingness of lenders to provide non-investment grade companies debt with little or no covenant protection at interest rates (spreads above risk-free Treasuries) that only a few years ago would have been unthinkable.

As a counter example to our cautious stance toward credit markets, we wrote about a relatively new manager – call sign Maverick (a pseudonym) – who has a variant perception on the credit markets and has walked the walk, putting up some lights out numbers since inception (up 45% over the trailing twelve months). As a side note, Michael Steinhardt famously quipped, "we made all our big money when we have a variant perception that turned out to be right." As a reminder, his strategy is elegant in its simplicity, he buys highly leveraged companies around the world where he believes 1) he can acquire the shares for less than six times cash flow and 2) the operating cash flows of the business can support debt reduction (essentially an LBO strategy in the public markets). He developed this strategy as an Associate at Bain Capital where he worked on a comprehensive analysis of all the Bain deals ever done and he discovered that six times cash flow (EBITDA) was the magic number (pay less, make big returns, pay more, make small returns). His fund was up a stunning 40% on 2016 and we wrote last time about his seemingly ill-advised decision to write an annual letter projecting similar returns for 2017. We commented that *"Despite his youth and relative inexperience, the manager made a compelling case for why the oil supply shock has modified the default cycle (extended it like in the mid-1980's) and he has boldly (some might say arrogantly) predicted their portfolio could enjoy similar gains in 2017 should defaults ease from current levels."* We went on to say that his call reminded us of one of our favorite movie scenes in Top Gun when Viper asks if Maverick thinks his name will be on the Top Gun trophy and he replies "Yessir," Viper says "That's pretty arrogant considering the company you're in," Maverick replies "Yessir" and Viper says, "I like that in a pilot." As we like to say Confidence = #Edge. We wrote last time that *"It's not arrogance if you can back it up and the manager did put up another 10% quarter in Q1 (brings TTM return to a stunning 53%), so we will now only refer to him as Maverick."* Well, Maverick was "only" up 4.1% in Q2 and is now up 14.3% CYTD heading into what we think may be a nasty dog fight in the fall. To quote Charlie from another Top Gun scene, he will need some "really fancy flying" to achieve his objective should the skies fill up with bogies. To be fair, Maverick did leave himself an out, when he said, *"should defaults ease from current levels,"* which they have thus far, but would likely accelerate should the U.S. economy truly slow, liquidity actually tightens and earning roll over. A final point about the Event Space, like all strategies that involve leverage, the comparison to Top Gun is very apt, as Viper says *"Remember gentleman, Top Gun is about combat, there are no points for second place."*

Hedge Fund managers trafficking in distressed credit were like drivers on a NASCAR straightaway in 2016 as credit markets stabilized above the big scare in January and February and many managers and investors who bought into the fear in February took the checkered flag in December. It looks like the yellow caution flag is out in 2017 and drivers are stuck behind the pace car running at laps at around 60 mph. The HFRI Distressed Index was up a rather pedestrian 1.5% in Q2, after an equally pedestrian 1.7% in Q1, bringing CYTD returns to only 3.2%. After the blistering pace of last year, it may feel to many investors in the segment that things are stuck in the pits. The slower pace of 2017 has dragged down the trailing twelve-month return to 14.8%, still respectable by every measure, but losing ground to the S&P 500 that has regained the pole position and has seemingly mastered the *"go fast, turn left"* strategy. We discussed the big issues in Distressed investing last time noting that *"Usually you only get these types of returns in distressed debt coming off bottoms after recessions when you can buy good assets at cheap prices as the bad balance sheets (read over-leveraged) get unwound."* The issue was that there wasn't much true distress last year (other than in the energy complex) and debt prices really didn't follow the normal path going from cheap to fair value, but rather went from over-valued to extremely over-valued. The other issue was that the market environment in Distressed reminded us of 2001 when investors strayed from their discipline and we were concerned that *"Some Distressed managers, frustrated by the lack of distressed merchandise, have ventured into "Other Credit" (new line item on some manager reports) and may be buying assets with no margin of safety (in direct violation of the spirit of value investing)."* We all understand the concept of *"making hay when the sun shines,"* but buying assets without a margin of safety (particularly in distressed) will likely end in tears. The central banks have created an environment that has enabled companies that should have gone bankrupt to live to die another day and we can see plenty of "soon to be bad debt" on over-extended corporate balance sheets in many sectors. We repeat the ending from this section in January saying, *"Gravity always wins and there will come a day in the not so distant future where the opportunity set for Distressed will get even better and the returns could be quite substantial."* When that day comes (just like it did in 2002 and 2009), we will be ready to buy what is on sale and exchange cash (or perhaps gold) for these good assets at bad prices.

Absolute Return strategies (Market Neutral and Merger Arbitrage) have been punished in the Age of the Central Bankers as financial repression has made it difficult for market neutral strategies as cash return historically makes up a meaningful percentage of total (turns out zero doesn't help) and the heightened degree of choppiness in the markets has relegated trend following strategies (other than Renaissance) to the dust bin. As we wrote last time, *"One of my friends has a great line about this unusual epoch in our history, 'I remember a day when I didn't know the names of the central bankers and I long for those days to return.'"* Central bankers have taken their Third Mandate (beyond Employment and Stable Prices) of elevating the S&P 500 very seriously and they don't seem to care who they destroy as they go about their business. After finally putting up a reasonable return in Q1, the HFRI Market Neutral Index was back in the losing category, falling (0.7%), as stock markets resumed their low volatility ascent, neutralizing Market Neutral managers' ability to produce Alpha from both the long and short side. We noted last time that *"however, one decent (still not good) quarter doesn't make a decent year"* and this segment has simply been stuck in neutral, with CYTD returns of 1.4% and trailing twelve-month returns of only 2.8%. Market Neutral strategies used to be a great equity substitute (when cash had a yield), but in a ZIRP world, they are really a fixed income substitute as they have generated returns similar to bonds, but do not have the interest rate risk (in fact, they are positively correlated to rates rather than negatively correlated like fixed income). We commented last time that *"Until short rates normalize, Market Neutral Arbitrage will be a very tough way to make a living unless you apply significant leverage (perfected by groups like Citadel, Millennium and Balyasny) to the underlying portfolio."* Leverage, in and of itself, is not a bad thing, it is just a tool, but the problem with leverage is that it can never make a bad investment good (leveraging negative Alpha would be a bad idea, kind of like Tesla borrowing more money to make more cars they lose money on…), but leverage can make a good investment bad (margin call at wrong time forces you to sell good assets at bad prices), so caution is warranted. Better yet, leave the leverage to the experts.

The HFRI Merger Arbitrage Index had another OK quarter, rising 2.3% to bring CYTD returns to 3.4% and trailing one-year returns to 6.8%, which are solid, but unspectacular and would fit into the "better than bonds" category along with M/N. As we mentioned last time, the challenge in Merger Arb is *"the vast amount of liquidity chasing these deals (and the ubiquity of trading models provided by the Prime Brokers to move product) has squashed premiums and made Merger Arb another challenging way to make a living."* In the current investment environment, success is all about expectations management. If investors were involved in M/N and Merger Arb in the "good old days" when T-Bills + 5% was possible, and with some modest leverage net returns were in the low double digits, the current T-Bills + 3% that results in net returns in the mid-single digits is disappointing. If the perspective is that stocks and bonds will struggle to produce even T-Bills + 1% in the next decade, these results seem downright attractive. The question will be whether investors have the patience to stick with these hedged strategies and not chase more directional strategies (which happen to be exhibiting superior Sharpe ratios today (temporarily) thanks to the effects of QE) right at the top. We discussed two ways to boost returns in Merger Arb last time, *"One is to make investments in "anticipated deals" (deals you think could happen, but have not been announced, and in some cases, that you may help instigate) and the other is to use more leverage than normal (always perilous)."* We continue to believe that the better alternative is to accept that forward returns will be lower across all assets and modify return expectations (lower). Until such time that cash returns are no longer close to zero, it is better to be comfortable with Absolute Return strategies being Fixed Income substitutes rather than Equity substitutes. As Viper says, *"Better to retire and save your aircraft than push a bad position."*

The strategies that have been most consistently brutalized by the central bankers have been the systematic strategies, Macro and CTAs. In Q2, the HFRI Macro/CTA Index was down another (0.6%) and the HFRI Systematic CTA Index was down another (1.8%). Adding Q2 to the losses from the first quarter brings CYTD returns to (0.8%) and (2.8%), respectively, and the trailing twelve-months were even more disappointing, as both strategies produced significant negative returns during a strong period for nearly all other asset classes, falling (2.5%) and (7.7%), respectively. We noted last time that there was a disconnect between perception and reality when it came to Quant strategies saying, *"These poor returns might seem to run contrary to the headlines about how the Quant Funds are taking over the world and some of the media headlines about how the legendary funds like Renaissance and Two Sigma put up very good numbers, but it actually points to two issues in the systematic business that are likely to become increasingly problematic in the future."* The first issue is the growing concentration of assets in an ever-smaller number of firms (the big get bigger) as the *"Institutionalization"* of the Alternatives business creates a David and Goliath dynamic in the asset management industry. Hedge Funds used to be the domain of wealthy individuals and families and a small handful of innovative institutions and there was a return-oriented culture of risk-taking (target returns in the teens). Today, the marginal dollar being allocated to Hedge Funds comes from very large institutions (which need to write big checks) and the emphasis is on "risk-adjusted returns" (target returns of T-Bills + some percentage). These allocators are myopically focused on reducing volatility and increasing Sharpe and Information Ratios and have put pressure on managers to be bigger, have more staff, spend lots of money on systems and to "over-engineer" their process. The result is that more and more money goes to fewer and fewer firms and the days of skill-based management are fading. We will argue that these trends are not a net positive for the industry or the investors and that they actually create an embedded risk that compounds in an exponential (rather than linear) fashion as the concentration increases. The second issue is that with the rise of High Frequency Trading and Algorithmic Trading (and increasingly AI and Machine Learning), there has been a dramatic rise in the choppiness of the markets as securities are bought and sold in micro-seconds based only on price movements and quantitative measures of deviation from some "data-mined" formula that has disrupted the traditional smooth flow from valuation extremes that was created by the human factor in securities analysis that could be exploited by the early automation of trend following. Many investors (rightly so) believe that Macro/CTA strategies can play an effective role as disaster protection in diversified portfolios (based on their performance in 2002 and 2008). We discussed last time how these strategies functioned like a better form of insurance, saying *"the quantitative argument for including them in a portfolio was that they could generate modest returns in normal markets (pay their own insurance premiums) but provide meaningful returns in big drawdowns."* This argument clearly breaks down if the returns are negative while you are waiting for the insurance to kick in (which has been the case over the last few years). The bottom line is that "*The cost/benefit equation has changed and we need to rethink how we utilize these strategies."* The final challenge for these "non-correlated" strategies is that the other issues of concentration of assets and the increasing speed of trading could actually change the way the markets respond to the next negative catalyst and the expected insurance effect of Macro/CTA strategies may break down. We discussed one of the biggest examples of this risk last time when we wrote *"There has been a tidal wave of capital that has rushed into Risk Parity strategies (essentially a leveraged 60/40 portfolio of stocks and long bonds) and should those strategies have to de-lever during a correction, the unwinding of this trade (#RiskDisparity) could exacerbate the moves on the long end of the curve and cause the historical relationship between stocks and bonds to diminish."* One thing we know from history is that when leverage unwinds it creates much more pain than investors anticipate (Portfolio Insurance, RE collapse in 1990s, Sub-Prime) and, should this #RiskDisparity scenario unfold and the hundreds of billions of dollars invested all try to exit simultaneously, these strategies that investors are counting on to be uncorrelated may all suddenly correlate and may not only not provide insurance protection, but actually may make the losses worse.

Overall, the second quarter of 2017 had a little something for everyone. There was political intrigue, both in the U.S. and in Europe, geopolitical intrigue between the U.S. and Russia, the U.S. and North Korea and the U.S. and Syria (anyone else see a trend here?) and economic intrigue in the disappointing results in the U.S. being offset by the very strong results coming out of China (and even a little good news out of Europe). We wrote last time that *"When thinking more about our opening question about whether 2017 will be more like our original thesis of #2000Redux (and be like 2001) or whether that thesis has been "fired" by Mr. Trump and we are now on the path of #WelcomeToHooverville (more like 1929) we find it very surprising that after the big shocks in Brexit, the U.S.* election *and the Italian referendum, which were all supposed to be market killers, the equity markets kept rolling along."* With a number of positive events in Q2 including Macron winning in France, the Fed deciding not to raise rates again in June, U.S. earnings coming in slightly better than expectations (key is to lower bar really low so beating it is easy…) and global growth perking up a bit (and actually surging in China), it was, perhaps, not that surprising that capital markets were solid in the second quarter. One other thing that we mentioned last time was that, *"Unfortunately, there has been more than a little saber rattling (and a few missiles launched) in recent weeks, so we may not be completely out of harm's way yet on this Front (hopefully we don't have to write about real war Fronts in future letters…)."* In recent weeks, the sabers have been fully unsheathed and waved around (or should we say the tweets are flying fast and loose) and there are some very knowledgeable people in the geopolitical sphere who have been writing that there is a significantly heightened risk of a real military episode developing given the instability of U.S. leadership. We will stick with the theory that Trump's recent actions are merely an attempt to "Deflect and Redirect" attention away from the ongoing Russia investigation, but we must acknowledge that using threats of thermonuclear war as your redirection strategy is clearly flying too close to the sun. This type of irresponsible rhetoric leaves minimal room for error and any mishap would result in the wrong kind of darkness falling for humanity. On a much less serious note (but likely more applicable to investing), Trump's Trade War rhetoric is reminiscent of the Smoot-Hawley rhetoric that turned into a huge policy error that converted a garden variety recession into the Great Depression. It is these types of mistakes that will determine whether we end up with a #2000Redux or a #WelcomeToHooverville outcome. As we wrote about in #GravityRules, many of the market events of Q2 played out very much along the path of 1929 and we are inching ever closer to the fall period where we will see if the second half of the analogy holds. What goes up, must indeed come down, and as Newton said, *"For every action there is an equal and opposite reaction,"* or, if we modify the quote for the equity markets, for every Bubble there is an equal and opposite Crash. Based on Newtonian calculations, we know with absolute certainty that on August 21st, darkness will fall over the U.S., and while we can't know for sure when the inevitable correction in markets will occur, we remain cautiously positioned and defensive because we know that eventually darkness will fall there as well.

Market Outlook

The mid-point of the year seems like the opportune time to review the #MCCMSurprises as the starting point for our Market Outlook for the balance of 2017. Taking stock of where we are on the big variant perceptions from January should provide a solid foundation for where to press opportunities (things are going along with the Surprises) and where we need to modify our outlook (things are going against the Surprises). Just as a reminder of what the Surprises are all about (re-set the ground rules), we repeat what we wrote in the Q4 letter here.

Our January #ATWWY Webinar each year is entitled "*Channeling Byron: 10 Potential Surprises for 2017*" (a nod to Byron Wien, the former Morgan Stanley Strategist who originated the annual 10 Surprises idea). When we talk about Surprises, it is important to clarify that Surprises are intended to be non-consensus ideas, and therefore have some reasonable probability of not occurring (they are not necessarily predictions). The unlikely nature of a true Surprise fits in perfectly with the famous Soros quote about how meaningful returns are made by *"discounting the expected and betting on the unexpected."* Michael Steinhardt was famous for saying that, *"We made all our big returns from variant perceptions that turned out to be right."* To his point, the actual definition of a Surprise is a variant perception (an idea that is materially different from the consensus) that we believe has a better than 50% chance of occurring in the current year. The key point here is that a variant perception must be *materially* different than consensus to be truly valuable. One other important point to be mindful of is a year is a long time, things can change (sometimes dramatically) and we need to remember the wisdom of John Maynard Keynes who famously quipped, *"When the facts change, I change my mind. What do you do, sir?"* We will remain vigilant during the year to track the progress of each of these Surprises and look for opportunities to capitalize on them in the portfolios, but we will also be ready to change our minds (and our positioning), should the facts change.

The nice thing about doing the Surprises in January is that they coincide with writing the Q4 letter and the process of looking back over the past year's surprises, gathering information on precisely what the consensus is across each asset class and geography and then forming variant perceptions (the actual Surprises themselves) provides a huge amount of data from which to create the New Year's Market Outlook. The Surprises framework is sufficiently broad that we can cover the vast majority of global markets and can even drill down further to look at investment sectors and individual company ideas that allow for the optimal expression of the themes. So, let's update our Around the World tour of what investors might expect for the balance of 2017 as we pass the mid-way point.

Surprise #1: Demographics Is Destiny

Massive Central Bank Monetary stimulus programs around the world have been unable to spur higher global economic growth as the rising costs of aging populations weigh on the Developed Markets, so governments follow Japan's lead and shift toward fiscal stimulus measures. Given the negative multiplier effect of Government spending (crowding out), these programs fail to spur growth & inflation and global interest rates resume their downward trend.

Despite a truly amazing amount of media coverage of the global central banks' every move (it sometimes seems like they report on their every thought), and an equally amazing quantity of analysis created to show how all of the money printing is going to trigger economic growth, inflation and higher interest rates, demographics continue to be destiny and Surprise #1 is looking quite strong at the half-way point. Most surprising has been the inability of Europe and the U.S. to mount any credible fiscal spending plan, so there has been no opportunity to actually test whether that spending would have a positive or negative multiplier effect. However, the multiplier effect of doing nothing is irrelevant, because anything multiplied by zero is zero. As expected, the transitory effects of rising oil prices in 2016 has faded in the inflation calculations and CPI has rolled over hard in all of the Developed Markets, falling from 2% to 1.3% in the EU, plunging from 2.7% to 1.7% in the U.S. and, since there was no inflation in Japan to begin with, flat-lining there at 0.4%. Interest rates have, for the most part, also followed suit and headed back down (with a couple exceptions). JBG rates nearly turned negative again in April before recovering back to flat, EU rates were flat to down (everywhere except Germany where jawboning by managers who are short has lifted Bund yields modestly) and U.S. Treasurys (once again confounding the consensus who saw rates rising) dropped from 2.44% to 2.2% (although they did hit 2.63% and 2.14% in between). We expect to see these trends continue over the course of the year and the downward movements could really accelerate should there be any turmoil or turbulence in the markets. We summarized this view last time saying, *"Shifting over to the bond markets ever so briefly (as no one ever wants to talk about bonds) there is likely to be a direct link between the direction of interest rates and GDP growth in the U.S. (we could debate endlessly which is the chicken and which is the egg) and given our view that the Trifecta will continue to be elusive, both will likely be lower than expectations in 2017."*

The big burning question becomes: if GDP growth is going to remain extremely low and demographics will be a headwind for many decades to come, why do all the bond bears point to every little blip up in global interest rates and declare the end of the great bond bull market? The simple answer is that investors want to believe (at their core) that someone (anyone) can do something (anything) to change the trend, in other words, they want to believe that demographics is not destiny and that our fate is not pre-determined by things which they cannot control (historical birth rates). Many continue to cling to the three tenets of the Trump Trifecta (elusive as they seem to be, as we are still at the NoFecta) as things that can be (or maybe better said, could be) impacted by the administration and Congress; 1) reducing regulation, 2) reforming (lowering) taxes and 3) increasing fiscal spending. All of these make great narratives, but there are some pesky facts that get in the way of actually getting much benefit from them toward the stated goal of increasing growth. On regulation, we said last time that there might be a significant problem in that the proposed cure may have exactly the opposite impact as what is desired, saying, "*There is very little evidence that there has been much reduction in economic activity due to regulation and there is even an argument that profits are higher (we know margins have risen) because higher regulatory burdens restrict new business development and encourage consolidation (cost savings from M&A) and lead to more monopolistic profit levels.*" More regulation has led to higher margins and profits, so making markets more competitive again would clearly not have the desired effect. On taxes, we described the plan (we continue to be surprised by how little meat has been released here) last time saying it, *"looks to be simply a tax cut for the wealthy with no way to increase revenues, which will increase the Deficit and slow future economic growth (as and aside the self-interested is appalling, specifically exempting Trump's RE operating structure and abolishing the Estate Tax are worth huge sums to the Trump family)."* On fiscal spending, we discussed last time that the problem is that *"We know that government spending has a negative multiplier and that it will result in higher debt levels and lower GDP growth."*

One thing we know for sure is that Nominal GDP growth is a math exercise where the inputs are working age population growth and productivity gains. The simplicity of the inputs makes determining the output quite simple as well (with a high degree of precision). We had to laugh last time as we wrote that the formulaic simplicity made it, *"all the more amazing that the Fed in zero for 240 in GDP growth estimates."* The challenge for the growth bulls is that we know that both elements are in secular decline (at least through the mid-2020s). This makes it so odd that, *"so many people in the administration continue to make promises that GDP growth will be 3% to 4% and that any losses in revenue from tax cuts will be made up for in higher growth (it just can't happen)."* It's just math. We have given the results of the math in previous letters (not really higher-level stuff, less than 1% plus less than 1% equals less than 2%), "*Nominal GDP is highly correlated with WAPG rates and therefore the forecast is for growth to fall to 1% through 2030, rebound back toward 3% by 2040 and then fade back toward 2%.*" As the data emerges that global growth and inflation will be headed lower, returns on bonds (particularly long duration bonds like those found in TLT) will rise and we expect that TLT will actually outperform SPX over the full-year 2017. It is always helpful to look at the scoreboard to see whether a Surprise is on/off track, and, through July, SPX holds a slight edge. With that said, we wrote last time that we believe the market dynamic shifted on March 1st as investors began to lose faith that the administration could actually deliver on its promises. Interestingly, since 3/1, TLT is indeed ahead of SPX, up 4% versus up 3%, and it won't take much turbulence in the fall to push bonds ahead of stocks for the year.

We wrote a couple quarters ago that is was simple to determine if the bond bull market is still intact, saying, *"that 3% number is very important as it defines the last lower high (bonds have made a very long series of lower highs and lower lows that define the downward trend) and when we look at the "Chart of Truth" (the downward channel in rates over the past few decades) we can see that until rates break out past 3%, the primary trend down remains intact."* Treasury yields have touched 2.6% multiple times since the election (including the last touch on the day the Fed raised rates in March); still a long way from the magic 3% number and at 2.19% today the downward trend is firmly in place. Sentiment is something we have to monitor, and we wrote last time that, *"the Commitment of Traders [COT] data has been a very good contrarian indicator of future returns (people buy/sell what they wish they would have bought/sold)."* The pessimists were in control of the bond markets in December and March (of course coinciding with the peaks in rates), so it was no surprise that we had rallies, but after the poor Q1 GDP report the COT data flipped completely to net long. As we wrote last time, *"What this likely means is that we should see increasing pressure on rates in the near term as the hope (and maybe even some real data) appears that Q2 growth will be better than Q1 (it will) so it may mean that we see bond yields slowly creep back up while the equity bubble fully inflates over the summer and we reach the breaking point in the fall."* As expected, the U.S. economic data has been "less bad" in the past few months, so the CESI did turn back up and interest rates were beginning to rise again the last week of Q2, only to head back down when the saber rattling around North Korea accelerated. We wrote last time the there was, *"no reason to fight against the short-term momentum, but better to accumulate cash and wait for a better entry opportunity. My good friend Grant Williams (writer of Things That Make You Go Hmmm, @ttmygh) has a perfect simple rule for times like these, 'Prepare, Persevere, Pounce' and we will follow that sage advice over the coming months."* We do have a nice allocation to cash today and adding some long bonds to the mix as a hedge against what could be a #SeptemberToRemember may prove a prudent pounce.

When discussing High Yield, we refer to them as Not So High Yield (NSHY) bonds, given how low the yields have become thanks to the global quest for yield. We will channel our inner Roger Babson again and repeat what we have said several times in previous letters, (by now obviously early) that NSHY bonds look dangerous and looking specifically at our concerns two quarters ago, we wrote, *"Despite the fact that corporate debt levels are at all-time highs and there are many companies with suspect balance sheets issuing bonds, sure enough, since the bottom in February, there have been record inflows into HY bonds. Normally this kind of rush into an asset class has been a contrarian indicator for future returns, but not so far in 2016 as HY bond prices keep getting larger and the yield in "high yield" keeps getting smaller."* One again, we have been early on High Yield and our caution has been costly (up another 6% through July). Harkening back to *#TheValueOfValue* letter we reiterate the point that when market participants (speculators rather than investors) pile into an asset class with no margin of safety (pay above fair value simply because the price is rising) paper gains have a habit of vanishing in a hurry. We wrote last time that, *"Paper gains are a very dangerous thing, as they tend to cloud your judgment and give you a false sense of security that you are playing with house money (this phrase never makes sense to us as if you take it off the table it is your money and in a casino invariably if you leave it on the table it returns to the house)."* When people own assets that are rising in price, they tend to become overconfident and complacent, and ignore the warning signs that they would normally see if they were more fully engaged in the thinking about valuations. When markets get really seriously overvalued they are prone to hitting the wall with #NoSkidMarks, so we quote Bernard Baruch (again) here who frequently said, *"I made all my money by selling too soon."*

Surprise #2: Gravity Rules, The Economic Cycles Lives

QEeen Janet Yellen has maintained interest rates at crisis-level lows throughout the current economic cycle, yet U.S. GDP growth has continued to disappoint (and confound Fed forecasters). With the current shift toward a tighter Fed Monetary Policy stance, growth in commercial bank credit & the monetary base has slowed to zero (from an average of 7% over past 60 years) which portends a rapid deceleration in growth in 2017 resulting in a Recession (right on schedule for our #2000.2.0 theme).

History shows that there is not necessarily a correlation between GDP growth and equity market returns over longer periods of time. A good example would be the 1966 to 1982 period when the economy hummed right along, growing 75% in real terms, yet equity markets were flat over the period. The primary reason for long periods of time when the two series seem to be less correlated is that GDP is a very slow-moving series and has a relatively stable cyclical pattern (business cycle), while equity markets are much more prone to bubbles and crashes and the return over a longer period of time is highly dependent on valuations at the beginning of the period. Stocks were egregiously overvalued in 1966 and so economic growth had to "catch up." Conversely, the subsequent period had a very different relationship between the two series as GDP was again 75% real, but stocks rose nearly eleven-fold (because stocks had gotten so cheap by 1982, selling at 5X earnings with a 5% dividend yield). One point we made last time was, *"There is one time when there is a high correlation between economic activity and equity market returns, actually a quite negative correlation, and that occurs around the beginning of recessions."* There has historically been an even stronger correlation between the onset of recessions and the beginning of bear markets in stocks. There is again a certain logic to that relationship as markets tend toward overvaluation at the tail end of economic expansions (like where we are today) and when the economy rolls over it triggers the beginning of a correction to realign valuation with economic fundamentals. We gave the specific data last time, saying, *"When a recession occurs in the U.S., the equity markets drop (30%) on average (closer to down (40%) if we exclude the two War aided periods where markets actually rose). The range of drops is quite wide with the best (least bad) being down (15%) in the 1960 to 1961 period and the worst being down (84%) in the 1929 to 1933 period."* Given the negative returns that are associated with recessions, it makes sense to have a view on when an economic downturn might occur and to think critically about how to position your portfolio in the event that the probability of a recession is rising (or falling).

Looking at where we are in the current economic expansion we offer the facts on where we are today. The current economic expansion is the third longest in history at 98 months, trailing only the 105-month period during the 1960s boom and the 119-month period during the Tech Bubble (that ended in 2001). As we said last quarter, therefore, *"it is hard to make the case that the economy is not very late in the economic cycle."* One of the interesting things that we hear from market commentators a lot lately (and even QEeen Janet herself in her testimony to Congress) is a parroting of the old saying that, *"bull markets don't die of old age."* We reflected on that statement in the letter last time and concluded that we may have a variant perception, saying *"but given that economic expansions actually do [die of old age] and market corrections occur coincidently with the end of those expansions, we might beg to differ with that conventional wisdom."* We have heard all of the myriad "it's different this time" views saying technology has changed how the business cycle works (clearly we have never had huge technological change in history before), or how central bankers have eradicated the business cycle (like they did in the 1930s when they invented QE), but it seems to us that no one has figured out how to make people younger (reverse the decline in working age population growth), eliminate the massive debt burden (yes, low rates make debt easier to service, but the level of Government debt has a reverse multiplier effect on growth) or manage to stem the deflationary forces that are being unleashed by technology, globalization and a graying Western population. Regular readers of this letter know that we are disciples of Sir John Templeton and believe that "it's different this time" are the four most dangerous words in investing. Over the long-term in investing, economic cycles repeat, #HistoryRhymes and it is definitely #NotDifferentThisTime.

Right after the election there was a sudden boom in confidence as investors bought into the promises of the new administration. The belief in the #TrumpTrifecta of regulatory reform, tax reform and fiscal spending actually created a short-term boom in the markets. We noticed last time that the odd thing was that the boom in confidence and economic survey data *"came as a stark contrast to the economic hard data that continued to trend negatively, with the biggest example being the poor Q4 GDP number that capped off a very poor 1.6% rate for the full year in 2016."* We always favor hard data (facts) over soft data (opinions) and we continued to see evidence that the economic data was falling off a cliff, and the Citi Economic Surprises Index was plumbing lows it had not seen since 2011. The primary premise for this surprise was, *"things were getting worse for the economy and that rather than a big rebound we could actually see an acceleration of the downtrend and potentially even a Recession sometime this year due to the contraction of liquidity resulting from the shift toward a more restrictive Monetary Policy stance."* There are actually two obstacles for a sudden turnaround in economic activity (contrary to the constant jawboning of the administration) 1) should the Fed truly take away the proverbial punch bowl of liquidity, economic growth will slow, not accelerate and 2) there is a significant lag between having an idea to boost economic activity and making an impact. We summarized the second point last time saying, *"One of the biggest challenges of managing an economy is the lag effect between having an idea, drafting legislation, working to pass that legislation and implementing the programs to make in impact on economic activity."* So the First Hundred Days came and went, no Trifecta. The summer recess of Congress came and went and we are on the doorstep of Labor Day, no Trifecta. We commented last time that the dearth of activity from Washington that would actually benefit the economy. The unrelenting positive spin about how great the economy and stock market are has been almost comical (well, unrelenting until the data started being negative, then crickets). It makes sense to repeat here what we wrote in January, *"Think about this one for a minute, at which part of an economic expansion would you expect to have high levels of confidence, high levels of auto sales (and all consumption) and low unemployment rates, at the beginning of the cycle or the end of the cycle? History provides the answer (as does logic), confidence is low at the beginning of an economic cycle and high at the end, car sales trough at the beginning of the cycle and peak at the end and unemployment is high at the beginning of the cycle and low at the end."* The more the administration points to these data points, the more likely it is that we are closer to the end of the cycle as they are lagging (not leading) indicators and there is a more negative, than positive, correlation with future growth. It will still be a big Surprise if the U.S. rolls over into recession in 2017 (precisely why it will be such a profitable trade should it occur), but some recent (negative) data on auto sales, retail sales, inventories and, most importantly, lending activity (which has fallen off a cliff) are all beginning to make the case that the next downturn is closer than consensus believes.

Surprise #3: Kurve It Like Kuroda

After shocking the world last January by adopting NIRP, BOJ Governor Kuroda sees the error of his ways and fully commits to his Yield Curve Control Program, resulting in a steeper yield curve and greater stability in Japanese capital markets. The Yen continues to weaken (with USDJPY approaching 130) corporate profits surge to new record highs and Japanese equities rally hard (particularly the Mega-Banks). The Nikkei finishes the year at 22,000.

Abenomics (the economic vision of Prime Minister Abe introduced in 2012) is elegant in its simplicity 1) weaken the yen (create competitive advantages for Japan Inc.), 2) increase fiscal spending (drive domestic economic growth), and 3) institute regulatory reform (spur innovation, business formation and employment). BOJ Governor Kuroda executed his role flawlessly from 2013 to 2015, ramping up his purchases of JGBs. The yen fell dramatically (from 78 to 125 on USDJPY), the Nikkei surged (from 8,500 to

20,700) and the obvious conclusion was that Abenomics was pure genius. What a difference a few years make. Since those mid-2015 peaks, Abenomics reviews have become increasingly mixed and Kuroda-san has gone from invincible to incomprehensible (including a period where he seemingly lost his mind trying NIRP). The yen has strengthened back to 110, and the Nikkei has been quite volatile but remains stuck right around 20,000. As we noted last time, the impetus for this Surprise was that, *"We came into 2017 convinced that Japan was going to join the "whatever it takes" crowd and were committed to reigniting the momentum in both the currency market and the stock market."* In their big August meeting last year, Kuroda-san and the BOJ released their plan to, (as we wrote last time), *"pin the front end of the yield curve at zero and steepen the overall curve in order to continue to weaken the yen and stimulate growth,"* that market observers affectionately nicknamed *Kurve It Like Kuroda* (after the soccer movie title *Bend It Like Beckham*). In the first half of 2017, it appears that Kuroda-san may have soccer skills more like Victoria Beckham than David as the Japanese currency and equity markets were not cooperating with the plan. After a truly horrible Q1 (measured by the yen & Nikkei performance), the yen made a couple runs at 115 (only to be turned away both times) and the Nikkei recovered the Q1 losses in April and early May, but has been stuck at 20,000 for nearly three months. We posited the question last quarter, "*Quo Vadis? Where do we go from here is the question on global investors' collective mind? Economic growth has stabilized in recent quarters and while it is not strong, it is positive and trending in the right direction. Profits are very strong in Japan Inc. and the equity markets are quite cheap on a P/E basis, so further upside seems like a likely path."* The overall return for Japanese equities for Q2 was solid, but something is still not quite right as foreign investors have not returned to the markets and the safe haven demand for the yen at every hint of geopolitical troubles seems to be putting a lid on the Nikkei. We continue to be heartened by the activity of foreign investors as we wrote last time, *"Clearly a surplus of sellers is not a good thing, but the track record of the foreigners in Japan is that they tend to be net sellers right before the markets turn and net buyers after the markets have run (typical)."* The other ancillary benefit of the lack of foreign interest in Japanese stocks is that it forced the BOJ to step up their program of buying ETFs and REITs (the BOJ reportedly owns upwards of 60% now). "Buyers of Last Resort" is an appropriate label today.

The other benefit was that the dearth of buyers meant that Kuroda-san had to come out and publically and reaffirm (again) his commitment to weakening the yen. For perspective, we repeat some data we shared a few letters ago, *"Japan investment strategy is fairly straightforward today, buy Japanese stocks (hedged) that benefit from a declining currency (banks and exporters) as they truly have no way out but to appreciably devalue the Yen over time given their massive government debt burden and horrible demographics. One thing people forget is that it wasn't that long ago (30 years) when the Yen traded at 300 to the Dollar, so the idea of the USDJPY moving to 135 or 150 would only be half way back."* This long-term perspective on the currency and the "only way out" mandate of the BOJ to effect such a change in the exchange rate, coupled with the volatility of the USDJPY over the last couple of quarters has meant that, "W*e can pick our spots to enter the market and don't have to be in a rush to put all the money to work at once."* When the yen strengthens to 110 (as it did in April, June and again today), it makes sense to accumulate Japanese equities (particularly the exporters and financials), because the trend has been that the BOJ will get increasingly active around this level. When we look at opportunities to invest in Japanese stocks, we have strongly positive views on a handful of Technology and Business Services companies (e.g., Nintendo and Sony), but we also maintain our view from January that, *"The primary play in Japan today is more macro than micro at this point, so actually this is one market where a good ETF (like DXJ or DXJF) can be an appropriate option to capture the upside."* We believe it is very important for U.S. investors to be hedged (so future yen weakness doesn't reduce your total returns) and hedged ETFs like DXJ and DXJF take care of the hedging for you. Should an investor want to hold Japanese equities directly on a local exchange, hedging the yen exposure is a critical step to protect the investment. We discussed one strategy for achieving this hedge in January, when we wrote *"We also continue to like the Mega-Banks, SMFG, MTU and MFG (these are the ADRs) but you then need to hedge the currency, which can be achieved by buying YCS (double short Yen) in a 2:1 ratio with the ADR holdings or selling short FXY in a 1:1 ratio (or you can hedge FX directly in other ways too)."*

Japan continues to be the cheapest Developed Market and with the commitment of the BOJ (and Government Pension Funds) to keep buying assets, we would maintain a meaningful overweight to Japanese equities. That said, we reiterate something from the original Surprise write up, that should global equity markets turn down this fall (following a U.S. markets break down), Kuroda-san and the BOJ won't be able to stop the yen from strengthening (the global carry trade will unwind). More specifically, we noted, *"Another wildcard is that if we do get a really bad #2000Redux or #WelcomeToHooverville correction, the Yen is still considered a safe haven (why we are not quite sure) and it will strengthen in the heat of the down turn so equity correlations will rise (even though based on relative valuation and EPS growth they should fall) and there will be a lower entry point if, and when, that occurs."* Just because something is cheap, doesn't mean it can't get cheaper and we believe that global equity risks are elevated today, so below average allocations would be preferable to fully allocated portfolios.

Surprise #4: When OPEC Freezes Over…

After the ceremonial show of OPEC unity in November, where members agreed to production cuts to attempt to firm up oil prices, it turns out that members of cartels cheat, and excess supply continues to dog the oil market. In hindsight it becomes clear that the agreed upon "cuts" were merely normal seasonal production declines and 2017 brings a chorus of "you cut first, no you cut first…" Global crude inventories remain stubbornly high, and prices fall back toward the bottom of the New Normal, $40 to $60 range, before bouncing back to end the year at $60.

Our view on oil hasn't changed much over the first half of the year, as crude prices followed the path toward the bottom of our expected range pretty much as we anticipated thanks to stubbornly high inventories and surprisingly strong U.S. production. They have since begun to rebound toward the middle of the range. We have acknowledged all year that we were a little bit "out there" with our view on oil and went so far as to write in January that, *"There are a lot of very smart oil traders, oil industry analysts and oil company executives who are jumping on the bullish oil bandwagon, calling for $65 to $70 oil in 2017 and $85 or more in 2018. We even saw someone make the dreaded $100 call for 2018."* We make a point to also repeatedly say that, *"We are by no means oil experts and many of the people we talk to, and invest with, have forgotten more about oil than we will ever know,"* but we do have an ability to look at the data and make a determination of the supply/demand balance in the oil markets. We always feel much better about our view when we stick to the data. We prefer to avoid the headlines coming from OPEC, Wall Street and the other global producers who may have different incentives for their respective views (biased opinions). Looking at the data, we simply couldn't see a way for oil markets to come back into balance in the first half of 2017 (or maybe not even until 2018). We summarized this perspective last time, saying, *"With huge oil surpluses in the U.S. (highest ever), stubbornly high global crude stocks (highest ever) and now reports of slowing in storage construction in China, we can't see how a small supply cut can bring the market back into balance. It seems to us that without a dramatic increase in oil demand the data seems to indicate that oil markets* *won't balance before late 2017, early 2018."* The other significant risk was that there could be a demand shock from a global economic slowdown, faster adoption of alternative fuel technology or China literally running out of oil storage. The final piece of the puzzle for us taking a divergent view from some of the oil bulls coming into 2017 was the COT data and we wrote, *"Another troubling factor for the uber-bullish camp is that traders are already at their highest net long exposure to oil futures since the 2014 peak (so where will the buyers come from?), we know from history that the COT futures data is a tremendous contrarian indicator for oil prices."* The indicator worked like a charm in 1H17 and oil prices have indeed weakened over the first six months of the year. Interestingly, the COT data now shows speculative long positions have collapsed, which could bode well for the second half of our Surprise, that Oil prices begin to recover over the back half of the year toward the top end of our range.

So, while the sentiment data has flipped (the early bulls were forced to sell as losses mounted), the production data (both in the U.S. and abroad) is actually continuing to go the wrong way. A critical element for our view embedded in the Surprise was that "cartels cheat" and we wrote, *"One of the core elements of the construct was that the likelihood of the OPEC members sticking to the agreed upon production cuts was, let's just say, not high."* We thought there was some gamesmanship going on in the production numbers early this year, and that the OPEC members were boosting production in advance of the advertised "cuts" and thus there wouldn't actually be much of a supply reduction. We wrote last time that *"from a base of 32mm barrels a day, the OPEC members ramped up to 33.4mm barrels and then "cut" to 32mm barrels which makes it appear that they beat their own agreed upon target (1.4mm versus 1.2mm), when in reality they are still pumping at a level that is as high as they have ever produced in history."* We also hypothesized that even if there was compliance with the announced cuts early on, once maintenance season was over the production levels would creep back up. As we noted last quarter, *"That scenario played out exactly as anticipated as Saudi Arabia cut in January and then increased production in both February and March. So, despite the trumpeted success of the OPEC program, the impact on actual supply has not materialized, as they would have hoped, thus we have seen falling (rather than rising) oil prices."* The "un-cutting" continued apace in Q2, as OPEC production rose to 32.2mm bpd in May, 32.7mm bpd in June and 32.9mm bpd in July (so much for the 32mm cap). The other thing to remember is that these figures are self-reported (they're not independently verified) so it is likely that the actual total production figures are higher (as they have historically been). We have talked in the past about the seemingly elegant move by Saudi Arabia to announce the cuts in such a manner as to flatten the futures curve as much as possible to try and make it more difficult for U.S. shale producers to hedge. It is critical for many of the most-levered companies to be able to hedge production (to stabilize cash flow for the banks), but what the Saudis did not anticipate was that many of these companies would be able to go back to the capital markets are raise debt (and, in some cases, equity), as investors who were desperate for yield would buy seemingly anything regardless of quality. The other factor that OPEC did not anticipate was the extent to which oil services costs would decline, and therefore, how far the breakeven price for the shale producers would fall. We discussed this last quarter, saying, *"We have shown a great chart in our #ATWWY Webinars that shows how at $50 WTI, U.S. production would be 8.3mm barrels this year and at $60 WTI, U.S. production would surge to 9.6 million barrels (offsetting more than half of the OPEC cuts)."* With oil prices staying in the mid-50s throughout Q1, it wasn't surprising to see U.S. production ramp to 9.3mm bpd. What has been surprising, however, was that with oil slipping well below $50 for most of Q2, production continued to rise to more than 9.4mm bpd, a level that only a year ago would have required prices closer to $60 (to cover the expected rise in services costs that did not materialize).

We have discussed the relationship between oil prices and the dollar and oil prices and the USDEUR exchange rate on numerous occasions. Coming into 2017, the dollar was strengthening (the Trump Bump) and we wrote that, *"For many years the dollar and oil prices were highly inversely correlated and you could get a good sense of where oil prices were headed by the primary trend of the dollar… Looking at the long-term correlation charts, with the DXY around 100, oil should be in the $30's (rather than $50s)."* We were somewhat less concerned than most that the dollar would continue to rise (in fact, we took the other side in Surprise #7 below), so we didn't think there was a huge additional downside below $40 (hence the low end of our range), but we did anticipate that as DXY fell (it has dropped from 100 to around 93), the relationship with oil prices would correct (it has). We also discussed the correlation with the euro saying, *"The other indicator that has tracked oil prices very well has been the USDEUR with a six-week lag. With … the Euro at 1.07, oil should be somewhere around $40,"* (more support for the lower bound). We wrote last time that the euro's rebound "*back to 1.09 (and likely headed higher with the Macron victory) … could bode well for oil prices in the summer."* The USDEUR has exploded higher in recent months, surging all the way to 1.18 and that should presage higher oil prices as we head into the fall and winter. We would not be surprised (after all it is the second half of the Surprise itself) to see oil head back towards $60 toward year-end. Another thing we discussed last time that likely helped push oil prices down toward the bottom of the range was, *"There was a ruckus in the oil markets last week as rumors were swirling that one of the large oil traders was liquidating their long positions. It has been confirmed that Pierre Andurand did indeed sell his long positions in keeping with his risk management discipline to scale out of positions (long or short) when the markets run against them."* Andurand recently published another letter stating that he remains bullish on oil prices (although he has pushed back his original timeline to say prices may stay lower for a little longer), but he expects to see $100 oil again in 2020 (was 2018 last year). We have joked over the years #DontMessWithTheAndurand, as Pierre is a world-class oil trader. While 2017 has not been his best year, we reminded readers last time that, *"History says to allocate capital to someone with a spectacular long-term track record who has just had a tough short-term period."* The Andurand would fit this prescription perfectly.

Lots of data (and even more opinions) to assimilate, but we are sticking with our "New Abnormal" range of $40 to $60 for oil (WTI), and we repeat what we wrote last time, *"We may be in the midst of that trip toward $40 right now, so as we get closer we will likely expand our exposure."* The nice thing about ranges is they force discipline; be a buyer of oil at the lower end of the range and be a seller at the upper end. From an implementation standpoint, as we near $40 we would accumulate the high-quality Permian producers like RSPP, FANG, PXD and PE and (as we discussed in the Q2 review) and the MLPs (particularly pipeline assets serving the Permian) like ETE, ETP, PAA & PAGP (the latter two even more so after the recent "kitchen-sink" miss on EPS this quarter). Two other areas that we have written about this year that need an update are the sand companies and the drillers. We highlighted in January how investors (and OPEC) had underestimated the creativity of U.S. shale producers saying, *"One example is that producers found that if they crammed four times more sand down a well they could double production. This is great news for sand companies (which have been on a tear) like SLCA, FSMA, EMES and HCLP, but not such great news for rig owners as producers can get more output with fewer active wells."* We discussed last time how something funny happened in Q1 and the sand companies became victims of Sand Pile Theory (a single grain collapses the pile 40%) and wrote, *"Suddenly on February 22nd, the mines caved in and sand was no longer the new gold as the Fab Four became the Fearsome Four and fell (30%), (59%), (45%) and (35%), respectively, through the end of April."* The fall in prices didn't sync with the reports of increased usage, but with more digging we learned that completion technology had advanced again and the higher volumes of sand were working with lower quality (less crush resistant) sand, which gave an advantage to the local Texas producers. The good news we noted, *"As we have said many times before, investing is the only business we know that when things go on sale, everyone runs out of the store. We are doing our best to stay in the store here and buy the discounted merchandise, but we will likely wait a little bit to let those falling knives (or spinning drill bits) come to rest on the floor before we go over and pick them up."* The really good news is that we missed further declines of (27%), (43%), (43%) and (43%), respectively, in the past three months. Now we're beginning to hear Howard Marks' words in our head that, "There are few assets so bad that they can't be a good investment when bought cheap enough " so it may be time to fill up the sand box again. We have discussed on multiple occasions that the shale revolution has been really bad news for some companies in the oil patch, but none have been smashed more than the offshore drillers, *"companies like RIG, SDRL, RDC, ATW are just a few examples of companies that are being dramatically impacted by the stunning technological advances in U.S. shale production."* The hits just kept coming over the past three months, as the first three dropped another (19%), (44%) and (14%), respectively. ATW actually rose 5% (and was up as much as 35%) after Ensco (ESV) agreed to acquire Atwoods. We wrote earlier this year that *"the damage has been so great to these names that some deep value oriented players are beginning to make noise on the long side and there is even some take private risk (might happen at a premium) in staying short, but our favorite manager still sees more downside so will stick with them (until the trend changes)."* Given the continued weakness in ESV after the announcement, down (20%), we will continue to wait patiently on the shoreline.

Surprise #5: Saldi, Saldi, Saldi

After a bruising environment for European Financial stocks in 2016, culminating in the failure of the Italian Referendum in December, summer clearance prices come early and the Risk/Reward becomes compellingly attractive. Contrary to the negative headlines, Euro Banks have recapitalized their balance sheets, NPLs have peaked and the Euro Macro backdrop is improving. We often say that investing is the only business we know where when things go on sale, everyone runs out of the store. So resist the urge to run, and buy what's on sale.

Coming into 2017, there were a relatively small number of investors (or pundits) that favored Europe as a destination to look for opportunities. There was a huge amount of fear and trepidation about a series of elections on the Continent that observers believed were going to end up being won by populist candidates, the most extreme being Ms. Le Pen in France who was threatening to withdraw France from the EU. We took a decidedly alternative view, saying that, *"As we travel around the world today it has gotten increasingly difficult to find assets that are fairly priced, let alone that are cheap, but Europe has been an exception. There are actually plenty of cheap securities on the Continent courtesy of an elusive economic recovery and the ECB QE Program not having the same impact on stocks as the Fed QE induced Bubble (all about transmission mechanisms). Europe had been stuck in a Bear Market for many years and while the U.S. markets keep making new highs, European markets are still well off their highs (in some cases still down double digits)."* As is often the case when everyone is convinced that something is going to happen, the opposite occurred, and none of the elections in Europe this year went to the populist candidates. When the French election passed, it was like an "all clear" signal for global investors to come back to European equities. We wrote about this sequence of events last time, saying, *"With the French election behind us, and the veil of uncertainty lifted, it is likely that there will be a torrent of money into Europe. The EU breakup risk premium will vanish in the coming months and the Euro will likely* *strengthen as well (extra benefit for USD investors) as global investors who have been underweight have to reallocate capital to the Continent."* European equities did surge around 8% in the weeks surrounding the election and are now up about 10% over the three months since Mr. Macron's victory. We went further to discuss how individual countries might benefit from a renewed interest in Europe, saying, *"Germany will benefit from being the largest member (but there will be some headwinds from a stronger euro for their exporters), France will benefit from being an outcast during the past year while investors fretted about a Le Pen victory, the Nordics could suffer a little from volatility on oil prices and the PIIGS will benefit the most as they are working off the lowest bases and any incremental flows will push process up disproportionately."* The past few months actually followed that script pretty well since the election, as Germany was the laggard, up only 8%, France was up 11%, Norway bucked the trend and rallied 15% (as oil prices recovered) and the PIIGS were the strongest (by far), as Portugal, Ireland, Italy, Greece and Spain were up 17%, 8%, 19%, 28% and 12%, respectively.

This Surprise was specifically about European Financials. We believed that this sector could be one of the best places to make money in 2017. In fact, we went so far as to write in the original Surprise introduction that, *"We believe that European Financials could actually be the "Commodities of 2017" and some of the returns available to intrepid investors could be generational just like last year in iron ore, copper, steel, MLPs and E&P companies."* Given the severe dislocations in the banks in places like Italy, Portugal and Greece (where a handful of institutions had to restructure and everyone had to raise additional equity capital), we went further to say, *"Not only were Euro Banks cheap, the attitude toward them was classic Soros' First Law material, as investors considered them completely untouchable."* As we have written on many occasions, Soros' Law says that the worse a situation becomes, the less it takes to turn it around and the greater the upside. Globally, few places or sectors looked worse than European Financials as we entered 2017. When words like terrible and un-investable are being thrown around there are always values to be found and the Saldi (sale) on the European Financials revealed some tremendous values. Since our last letter, EUFN (the Euro Financials ETF) has risen 8.5% and is up a very strong 17% YTD (through July), nearly double the return of the S&P 500 and 200 basis points ahead of the European Index (which has a healthy weight to Financials). We gave an example of an opportunity where returns could be even greater, saying, *"We have talked about the Greek banks in the past, and we were early a couple years ago. However, we believe now they will reach an agreement with the Troika and the upside potential in Alpha Bank, Piraeus Bank, Euro Bank and National Bank of Greece is truly outstanding."* Once the Troika approved the new bailout package, these stocks (and Greek equities generally) were set up perfectly for a powerful rally. GREK was up 18% over the past three months, and Piraeus, EuroBank and NBG rallied nicely, up 8%, 11% and 13%, respectively, while Alpha struggled a bit, falling (2%). YTD, the returns are much healthier, with GREK up 28% and the banks up 11%, 15%, 44% and 40%, respectively. We continue to see solid value in the European financials, particularly in the PIIGS countries (where P/B ratios are still well below one) and would expect to see continued gains from buying what is on sale on the Continent.

Surprise #6: One Belt, One Road, Multiple Bull Markets

China has embarked on a historic infrastructure program, the One Belt, One Road (OBOR) project that will recreate much of the ancient Silk Road trade routes all across Europe, Africa & Southeast Asia. This massive undertaking will trigger bull markets in stock markets all across the region, as well as in industrial commodities needed to complete these enormous construction projects. As Chinese cyclical companies trade at substantial discounts to consumer companies, there are

particularly attractive investment opportunities in these sectors.

We have been constructive on China generally for many years and became enamored with the One Belt, One Road (OBOR) project specifically in the past year. We have analyzed the geopolitical and economic impact of this audacious project, which will ripple across Eurasia for many decades. The plan is elegant in its simplicity: move the center of the economic world back to the East (from the West), where it had been for about 1,800 of the past 2,000 years. The genius on the OBOR plan is the ability to boost economic growth, create jobs and promote trade across the region while creating strategic relationships with an enormous portion of the civilized world that will secure markets for Chinese goods and services, opportunities for enterprising Chinese companies and reciprocal destinations for travel and tourism. As we have said before, the Chinese are playing Go while the rest of the world debates how to set up the checkerboard. We summarized this perspective last time saying, *"The Chinese always think long-term and they always think big, so it is no surprise that they have undertaken a project of such epic proportions (these are the same people that built the Great Wall after all) and they have always understood the need to build infrastructure ahead of the growth and urbanization in order to boost economic growth, create jobs and foster trade."* The Chinese think in ten-year plans and look out multiple decades when making strategic decisions that will lead to their long-term objectives of being a world superpower and having a (some might say the) world reserve currency. We continue to be fascinated that, *"the China Bears complain that the data isn't real, the Chinese are not as sophisticated as Westerners and that China is perpetually on the precipice of a crash (hard landing thesis)."* We choose to focus on the actual hard data that shows resilient GDP growth and rapidly expanding retail sales, industrial production and exports. This leads us to a much different view of the prospects in China than the Western consensus. The most important data point from China is the continued strength in the services sector as the leadership navigates a massive transition from a manufacturing led economy to a services led economy (like the U.S. after WWII). This transition will drive massive wealth creation across a number of sectors including technology (particularly e-commerce), healthcare, consumer staples, consumer discretionary and energy (particularly alternative energy). One of the challenges of investing in these sectors is that many of the best opportunities are still in the private markets (these sectors are only one-third of the listed markets), so capitalizing on them requires participating in the private markets.

OBOR will have a huge impact on the Eurasian region from Southeast Asia to Africa and Europe. This means there will be tremendous opportunities in markets like India, Vietnam, Pakistan, Russia and Saudi Arabia created by the rapid growth resulting from the individual projects associated with the OBOR vision. As we noted last time, *"There clearly have been meaningful increases in a number of these markets and we would expect the trickle-down effect to continue for many years to come"* so there will be plenty of time for investors to deploy capital to take advantage of the growth in these markets. Clearly a construction project of this scale and scope will be hugely positive for commodities markets and we repeat what we wrote in January that, *"one asset class that will [and already has] benefit greatly from a massive infrastructure project is commodities. China has set new records for imports of iron ore, copper and oil in recent months and in what might be one of the most important changes in Chinese policy in many years, they actually have shut down capacity in China where production of certain commodities (iron ore, coal, etc.) where the companies were not competitive and losing money."* One of the things that happens in commodities markets is that the price movements can become reflexive (self-reinforcing) as buyers who must secure raw materials for these massive projects see prices begin to rise and decide that they need to secure supply before the prices rise too much. The incremental demand temporarily swamps incremental supply (hard to bring new capacity on quickly) and prices rise, which then causes other buyers to go through the same process and suddenly you have a reflexive cycle pushing prices higher. We have seen this process occur lately in the copper and iron ore markets (as well as some other base metals), and, after a bout of volatility in the first part of the year as some "hot money" cycled out of the commodity futures markets, it appears that we are seeing more end user driven demand. On the point of the activity in the futures markets, we wrote about this issue last time saying, *"There is one school of thought that the large credit impulse and stimulus package that the PBoC instigated last year has been like a pig in a python and you never want to be near the tail end at the end of that process. While we think this is a short-term phenomenon, it could be ugly for a little while before the long-term focus returns."* So far, so good on avoiding the wrong end of the snake and it does appear that we are back to a long-term focus in these markets, but we will remain vigilant in watching for suspicious activity in the commodity futures markets in the coming quarters.

The final point we made about China in January bears repeating here as MSCI finally gave the thumbs up to inclusion of A-Shares in their indexes (huge deal). We said, *"Chinese equities are compellingly cheap and the H-Shares (Hong Kong) are the cheapest of all of the exchanges. What is missing is a catalyst to trigger the rerating. One thing to remember is that the Chinese A-Share market (locally listed in RMB) is the second largest equity markets in the world ($8.2 trillion market cap) and has a zero (yes, you read that right) weighting in the MSCI Indexes. That will change. It could change as early as this year (but more likely 2018 for political reasons). The time is now to make plans for how to integrate this market into portfolios."* We were right in thinking that MSCI would not accelerate the plan and simply set the timer in motion for inclusion next June, but that decision is important because there is no going back and the weight of Chinese equities in global portfolios will only rise for the foreseeable future. We can't emphasize enough how big this decision is for global investors searching for alpha, particularly given the lousy expected returns forecast for Developed Markets over the coming decade. We discussed last time that, *"Our favorite sector, e-Commerce has been completely on fire as investors finally acknowledged that consumer growth is very different than industrial growth and the margins in these businesses are huge, so names like BABA, JD and VIPS surged 14%, 24% and 22% respectively and we would expect to see more gains in this space as growth becomes harder to come by around the world."* The e-Commerce train kept rolling over the past three months as BABA and JD (along with Tencent, HK:700) continued their dominant performance in 2017, surging another 33%, 28% and 26%, respectively, while VIPS (unfortunately) struggled, falling (12%). The struggles at VIPS are such that there are rumors swirling that JD may buy them, so it might make sense to buy a little of what is on sale here (ironic since they sell overstock merchandise as discount prices). We find it interesting that while everyone has been fawning over the performance of NASDAQ this year, up 17% through July, the China trio of BABA, JD and Tencent are up 75%, 75% and 65%, respectively. We noted last time that *"these are clearly not value names and Ben Graham might roll over in his grave for even thinking about owning names at these valuations, but there is always room for a little growth exposure in a portfolio."* If you are going to own growth, why not own it where it is the most robust, in China?

Surprise #7: King Dollar's Last Stand

There is broad consensus that the U.S. dollar must appreciate as the Fed takes a different monetary policy course than the ECB & BOJ and begins to normalize interest rates (despite DXY being up only a couple percent since the Dec 2015 hike). [Interestingly, if not for a strong dollar rally after the surprise Trump election victory, the DXY would have finished down for the year.] That final surge, perfectly commemorated by the Economist cover last month, turns out to be King Dollar's

Last Stand and USD actually begins to weaken against other global currencies in 2017.

Coming into 2017 there were a lot of "sure things" that consensus was convinced would to happen that seemed like pretty good places to take a variant perception and increase your odds of making outsized returns in the event the events didn't materialize. As Michael Steinhardt was fond of saying, *"We made all of our big money taking Variant Perceptions that turned out to be right."* One of the surest of the sure things was that the U.S. dollar would rise against global currencies thanks to the one-two punch of a rapidly expanding U.S. economy (another "sure thing" that didn't come true) and that the Fed would raise rates four times. Everyone was sure that King Dollar would retain its throne. In fact, they were so sure that 85% of people surveyed by Strategas said that the USD would be higher by the end of 2017 (85%! you never see 85% in polls, except maybe in ones that don't come true like Brexit and the U.S. Election). So much for the wisdom of crowds. The dollar has indeed been on a unidirectional trip this year – that direction has just been down. From an opening tick at 102.78, the DXY has gone nearly straight down to 92.86 at the end of July, a loss of (9.7%). Perhaps those most surprised by the weakness in the dollar were pundits who were calling for EURUSD parity (from 1.05 to open the year) and for the RMB to be forced to devalue (head toward 8 from 6.95 to open the year). As you might expect, those calls were just a wee bit off as the euro has surged to 1.18 and the Yuan has strengthened to 6.72 at the end of July. General Washington on the greenback is clearly giving Colonel Custer a run for his money on making a poor last stand so far in 2017.

We have said many times over the course of the past few years that getting the dollar right might be the most important call an investor can make in the current environment. Part of the logic behind that statement is that in a world of central bank largesse (read massive QE liquidity injections) price discovery in the equity and fixed income markets has become (how should we say this delicately?) completely absent from the markets, so the need for some barometer of relative demand for assets has become critically important and the dollar has been able to play that role. Given that historically so many global transactions were denominated in USD, there had been a strong link to the health of the dollar and the health of many markets, including commodity markets, foreign equity markets and (of course) FX markets. If we could forecast that the dollar would rise, we could get a sense that commodity prices would face headwinds and demand for non-U.S. investments would fall (more money invested in the U.S.). Conversely, a weaker dollar environment was likely a signal that capital was flowing toward commodities and non-U.S. asset demand would be rising (as we are seeing today). The one fly in the ointment here is that China and Russia have stepped up their efforts to have more global trade transactions be priced in currencies other than dollars (remember we cut a deal with Saudi Arabia in the 1970s to denominate global oil transactions in USD, or petrodollars, to effectively move the currency from the gold standard to the oil standard), which dilutes the effectiveness of the signaling effect of the dollar exchange rate. These moves to diversify the global currency basket, coupled with the decision to include the RMB in the IMF SDR are huge decisions that should provide stiff headwinds for the dollar for many years to come. We believe King Dollar has definitively lost the throne as THE global reserve currency, and while it is clearly A global reserve currency, the RMB has gotten a seat at the table and the won't be backing away any time soon. The Chinese seem to be shouting to all those who would speculate against the RMB, *"Yuan a piece of me?,"* and it appears that the rest of the Developed Market currencies are so beat up from their race to the bottom that no one wants to raise their hand to fight. The one wildcard (as is the case with many of the Surprises) is that should there be a true Babsonian Break in the U.S. equity markets, it is logical that there could be a short-term flight to quality in the dollar, but we might then expect the U.S. to do something silly (like trade wars or gold confiscation) which would lead to the same fate as the last time (1930s) – a much lower dollar.

Surprise #8: Healthcare Gets Discharged

The relentless negative news beginning with the infamous "Hillary Tweet" and culminating in President Trump's comments on drug pricing have pounded Healthcare & Biotech stocks over the past year (only sector that was negative in 2016). Given that the House and Senate are both controlled by Republicans (who receive significant backing from the Pharma lobby), we believe it is highly unlikely that any of the campaign proposals targeting drug pricing see the light of day in Congress. Healthcare & Biotech stocks emerge from sickbay and are peak performers in 2017.

As we said in our initial explanation, one of the primary tenets of this Surprise is that the policies necessary for lowering drug prices (which has been everyone's favorite political football in the past year), *"require an act of Congress and the dirty little secret no one seems willing to talk about (or factor into prices) is that Congress is controlled by Republicans and Republicans are funded to a large degree by the Pharma lobby so the likelihood that any of the proposals would see the light of day in the Capitol seems like a stretch."* With that factoid firmly in mind, we anticipated that with the surprise Republican sweep of Congress and the Presidency that Healthcare would really surge (even more than suggested by recovery of the losses caused by the HRC tweets). The good news is that through the end of July XLV (healthcare) and IBB (biotech) are up substantially more than SPX YTD, rising 14% and 17% versus the S&P 500's gain of 9%. The better news is that these gains don't really make much of a dent in clawing back from the hole created by the fears about Healthcare legislation (IBB still down (15%) and XLV trailing SPX by 15%), so there is plenty of headroom for continued gains.

When we first singled out Healthcare as the likely top performing sector in the U.S. for 2017, suffice it to say that there were not a lot of investors looking to jump on that bandwagon. Even after moving to the top of the leader board, the flows into Healthcare are nearly non-existent, as there is still a lot of fear and trepidation about what could happen in Congress (the need to pander to older voters, who buy a lot of drugs, is strong). We continue to see solid value in the broad healthcare sector and anticipate continued strong performance for the balance of the year. We also focused on a couple sub-sectors within Healthcare in our original Surprise that we believed could have breakout performance if investors were to ever focus on fundamentals again. One of those sub-sectors was Specialty Pharma, and we focused on the, *"good companies (read, companies with real products that are not bilking the system) like HZNP, HRTX, RTRX, PGNX and AVDL."* As we wrote euphemistically in April, *"The upside potential has continued to go undiscovered by investors in 2017 and we would expect to see significant gains over the course of the year as more milestones are hit and more positive earnings are released."* "Go(ne) undiscovered" is code for to this point we have been early on the Specialty Pharma segment, but things have turned up a bit recently with HZNP, RTRX and HRTX jumping 19%, 26% and 20%, respectively, since the end of May (PGNX and AVDL are still "undiscovered"). We have heard from our favorite managers in this area that a number of drug-specific events are coming in Q3, so perhaps this portion of the Surprise will just require a little more bed rest before discharge.

The other sub-sector where we saw significant potential in 2017 was Biotech, and our core premise was that, *"The innovation in Biotech is nothing short of miraculous, and we expect to see some very large fortunes created from areas like immuno-oncology, gene therapy with CRISPR, CAR-T therapies and Biosimilars in the coming years."* The funny thing is that investors didn't seem to be focused on the future of healthcare (they were focused on the politics of healthcare), and while high quality names like AMGN, CELG and BIIB kept pace with the SPX in the early part of the year, the more speculative names like GERN, TRVN, ACAD were down. The good news is that with the hope of some movement of the Healthcare Bill, Biotech stocks finally caught a bid at the end of May and have stormed higher, with IBB up 12%, AMGN up 13.5%, CELG and BIIB both up 17.5%, TRVN up 9%, ACAD up 16% and only GERN slipping (2%). We singled out GILD, *"as an anomaly where the company has a drug that cures a disease (Hepatitis-C), makes money, sells at a stupid cheap 7X P/E, but continues to be punished for not having a better pipeline and fell another 6%. The good news is that GILD didn't make a ninth lower low (although it did make a ninth lower high) and perhaps there will be some interest in this company again soon."* Soon turned out to be about six weeks later as GILD reported better than expected earnings and the stock rallied 18% over the next six weeks. On the flip-side, our instincts on a couple of other falling knives turned out more mixed. We wrote *"One new development is that ENDP and VRX have continued to get pounded this year, crushed down another (35%), and the words of Howard Marks are beginning to ring in our ears, "there are few assets so bad that they can't be a good investment when bought cheap enough." It's not that there is no bankruptcy risk in these names (there is), but managements are incented to not let that happen and to get the share prices higher (they have options like asset sales etc.), so it might be time to consider covering the shorts and getting long (for perspective, since the HRC tweet, ENDP is down (88%) and VRX is down (96%))."* Things were looking interesting from April to July as VRX surged 70%, while ENDP slipped (5%), but then ENDP decided to remove an opioid drug from the marketplace and fell (35%). As we like to say, #RiskHappensFast and this type of event risk points to the benefits of diversification in building portfolios. There are lots of examples of this type of risk (both positive and negative) in the healthcare and biotech sector, so the best strategy is to maintain adequate exposure across multiple sub-sectors in your portfolio. In Healthcare investing, and Biotech in particular, gains can also happen fast, particularly around FDA related events. While these decisions are binary (by definition), analysts who do exhaustive work on the science and deeply understand the FDA approval process can (and have) created a meaningful #Edge in determining when to invest in specific Biotech names. We understand from a Biotech specialty manager that we admire that next month could be a #SeptemberToRemember in a hugely positive way (the opposite of our view for the overall markets) as a number of companies they follow are set to get feedback from the FDA. These positive events (should they occur) would be a brisk tailwind for the Biotech sector and Healthcare might get some positive momentum as well.

Surprise #9: Willie Sutton Was Right

Despite all the concerns about rising U.S. interest rates and a stronger dollar triggering a crisis in Emerging Markets, the developing world proves yet again how prophetic Willie Sutton was when asked why he robbed banks. His reply was simply, "Because that's where the money is," and the same holds for why EM will continue to outperform in the coming years (because that's where the growth is). The positive momentum spreads beyond just the commodity producing countries that surged in 2016 and the rising tide lifts all boats across Emerging & Frontier Markets.

Willie Sutton was one of the most famous bank robbers in the Roaring 20s and was eventually captured in the 1930s, spending half his adult life in prison (despite three escapes). During an interview in prison, a reporter asked him why he robbed banks and he reportedly quipped, *"That's where the money is"* (Sutton later denied having said it, but did title his autobiography *Where the Money Was).* Interestingly, social scientists picked up on the story, and today, medical schools teach Sutton's Law, which says that when diagnosing a patient, order tests that confirm/exclude the most obvious ailment, or more colloquially, "When you hear hoof beats, think horses, not zebras." Applying Sutton's Law to investing today leads one directly to Emerging Markets, because that is where the growth and positive demographic trends are, and therefore where the future profits are likely to be the strongest. It doesn't hurt that you get to buy at a discount to Developed Markets as well (lower P/E ratios). We wrote last time that, *"We came into 2017 (as we had left 2016) very positive on Emerging Markets for a number of reasons ranging from better growth dynamics, lower valuations (always great when you can buy better growth at lower prices), strong momentum from a robust recovery in 2016 and what we believed was a temporary downturn (EM went on sale) in the aftermath of the U.S. election where the rhetoric from Team Trump had spooked EM investors."* Our enthusiasm for these markets was also boosted by the fact that few investors shared our positive outlook and were fretting about the potential for the Fed to raise rates, the dollar to strengthen and China to crash (taking all the other EMs along with them). We also discussed one of the other challenges for EM investors in the original Surprise write up in January, saying, *"Emerging Markets … are an asset class with fantastic long-term potential, but also high degrees of volatility, so the average investor never gets to realize the benefits of the path of progress and growth because they overtrade and sell after every big drawdown (and worse buy back in after the big run up)."* Having the discipline to buy when things go on sale is critical to long term investment success, but it is much easier said than done as it always feels bad to buy when everyone else is selling (and sell when everyone else is buying). The absolute best answer is to focus on buying assets when they have a large margin of safety (make the money on the buy) and even better if you can do so in markets where there is a tailwind of growth. We discussed this in January as well, saying, *"maybe the best answer is buy great companies that focus on capturing EM growth early and just lock them in a drawer and don't look at them (even better buy them in the private markets and hold onto them after they go public),"* (should readers have interest in the private markets, we can help with that given our extensive experience and relationships in the emerging markets, with particular expertise in Asia and China). In writing about how the father of value investing thought about buying bargains, we said, *"Ben Graham was right again, when the bargain is so great, it is time to remember you are buying stakes in a business and when you can buy those stakes at a monster discount, so long as there is no going concern risk, you have to back up the truck."*

There are myriad reasons why we like Emerging Markets as an investment destination (particularly relative to Developed Markets), so much so that we recently gave a presentation at a conference titled, *The Global Search for Alpha, All Roads Lead to Emerging Markets.* First, Emerging Markets, China and India in particular, are moving back toward their dominant position in the global economy (which they ruled for most for the past 2,000 years) and the trend of EM having much higher growth than DM is a secular trend that will persist for many decades. Amazingly, EM will contribute 40% of global GDP in 2017, yet EM equities are only 8.5% of the MSCI All Country World Index (read that relationship again, stunningly unbalanced) and even more astonishing is that the valuation of DM and EM is flip-flopped from where it should be relative to those growth rates. Looking at the PEG ratio (P/E to growth) is the easiest way to see this. DM have a PEG of 4.91, while EM have a PEG of 2.99 (a 40% discount). When looking more closely at some of the specific DMs, like the U.S., Japan, Switzerland and the U.K. those PEG Ratios are at silly levels, 8.22, 7.53, 11.59 and 12.68, respectively. When we step back and look at relative current yields, the U.S. has never been more overvalued in relation to the world (and particularly EM). One of our favorite measures of valuation is the ratio of equity market capitalization to GDP (sometimes called the Buffett Indicator) and here we find the U.S. at an astonishingly high 1.4X (Switzerland takes the cake at 2.6X, but not completely fair because some multinational companies domicile there for tax reasons), while Argentina is 0.13X, Brazil is 0.34X, Russia is 0.33X, China is 0.58X and India is 0.8X. Buying things when they go on sale is very satisfying, in addition to be very rewarding. As we have noted in the past, *"We have always been value investors at* *heart and we like to buy things below their fair value and even better, when they are really cheap."* The great news today is that EM equites are the cheapest in the world with a forward P/E of 12.6X (silly cheap) relative to Japan at 14.2X (cheap), Europe at 14.4X (cheap) and the U.S. at 18.2X (not cheap). It's implicit in the low EM PEG ratios, but as we have said before regarding EM, *"On top of being cheap, the growth rate of earnings is much higher, so you get the double benefit today of buying faster growth at cheap prices (which is nice)."* A level of high valuation is a necessary, but insufficient, condition for a market to correct (and produce negative returns), and while general valuation can be a very good long-term forecasting tool for equity returns, it is a quite poor short-term indicator of *when* a reversion to the mean might occur. The problem is that, in the short-run, expensive things can get more expensive (and they did, to extremes in 1929 or 2000), and even rise to the point where market participants convince themselves that gravity no longer applies and that prices cannot fall (however, Newton was right, #GravityRules). We wrote last time that, *"One of the best long-term predictors of returns (and maybe the worst short-term predictor) is the CAPE ratio (Cyclically Adjusted P/E), which looks at trailing ten-year earnings in order to remove the volatility of the current year earnings (which can be very cyclical). One other caveat is that the CAPE ratio is more effective on regions and countries and less effective for individual companies."*

A look at global CAPE ratios (courtesy of starcapital.de) as of 6/30 paints a truly ugly picture for DM investors (in terms of expected future returns). The U.S. continues to be the most overvalued of the major markets with a CAPE of 28, which implies a forward return over the next decade of 3.5% (with a 50% confidence interval of 1.5% and 5.5%, meaning there is a 25% chance the return could be below that range). Japan is not much better (contrary to some other short-term indicators), with a CAPE of 26.2 and an expected return of 4%, while Europe looks modestly better at 17.8, which implies a 6.7% expected return for the coming decade. The PIIGS have significantly lower CAPEs and much better return expectations (read, they are much cheaper) with Spain at 13.5 and an expected return of 8.7% and Italy at 14.6 and an expected return of 8.2%. Hong Kong is on the fringe between the DM and the EM (gateway to China) and the CAPE of 16.8 implies a forward return of 7.2%. The fun begins when we look at EM, as the BRICs look quite attractive with CAPE ratios for Brazil at 10.4, Russia at 4.9 (the only country in the report in single digits), India at 20.6 (always looks high due to heavy tech weight in the index) and China at 15.4. These below-average CAPE ratios imply above-average returns for EM investors over the next decade, as India clocks in at the lowest rate of 5.7%, but China, Brazil and Russia's implied 10 year compound returns are 7.8%, 10.5% and 15.9%, respectively. We repeat the warning from last time, *"These forecast returns are not useful over short periods of time (one to three years), but they have been very accurate over the decades. There logic that is difficult to debate that buying at a low valuation will yield a better return than buying at a high valuation (absent a dramatic difference in growth rates)."* The more challenging problem for DM investors is that both revenue and earnings growth will likely surprise to the downside courtesy of the #KillerDs (poor demographics, excess debt and deflation), while EM will have a significant comparative advantage (likely tailwind) with better demographics, lower debt and little deflation risk.

There are a number of indicators that have proven to be reliable predictors of future relative strength of Emerging Markets over time including: 1) Citibank Economic Surprises Index (CESI), 2) liquidity provided by financial institutions through monetary policy (tracked by CrossBorder Capital), 3) inflation, 4) the U.S. dollar and 5) commodity prices (within the broader commodity cycle). There are some that view CESI as a lagging indicator (probably true in the U.S. where data is more abundant), but we have found the EM CESI to be a solid leading indicator for near-term performance (2016 being a great example as CESI was off the charts and correctly forecast strong returns in

EM over the past year). We wrote last time (not knowing what we might title the letter this quarter) that, *"The one downside in the near term is that the CESI is consistently cyclical (what goes up, must come down), so there is some likelihood that the brisk tailwind turns to a bit of a head wind in coming quarters."* On cue, the EM CESI has come down (fairly dramatically) in the past few months and we might have to say now that the headwind has arrived. Interestingly, this drop coincides with a seasonal pattern over the past 30 years (from Strategas) that shows EM has a negative seasonal bias from August through October. The way to think about liquidity is consistent and as we noted last quarter, *"Overall liquidity is perhaps one of the most critical components of equity returns in any markets as it is tough to "fight the central bank" and when banks are withdrawing liquidity (raising rates) returns will be lower and when banks are supplying liquidity (lowering rates) returns will likely be higher."* Across EM & FM we see many accommodating central banks that are likely to continue to cut interest rates going forward, thus maintaining the tailwind of abundant liquidity in these markets. The CrossBorder Liquidity Index are at levels last seen in 2004 and the liquidity cycle tends to run in seven-year increments (like economic and business cycles), so this tailwind should persist for a meaningful period of time. Inflation is a "Goldilocks indicator" – you need just enough to keep growth moving, but not enough to have runaway prices. Central bankers the world over are endlessly searching for that "just right" amount when making the monetary policy decisions. The good news for EM & FM is that Goldilocks is in the house and inflation is in that "just right" zone in most regions and countries (for the most part, with a few notable exceptions like Venezuela). Very importantly, the deflation readings in the China PPI that translated into poor equity returns for the past few years have disappeared and positive Chinese inflation has historically been very good for EM returns (there has been a little hook down of late, so we will be vigilant in watching this indicator). A basic rule of thumb in EM investing has been, *"EM equity has been inversely correlated to the dollar and positively correlated to commodity prices over the long term and there has been a strong cyclicality to these assets over time (follows the seven-year cycle)."* As we anticipated in Surprise #7, it does appear that King Dollar has made its last stand and has been weakening all year. One thing that was curious to us in April was that after jawboning all campaign about a strong dollar policy, *"just about every member of the administration has come out in favor of a weaker dollar (ostensibly to pander to the base about saving jobs, despite fact that with 70% consumption, a weak dollar is bad for them).* In just one more case of be careful what you ask for, the dollar has continued to weaken, and we will argue that we have come to the end of this cyclical rally in the USD and are now headed back for the secular decline that began in the 1970s (when Nixon closed the gold window). A weaker dollar means better returns for EM equities (in USD). We noted last time that after the bruising bear market that ended last year, EM currencies *"are set up nicely to strengthen in the coming years as the growth differentials expand."* This will be another tailwind for U.S. investors in EM. Finally, a weak dollar is correlated to higher commodity prices and there is increasing evidence that a new commodity super cycle is beginning. Rising commodity prices have historically been good for EM equities, but as many EM economies transition from manufacturing to consumption this direct link will likely weaken, which means we must be more discriminating in choosing between EM countries during this cycle.

Perhaps the most intriguing thing about this Surprise is that since the realization on March 1st that the Trump Trifecta had a high likelihood of being the NoFecta, EM has trounced DM (particularly the U.S.), rising 14% through the end of July versus just 3% for SPX. We wrote last quarter that, *"we see some places where momentum has turned up sharply and we would expect continued gains as prices move back toward fair value."* Those markets included Taiwan, China (both HK and A-Shares), Russia, Brazil, Mexico, Korea and India, as well as Frontier Markets

Argentina, Turkey, Pakistan, Egypt, Nigeria and Saudi Arabia. It has been a very strong five-months, as these countries have handily outperformed the 3% gain in the S&P 500, with returns of 12%, 10%, 10%, (2%), 1%, 19%, 18%, 14%, respectively, in the EM and returns of 11%, 24%, (9%), (4%), 32% and 5%, respectively. Looking at a few countries more closely, we commented last time that in South Korea, *"we would expect to see even better returns as they move toward electing a new president, the North Korea tension dissipates and the semiconductor market continues to rock along."* With the new President in place and Samsung hitting on all cylinders in semi-conductors, Korean stocks flew higher, but with rising tensions in North Korea recently, those markets gave back some returns in a hurry. Some hedging is probably prudent in Korea in the short-term, but the long-term picture is bright. We noted that, *"Taiwan is another market that has caught a tailwind as the Apple upgrade cycle has strengthened demand for components and that is the specialty of many of the Taiwanese listed companies."* Apple shocked everyone again with Q2 numbers and the iPhone 8 release could be a big one, so there is likely more upside here. We wrote how, *"India continues to knock the cover off the ball, as an incredibly strong long-term plan is taking root and producing a massive reintegration of the black-market capital into the traditional economy thanks to the biometric ID program and demonetization. The huge injection of liquidity into the banking system should spur growth for years to come."* Our advice here hasn't changed, buy every dip, particularly in the banks and other financial services companies (best proxy for growth). We also wrote that, *"There are lots of exciting FM stories, from the benefits of OBOR in places like Pakistan (don't forget MSCI Inclusion here too), to the most miserable places that are due for a recovery like Egypt and Nigeria, to Saudi Arabia which could explode higher should they actually get included in the next round of MSCI Index consideration."* MSCI was very, very good to China, very good to Saudi Arabia and not so nice to Pakistan and Nigeria. China surged and we expect continued upside here, but likely after a pause that refreshes this fall. Saudi Arabia will be strong over the next year in anticipation of inclusion next June. Pakistan looks ripe for a turnaround, while Nigeria got cheap enough that value buyers stepped in and ramped that market in the past few months. So many great places to invest, so little room in this section to write much more, so suffice it to say that we continue to be positive on the prospects for EM & DM stocks.

So, with a positive overall view on EM & FM, we reiterate a point we made to begin the year, *"There is one spoiler alert in EM that we have to pay attention to and that is should there be a meaningful dislocation in the Developed World (a surprise in European elections, a spat between Trump and Mexico, or worse Iran, recession in the U.S., etc.) EM equities will struggle in the short term (correlations do go to one in down turns) and it might be better to ease into positions and save some cash to buy at cheaper prices."* That advice was clearly premature in January as there was (with the benefit of hindsight) no reason at all to wait to get fully invested in EM & FM as gains have been consistently strong all year (other than a little wiggle down around the Fed rate increase in March). We updated that warning in April, saying that *"We are in that seasonal segment of the year where equities have struggled historically (May to October), so continuing to focus on buying what goes on sale during the summer should be the optimal strategy in the coming quarter."* Once again, we were early as EM equities continued to power up during the summer months. So, now to paraphrase Roger Babson (and to repeat what we said last quarter and the quarter before that…) a correction is coming and it could be less than terrific. The title of our August #ATWWY is *August is Like the Sunday of Summer, and Markets…* and it may very well turn out to be a #SeptemberToRemember.

Surprise #10: #WelcomeToHooverville

Donald Trump, like Herbert Hoover, made a lot of promises in order to win the Presidency. Also like

Hoover, Trump comes to office with no political experience and finds it difficult to deliver on those promises. But just like in 1929, equity markets believe those promises and surge to a Bubble top (S&P 2800[2]) within months of his taking office. With a U.S. Recession triggering an unwinding of massive debt burdens and the stock market swooning, Trump repeats the policy mistakes of Hoover on trade, immigration & taxes and Hooverville is back with a new name, Trumptown.

We have written extensively in the last three letters about the similarities between Presidents Trump and Hoover and the ways in which the current economic and market environment resembles the final year of the Roaring Twenties. We believe there is a real chance that we end up in a #WelcomeToHooverville scenario in the U.S. and that a confluence of events leads to an outcome that resembles 1929. We wrote in January that, *"The first step in getting to a #1929Redux scenario would be to have equity market valuations run from their current level of "silly" to "stupid" between the Inauguration and Labor Day (in 1929, P/E ratios surged from 17X to 21X over this period to a level not seen since 1860)."* Modeling this jump in valuation, we had to examine what could drive the markets from the silly valuation level of 23.7X (higher than all periods except the 2000 Tech Bubble) at the inauguration earlier this year toward the stupid levels of 31X (seen only once in all of market history). We noted, *"The standard response today is that "Animal Spirits" have been revived by Trumponomics and there will be a sharp acceleration in GDP growth, a surge in corporate profits as tax rates and regulation are slashed and a giant windfall gain from repatriation of foreign cash hordes and fiscal spending."* The fact that the numbers being thrown around capriciously by the administration are mathematically impossible seems to get lost in translation. Our translation is that everything hinges on the #TrumpTrifecta being completed (or rather, on market participants believing that it will be completed). When looking back at the 1929 period, the DJIA surged 24% after Hoover's inauguration to a peak of 381 on September 3rd and should history repeat precisely, the S&P 500 would surge to around 2,800 by Labor Day. So, to exactly match the Hoover Bubble, SPX would have to run from the end of July level of 2,475 to 2,800 by the end of the summer, another 13% increase (seems unlikely, but recall that August 1929 was the last cathartic upward spike and the DJIA did surge a mania induced 9.5%). If history were to repeat, get ready for the #FANG stocks with P/E ratios of 50X, 205X, 420X and 37X, respectively, and the S&P 500 at an astonishing 31X (actually much higher than 1929 but still below the insane levels of 2000). We hear people routinely try and rationalize that the S&P 500 is still "cheap" because it is not nearly as expensive as 2000. As we wrote last time, that sounds to us like a driver pulled over for drunk driving trying to rationalize to the officer, *"I am not nearly as drunk as those guys passed out in the back seat, somebody had to drive."* Reality check here. With Lyft, Uber and old fashioned taxis, obviously no one has to drive. Similarly, there is no law (yet) that requires investors to be fully invested at these valuations, but, unfortunately the data confirms that investors are "All-In" (so much for the Most Hated Bull Market Narrative) and the rush into equities is (sadly) accelerating as market participants can't handle the sight of their friends getting rich. A few stats confirm the euphoria. There is 20X (read that again, *20X*) more money invested in levered long ETFs than levered short ETFs (we don't need no stinking hedge). For perspective, that ratio fluctuates between 2X and 4X in normal market conditions. The ratio of Investors Intelligence Bulls/Bears is 3.7, more than two standard deviations above the long-term average. This ratio has a very high (inverse) correlation to equity corrections – the more bulls relative to bears, the closer we are to a downward price adjustment (highest level was 5 in 1987, so could get more euphoric). The CBOE Put/Call Ratio is at 2.0 – higher than the long-term average (neutral level) of 1.6, which is high, but not extreme, so there is some

2. The original estimate of the Bubble Top of 2650 was based on the DJIA level on Black Tuesday, but after reviewing the actual daily data we found that the 1929 peak was actually the last day of August, not in October when the Crash was officially labeled.

room for more euphoria here too. Looking at "The World's Greatest Indicator" (proclaimed by Doug Short at AdvisorPersepctives.com) the percentage of stocks in the S&P 100 above their 200-day moving average is now 75%, having peaked in February at 89% (65% is the level at which to go to 50% cash and 50% says go to 100% cash). Equity Mutual Fund cash holdings are about 3% (far below normal) and this level is as euphoric as we have ever seen. Finally, U.S. household total exposure to financial assets is the highest it has ever been (ratio of financial assets to income), exceeding both the peak during the Tech Bubble and the Housing Bubble, so now we have the Everything Bubble (courtesy of @JesseFelder).

Jeremy Grantham said last November that the equity bubble he predicted in 2014 (said SPX 2300 by the election) hadn't materialized completely because there was no "euphoria." We argued in January that some of that mania was materializing in the aftermath of the surprise Trump win, saying, *"for that euphoria to occur, market participants (using this term intentionally because you lose your status as an "investor" when you knowingly buy assets with no margin of safety) must believe that President Trump will deliver on all the promises that were made on the campaign trail, and (more importantly) they must believe that the fulfillment of these promises will in some way lead to higher growth, higher profits and ultimately higher equity prices."* Interestingly, we wrote in our *#TheValueOfValue* letter that Seth Klarman reminds us of the wisdom of Ben Graham and points out that when someone buys an asset with no margin of safety, they leave the realm of investor and enter the realm of speculator. Speculative frenzy is what pushing overvalued markets into bubbles and we described that progression, saying, *"Bubbles are formed when market participants move from optimism (things are getting better) to excitement (things are really getting better) to thrill (things are great) to euphoria (things couldn't get any better), and it is at that precise moment where you have the point of maximum financial risk (and, perversely, the point of maximum risk seeking behavior)."* Suddenly, everyone is doing it (so it must be okay, contrary to what Mom told us about bridges and jumping) and FOMO (Fear of Missing Out) takes over (we tweeted recently that there is a progression that occurs when markets inevitably self-correct that looks like this, MOMO, FOMO, NOMO, NONO, OONO, OOOO, NOOOOOOO). As we mentioned last time, George Soros offered the perspective that, *"Stock market bubbles don't grow out of thin air. They have a solid basis in reality, but reality as distorted by a misconception. Under normal conditions misconceptions are self-correcting, and the markets tend toward some kind of equilibrium. Occasionally, a misconception is reinforced by a trend prevailing in reality, and that is when a boom-bust process gets under way. Eventually the gap between reality and its false interpretation becomes unsustainable, and the bubble bursts."* The denouement phase of an equity bubble is something to behold, as the rationality of market participants dissipates at an accelerating pace and prices spiral higher (in a reflexive burst) in one final parabolic crescendo. As we noted last time, *"Speculative fever is alive and well today and we see many of the same types of mania behaviors that occurred in 1929 … when any consideration of fundamentals is discarded because the expected holding period is too short for fundamentals to apply."* As euphoria crests, the buzz in the markets is frenetic, value investors like ourselves are criticized as being out of touch with the new paradigm, and any attempt at prudent behavior (read hedging) in managing portfolios is met with cries of derision. One final point here is that the bubble really gets out of hand when market participants start using "other people's money" to speculate. We quoted historian Charles Geisst, who described the period leading up to the 1929 crash this way, *"Excessive speculation was creating an inflated wealth and a sense of prosperity built upon borrowed money."* We know from experience that the ultimate outcome is much worse when market participants accelerate their use of borrowed money to buy stocks, and it just so happens that we have seen new records set in both margin debt and corporate indebtedness this summer.

At the core, the basic premise of the #WelcomeToHooverville Surprise is that sometimes in life (and investing) you find yourself in a situation that requires skills that exceed your experience level and talent. In those situations, we believe, rather than press a bad position, it is better to withdraw and live to fight another day. We believe that Mr. Trump (and many others within his Administration) is on one of these situations today, and that despite what may be good intentions, we noted in April that, the same combination of hubris, inexperience which spelled disaster in the Hoover Administration is present today. We concluded that, *"While we are not ready to say we are headed for another Great Depression, there are growing signs that some of the same mistakes that occurred in 1929 are being made again."* We turn to the protagonist of our serial over the past year again here as Roger Babson has an important quote about what defines leadership "***a character standard is far more important than even a gold standard. The success of all economic systems is still dependent upon both righteous leaders and righteous people. In the last analysis, our national future depends upon our national character.***" Leadership is what we are in desperate need of today as we face mounting challenges on economic, social and geopolitical fronts. Despite what we believe to be very little evidence of character and leadership from Washington, momentum has been relatively strong in the equity markets (although clearly less strong since March) and there are still high levels of confidence (for reasons struggle to understand) that the Trifecta will be achieved and everything is going to be great. We remain unconvinced and believe it will pay to be hedged as we head toward what we believe could be a #SeptemberToRemember.

Bonus Surprise: Demise of Active Greatly Exaggerated

For the fourth time in my career (and I am not that old), Active Management (and Hedge Funds) are declared "Dead," as Passive strategies outperformed again in 2016. Similar to previous periods of Central Bank largesse, the math of capitalization weighting, exacerbated this time by "Dumb" (read rule-based) Beta ETF strategies, favored passive momentum strategies since QE began in 2009. People always "buy what they wish they would have bought," and so poured record amounts into Index Funds & ETFs in 2016 (#PeakPassive) just in time for Active Management (and Hedge Funds) to outperform in 2017 (just like 2001).

We excerpt a few paragraphs from a much more comprehensive analysis of this Surprise in last quarter's letter (without italics to save your eyes). When thinking about the investment business, the bottom line is that Capitalism works.

> Professionals produce superior results because they have an edge. They practice more, they have better coaching or they have better equipment, whatever that edge may be. We discussed last time how edge in the investment management business can come from many different places, better technology, better analytics, better process, better people, better networks or some combination thereof. Edge does not come cheap and the genius of the hedge fund model (propagated by A.W. Jones and discussed in our letter titled A.W. Jones Was Right) was that it provided superior levels of fees which allowed hedge funds to acquire the best talent and resources, develop the best networks and build the best systems. We are such staunch proponents of the hedge fund asset management model because we believe it aligns the interests of the manager and the client insofar as the incentive is not to raise huge assets to gather huge fees (as size is the enemy of alpha), but to limit size and charge an incentive fee structure so that when the client wins, the manager wins. There will always be examples of where this relationship breaks down (either manager doesn't acquire edge to generate alpha

or gathers too many assets and dilutes ability to generate alpha) but, the client can always choose not to maintain capital with that manager. Periodically (as noted above) we go through a period of time (like today, usually caused by central bank easing) when hedge fund strategies underperform and a cacophony builds that they have lost their edge, that they have become "rich and complacent," that "Active Management is dead," that there is "too much money chasing the same ideas" and myriad other negative "explanations" for why the high fee strategies are underperforming the low fee strategies and why everyone should immediately fire all the high fee managers and only buy index funds and ETFs. We are there now and our experience from nearly three decades of allocating capital to managers tells us these are the best times to maintain discipline and allocate to managers who have strong long-term track records (demonstrated edge), but have just had a difficult short-term period. The key to success is to do the opposite of what the media reports that the big pensions are doing. They hired hedge funds after the Global Financial crisis (chasing their strong relative returns) and are selling now to buy passive strategies (chasing their central-bank-steroid-induced strong absolute returns). As we like to say, we've seen this movie before and, spoiler alert, it ends badly…

But investors (as a group) don't seem to see the strategy cyclicality and they continually fall into the trap of buying what they wish they would have bought (and selling what they are about to need) and pour assets into whatever strategy has just had a hot period (chasing the hot 3-year dot), which explains why the average investor's returns are so much lower than the indexes (and much, much lower that the best active managers and hedge funds). Case in point, after the best five-year period in the history of U.S. equity markets from 1995-1999 (the Tech Bubble), investors poured a record amount into index funds, peaking at a massive $260 billion flow in Q1 2000 (almost to the day of the peak on 3/24). On the flip side, not only was Active Management declared dead, but investors actually killed off a number of the best hedge funds (including one of the greatest of all time, Tiger Management) by redeeming in droves. Of course, we know how that story ended – the next decade, the S&P 500 compounded at (1.7%), while the best hedge funds compounded at 17%.

So how have investors reacted to the most recent lean seven years for active managers and hedge funds? They have begun to vote with their feet. The flow of capital out of active managers (in the mutual fund space) started as a trickle in 2009 and has turned into a torrent as nearly $1.2 trillion has left active mutual funds for passive strategies. There is a reflexive nature to this capital movement in that as more money has shifted to passive, it has driven up a narrow group of stocks, which has attracted more capital, which drives up the price even more, which attracts more capital, and so on. One big problem is that a reflexive virtuous cycle can turn into a reflexive vicious cycle when things finally do turn (they will turn, the economic cycle is not dead) and the real problem will be that the safety valve mechanism that active managers play (they buy the values at the bottom) will be less robust since there is less money in active. If this all sounds circular, you are hearing it right, because it is circular. The other big problem is that the rise of passive has led to the "Turkey Problem." Turkeys on the farm think they have the greatest life ever as they are constantly fed, don't have any responsibilities other than eating, resting and getting portly, and, they actually DO have the greatest life ever, for precisely 364 days (but day 365 is a big downer). The same thing will be true for investors during #PeakPassive when the day of reckoning finally arrives.

Our job in the investment business is to look at all the pertinent facts, form hypotheses and execute investment strategies to try and capitalize on the opportunities we see. Investing is all about taking intelligent risks, but only those risks for which you are compensated appropriately. In order to make decisions on which risks you should take, you must have conviction about your ideas and your strategies. We have great conviction that hedged equity is the best way to gain exposure to the equity markets over the long term. We have great conviction that putting capital in the hands of the most talented portfolio managers is a winning strategy. We have great conviction that the investment environment is nearing an important inflection point and that we are inching ever close to another Babson's Break where having a core exposure to hedged equity will be critical to preserving capital.

When #DarknessFalls it will be really important to have your capital in the hands of the most talented investment managers available and not in the hands of an algorithm that was conceived in a unidirectional bull market and has never experienced a significant downturn. At best, we are likely to repeat the decade following 2000, and at worst, we are on the verge of the 1930s. Just how dark it is going to get is yet to be determined. An interesting question to ponder is, would you travel on a ship with a captain who has never navigated through a storm? In these challenging periods, we have great conviction that talent wins, and you can't replicate experience and judgment, so we expect the next decade to be a very good one for Active Management and hedge funds (particularly value funds).

Outlook Summary

To summarize our worldview, we begin from the position that the current investment climate is not favorable for excessive risk taking and that #CashIsKing. Having a higher than average level of cash (or even better, physical gold) will be very useful to buy assets at depressed prices in the future. Put another way, the option value of cash is well above average today (like it was 2000 and 2008 which might explain why Buffett and Klarman and some other great investors have so much of it). We continue to fear the Killer Ds in the Developed Markets as demographics, debt and deflation will continue to suppress economic growth (and likely lead to lower equity prices as well). If we are right (well, if Van Hoisington and Lacy Hunt continue to be right) and the secular low in interest rates is ahead of us (not behind us), then holding a position in long duration Treasurys should also prove to be an effective hedge (if not a store of value) as #DarknessFalls and market turbulence rises. If one has to own equities (we would remain underweight overall) we continue to rank Emerging Markets > Japan > Europe > the U.S. and would actively invert the current capitalization weightings from the MSCI ACWI Index (skate to where the puck is going). The Emerging Markets will continue to grow their overall market capitalization in relation to move toward their share of global GDP (currently 8.5% but headed toward 40%). We continue to believe that the best place for investors to make outsized returns is in the private markets (private equity, VC, private energy, private RE and private Debt), and that whatever weight an investor has been comfortable with historically for private, double it (if 20%, raise exposure to 40%). It is also a time to embrace Active Management and to get hedged (buy hedge funds), as we believe that these terms (active and hedge) will cease to be dirty words over the coming decade as returns on traditional investments (beta) will be very poor (likely near zero), while the returns to alpha will continue to be significant (likely 5% or more above cash). To reiterate what we closed with last quarter, *"We know Roger Babson was right in 1929 and we believe his immortal words should be headed again today"* as #DarknessFalls.

Update on Morgan Creek

We hope you have been able to join us for our Global Market Outlook Webinar Series entitled "***Around the World with Yusko.***" We have had many interesting discussions in the last few months including: *Knee High by the 4th of July: Corn Stalks and Equity Bubbles* and *June Gloom: It's not just a SoCal Thing Anymore*. If you missed one and would like to receive a recording, please contact a member of our Investor Relations team at IR@morgancreekcap.com or visit www.morgancreekcap.com. Mark your calendar now for our **August 30th** webinar **at 1:00pm EDT.**

We are also a proud sponsor of The Investment Institute, a newly formed Educational Membership Association for Institutional & Private Investors and Managers in the Southeast. The date of the next program will be **November 9th-10th, 2017** at **The Diplomat Beach Resort, Hollywood, FL**. For more information on how to become a member and join this elite group please visit www.theinvestmentinstitute.org.

As always, It is a great privilege to manage capital on your behalf and we are appreciative of your long-term partnership and confidence.

With warmest regards,

Mark W. Yusko

Mark W. Yusko
Chief Executive Officer & Chief Investment Officer

General

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Indices

The index information is included merely to show the general trends in certain markets in the periods indicated and is not intended to imply that the portfolio of any fund managed by Morgan Creek Capital Management, LLC was similar to the indices in composition or element of risk. The indices are unmanaged, not investable, have no expenses and reflect reinvestment of dividends and distributions. Index data is provided for comparative purposes only. A variety of factors may cause an index to be an inaccurate benchmark for a particular portfolio and the index does not necessarily reflect the actual investment strategy of the portfolio.

Russell Top 200 Value Index — this measures the performance of the mega-cap value segment of the U.S. equity universe. It includes those Russell Top 200 Index companies with lower price-to-book ratios and lower expected growth values. Definition is from the Russell Investment Group.

Russell Top 200 Growth Index — this measures the performance of the mega-cap growth segment of the U.S. equity universe. It includes those Russell Top 200 Index companies with higher price-to-book ratios and higher forecasted growth values. Definition is from the Russell Investment Group.

Russell 2000 Value Index — this measures the performance of small-cap value segment of the U.S. equity universe. It includes those Russell 2000 Index companies with lower price-to-book ratios and lower forecasted growth values. Definition is from the Russell Investment Group.

Russell 2000 Growth Index — this measures the performance of the small-cap growth segment of the U.S. equity universe. It includes those Russell 2000 Index companies with higher price-to-value ratios and higher forecasted growth value. Definition is from the Russell Investment Group.

Russell Midcap Value — this measures the performance of the mid-cap value segment of the U.S. equity universe. It includes those Russell Midcap Index companies with lower price-to-book ratios and lower forecasted growth values. Definition is from the Russell Investment Group.

Russell Midcap Growth — this measures the performance of the mid-cap growth segment of the U.S. equity universe. It includes those Russell Midcap Index companies with higher price-to-book ratios and higher forecasted growth values. Definition is from the Russell Investment Group.

Russell 3000 Index (DRI) — this index measures the performance of the 3,000 largest U.S. companies based on total market capitalization, which represents approximately 98% of the investable U.S. equity market. Definition is from the Russell Investment Group.

MSCI EAFE Index — this is a free float-adjusted market capitalization index that is designed to measure developed market equity performance, excluding the US & Canada. Morgan Stanley Capital International definition is from Morgan Stanley.

MSCI World Index — this is a free float-adjusted market capitalization index that is designed to measure global developed market equity performance. Morgan Stanley Capital International definition is from Morgan Stanley.

91-Day US T-Bill — short-term U.S. Treasury securities with minimum denominations of $10,000 and a maturity of three months. They are issued at a discount to face value. Definition is from the Department of Treasury.

HFRX Absolute Return Index — provides investors with exposure to hedge funds that seek stable performance regardless of market conditions. Absolute return funds tend to be considerably less volatile and correlate less to major market benchmarks than directional funds. Definition is from Hedge Fund Research, Inc.

JP Morgan Global Bond Index — this is a capitalization-weighted index of the total return of the global government bond markets (including the U.S.) including the effect of currency. Countries and issues are included in the index based on size and liquidity. Definition is from JP Morgan.

Barclays High Yield Bond Index — this index consists of all non-investment grade U.S. and Yankee bonds with a minimum outstanding amount of $100 million and maturing over one year. Definition is from Barclays.

Barclays Aggregate Bond Index — this is a composite index made up of the Barclays Government/Corporate Bond Index, Mortgage-Backed Securities Index and Asset-Backed Securities Index, which includes securities that are of investment-grade quality or better, have at least one year to maturity and have an outstanding par value of at least $100 million. Definition is from Barclays.

S&P 500 Index — this is an index consisting of 500 stocks chosen for market size, liquidity and industry grouping, among other factors. The index is a market-value weighted index – each stock's weight in the index is proportionate to its market value. Definition is from Standard and Poor's.

Barclays Government Credit Bond Index — includes securities in the Government and Corporate Indices. Specifically, the Government Index includes treasuries and agencies. The Corporate Index includes publicly issued U.S. corporate and Yankee debentures and secured notes that meet specific maturity, liquidity and quality requirements.

HFRI Emerging Markets Index — this is an Emerging Markets index with a regional investment focus in the following geographic areas: Asia ex-Japan, Russia/ Eastern Europe, Latin America, Africa or the Middle East.

HFRI FOF: Diversified Index — invests in a variety of strategies among multiple managers; historical annual return and/or a standard deviation generally similar to the HFRI Fund of Fund Composite index; demonstrates generally close performance and returns distribution correlation to the HFRI Fund of Fund Composite Index. A fund in the HFRI FOF Diversified Index tends to show minimal loss in down markets while achieving superior returns in up markets. Definition is from Hedge Fund Research, Inc.

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MSCI Emerging Markets Index — this is a free float-adjusted market capitalization index that is designed to measure equity market performance in the global emerging markets. The MSCI Emerging Markets Index consisted of the following 23 emerging market country indices: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Peru, Philippines, Poland, Qatar, Russia, South Africa, Taiwan, Thailand, Turkey, and United Arab Emirates.

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