RGA
INVESTMENT ADVISORS LLC

January 12, 2017

2016 in Review

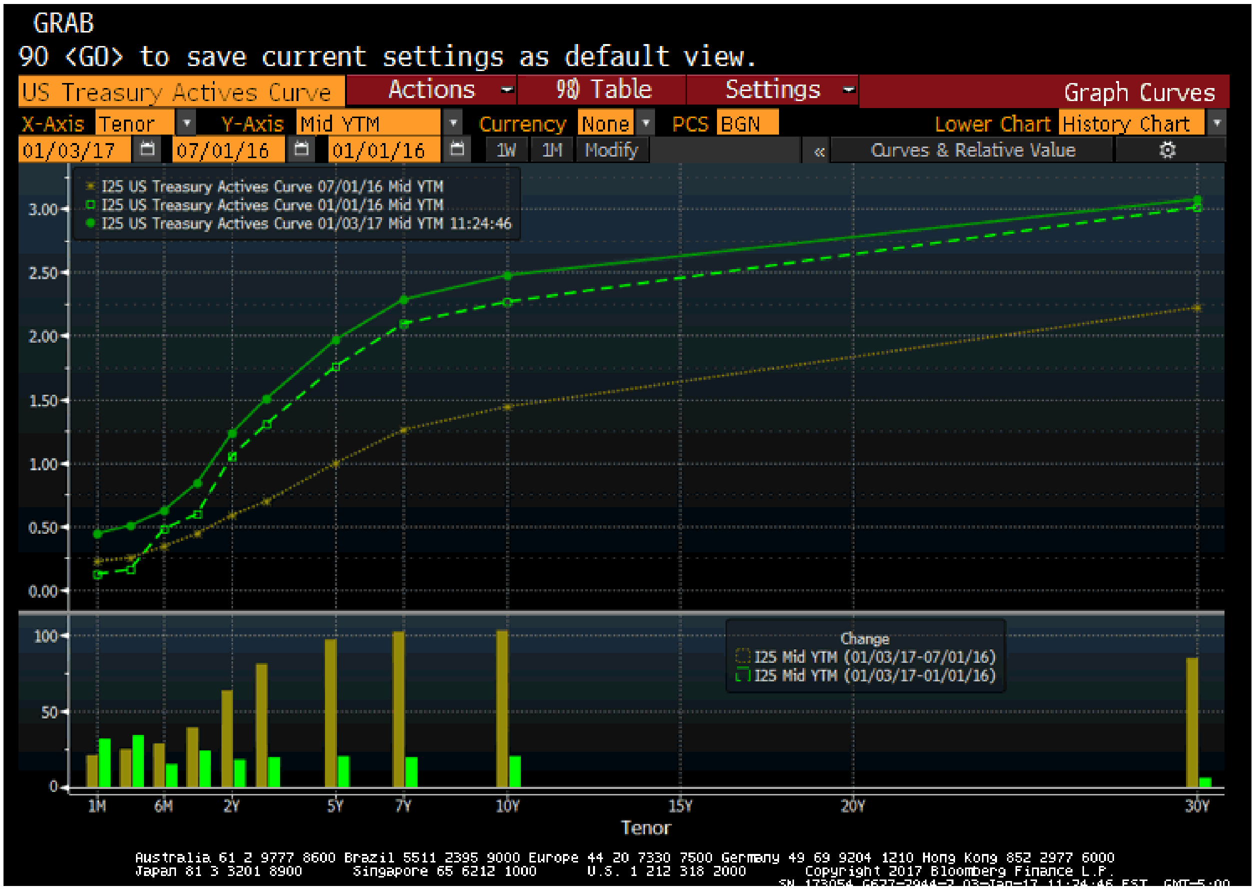
The calendar turning is an arbitrary metric-point from which to measure and assess the recent past and what it portends for the future. It is a moment when we can take a step back and think about our goals and specific paths to achieving them. At key moments during the year, we contemplate what our year-end commentary would look like were the year to end at that very moment. In 2016, there were four distinct periods in which the narrative forged a decisive break from what preceded it:

1. *The Meltdown*: January ended with the S&P down 5%. It was down 10% about halfway through the month. The only worse Januaries were in 1990 and 2009. The infamous "January Barometer" which holds "as January goes, so does the market" had many investors trembling. During this time, markets were trading in lockstep with crude oil.[1]
2. *The Snapback*: February was similarly volatile, with the S&P and Russell finishing within spitting distance of UNCH (unchanged), after a 6.52% and 9.05% respective drawdown. The 1st quarter finished up for the S&P after a strong March. Energy, mining and industrials led the way up.
3. *The slow grind*: This act lasted from the beginning of April through the day before election day. For the first part, markets slowly churned with an upward bias, only to be interrupted by an interlude dubbed "Brexit." The second half of this act saw the slow upward grind give way to a slow downward grind. While this downward phase will make history books as the "longest losing streak since 1980," the market fell just shy of 5% altogether.[2]
4. *The Post-Election Frenzy*-This was the outcome and reaction that no one predicted. Even the most enthusiastic Trump supporters did not expect a market rally upon a Trump victory. What overnight on Election Day seemed like a market catastrophe turned into a surge led by financial stocks, industrials and energy stocks. This strength persisted through year-end, with the tech sector the notable laggard.

While this summary focuses on equity markets, the action in bond markets was equally noteworthy. Coming into the year, consensus was that we were at the start of a rate hike cycle and that rates would

[1] http://www.rgaia.com/robust-networks-for-the-long-term/ chart from in here
[2] http://www.marketwatch.com/story/dow-futures-frozen-in-place-with-all-eyes-on-jobs-report-election-homestretch-2016-11-04

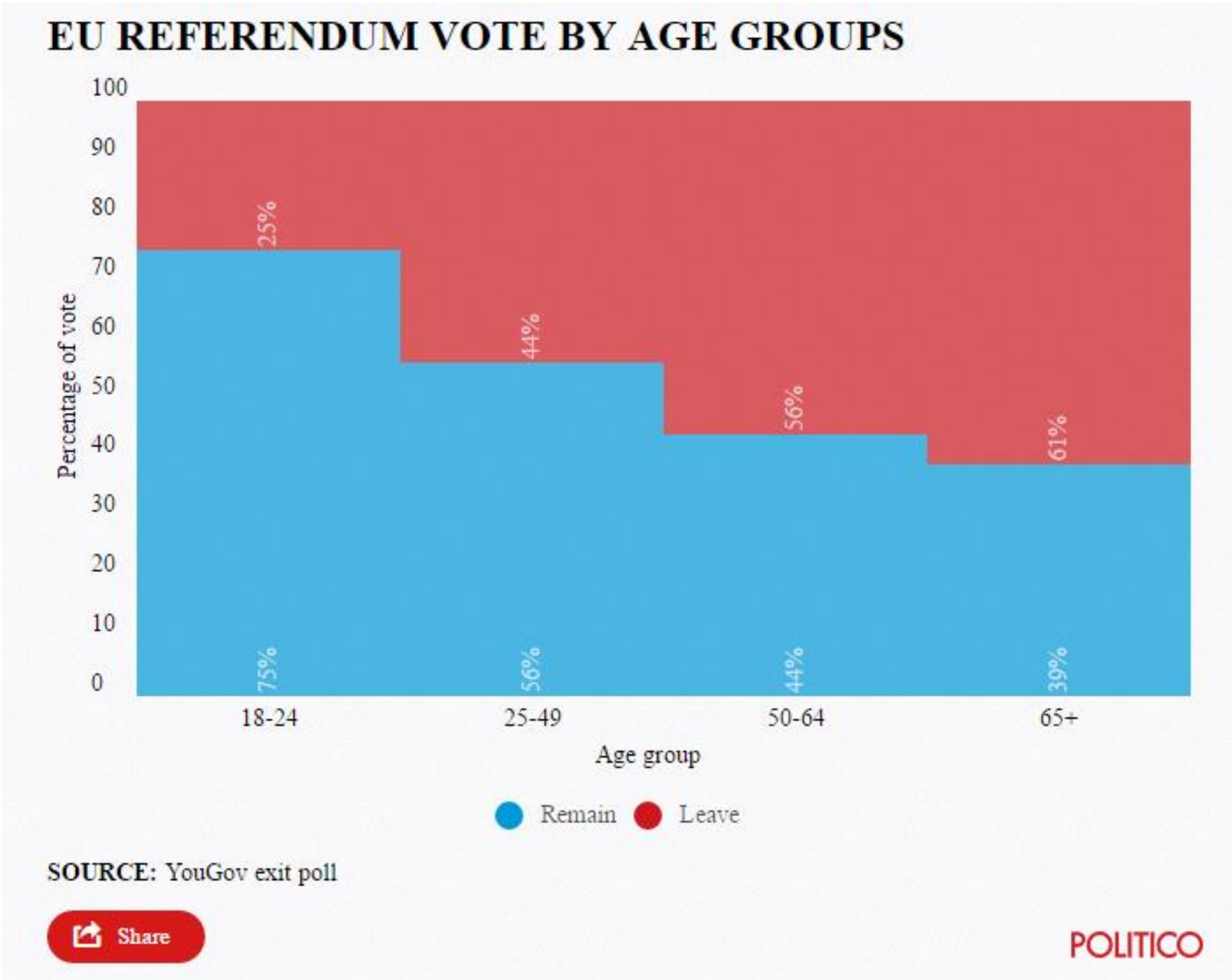
rise as the curve steepened throughout the year. Instead, in the first half, rates collapsed and the yield curve flattened. We felt this was "flat wrong."[3] By the end of the year, rates ended up higher, though the yield curve only steepened slightly. The path was volatile, to say the least.



Trading Politics

The year's political developments deserve further discussion, as they greatly influenced market action throughout 2016. Brexit was the first political landmine for markets during the year. This landmine left little collateral damage on global markets, with the recovery in US indices taking nary more than a few days. It remains to be seen whether the United Kingdom will actually "leave" the European Union, as the political processes were not prepared in advance, and the outcome was hardly popular across all demographic profiles. Notably, the younger voters (under 24) voted in favor of "Remain" by a 75% to 25% margin. [4]

[3] http://www.rgaia.com/the-yield-curve-is-flat-wrong/
[4] Vote stat and following graph from http://www.politico.eu/article/britains-youth-voted-remain-leave-eu-brexit-referendum-stats/



In a backwards-looking assessment of 2016, it is easy to forget that what looks like a strong year for equity markets, the pockmarks were severe, with serious questions raised at the time. At the time, prominent news sites and analysts alike dubbed Brexist "a Lehman Moment" implying that the consequences would be as severe for markets and economies as was the failure of Lehman Brothers in September of 2008.[5] We emphatically argued otherwise and were largely met by deaf ears for a few days until markets quickly repaired themselves and traders grasped how unclear the consequences would be. Our most poignant paragraph from the time is worth repeating today:

> The invocation of Lehman here strikes us as a case of "recency bias"—a form of post-traumatic stress disorder that the humans who operate markets exhibit in the aftermath of extreme events. The cleanest definition for the recency bias is that it "is the phenomenon of a person most easily remembering something that has happened recently, compared to remembering something that may have occurred a while back."[1] Ultimately it is easier to recall recent events, especially when a high level of emotion is involved. Ye the more emotion is involved, the harder it is to cleanly recall a sequence of events with a factual level of detail. This is why every time the markets have had a rough patch since the Great Financial Crisis, some investors wonder whether

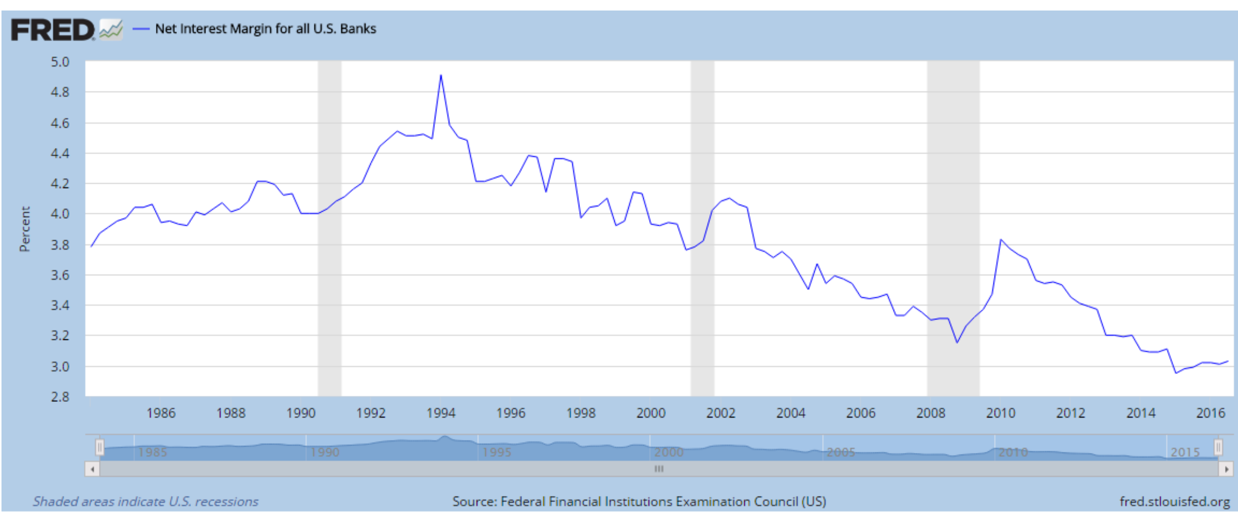
[5] https://www.bloomberg.com/view/articles/2016-07-04/brexit-is-a-lehman-moment-for-european-banks

it will be the next acute phase of troubles. A reality that we often cite in these instances is that it is far safer to fly in an airplane shortly after a crash happens, than just before. This is true because those who are stakeholders in the security of flying are on higher alert for any potential problems in the aftermath of disaster. The same is true in financial markets, with one of the clearest signs today being the very safe capital ratios in the financial sector. If you will recall, the troubles at banks were the transmission mechanism through which problems in markets became a real economic calamity, and while we are never immune from problems in markets, they are far less likely to spread and become really deep when in such good shape.

The U.S. Election has some similarities to Brexit. Ultimately we had what can be called a “populist” vote led by backlash against “elites” with a mandate to protect national interests in an increasingly complex and global economy. The market recovery post-U.S. election was even quicker than following Brexit. While it looks like markets have uniformly surged, the moves have been far more nuanced. The most cyclical sectors have seen the biggest boost, while the most yield sensitive have declined. Technology (in the middle) has done little, if anything. Importantly, most of the forces that have driven this "Trump Trade" were in place well before the election itself.

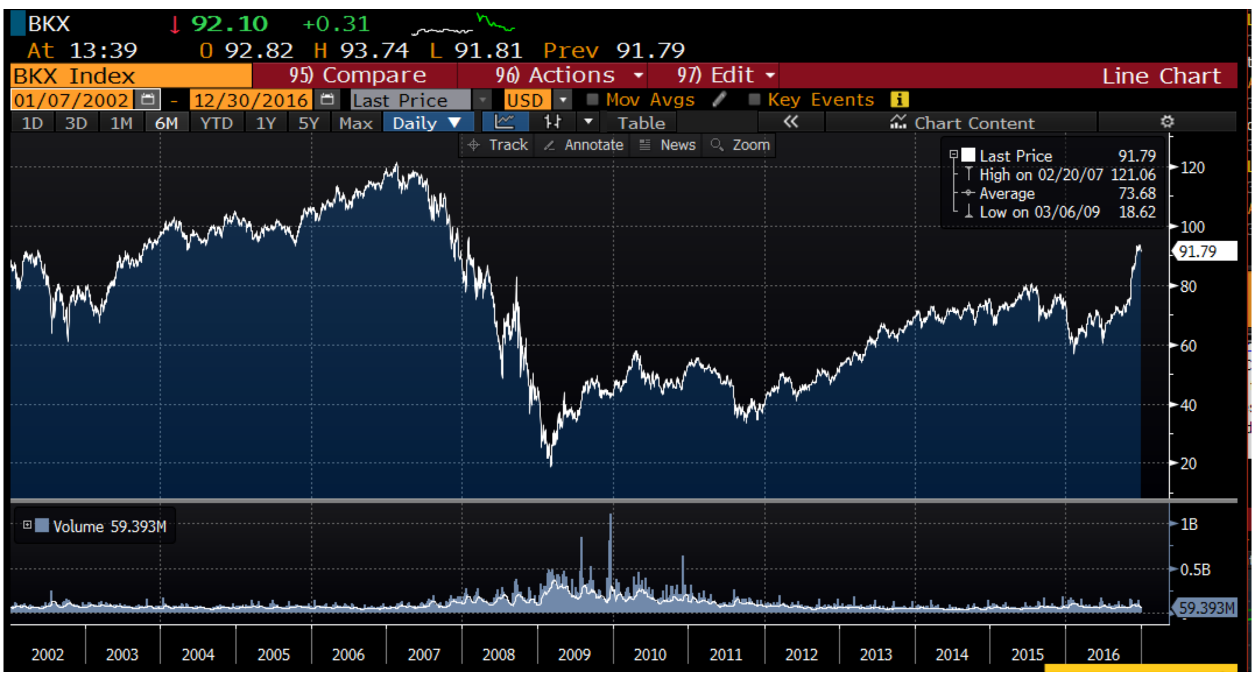
The cyclical sectors like energy, materials and mining, and industrials had led the way since the market's strong March. **Some of the narrative attribution, suggesting that a major tax reform, a $1 trillion stimulus and a more lax regulatory environment seem overbuilt excuses for an extension of what has been a multi-month rally. There is little evidence that such a stimulus can and will be passed anytime soon.** Tax reform might happen sooner, though the consequences are uncertain when considered alongside potential trade tariffs.

The most real rally in any sector since the election is in the financials. We say “real” in this case, because the shift in the yield curve will be consequential for earnings. Bank net interest margins bottomed in Q1 of 2015 and had been trending up, albeit modestly so through 2016.



Simply based on the yield curve action, this bottoming in the bank net interest margin will accelerate in 2017. Moreover, while in other areas, the rollback of regulation will be a more complex process, in financials, the administrative rollback of some of the more onerous provisions of Dodd-Frank are easiest. Lastly, and most consequentially, financials started this rally with such outlandishly cheap fundamental valuations that the entire move has taken the sector from substantially undervalued to modestly undervalued. In other words, financials are still cheap. While banks may appear "overextended" on charts in the short-run:

There is ample room for acceleration in the longer-term charts.

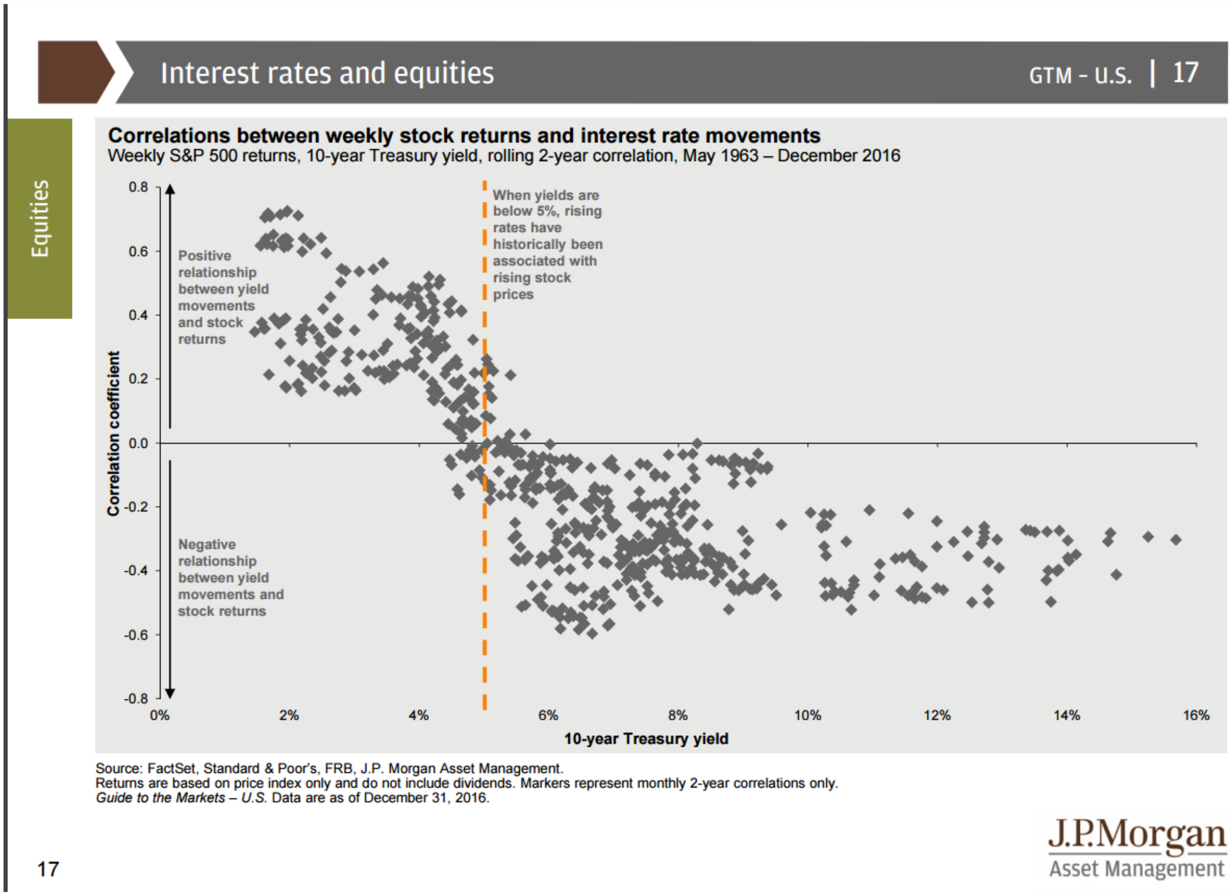


What happens with rising rates?:

For several years, we have pointed out how improving household balance sheets created a solid foundation for economic growth. Last year, we expanded on this argument with a look at how two forces—rising real wages and falling energy prices—were improving the income statement of households in a way that had not been seen in decades. This is not a narrative we see presented often, but the combination of strong balance sheets and improving income statements creates a compelling case why this post-financial crisis recession should continue despite its age.

The balance sheet improvement was enabled by falling interesting rates—households refinanced more expensive debt into cheaper, fixed rate debt that will keep debt burdens benign for the masses for the foreseeable future. Though this also beg a question we have been asked by many since the Federal Reserve Bank raised interest rates in December 2016: "will rising interest rates will hurt the economy?". We have oft-stated that this dilemma of accepting rising rates versus hurting the economy is a false one**. Our view is that rising rates are a reflection of real economic strength and improvement in underlying fundamentals, rather than an actual damper on the economy.** This is not always and forever our view, and to that end, we have emphasized that the next recession will come from the Fed tightening rather than any lingering deflation fears. As of today, think of rising rates as a reflection of an improving economy rather than a lid on anything overheating. As the following chart nicely shows, when rates are below 5% and rising, this tends to be very bullish for the economy:[6]

[6] https://am.jpmorgan.com/us/en/asset-management/gim/adv/insights/guide-to-the-markets/viewer



Biggest mistake:

We made more than one mistake this past year; however, numerically what is our biggest mistake does not appear obvious when looking at your account statements. You may have noticed that the best performing stock in the S&P 500 last year was a familiar name: NVIDIA Corporation (NASDAQ: NVDA). We owned this position for a while and earned a decent gain. This gain happens to be a pittance compared to what could have been had we simply held on to the position. For years, Wall Street's narrative on the stock focused on the declining demand for PC's and the failure of NVIDIA's Tegra processor to gain traction in the phone and tablet market. Seemingly overnight that narrative shifted to the surging demand for the company's server chips. **This error of omission reinforces several valuable lessons that we already should have learned, in particular, the value of patience and independent thinking. It also reinforces how seemingly random the search for "catalysts" in company selection actually is. The company's fundamentals--mainly a pristine balance sheet with gobs of cash & a high margin product with rapid demand cycles--remained essentially unchanged, but the narrative shifted entirely.**

This is but one reason we focus on the qualitative and quantitative elements of a company without spending too much time thinking about catalysts. Known catalysts in theory are incorporated into the market's pricing of a stock, and the unknown by definition cannot be neatly anticipated. Meanwhile, quality companies who generate cash at worst increase in value proportionate to retained earnings and growth, while their multiple changes with the whims of the market's narrative.

Most valuable lesson:

IMAX (NYSE: IMAX) has been a long-term core position for us, but during the fourth quarter we sold the stock. We have some fears that this could be another NVIDIA for us, though we think there is a legitimate reason behind this sale, and in that reason lies a valuable lesson. Since 2012, IMAX has grown revenues by 32%, with gross profit rising 43% and exhibiting some of the earnings leverage we expected. Unfortunately, net income grew a mere 5.9% and the ROE dropped from near 20% and growing to the low double digits. How is it that a company could grow the top line and gross margin so nicely with none of it flowing through to net income? There are other possible answers, but here the answer is so clearly bad management that we felt compelled to sell and further memorialize our learning here. We would accept the contention that the company hasn't exactly grown their top line and market share as quickly as we would have liked, yet the results still should have been better and to that again, we fault management.

When we pitched IMAX in the 2013 ValueConferences Wide-Moat Summit[7], we cited management in two of our risk factors for the company, with the most relevant here having been the following: "Little clarity on management's track record with allocating actual cash flow." If there is one area where management excels, it is in compensating themselves. We always felt management was promotional and well compensated, but attributed this in part to the "Hollywood" attachment to the commercial film business. When CEO Richard Gelfond was rewarded a special bonus for overseeing an IPO of the company's Chinese division, we were simply disgusted. In 2014, Gelfond made $10.58 million in total compensation, which surged to $14.5 million in 2015. The stock did ok during this timeframe (rising 23%), but as a proportion of net income, these are some huge numbers that hurt the value in many ways:

1. The proceeds should have gone to the company's coffers
2. The company is valued by the market on a multiple of earnings and this excessive compensation subtracted from it proportionately (for example: the company has traded around a 30x P/E for much of this timeframe. Were Gelfond paid a more modest $5 million instead, the stock would be worth nearly 15% more on a P/E basis, forgetting about the accrued earnings)
3. Most of the compensation is in the form of RSUs, secondarily in stock options. While the RSUs take time to vest, both forms are dilutive of shareholders. Worse yet, Gelfond habitually sells nearly all his vested shares as they vest.

We also have questions and concerns about the company’s investments happening in the form of ramped operating expense. Our concerns are both in terms of how much they cost, and how they are structured. IMAX entered into a joint venture to develop and sell in-home private theaters to high net

[7] http://www.rgaia.com/slide-deck-from-valueconferences-wide-moat-investing-summit-2013/

worth individuals.[8] The idea seemingly makes sense as a natural extension of IMAX' core mission; however, it was structured as a joint venture with a Chinese company. This makes little sense, for IMAX brings the technology and the media to the partnership, while the Chinese company brings little. That this happened at a time when IMAX was looking to IPO its Chinese division entirely is further suspect. Why wouldn't the company develop this on its own, or with more established Western companies where concerns of governance and the ability to move around cash and other assets is unquestioned?

The second big investment is even worse, for we cannot see how it is a natural extension of the IMAX brand. IMAX is developing a spin-class concept called the IMAXShift, which uses the company's immersive screens to create the backdrop for the class.[9] The company spent the better part of a decade trying to move beyond niche uses and gain acceptance as a format in the entertainment industry only to now invest some of the proceeds from that success in half-baked, uncertain ideas with limited upside. We would be less irritated by these investments were the company clearer on its US-based growth path and what it can do to squeeze out competition from other premium large format competitors. The company was in the pole position by a wide margin. That margin is smaller now, though still present; yet, the company has not communicated any broader plan about growing its share of US theater spend.

Over the course of our holding period, we have tried to reach out to investor relations and management with phone calls and letters to discuss some of our questions. For one reason or another, we have been unable to have a constructive conversation with anyone at the company regarding first, our interest, second, our concerns. We find this surprising in light of our publicly bullish stance. We feel better positioned on the sidelines now.

New Buys:

In the quarter we made three new buys: one a small cap that we will introduce once we complete purchasing our position; second, a position in Expedia, Inc (NASDAQ: EXPE); third, a position in Under Armour (NYSE: UA). These purchases were spread both before and after the election. We point this out to highlight how little the election actually impacted our fundamental analysis. While we do have concerns about some shifts in policies, we try to account for this in consideration of each position's business.

Getting Longer the OTAs:

You may have noticed that with the Expedia purchase, we now own the two largest online travel agencies (OTAs). We think there is a solid basis for owning both at this juncture. We view these two positions as one larger wager on the proliferation of the experiential over consumption spending habits of millennials and a growing interest in travel, generally speaking. However, we also think there are considerable differences that make the risk/reward profiles of the two unique from each other.

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[8] http://www.imax.com/zh-hans/content/imax%C2%AE-corporation-and-tcl-launch-imax-private-theatre-palais%E2%84%A2-china

[9] http://www.imax.com/content/imax-pilot-immersive-indoor-cycling-studio-concept

While both businesses book hotels, airlines, rental cars and to a lesser extent, activities, the main driver of profitability is from the hotel business. Priceline (NASDAQ: PCLN) primarily uses what's called the "agency model" while Expedia operates a "merchant model." The agency model means that when a customer books a hotel on one of Priceline's properties, the transaction is between the customer and the hotel, with Priceline as the intermediary taking a cut. In the merchant model, the customer's transaction is with Expedia itself, with Expedia in charge of booking the room and handling the payment. The merchant model generates commissions per each room booked; however, the agency model has less risk associated to it, is more easily scaled and has higher long-term margins on the whole (in contrast to a per room margin).

How these two companies evolved to operate with different models is best explained with their respective geographies. Priceline's major value driver is Booking.com which mostly caters to the European market. While the hotel chains do have a presence in Europe, the continent's hotel industry is far more fragmented, with a more abundant supply of boutique, individually owned accommodations. In contrast, Expedia mostly caters to the U.S. hotel market, where boutiques are still present, though far less so than in Europe. Hotel chains operate the majority of properties (whether via franchise or direct ownership). Hotel chains prefer the merchant model to the agency model, because the agencies take a cut off the top without taking any of the business risk associated to it. Further, in the merchant models, the chains can use their scale and commensurate leverage to negotiate deals that are unique to their own interests and needs. This difference in business model and thus geography is an important component to our rationale for owning both.

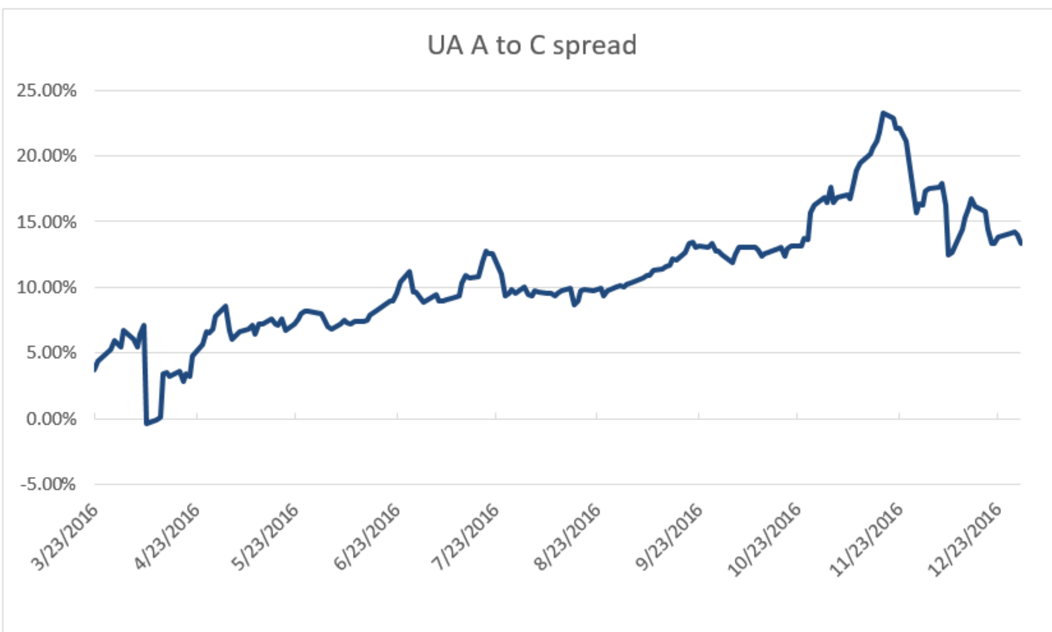
In the beginning of the year, Priceline was as cheap as it has been outside of the Icelandic volcano eruption and Great Financial Crisis, despite an outstandingly consistent business with a solid growth runway. Expedia, on the other hand, was cheap, but not exceedingly so. Priceline was trading at only a slight valuation premium to Expedia despite the agency model's superior margin profile. Since that time, Priceline's stock has outperformed Expedia by nearly 30%, creating a substantial valuation gap that we think is unjustified. Expedia's problems can be summed up by one word--the company needed some "digestion." The stock had appreciated substantially in 2015 and needed to digest the upmove and the company had made a series of substantial acquisitions that needed some digestion operationally. The two main acquisitions were Orbitz and HomeAway, both of which we really like. Orbitz expands Expedia's flight-booking capabilities and offers the opportunity to add Expedia's lush hotel inventory to the offering on Orbitz itself. HomeAdvisor greatly scales the supply of "rooms" available on the Expedia platform, by bringing both HomeAdvisor itself and VRBO into the fray. This also mitigates the risk presented by Airbnb to the hotel industry.

With the U.S. hotel industry dominated by chains, one of the primary concerns that impacts Expedia more than Priceline is the hotel industries quest to capture more bookings for itself. HomeAway helps diversify away from this risk. Expedia has also taken smart steps in forging deals with some chains in order to turn this risk into an opportunity. A great example of this is Expedia's recent deal with Marriott whereby Expedia would provide the technological infrastructure for Marriott's own booking website while offering the flights, rental cars and entertainment add-ons to those customers who want to book on Marriott[10]). Similarly, Expedia signed a deal with Red Lion Hotels to incorporate Red Lion's reward program into the booking process for those who secure Red Lion reservations on the Expedia website.

At this point, Expedia is trading at 10x next year's consensus EBITDA, which we think is conservative. The stock is priced for low single digit growth, yet we think there will be a period of double digit growth on the horizon. Management has a great track record of making accretive acquisitions and driving shareholder value. John Malone, through Liberty Media is the controlling shareholder and board member, and his outstanding long-term record of value creation is an important influence on the company's culture and values. Together, we think our positions in Expedia and Priceline give us great exposure to an important secular trend (experiential spending), at valuations on the cheap side of fair, with outstanding management teams to ensure shareholders are rewarded.

Athleisure is a Lifestyle, not a Trend

This is but one reason we purchased shares in Under Armour. Under Armour is not per se a cheap stock, but it is high quality with as lush a growth runway as any stock we follow. This past year was a rough one for the stock on the heels of slowing growth, compressing margins and a share class split that raised questions about corporate governance. The share class split is actually a key reason why we felt the time was right in creating an opportunity for us. A picture tells the story neatly.



Under Armour had done traditional splits in the past; however, this time, the company opted to do something out of the tech company playbook. Instead of a traditional split, Under Armour split its shares into two classes: the A shares, which would have voting rights, and the C shares which would not. This was an effort for Kevin Plank to keep voting control if he sold his controlling shareholdings down to a level beneath what would afford the voting rights to do so. To some in Wall Street, the optics of this are

[10] https://skift.com/2016/09/06/expedia-is-now-helping-marriott-sell-hotels-on-the-chains-website/

not ideal, yet to us, we feel a position in Under Armour with or without voting rights is a co-investment as a junior partner alongside Kevin Plank (Founder and CEO of Under Armour)-a smart hustler who built the company from the ground up. When the share split first happened, there was a little more than a 3% spread between the A shares and the C shares. Within a few months this spread jumped into the double digits. After Under Armour's take-down of long-term guidance in October, the spread surged to more than 20%. We think there were structural and technical reasons behind the extremity of this spread.

1. The stock had a large short-interest on account of its excessive valuation coming into the year. After the split, this short interest situated itself in the far more liquid A shares, which at that point were trading with the UA symbol.
2. Kevin Plank filed a 10b5-1 selling plan that would have him selling C shares, but not A shares.
3. Baillie Gifford and other large institutions with a mandate to own voting shares sold off their entire C share position to buy A shares (Baillie has carried an 8+% position here).
4. Lack of awareness-since the UA symbol associated with the stock defaulted to the A shares following the original split, most traders and all analysts focused their attention on those shares and essentially ignored the existence of the C.

One consequence of the widening spread was that the C shares got to our long identified buy price well in advance of the A shares, at which point we established half of our position. This was a nice learning lesson, for in the future we will respect the fact that when everyone on Wall Street values a company according to one share class, a second share class reaching even Wall Street's undervalued metrics would not trigger enthusiasm. Shortly after completing our position, the company announced a change in symbols that would give the "C" shares the traditional UA symbol, and the A shares, the new UAA badge. As a result, the liquidity profile of the respective shares switched overnight and the combination of the company's messaging that closing the gap would be a priority and taking this optical though meaningful step towards that end elicited the desired response (at least in part). As shareholders of the "inferior" class, we liked this. As market observers, we found this one of the more interesting experiments in the "price anchoring" bias of traders we have ever seen.

What do we own?

In the early-year selloff we picked up and/or added to some quality companies for the long-term. Our overseas holdings had good price returns; however, the Dollar’s strength relative to the euro was once again a drag on our total returns. Our holdings in the pharmaceutical sector hurt considerably during the year and in the process, our lush returns experienced over the prior two years in that space were handed back to Mr. Market. Below are our three best and three worst positions during the year. We no longer own one of the leaders and two of the laggards. Total returns are indicated based on the stock’s performance during our holding period within 2016 and are denominated in the US dollar.

The Leaders:

Johnson Outdoors Inc. (NASDAQ: JOUT) +91.0%

GrubHub Inc. (NASDAQ: GRUB) +77.8%

JPMorgan Chase & Co. (NYSE: JPM) +54.7

The Laggards:

Vertex Pharmaceuticals Inc. (NASDAQ: VRTX) -39.0%

Teva Pharmaceutical Industries Limited (NYSE: TEVA) -35.5%

IMAX Corp (NYSE: IMAX) -22.6%

Best books we read in 2016

- *Tubes: A Journey to the Center of the Internet* by Andrew Blum- fascinating book for anyone interested in how physical structure that enables the Internet works. This is great for anyone with casual interest and those looking for an investment angle to Internet infrastructure.
- *Algorithms to Live By: The computer Science of Human Decisions* by Brian Christian and Tom Griffiths- an outstanding self-actualization and efficiency book. The book takes a mathematical approach to finding optimized structures through which to make decisions about everyday life problems.
- *The Snowball: Warren Buffett and the Business of Life* –by Alice Schroeder A thorough biography of Buffett the investor and individual that sheds new light on what makes Buffett so unique.
- *Wages of Destruction: The Making and Breaking of the Nazi Economy* by Adam Tooze - A detailed history of the Nazi Germany economy from the economic backdrop behind Hitler's ascension to power, to the industrial prowess of the wartime industries, to the collapse.
- *Shoe Dog: A Memoir by the Creator of Nike* by Phil Knight- Phil Knight's personal memoir's of how he ended up founding Nike and leading it to tremendous success. Knight is an amazing storyteller, with a prolific memory for the finest details, and an enlightened world view. Anyone could learn a lot from reading Knight's telling of Nike's history.

Thank you for your trust and confidence, and for selecting us to be your advisor of choice. Please call us directly to discuss this commentary in more detail – we are always happy to address any specific questions you may have. You can reach Jason or Elliot directly at 516-665-1945. Alternatively, we've included our direct dial numbers with our names, below.

Warm personal regards and all the best for a healthy, happy and prosperous 2017,

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