ESSEX

ESSEX INVESTMENT MANAGEMENT COMPANY, LLC

The Essex Exchange

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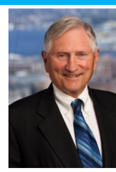
Please see our website www.essexinvest.com for updated insights from our portfolio management and research team.



Sound Bite This

By: Alex Forse, Senior Vice President, JD/MBA with Contributions by Joseph C. McNay, Chairman, CIO & Senior Portfolio Manager

"He's the author of an award-winning talking point." Edward Koren, 2018

As I sit here contemplating what the Fed's decision means for the market I find myself processing it into another "talking point" or "sound bite" and I immediately think of a quote I got off Twitter recently:

> *"The dumbing down of America is most evident in the slow decay of substantive content in the enormously influential media, the 30-second sound bites (now down to 10-seconds or less), lowest common denominator programming, credulous presentations on pseudoscience and superstition, but especially a kind of celebration of ignorance."* Carl Sagan, The Demon-Haunted World, 1995.

I am not a Carl Sagan aficionado, but I think it unfortunately highlights the modality of our world today -> we hang by the latest data-point and extrapolate it out into our reality. But where is the *substance*? For example, look at Central Banks.

Many market prognosticators have labelled this Bull market as the "Central Bankers' Bubble." Certainly, after years of Quantitative Easing, it is fascinating to see the world's Central Banks backpedaling into accommodative policies after only a few fleeting moments of tightening. But what does that really mean? Look at Japan, after years of buying Japanese ETFs, the Bank of Japan now owns 75% of all of them! Since 2010, this wildly accommodative policy has, per an enlightening paper "Asset Prices and Corporate Responses to Bank of Japan ETF Purchases" "*boosted share prices but **largely not transmitted into real investment growth***." Hello! So as Global PMIs slide into the longest losing streak in decades this is something that the Fed should keep an eye on.

The reality is, as interest rates hit fresh *lows*, government spending hits fresh *highs* and areas of **REAL IMPROVEMENT & REAL BUSINESS** remain woefully mismanaged. Take infrastructure for example, where spending is at 60-year lows. As we deal with overflowing and derailed trains, it is no wonder that public trust in government is also hovering near 50-decade lows! To this end, I think the private sector is starting to show signs of exhaustion as well with CEOs leaving at the highest rates since the financial crisis & CEO confidence at rock-bottom lows -> it certainly seems like we need an optimism boost.

Sound Bite This

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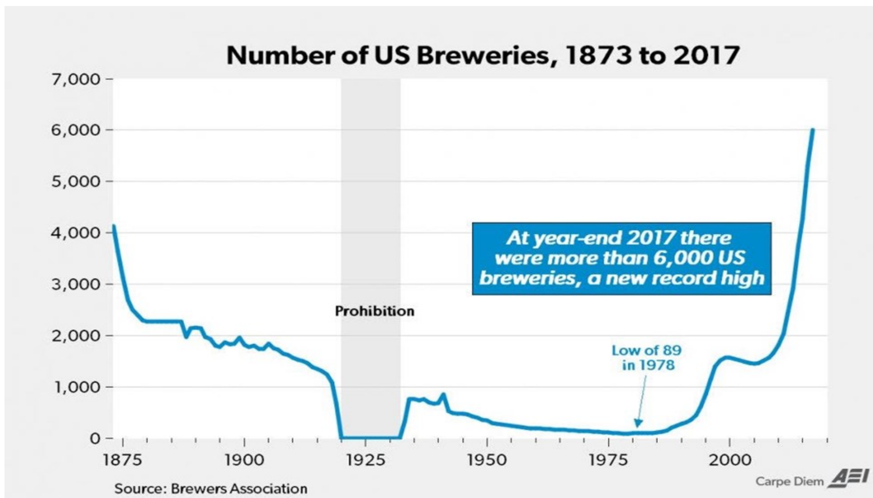
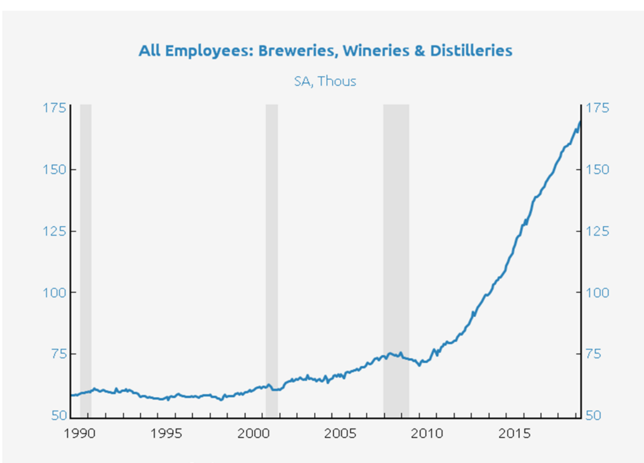
I wish I could say it could come from the American worker but here after years of hard-fought productivity gains, the average worker is now ensnarled in an environment of slow capital spending and low wage growth. As economic growth has centered around the knowledge economy, entire States like Kentucky are still under 2008 employment levels. While many Americans have been proactive with self-taught coding and the like, the long Internet hours, lack of sleep and stress have been difficult particularly with youngsters. In addition, costs have shot up, especially in housing. Rent costs as a percentage of disposable income have skyrocketed from 25% in '05 to 37.5% in 2016, a massive increase in such a short time. This has led loan companies to market loan specifically to renters who need help to make ends meet, a troubling sign. Homeownership isn't any better, in LA for example, it takes **43 years** to save up a 20% down payment by setting aside 5% a year on the city's median income. In San Francisco, it takes **40 years**! In NYC, **36 years**. In 1975, it took just **9 years**. The Federal Reserve has been apt to note "this shift raises new questions about the relative wealth and prospects of younger individuals, burdened by increasing levels of student debt, reduced homeownership and equity and auto loan delinquency." Hell, if you are Single to boot, on Tinder the top 20% of men compete for the top 78% of women!

So, what's the point, Alex? We live in a dystopian, deflationary horror zone? No. My point is we need to stop playing the talking point game, we need to get boots on the ground, we need to focus on **REAL BUSINESS & REAL INVESTMENTS.**

Believe it or not, world population growth has slowed tremendously to only .10 bips from over 2% in 1960. Sure, Africa may increase its population from 1 billion people to 5 billion by 2100, but we here in the US and developed nations are stuck with one another. Regardless of which side of the political aisle you are on, I think we can all agree that growth can help us all do better. Remember, "*It's the Economy, Stupid!*"

My favorite example of real boots on the ground growth is the Craft Brewing industry. After decades of only a few beer options the industry has ***exploded*** with growth.





Here in Boston local companies like NightShift, Trillium, Tree House Brewing and the ilk are offering beer-drinkers a wide variety of options and as demand has shot up thousands of jobs have been created - just the brewing facilities alone have created over a hundred thousand jobs.

And this statistic doesn't consider the farmer's growing the hops, the bars and restaurants serving the beer or any of the wide variety of knock-on growth effects. This should make those IPAs taste a bit better! And, what's next? Look at the Cannabis industry which appears to be on the verge of some of the most explosive evergreen consumer growth the US has seen in decades, think of all the brand-new jobs created! **Real Businesses, Real Jobs, Real Growth!**

Sound Bite This

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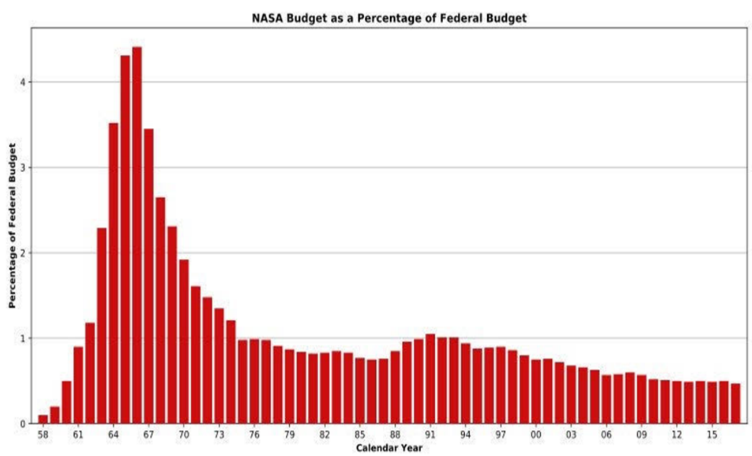
Speaking of Essex, we are a real business as well, and I believe that the firm is on the verge of real growth, but it hasn't been easy. I absolutely love this dialogue between two industry insiders on finding a new hedge manager on SumZero:

NK: "Tell us about the firm's selection process. You mentioned that you 're looking for the proverbial 'needle in the haystack' manager. How do you define that exactly?"

*JH: "I say needle in a haystack because although there are many sub-$25 million hedge fund managers out there, **there are not many with five-plus year track records** … it's not easy to run a business for several years on the income generated by such low AUM, so many small funds don't survive long enough to establish the kind of track record we want to see. In fact, it's a bit of a built-in filter for us. **The ability to survive … indicates to us that the manager has a true passion for investing**, is able to live simply, and has the kind of grit we like to see. We sometimes call it the "cockroach factor" - managers who aren't going to be kept out of the business by small AUM and who are naturally pretty tough. **They were born to invest and can withstand a lot of hardship – and probably already have**."*

It is true. It hasn't been easy, but I believe Essex products are at an inflection point now. Much like the growth vectors that we as a country are so desperate for, many of our clients and prospects are looking for the same growth from a financial perspective. According to SumZero, currently a staggering 65% of wealth is inherited that's up from 40% in the 70's. Many families are looking for managers to continue their legacies and create wealth for generations to come, so that we can create **REAL GROWTH from REAL BUSINESSES for the Future.** We will continue to invest wherever growth exists.

To wrap, I could go on-and-on with examples of our investments. Take Energy, a favorite contrarian position of mine. With $30 breakevens in the Permian and natural gas flaring left and right the Liquefied Natural Gas industry seems to be a no brainer. By early 2020, LNG export capacity stands to climb above 7 bcf/day and oil export capacity could approach 8.5 million barrels per day. By now the Bakken is producing more oil than Venezuela! LNG facilities create thousands of jobs through their life-cycle and create demand for pipelines, ships etc.



Source: Congressional Budget Office, 2017

Space exploration is another favorite. In 2016 the US spent $35b on space exploration but if we could take that back up to the glory days of NASA at 3-4% of GDP a whole new growth vector could create untold economic growth.

This incredible new opportunity was highlighted by non-other than Jeff Bezos recently, "A very fundamental long-range problem is that we will run out of energy on Earth. We don't want to stop using energy. But it is unsustainable. The good news is that if we move out of the solar system for all practical purposes, we have unlimited resources. ***If we're out in the solar system, we can have a trillion humans in the solar system, which means we'd have 1000 Mozarts and 1000 Einsteins.***" Sound bite that!

Cheers,
Alex Forse & Joseph C. McNay

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Essex Strategies

The Essex Micro Cap Growth, Small Growth and SMID Cap Growth strategies each share a common investment philosophy and process. Our team in Evanston is focused exclusively on managing long-only small growth strategies and has worked together for more than 15 years.

Micro Cap Growth: We look for under-followed, under-owned, under-appreciated companies & industries in early stages of acceleration.
Small Growth: The process focuses on identifying companies in an inefficient sector of the market at an inflection point where their growth rate is improving.
Small/Mid (SMID) Cap Growth: Our approach is to execute a systematic, fundamental process to find companies whose future growth prospects are not fully reflected in the price of the stock.

Global Environmental Opportunities Strategy (GEOS) operates at the nexus of environment and finance, investing in companies that enable greater natural resource and energy efficiency. GEOS is a listed-equity, global, all-cap strategy investing across nine environmental technology themes in long-only fashion with about 40 holdings. GEOS is clean technology and energy infrastructure-focused, with companies that exhibit generally-high growth rates.

Essex Research Strategy is co-managed by a team of investment professionals seeking growth equity opportunities across an all-cap universe. By employing fundamental top down economic and sector analysis with bottom-up stock picking skills, the strategy provides the investment team a wide framework in which to identify growth candidates regardless of market capitalization restraint. Individual client portfolios are offered in two profiles: aggressive growth or growth and income.

Essex Evolution Long Only is an aggressive All-cap strategy which primarily aims to uncover small and mid-sized companies that exhibit the potential for meaningful growth over time. Seeks to maximize returns by utilizing both fundamental and technical analysis with an emphasis on thematic investing and tactical market positioning. The Strategy is concentrated within 40-70 names and is sector agnostic.

Essex Evolution Long/Short strategy is an aggressive All-Cap equity strategy that aims to maximize returns by utilizing both fundamental and technical analysis with an emphasis on thematic investing and tactical market positioning. Specifically, we aim to understand key themes within dynamic sectors to capture the growth in those trends and utilize short positions to both hedge portfolio risk and exploit specific stock mispricing's.

Growth Equity is an All-Cap strategy designed to provide investors with exposure to growth companies in a market capitalization range of $100 million and up. The strategy is a concentrated portfolio of 50-70 companies diversified across domestic industry sectors that show accelerating earnings and sustainable revenue growth. Individual client portfolios are offered in two profiles: aggressive growth or growth and income.

Please refer to our firm's website at www.essexinvest.com for more information about Essex and the strategies we manage.