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Bjorkland Fund
March 16, 2017

WWE (Worldwide Wrestling Entertainment)

Conclusion

Buy WWE at the current price of \$36.98 for a potential return of ~ 22% (\$46.47). This is accompanied by a downside risk of ~15% for a return of \$34.13. With WrestleMania upcoming and the recent signing of Ronda Rousey this company is gaining attention at just the right time I believe this is a buy.



1. Business Improvement in Struggling Television Industry

- WWE maintained #1 and #2 shows with SmackDown and Raw on USA Network. These two shows were up 6% and flat respectively in terms of ratings growth compared to the network being down 11%.
- Adjusted EBITDA for the segment increased 26% and revenue was up 9.8% YoY for Q4.

2. New TV Deal

- WWE is actively searching for a new network television deal as theirs expires in September 2019. Upper management has confirmed that the deal will be announced in 2018.

3. Increasing Social Media Presence

- The company has been increasing fan interaction across all social media platforms. This drives an increase in AVOD (ad-supported video on demand) which in turn drives revenue growth within the media segment.

4. Possibility of Acquisition

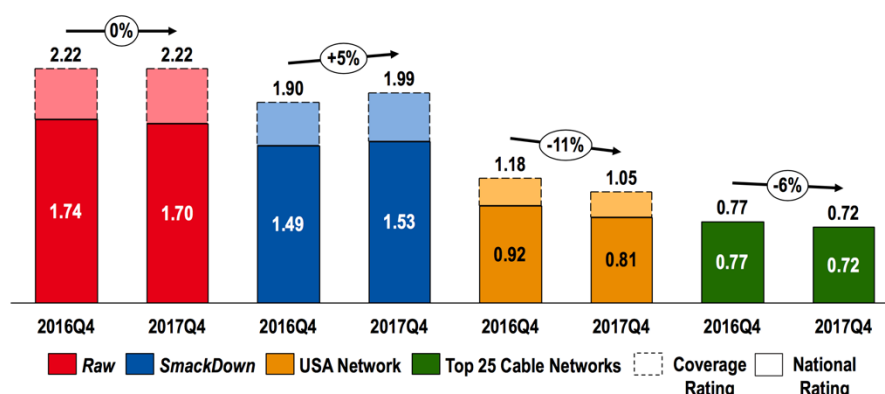
- During talks of a new television deal there has been a possibility of FOX acquiring the company outright dependent on FOX's deal with the UFC. Accompanied with the CEO Vince McMahon's interest in restarting the XFL this might be the time to sell.

Overall I believe that WWE is set to benefit from increased exposure due to WrestleMania and Ronda Rousey. This will lead to revenue expansion within the media and consumer segments. This should lead to a beat and raise quarter for the company in Q1 of 2018.

Investment Thesis

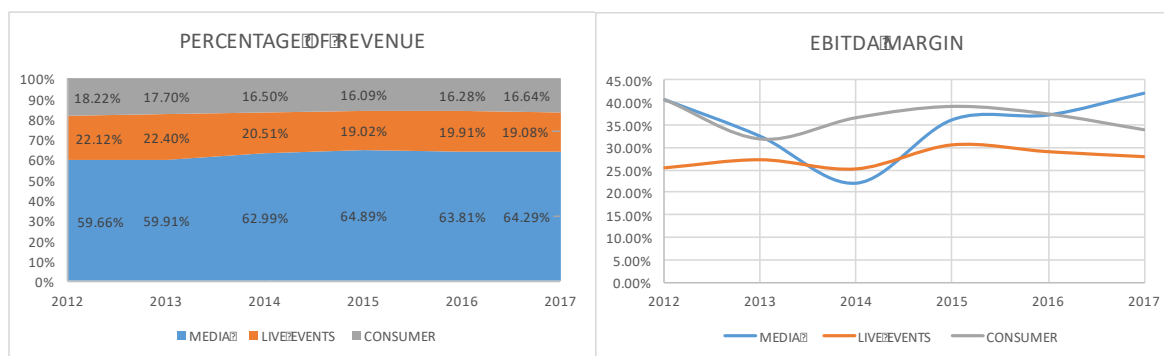
1- Business Improvement in Struggling Television Industry -

WWE is in the television entertainment space, which means that the most important metric for the company's regularly scheduled programming is ratings. WWE airs on the USA network with two main shows, SmackDown and Raw. From Q4 2016 to Q4 2017 the USA Network's ratings are down 11% with TV ratings in general down 6%. In comparison, Raw's ratings showed no change and SmackDown's ratings were up 5% YoY.



This increase in ratings YoY translated to a 12% growth in revenue in the company's television segment. This segment makes up over 33% of WWE's revenue which is why the ratings outperformance is key. The company also gets a 51+ percent EBITDA margin on the segment which is very significant.

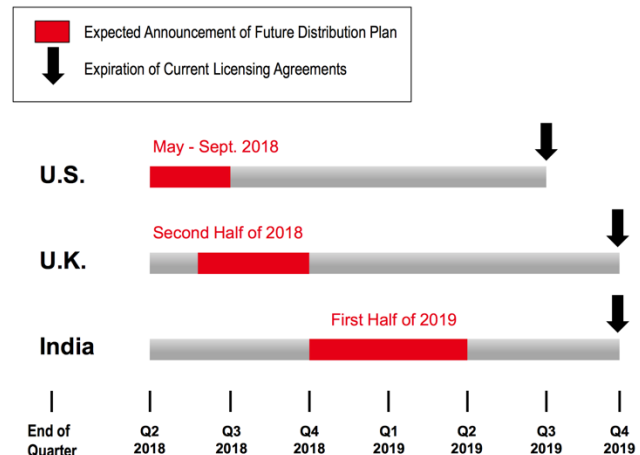
The media section of WWE's business makes up 64% of WWE's revenue and has improved its EBITDA margin YoY and grown revenue by around 9%. This segment also makes up roughly 60+% of WWE's total revenue and is therefore the most critical segment in terms of providing a stable base for growth.



Within the media section is the WWE Network segment which is a subscriber based model that has seen 8% YoY growth, now amounting to 1.53 million subscribers. This is one of the most attractive segments for the company as they will look to expand this along with international growth in the coming quarters. This portion will also see a jump as WrestleMania gets closer.

2- New TV Deal

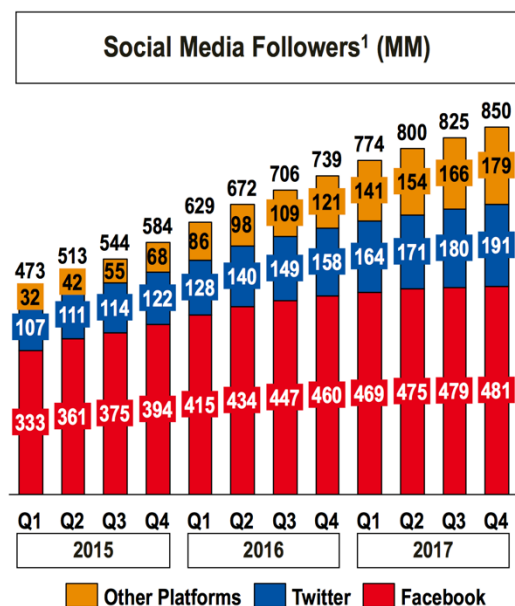
It has been well documented that WWE's agreement with USA Network expires in 2019. WWE therefore is looking for suitors to acquire the company's rights. Three of the potential suitors include FOX, Amazon, and Facebook and the most recent figure is \$400M a year in TV rights, which would be double the company's current deal with NBC and USA Network. For my DCF model, I only incorporated half of that upcoming deal into the assumptions. However, I believe this is extremely conservative as WWE has unveiled global expansion plans and is committed to acquiring the best talent available (Ronda Rousey).



3- Increasing Social Media Presence

Social Media engagement has been increasing significantly in the last few years and with this comes revenue in the form of AVOD (Ad-Supported Video on Demand). This is grouped into the Digital Media segment of WWE's business. This segment has seen revenue growth of 60% over the last 3 years coupled with EBITDA margin improvement from 4.6% to 27%. The addition of Ronda Rousey and the upcoming WrestleMania even will further push exposure and then revenue growth as well. WWE held its position as the #1 sports channel on YouTube and the #2 channel overall. Social media engagements were also up 4% YoY that again leads to an increase in AVOD.

Another important part of WWE's business model is increasing fan interaction and viewership through mobile platforms and online video. The key metric here is AVOD (ad-supported video on demand) Global Views. These videos are ad generating and therefore revenue generating and have seen massive growth since their inception in 2010. These videos have grown in viewership from 0.5B in 2010 to over 5.8B in 2017.



4- Possibility of Acquisition

Throughout the process of negotiating a new television deal, it has been reported that the possibility of being acquired in total by one of the aforementioned companies had arisen. This

would be much further down the road however, with CEO Vince McMahon looking to start the XFL an outright sell of WWE is not out of the equation.

Ownership Profile

Investment Advisors own roughly 61% of the float outstanding with Vanguard and BlackRock holding major stakes. However, what is very interesting is the 28.25% ownership by hedge fund managers. This coupled with the very small short interest (4 DTC) means that these investors are all in it for the long haul.

| Ownership Type | 02/26/17 | Curr ↓ | Change | |
|------------------------|----------|--------|--------|---|
| 11) Investment Advisor | 60.92 | 61.42 | +0.50 | ■ |
| 12) Hedge Fund Manager | 28.02 | 28.25 | +0.23 | ■ |
| 13) Individual | 5.14 | 4.12 | -1.02 | ■ |
| 14) Corporation | 3.79 | 3.06 | -0.73 | ■ |
| 15) Pension Fund | 1.14 | 1.18 | +0.04 | ■ |
| 16) Brokerage | 0.21 | 0.81 | +0.60 | ■ |
| 17) Insurance Company | 0.20 | 0.62 | +0.42 | ■ |
| 18) Bank | 0.29 | 0.25 | -0.04 | ■ |
| 19) Government | 0.17 | 0.16 | -0.01 | ■ |
| 20) Endowment | 0.06 | 0.05 | -0.01 | ■ |
| 21) Other | 0.05 | 0.04 | -0.01 | ■ |

Management Profile

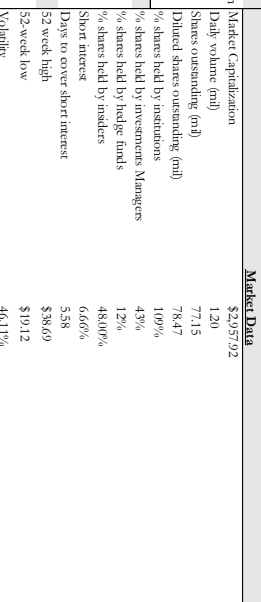
- Vince McMahon CEO – Cofounder of the company
- Paul “Triple H” Levesque - Executive Vice President, Talent, Live Events & Creative since August 2011. In this role, he oversees the Company’s Talent Relations, Talent Development and Live Events departments. Additionally, Mr. Levesque plays an integral role in the Company’s creative process, helping shape the creative direction and storylines of WWE’s programming. Mr. Levesque is revolutionizing the business with his global recruiting strategy and developmental training processes.
- Stephanie McMahon - Chief Brand Officer since November 2013. She is responsible for working with WWE’s business units to support key growth initiatives and represents WWE as its global brand ambassador. She is the primary spokesperson for WWE’s CSR initiatives, including Special Olympics, Susan G. Komen and Be a STAR, WWE’s anti-bullying program.
- George Barrios - Co-President since February 2018. Before that, Mr. Barrios was the Chief Strategy & Financial Officer since November 2013 and Chief Financial Officer since March 2008.

*Total executive compensation has shrunk 38% in the last 3 years whereas the stock has increased three fold

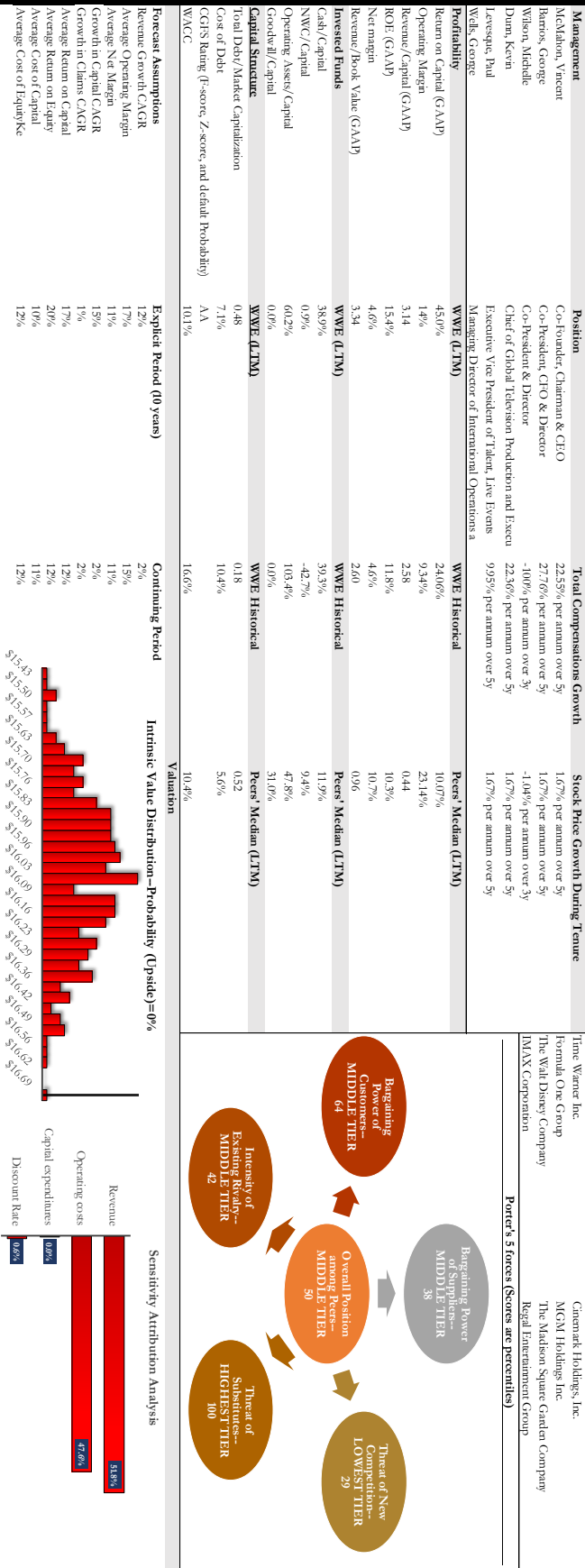
Risks

- Television deal comes in under the expected amount and investors react negatively however with recent high profile events and talent acquisitions I believe this is unlikely
- Social Media exposure declines, causing a shrinkage in segment revenue and margin contraction

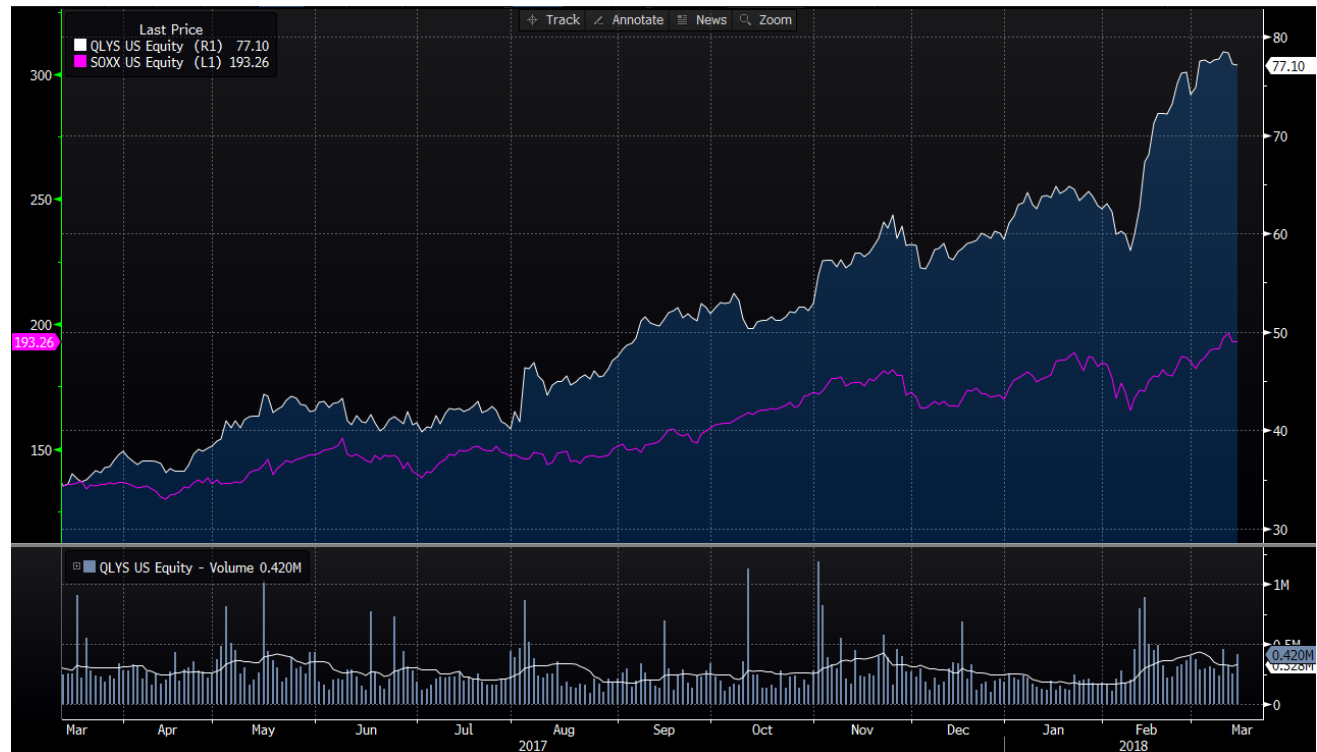
BULLISH



| Quarter ending | Past Earnings Surprises | | Market and Credit Scores | | Industry and Segment Information | |
|----------------|-------------------------|---------|--|--|------------------------------------|--|
| | Revenue | EBITDA | Recommendation (STARS) Value -3 | LTN Revenues by Geographic Segments | LTN Revenues by Business Segments | |
| 12/31/2016 | 7.92% | 0.62% | Recommendation (STARS) Description - Hold | North America - 75% | Network - 25% | |
| 3/31/2017 | 3.31% | -20.63% | Quality Rating Value - B | United Kingdom - 10% | Television - 34% | |
| 6/30/2017 | 19.56% | | Quality Rating Description - Lower | Europe/Middle East/Africa (Excluding United Kingdom) | Home Entertainment - 1% | |
| 9/30/2017 | 3.57% | | Short Score - 1 | Asia Pacific (APAC) - 8% | Digital Media - 4% | |
| 12/31/2017 | 2.22% | | Market Signal Probability of Default % (Non-Ratings) | Latin America - 2% | Live Events - 19% | |
| Mean | 4.40% | 6.79% | | | | |
| Standard error | 1.0% | 5.8% | Credit/Model Score (Non-Ratings) -1b- | | | |
| | | | | Lions Gate Entertainment Corp. | Zhejiang Huace Film & TV Co., Ltd. | |



Qualys, Inc. provides cloud-based network security software for organizations in various sectors around the world. The software provides organizations with vulnerability management, automatic network monitoring, IT asset identification, and an overall view of security and compliance across the organizations entire IT infrastructure.



Buy

| | |
|--------------------|-------------------|
| Current Price: | \$77.10 |
| Target Price: | \$95.18 |
| Market Cap: | 2.9B |
| Average Volume: | 328k |
| ROE: | 12.7% |
| Ke: | 8.18% |
| 52 Week Range: | \$33.85 - \$79.40 |
| TTM EBITDA Margin: | 25.18% |

Catalysts:

- **Short Term:** Recent acquisitions of relevant cloud technology companies integrating into Qualys current solutions; current domination of market through high value partnerships
- **Mid Term:** Advancement of cloud tech through rigorous R&D along with active M&A for further acquisitions
- **Long Term:** Worldwide transition into cloud technology deployment

Thesis:

Qualys Inc. is pioneering cloud based cybersecurity and compliance solutions for the global market. Strategically selected acquisitions are providing Qualys with instant injection of technology that compliments their existing product line and helps push it further. Currently, Qualys is leading the market through their unprecedented reputation through partnerships with major companies such as Microsoft, IBM, CISCO, and AVAYA. The company possesses strong revenue growth while maintaining their margins through effective management and superior product. The cloud technology industry is poised for strong growth in the future; industry growth coupled with strategic acquisitions, high level partnerships, and aggressive forward-looking M&A, Qualys is positioned to generate value in the future.

Product:

Qualys Inc. offers a plethora of security and compliance solutions to their customers through asset management, IT security, compliance monitoring, and web application security. Asset management is a live view into an organizations global IT assets; IT security ranges from vulnerability management to continuous monitoring of networks; compliance monitoring maintains regulatory IT management; web application security includes scanning of and firewalls for internet activity. Below is a further breakdown of their solutions:

Qualys Cloud Platform Apps

ASSET MANAGEMENT

| | | |
|---|--|--|
| AI Asset Inventory Maintain full, instant visibility of all your global IT assets | SYN CMDB Sync Synchronize asset information from Qualys into ServiceNow CMDB | CI Cloud Inventory (Beta) Inventory of all your cloud assets across AWS, Azure, GCP and others |
| | | CRI Certificate Inventory (Beta) Inventory of TLS/SSL digital certificates on a global scale |

IT SECURITY

| | | |
|--|---|--|
| VM Vulnerability Management Continuously detect and protect against attacks, anytime, anywhere | TP Threat Protection Pinpoint your most critical threats and prioritize patching | CM Continuous Monitoring Alerts you in real time about network irregularities |
| IOC Indication of Compromise Continuously monitor endpoints to detect suspicious activity | CS Container Security (Beta) Discover, track, and continuously protect containers | CRA Certificate Assessment (Beta) Assess all your digital certificates for TLS/SSL vulnerabilities |

COMPLIANCE MONITORING

| | | |
|---|--|--|
| PC Policy Compliance Assess security configurations of IT systems throughout your network | PCI PCI Compliance Automate, simplify and attain PCI compliance quickly | FIM File Integrity Monitoring Log and track file changes across global IT systems |
| SCA Security Configuration Assessment Automate configuration assessment of global IT assets | CSA Cloud Security Assessment (Beta) Get full visibility and control across all public cloud instances | SAQ Security Assessment Questionnaire Minimize the risk of doing business with vendors and other third parties |

WEB APPLICATION SECURITY

| | |
|---|--|
| WAS Web Application Scanning Secure web applications with end-to-end protection | WAF Web Application Firewall Block attacks and virtually patch web application vulnerabilities |
|---|--|

Vulnerability management is the forefront of these technologies that continually scans assets on premise as well as on the cloud at endpoints. There is minimal network impact from VM meaning a high-level of security at an

extremely low efficiency cost. Free trials are offered for potential clients to familiarize them with the company's tech along with free training for current clients. For clients, employing this tech couldn't be easier – there is no software to download, databases to maintain, or servers to put in place; Qualys maintains all of this and the client merely accesses it all through a web browser. The web browser has dashboards on its UI that can search for any IT assets, whether on the premise, cloud, or at endpoints, in two seconds.

Aside from their flagship vulnerability management, Qualys' products are meant to fully secure an entire organization's network. A quote from CISCO's team audit lead Doug Dexter, "We use pretty much every product that Qualys has come out with. I don't think there's a product that Qualys makes that we don't use somewhere." Wholesome IT solutions is the goal for Qualys which is being progressed by internal R&D along with acquisitions of smaller companies that will be discussed further later on.

Products offered by Qualys are normally on an annual subscription service, with another option for small companies on a "pay per scan" basis.

Acquisitions:

Qualys recently acquired the assets of NetWatcher and Nevis Networks both in 2017. NetWatcher's technology stack includes solutions for threat intelligence, active monitoring through all on premise, cloud, and endpoint IT assets, insider application vulnerability, and compliance reporting. Based on the previous description of Qualys technology, the assets acquired from NetWatcher will be integrated in the next 12 months seamlessly into Qualys' current stack. Assets acquired from Nevis Networks focus endpoint scanning and security to provide compliance across all endpoints along with mapping of all endpoints for transparent visibility.

Based on the description of the assets acquired from both NetWatcher and Nevis Networks, it's evident that Qualys' M&A strategy is disciplined in progressing their current solutions opposed to just pushing their top line. In the Q4 earnings call, Philippe Courtot (Chairman and CEO) talked about using metrics similar to Microsoft for acquisition pricing – essentially pricing an acquisition in terms of paying a certain dollar amount per engineer that the prospective company has. Qualys is starting to derive their own metrics from the Microsoft model to ensure acquisitions are optimally priced.

The future target companies for Qualys are small cloud based technology firms that already possess the adequate tech stack to integrate into Qualys systems. Even with a lot going on in the company in terms of scaling their cloud tech and pushing out new solutions, M&A is still high in priority to provide customers with solutions they require (Q4 2017 Earnings Call).

Please advise that transaction prices for the aforementioned acquisitions are not public knowledge; an inquiry to a media rep at Qualys for pricing information was not responded to.

Earnings:

Revenue compared to EBITDA have both be growing strongly YoY for the last 3 years with projections constant. Strong revenue growth while maintaining margins is attributed to two focuses lead by Qualys'

management: penetration of the high-end untapped market and consistent revival of existing customers solution needs.

The high-end market that Qualys is targeting has an outstanding list of Fortune companies thus far. Qualys customers included 68% of the Fortune 50 in 2016 to 74% at the end of 2017 and 60% of the Fortune 100 in 2016 to 70% in 2017 (Q4 2017

Earnings Call). Growing a substantial customer base is important in the cloud

technology industry, especially when it comes to security – customers want a company they can trust in such a new and progressive space. Below is a snapshot of YoY growth for revenue and EBITDA sourced from Bloomberg (2018 & 2019 are projections).

| Year | 2015 | 2016 | 2017 | 2018 | 2019 |
|--------------------|------|------|------|------|------|
| Revenue Growth YoY | 23% | 20% | 17% | 20% | 17% |
| EBITDA Growth YoY | 79% | 20% | 25% | 17% | 20% |

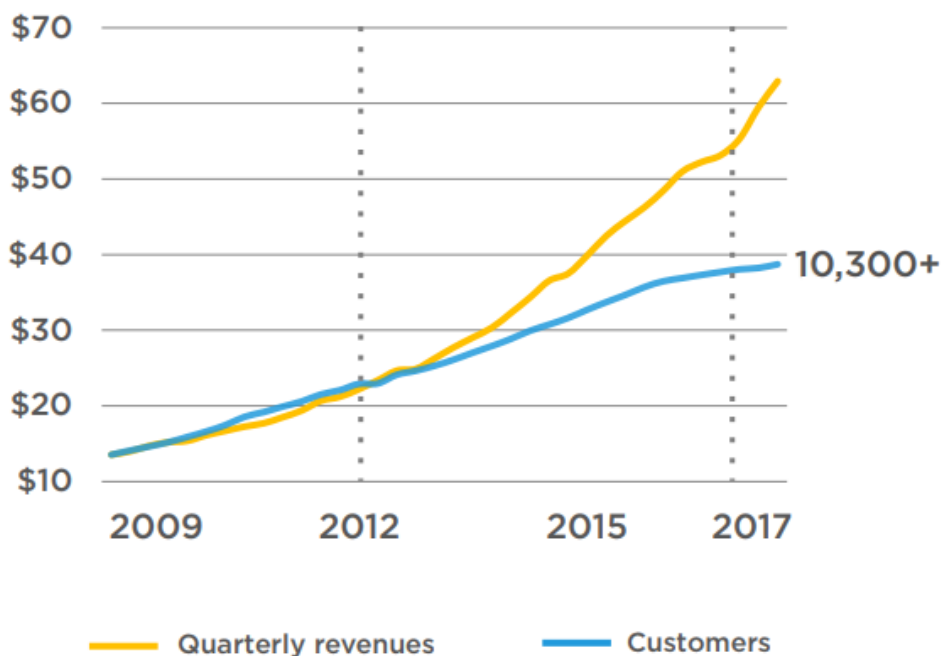
It's clear that as Qualys scales their business and generates revenue, they're able to keep their margins.

Currently Qualys has over 10,000 customers with 25% in 2016 deploying three or more solutions, which has grown to 32% in 2017 deploying three or more solutions. Revenues are increasing quarter to quarter faster than the amount of customers, indicating retention in current customers purchasing more solutions on top of their initial solution. Below is a graph sourced from the Q4 2017 Earnings Call Slides with revenues in millions on the L1 scale and customers on the R1 scale in actuals:

Be advised that Qualys first pricing was in September of 2012 where revenues start to expand over the

growing customer base. With essentially no debt in their capital structure, revenue is the main driver for shareholder profitability. Currently Qualys has an ROE of 12.7% with a Ke of 8.18%. High sensitivity to operating costs is attributed to heightened R&D for the new cloud space but maintain margins while revenue grows is a clear indication that Qualys can mitigate the OpEx sensitivity. R&D was about 18.5% of revenue in FY 2017, on par with 2015 and 2016 R&D/Revenue figures.

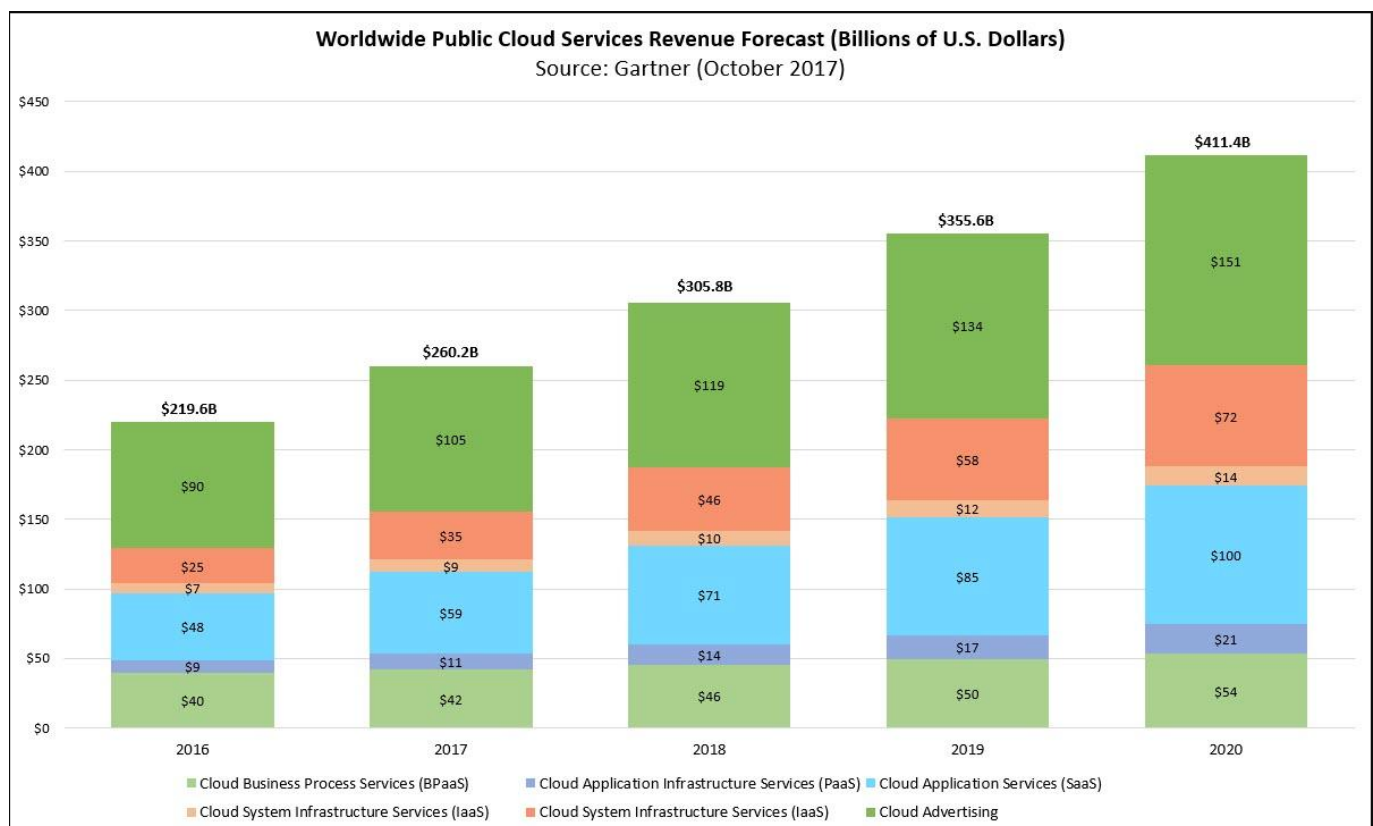
Quarterly revenues vs. customers



Industry Outlook:

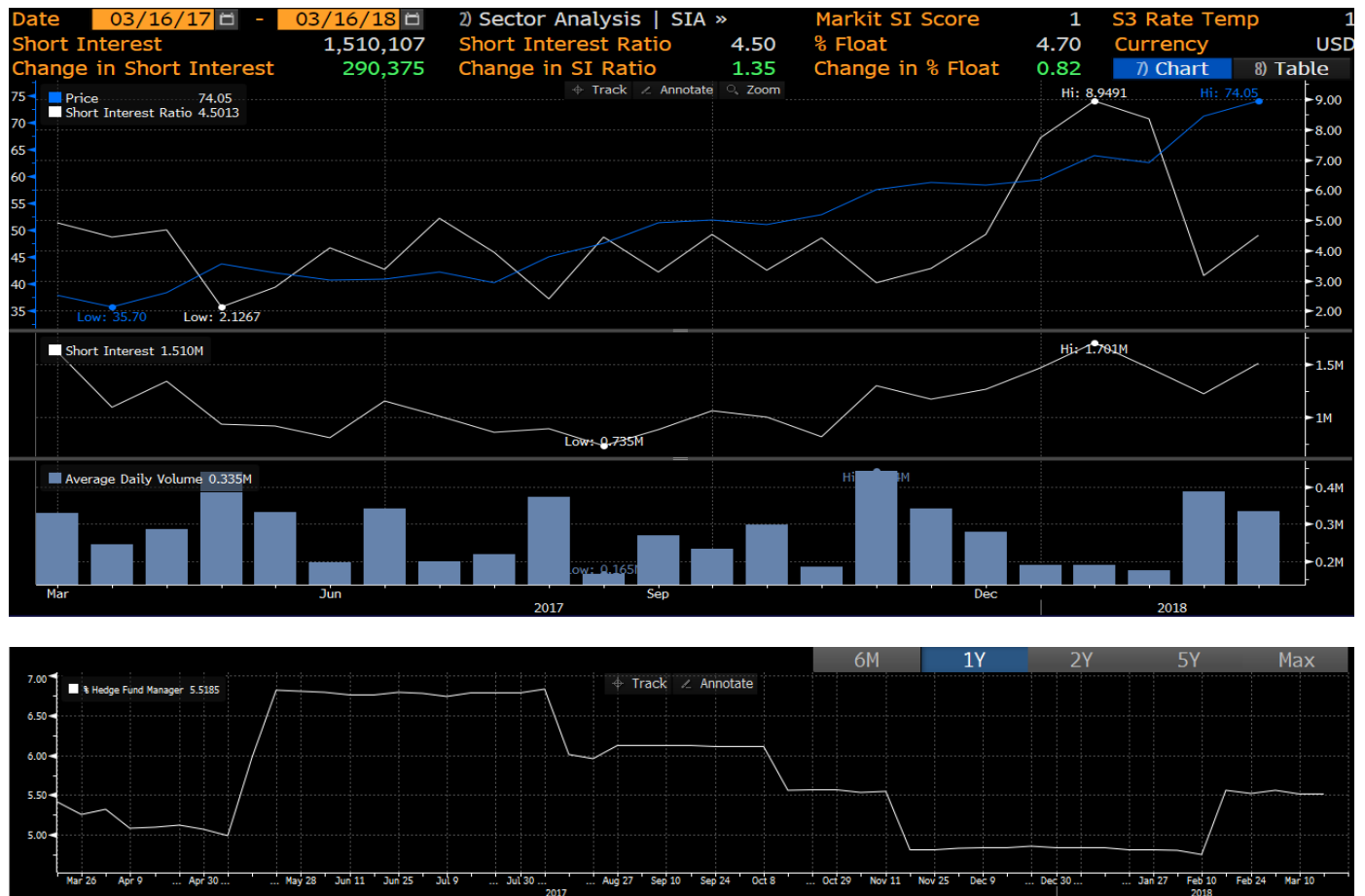
Cloud technology is one of the most prevalent new technologies for organizations looking to lower IT costs and improve efficiency by moving their data to clouds. In terms of cybersecurity, breaches will only be more of a risk when organization information is stored on offsite servers and being accessed remotely. Therefore, as cloud technology grows, IT security will grow along with it.

Looking at the global cloud industry, cloud services revenues grew 18.5% in 2017 while Infrastructure as a Service grew 36.6% in 2017. As illustrated below, these growths won't be surprising in the next three year projections. Main drivers for high growth percentages are due to flexibility in scale, efficiency in accessibility, and reduction in costs. Flexibility in scale is from organizations not needing to store data and servers that maintain a finite amount of storage. Not only do servers have finite storage, they notoriously move slower as more data is pushed onto them. With cloud technology, storage space can be scaled as a company grows so that organizations don't have to buy more servers and can scale at their own pace. Efficiency in accessibility boils down to end points such as mobile devices and other off-site devices being able to access data from the cloud with the only requirement being an internet connection. Being able to access data and applications when not on premise of an organization is a priceless. Spending less on hardware and storage facilities results in reduction of costs despite subscription fees from the cloud. Along with reduction in costs, value is created through automatic updates of the cloud technology on the service providers side.



Ownership/SI:

The short interest in Qualys recently went up at the beginning of February with an increase in percentage of float by 0.82%. While the short interest has gone up, the price has followed, consistent with hedge fund managers increasing their stake in the company. This bodes unfavorable to potential investors but I believe the market is wrong. Hedge fund managers are known to be in and out of positions for profitability in the short run. With Qualys price the highest it's been in the last 52 weeks, analysts are estimating a slight drop in price and hedge funds are looking to capitalize on this. Regardless, the intrinsic value of Qualys proves that in a long position, returns will be generated past the short-term position of hedge funds.



Competitors:

Qualys is the best compared to their peer group in terms of maintaining margins while increasing revenue growth. Their revenue growth over the past year of 16.62% is couple with a TTM EBITDA margin of 25.18% and ROE of 16.93%. It's clear that management does an above industry average job managing costs while providing value for the shareholders. Notably, the competition are beating Qualys in revenue growth over the last year but average a negative TTM EBITDA margin and ROE.

| Name | Mkt Cap (USD) | Rev - 1 Yr Gr:Y | T12M EBITDA Mrgn:Y | ROE:Y | ROIC/WACC Ratio |
|---------------------|---------------|-----------------|--------------------|---------|-----------------|
| Median | 2.29B | 21.65% | -0.09% | -6.80% | -0.77 |
| 100) QUALYS INC | 2.29B | 16.62% | 25.18% | 16.93% | 1.01 |
| 101) FIREEYE INC | 2.48B | 5.18% | -18.95% | -36.67% | -1.71 |
| 102) MIMICAST LTD | 1.66B | 31.53% | 0.81% | -6.80% | -0.77 |
| 103) IMPERVA INC | 1.36B | 21.65% | -0.09% | -3.84% | -0.43 |
| 104) PROOFPOINT INC | 4.47B | 37.23% | -4.79% | -69.15% | -1.10 |

Compared to their competitors, Qualys possess contracts with the majority of leaders in multiple industries. As stated earlier, the company is currently dominating Forves Global 50 and maintains 47% of the global 500.

Blue chip global customer base

74% of the Forbes Global 50, 47% of Global 500, and 25% of Global 2000 standardized on Qualys

-  9 of the top 10 in Software
-  8 of the top 10 in Consumer Discretionary
-  8 of the top 10 in Consumer Staples
-  8 of the top 10 in Major Banks
-  8 of the top 10 in Technology
-  8 of the top 10 in Telecommunications
-  7 of the top 10 in Healthcare
-  6 of the top 10 in Industrial & Materials
-  5 of the top 10 in Insurance

Note: Based on Forbes Global 2000 Classification



Domination in the high end market compliments Qualys domination of competitors in terms of margins and returns to shareholders while still growing their revenue adequately. Partnerships with these recognizable companies will only further catapult Qualys past their competition, especially since Qualys maintains excellent retention in furthering existing customer sales as mentioned previously.

A closer look into Qualys most comparable competitor, Imperva Inc., shows operating income loss

of \$13.7 million in FY 2017. Recently, Imperva's Chief Revenue Officer resigned in mid-February of 2018 to "pursue other interests"(source: company new release). It's evident Imperva is hitting obstacles in their business that's leading to destruction of value for their shareholders.

Conclusion:

Qualys Corporation is a buy at its current price due to a competitive advantage compared to their peers due to heightened reputation through high value partnerships, aggressive M&A to further progress their cloud technology, and growth potential through outstanding margins while revenue continues to increase. The cloud technology industry as a whole is poised to grow substantially resulting in a necessity for IT security firms. Qualys, being a pioneer and leader in the IT security space, will ride the forefront of this growth with improvements in revenue growth and margin maintenance.

Qualys, Inc. (QLYS)

CENTER FOR GLOBAL FINANCIAL STUDIES

BULLISH

Analysis by Zachary DeLeonardo
3/16/2018

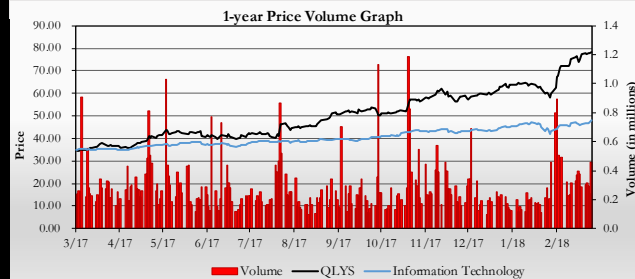
Current Price:
Divident Yield:

\$77.25
0.0%

Intrinsic Value
Target Price

\$80.29
\$95.21

Target 1 year Return: 23.25%
Probability of Price Increase: 99%



Description
Qualys, Inc. provides cloud-based security and compliance solutions in the United States and internationally.

General Information
Sector Information Technology
Industry Software
Last Guidance February 12, 2018
Next earnings date May 2, 2018

Market Assumptions
Estimated Equity Risk Premium 5.30%
Effective Tax rate 22%

Market Data
Market Capitalization \$2,984.05
Daily volume (mil) 0.26
Shares outstanding (mil) 38.63
Diluted shares outstanding (mil) 40.07
% shares held by institutions 109%
% shares held by investments Managers 73%
% shares held by hedge funds 6%
% shares held by insiders 14.96%
Short interest 3.91%
Days to cover short interest 5.51
52 week high \$79.40
52-week low \$33.75
Volatility 41.88%

Past Earning Surprises

| Quarter ending | Revenue | EBITDA |
|----------------|---------|---------|
| 12/31/2016 | -0.84% | -10.65% |
| 3/31/2017 | 1.16% | -16.90% |
| 6/30/2017 | 0.95% | -13.40% |
| 9/30/2017 | 1.52% | -10.84% |
| 12/31/2017 | 1.50% | -25.09% |
| Mean | 0.86% | -15.38% |
| Standard error | 1.0% | 4.1% |

| Management | Position | Total Compensations Growth |
|--------------------|---|----------------------------|
| Courtrot, Philippe | Chairman, CEO & President | 70.71% per annum over 5y |
| Fisher, Melissa | CFO & Principal Accounting Officer | |
| Posey, Bruce | VP, General Counsel & Corporate Secretary | -100% per annum over 2y |
| Deeba, Amer | Chief Commercial Officer | 333.57% per annum over 1y |
| Thakar, Sumedh | Chief Product Officer | 31.06% per annum over 3y |
| Touma-Bruno, Rima | Chief Human Resource Officer | |

| Profitability | QLYS (LTM) | QLYS Historical | Peers' Median (LTM) |
|---------------------------|------------|-----------------|---------------------|
| Return on Capital (GAAP) | 53.9% | 34.59% | 81.08% |
| Operating Margin | 34% | 10.23% | 15.80% |
| Revenue/ Capital (GAAP) | 1.59 | 3.38 | 5.13 |
| ROE (GAAP) | 12.7% | 7.9% | 28.7% |
| Net margin | 18.2% | 8.0% | 13.5% |
| Revenue/Book Value (GAAP) | 0.70 | 0.98 | 2.12 |

| Invested Funds | QLYS (LTM) | QLYS Historical | Peers' Median (LTM) |
|---------------------------|------------|-----------------|---------------------|
| Cash/ Capital | 50.8% | 94.6% | 57.9% |
| NWC/ Capital | -19.5% | -15.9% | -33.2% |
| Operating Assets/ Capital | 68.4% | 21.1% | 10.7% |
| Goodwill/ Capital | 0.3% | 0.1% | 64.5% |

| Capital Structure | QLYS (LTM) | QLYS Historical | Peers' Median (LTM) |
|---|------------|-----------------|---------------------|
| Total Debt/ Market Capitalization | 0.08 | 0.10 | 0.23 |
| Cost of Debt | 3.9% | 4.4% | 5.8% |
| CGFS Rating (F-score, Z-score, and default Probability) | A | | |
| WACC | 8.1% | 9.4% | 11.0% |

Market and Credit Scores

| | |
|--|-------------------------------------|
| Recommendation (STARS) Value--0 | LTN Revenues by Geographic Segments |
| Recommendation (STARS) Description--0 | United States--70% |
| Quality Ranking Value--0 | Foreign--30% |
| Quality Ranking Description--0 | -- |
| Short Score--1 | -- |
| Market Signal Probability of Default % (Non-Ratings) | -- |
| -0.028% | -- |
| CreditModel Score (Non-Ratings)--b | |

Stock Price Growth During Tenure

| | |
|--------------------------|--|
| 0% per annum over 0y | |
| -8.44% per annum over 2y | |
| -4.35% per annum over 1y | |
| 14.36% per annum over 3y | |

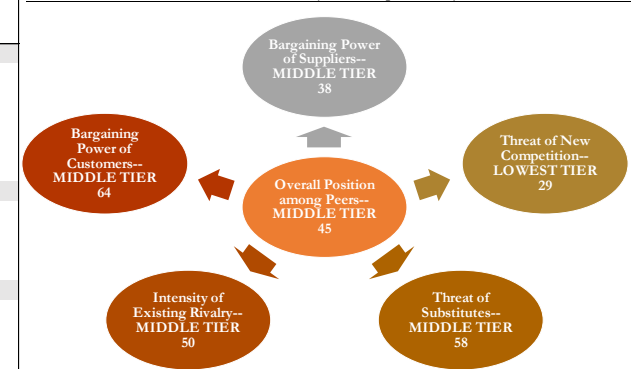
Industry and Segment Information

| LTN Revenues by Geographic Segments | LTN Revenues by Business Segments |
|-------------------------------------|------------------------------------|
| United States--70% | Security Software & Services--100% |
| Foreign--30% | -- |
| -- | -- |
| -- | -- |

Peers

| | |
|-----------------------|---------------------------------------|
| Rapid7, Inc. | CyberArk Software Ltd. |
| Varonis Systems, Inc. | -- |
| Imperva, Inc. | SailPoint Technologies Holdings, Inc. |
| Proofpoint, Inc. | Mimecast Limited |
| FireEye, Inc. | LogMeIn, Inc. |

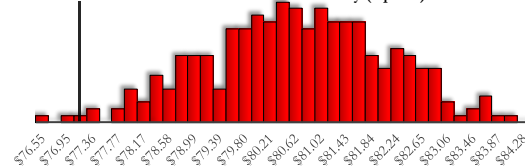
Porter's 5 forces (Scores are percentiles)



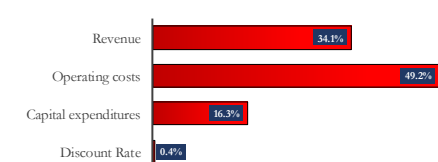
Valuation

| Forecast Assumptions | Explicit Period (10 years) | Continuing Period |
|---------------------------|----------------------------|-------------------|
| Revenue Growth CAGR | 16% | 2% |
| Average Operating Margin | 32% | 31% |
| Average Net Margin | 20% | 20% |
| Growth in Capital CAGR | 12% | 2% |
| Growth in Claims CAGR | -3% | 2% |
| Average Return on Capital | 13% | 13% |
| Average Return on Equity | 13% | 13% |
| Average Cost of Capital | 8% | 8% |
| Average Cost of EquityKe | 8% | 8% |

Intrinsic Value Distribution--Probability (Upside)=99%



Sensitivity Attribution Analysis



March 16, 2018

Agco Corporation: (AGCO)

Jacob Perry

Sector: Consumer Discretionary

Industry: Agricultural Machinery

Current Price: \$67.46

Target Price: \$41.31

Company Description:

AGCO Corporation manufactures and distributes agricultural equipment and related replacement parts worldwide. The company offers high horsepower tractors for larger farms, primarily for row crop production; utility tractors for small- and medium-sized farms, as well as for dairy, livestock, orchards, and vineyards; and compact tractors for small farms, specialty agricultural industries, landscaping, and residential uses. It markets its products under the Challenger, Fendt, GSI, Massey Ferguson, and Valtra brands through a network of independent dealers and distributors. AGCO Corporation was founded in 1990 and is headquartered in Duluth, Georgia.

SELL

Current Price: \$67.46

Target Price: \$41.31

52 Week Range: \$75.90-\$58.00

EBITA Margin: 8.4%

Net Margin: 2.9%

Market Cap: 5.37B

Volume: 0.60mm

ROIC: 4.33%

WACC: 10.01%

Alpha: 37.87%



Thesis: Agco Corp has been stagnate in creating growth in the company and neglecting opportunities to invest for the future. In the near term, Agco corp will experience a drop in market price due to a handful of macroeconomic reasons as well as a misguided approach to capital management.

Catalysts:

- Short Term(within the year): Tariff plans, immigration policy reform, farmers in higher risk industry
- Mid Term(1-2 years): Not relevant
- Long Term(3+): Not relevant

Conclusion/Summary:

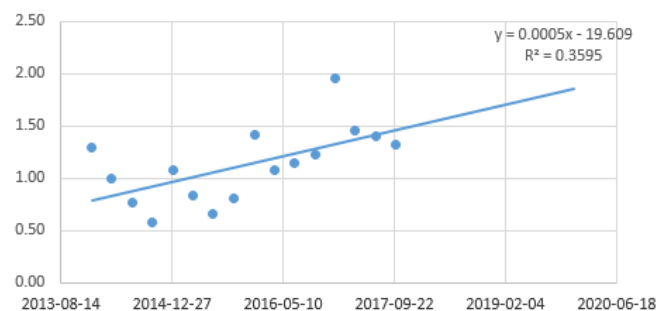
The culmination of tariffs on necessary imported metals, negative macroeconomic effects on farmers, and lack of targeted usage of capital are leading Agco Corp to an inevitable decrease in value. With a calculated zero percent chance of creating value in terms of price per share, a short sale for a limited duration could provide exceptional returns. A current share price of \$67.46 should decline to the mid \$40 mark with an overall target price of \$41.31. With a short sell position, a realized gain of 37.87% can be obtained over the holding period.

Farmer's Across the World Are Bleeding:

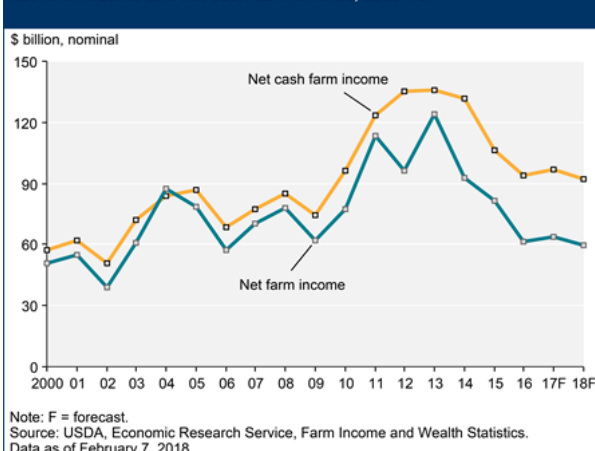
Globally, farmers are seeing the margins of yesteryear disappear today as costs to produce their goods increase consistently. In the United States, farmers face challenges on many fronts. The most obvious catalyst to a farmer's success is the weather that takes place during the growing season. I am not convinced that this is pertinent to Agco at the moment. What is more important are the factors that affect farmer's behavior in respect to Agco's operations. Meaning, farmers inhabit factors that sway their ability to take

on new machinery. Delinquency rates on loans to finance agricultural production have raised from 0.05% to 2.00% from 2014 Q3 to 2017 Q1. Delinquency rates are seasonal and have historical periodical increases and decreases. The next quarter marks the seasonal trend of large increases in delinquency rates among agricultural

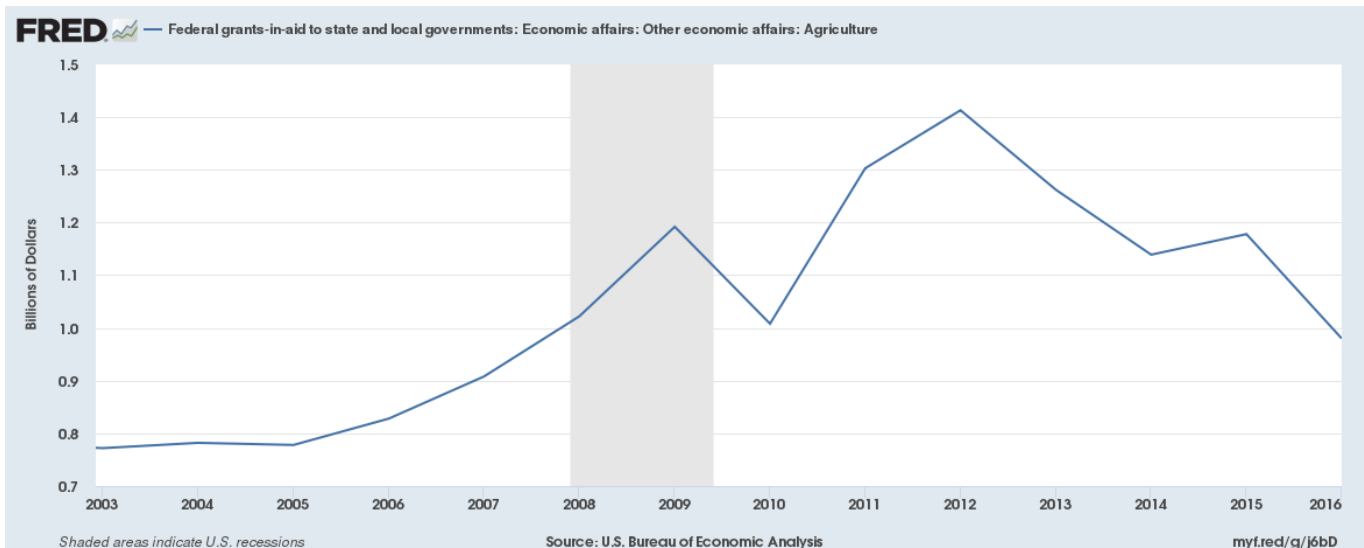
Delinquency Rate on Loans to Finance Agricultural Production



Net farm income and net cash farm income, 2000-18F



businesses. In addition to delinquency rates, farmers are experiencing a decrease in net farming income over the past five years with the exception of 2016. Farmers have seen a loss of over 40 billion dollars of revenue in that period. It is consistent over time that agricultural businesses see a variation of revenues and incomes due specifically to natural factors, but there is something to be said about a trend of decreasing incomes over a lengthened period of time. Most farm owners rely on multiple forms of income to help subsidize costs and provide profit margins. In terms of buying new machinery, many farmers are dependent on government grants that are used specifically



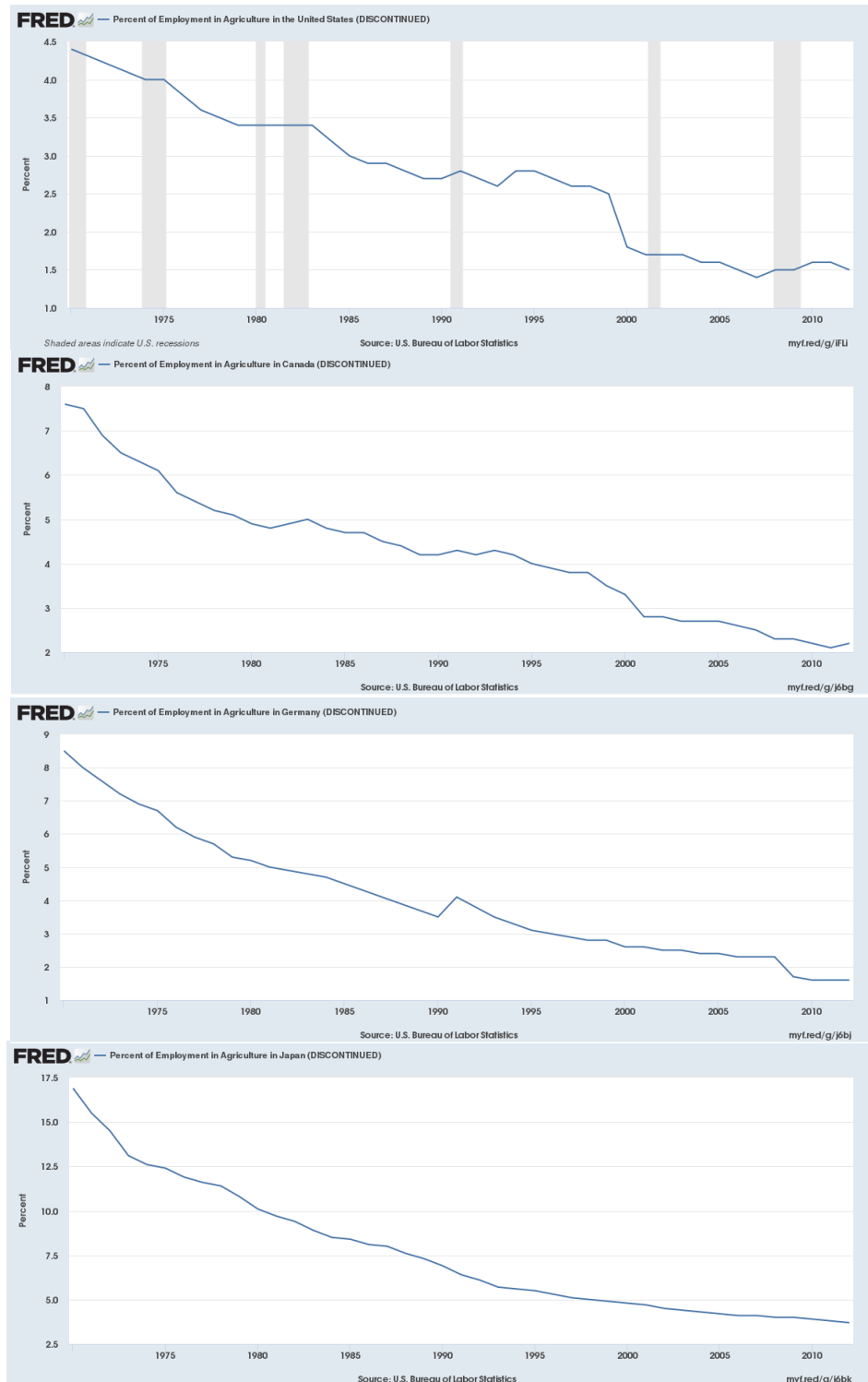
for the purchase of brand new machinery. Over the past six years, there has been a decrease in government grants to agricultural sector of over 44%. As government grants to farmers decrease, the ability to purchase new machinery drops dramatically. As demand for new machinery by farmers decreases, Agco has more risk of losing potential revenue. Farmers that still need to buy machinery regardless will most likely resort to purchasing pre-owned/used equipment with will also not help Agco. It has been observed that tractor sales in the North America has decreased by 8% over the last three quarters. In Western Europe, combine sales have declined over 30% in the last three quarters and tractor sales have declined 2% during the same period.

Government:

The United States government has two very influential and potential impacts in the agricultural sector ready to go to the floor. The most recent mentioning's out of the White House regarding tariffs on metals from foreign nations could aggressively eat away at Agco's profit margins in North America. As it is now, many farmers cannot independently purchase a new piece of machinery at the current price. If materials related to the production of the machinery increase in price, Agco might have to raise its prices to subsidize for the loss in increased costs. The more important government factor to be concerned with regards immigration. President Donald Trump has publicly shown his position on immigration to be a firm believer on division of nations at the borders between them. Illegal immigration in the United States will become an important topic, once again, in the near future as the tariff talks resolve. Immigration reform could crumble the agricultural economy in the United States to its dependency of immigrant labor on farms. Over 52% of employed workers in the agriculture sector are expected to be illegal immigrants descending from Latin America and South America. An increased focus on the immigration of migrants from these countries could dramatically slow or damage the growth of the industry. Collectively, tariffs and immigration reform could dramatically hurt Agco's key consumers which would be a step back in the sales usually obtained in North America, one of their largest market segments.

Employment in Agriculture:

Agricultural businesses have suffered from a global decrease in willingness among prime age workers to work in agricultural industries. In the United States, there have been only four of 40 plus years in which the percentage of employment in agriculture has increased. Since the early 1960s, the United States has left the agricultural industry in America to be left to immigrant workers. The same can be seen globally across all of Agco's targeted market segments. Remaining in North America, Canada has decreased sharper than the United States over the same period of time. In Europe, Germany saw a steeper decrease in percent employed in agriculture than Canada and the United States. The worst decrease in agriculture employment was in the Asian market segment. Japan dropped from having roughly 17% employed in agriculture to around 3.5% in the 2010s. As global markets continue to get choked by their populations, agricultural businesses have to rely more on immigrant labor. As stated earlier, there are concerns on some markets having a decrease in immigrant labor as well. The same principle applies as before in which when farmers can no longer obtain help, they will have to decrease portions of their business which will lead to a decrease in investment from consumers in new machinery.



Misguided Capital Management:

Agco Corp has been sinking money into questionable investments and proposing them to investors as prime opportunities to gain value. However, an expenditure of over 4 billion dollars to buy back company shares seems more like market manipulation than anything else given their opportunity to invest in the markets they rely on. Other agricultural based business have invested money into some of their major consumers to provoke an increase in growth prospects for those companies and the companies associated with the consumers. The trickle down investment will boost the economy and Agco would receive increased portions market segments due to higher customer relations. Meaning, as Agco invests in their consumers, their consumers will invest back into Agco. The repurchase of \$4 billion worth of stock also acts as a way for management to cover up lost opportunities in value creation in the company. By buying back shares in the company, Agco can do a few things. First, Agco will retain greater control of the board, which currently houses the CEO of Agco. Second, Agco will be able to manipulate dividend growth rates by reducing the number of shares while maintaining the same level of payout. The more shares that are purchased back from the company, the more dividends per share that an owner would receive. Lastly, Agco can use signaling theory to influence investors to think that the stock is currently underpriced and should be considered a growth opportunity. This of course would only work for a very short time until it was shown the market price was boosted unnaturally and then a selloff of shares would follow leading to a large decrease in price.

Management:

Agco Corporation upper management should be investigated thoroughly to interpret where their intentions lie in the near future, personally. CEO, Martin Richenhagen, has liquidated every stock option granted to him in the last year. Either the stock is overpriced or Martin is headed towards retirement, after all he is 67 years old. The way Richenhagen is conducting himself as a leader of Agco is concerning. Misguided investments, lack of knowledge during the earnings calls, and bullish behavior towards stock options leads me to believe that Richenhagen will most likely be leaving the company within the next two years.

Other notes:

- Sales estimates for 2018 by AGCO are shown to be flat in both the North America and Western Europe region
- Indexes point to pullback in price of AGCO due to macro factors. BCOMAG index (Bloomberg Agriculture Subindex) highly correlated. AGCO is above projected values based on historical trend line
- Swelling inventory with the probability of lower sales in two biggest regions, North America and Western Europe
- Accounts Receivable are the highest they have ever been, concerning since farmers are having the hardest time of business owners in paying off debt
- New tech in equipment can make farmers more efficient, if and only if they can adapt the technology which is very costly and requires immense training to utilize properly. Programming and software tech knowledge will become crucial to have in operators, skills usually found only in advanced degree obtaining individuals.

- New hiring costs will eat farmer's profit margins which are already slim.
- Immigrants working in agriculture now tend to not have the knowledge of the new equipment controls and programming.

Conclusion:

The culmination of tariffs on necessary imported metals, negative macroeconomic effects on farmers, and lack of targeted usage of capital are leading Agco Corp to an inevitable decrease in value. With a calculated zero percent chance of creating value in terms of price per share, a short sale for a limited duration could provide exceptional returns. A current share price of \$67.46 should decline to the mid \$40 mark with an overall target price of \$41.31. With a short sell position, a realized gain of 37.87% can be obtained over the holding period.



AGCO Corporation (AGCO)

CENTER FOR GLOBAL FINANCIAL STUDIES

BEARISH

Analysis by Jacob Perry

3/16/2018

Current Price:

\$67.46

Dividend Yield:

0.9%

Intrinsic Value

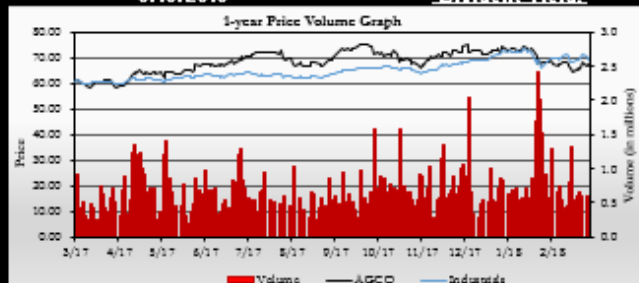
\$35.95

Target Price

\$41.31

Target 1 year Return: -37.87%

Probability of Price Increase: 0%



Description
AGCO Corporation manufacturer and distributor agricultural equipment and related replacement parts worldwide.

General Information
Sector: Industrial
Industry: Machinery
Last Guidance: February 12, 2018
Next earnings date: April 27, 2018

Market Assumptions
Estimated Equity Risk Premium: 6.01%
Effective Tax rate: 28%

| Market Data | |
|--------------------------------------|------------|
| Market Capitalization | \$5,370.82 |
| Daily volume (mil) | 0.60 |
| Shares outstanding (mil) | 79.61 |
| Diluted shares outstanding (mil) | 80.20 |
| % shares held by institutions | 109% |
| % shares held by investment managers | 73% |
| % shares held by hedge funds | 4% |
| % shares held by insiders | 1.60% |
| Short interest | 4.21% |
| Days to cover short interest | 4.54 |
| 52-week high | \$75.95 |
| 52-week low | \$58.00 |
| Volatility | 24.44% |

| Part Earning Surprises | |
|------------------------|---------|
| Quarter ending | Revenue |
| 12/31/2016 | 8.56% |
| 3/31/2017 | 4.60% |
| 6/30/2017 | 4.81% |
| 9/30/2017 | 3.82% |
| 12/31/2017 | 5.70% |
| Mean | 5.50% |
| Standard error | 1.0% |

| Market and Credit Scores | |
|--|--|
| Recommendation (STARS) Value--3 | |
| Recommendation (STARS) Description--Hold | |
| Quality Ranking Value--B | |
| Quality Ranking Description--Below Average | |
| Short Score--1 | |
| Market Signal Probability of Default % (Non-Rating)--0.72% | |
| Credit Model Score (Non-Rating)--bbb | |

| Industry and Segment Information | |
|-----------------------------------|----------------------------------|
| LTM Revenue by Geographic Segment | LTM Revenue by Business Segments |
| United States--19% | North America--23% |
| Canada--4% | South America--13% |
| Germany--13% | Europe/Middle East--56% |
| France--11% | Asia/Pacific/Africa--9% |
| United Kingdom and Ireland--7% | -- |

| Management | |
|----------------------|---|
| Richenhagen, Martin | Chairman, President & CEO |
| Beck, Andrew | Senior VP & CFO |
| Callan, Gary | Senior VP and GM of Asia Pacific & Africa |
| Veltmaat, Hans-Bernd | Senior VP & Chief Supply Chain Officer |
| Smith, Richard | Senior VP and GM of Europe & Middle East |
| Peterzan, Greg | Director of Investor Relations |

| Total Compensation Growth | |
|---------------------------|--|
| 10.48% per annum over 5y | |
| 4.15% per annum over 5y | |
| 7.19% per annum over 5y | |
| 15.78% per annum over 5y | |
| 6.38% per annum over 3y | |

| Peers | |
|---------------------|---------------------|
| Deere & Company | Caterpillar Inc. |
| CNH Industrial N.V. | Lindsay Corporation |
| The Toro Company | -- |
| Cummins Inc. | -- |
| Kubota Corporation | -- |

| Profitability | |
|---------------------------|-----------------|
| AGCO (LTM) | AGCO Historical |
| Return on Capital (GAAP) | 4.5% |
| Operating Margin | 4% |
| Revenue/Capital (GAAP) | 1.14 |
| ROE (GAAP) | 6.0% |
| Net margin | 2.7% |
| Revenue/Book Value (GAAP) | 2.27 |

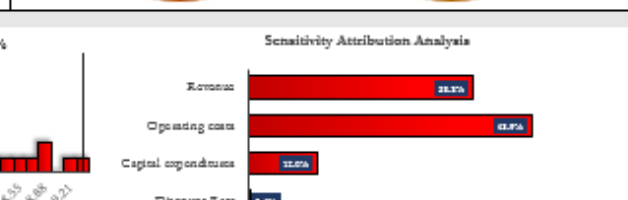
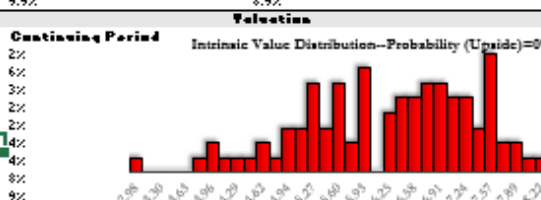
| Peers' Median (LTM) | |
|---------------------|--|
| 7.79% | |
| 10.56% | |
| 0.74 | |
| 13.0% | |
| 5.4% | |
| 2.39 | |



| Invested Funds | |
|--------------------------|-----------------|
| AGCO (LTM) | AGCO Historical |
| Cash/Capital | 6.3% |
| NWC/Capital | 10.9% |
| Operating Assets/Capital | 56.3% |
| Goodwill/Capital | 26.5% |

| Peers' Median (LTM) | |
|---------------------|--|
| 15.7% | |
| 23.9% | |
| 51.1% | |
| 9.3% | |

| Capital Structure | |
|---|-----------------|
| AGCO (LTM) | AGCO Historical |
| Total Debt/Market Capitalization | 0.35 |
| Cost of Debt | 3.2% |
| CGFS Rating (F+ score, Z+ score, and default Probability: B | |
| WACC | 7.3% |



| Forecast Assumptions | |
|---------------------------|----|
| Revenue Growth CAGR | 3% |
| Average Operating Margin | 6% |
| Average Net Margin | 3% |
| Growth in Capital CAGR | 3% |
| Growth in Claims CAGR | 0% |
| Average Return on Capital | 4% |
| Average Return on Equity | 4% |
| Average Cost of Capital | 8% |
| Average Cost of Equity | 9% |

March 14, 2018

Company Name: Magellan Health (MGLN)

Theo Wind

Sector: Healthcare

Industry: Healthcare Provider

Current Price: \$107.95

Target Price: \$130.61

Magellan Health is one of the largest managed behavioral health care companies in the United States. They operate in two segments: Healthcare and Pharmacy Benefit Management. Magellan serves about 68 million members through contracts federal and local government agencies, insurance companies, and employers.



BUY

Current Price: \$107.95
 Target Price: \$130.61
 Return: 26.19%
 Market Cap: \$2.6B
 Beta: 1.0
 ROIC: 6.56%
 WACC: 10.1%
 D/E: 11.31%
 Credit Rating: BB

Catalysts:

- Short Term (within the year): States realizing the importance of recognizing and treating serious mental illness in their populations. As well as recent government policies.
- Mid Term(1-2 years): Growth opportunities to manage populations in more states
- Long Term(3+): Projected Medicare enrollment is predicted to grow significantly over the next decade

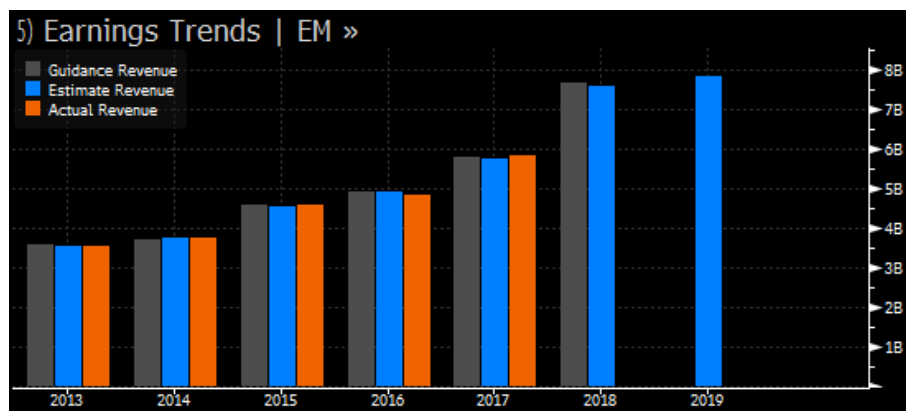
Thesis:

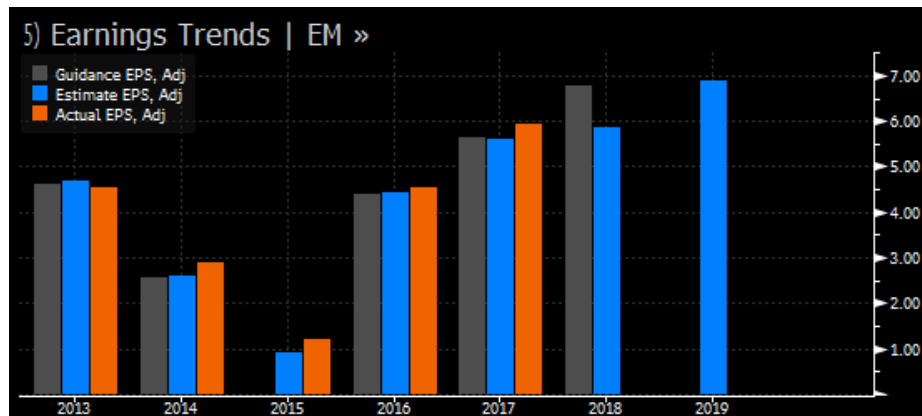
Magellan Health is a buy because of their continued focus on the pharmacy benefit management (PBM) sector as well as the growth opportunities in their behavioral healthcare management sector. They are going to outperform other healthcare companies because their approach is very personalized to each client. They are able to integrate their services to manage these complex populations and offer highly personalized solutions to each client's unique needs providing better patient outcomes. Their success in this high-risk population has drawn the attention of other states that are interested in their services. Magellan is able to better control costs in the very costly area of behavioral health because of their commitment to their PBM sector.

Earnings Performance:

Magellan since 2013 has been able to consistently outperform both the analyst estimates as well as the guidance set for the company, as shown in the graph below. According to their CFO, they reported revenue of \$5.8 billion which is an increase of 20% versus 2016. Looking forward to their 2018 guidance they are expecting another significant increase in revenue to about \$7.8 billion. This shows that the company believes that they are still growing and generating new revenue from new populations. They are also estimating an increase in their revenue 2019. As far as segment revenue, they generated about \$3.5 billion from their managed care segment and a little over \$2.3 billion from their PBM segment. Both segments have grown since 2015, however their PBM segment has growth the most, about 20% from 2016, and is now responsible for approximately 40% of their total revenue.

Magellan's EPS for 2017 beat analyst estimates four out of the last five years. In 2017, they were able to return an adjusted earnings per share of \$5.92. This is a year over year growth in EPS of 31%. Based on their 2018 guidance they expect a significantly higher EPS than analysts expect. I believe this is because they expect their PBM to generate more cost savings as well as their growth from recent acquisitions. Generating cost savings is important for Magellan because mental health conditions are extremely expensive to both diagnose and treat. Magellan generating an increase of 31% in EPS year over year should signal to investors that they are both generating more revenue while simultaneously cutting costs. Their EPS should increase again in 2018 because of the new tax law that is now 21%, and their PBM segment continues to grow.





Business/Operations:

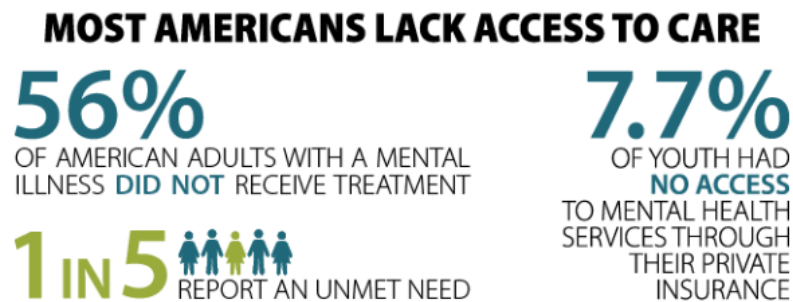
As mentioned Magellan operates two distinct segments however they are highly dependent on each other to drive the success of the company. The first segment is their managed care behavioral health segment. This segment is where the majority (55%) of their revenues come from; however, the dependence on this segment has declined over the past 3 years as they have focused on growing their PBM segment. The healthcare segment uses a network of medical and behavioral health professionals, clinics, hospitals, skilled nursing facilities, home care agencies, and ancillary service providers to provide care to customers. Magellan provides services to health plans, insurance companies, employers, labor unions, and states and the federal government. States have been contracting Magellan to provide behavior health services to their Medicare and Medicaid population. The management of the total medical costs and long-term support services is delivered through Magellan Complete Care. This program has been designed specifically for special needs and high-risk populations. These populations include individuals with serious mental illness, dual eligibles for both Medicare and Medicaid, aged, blind, and disabled. These populations often generate the most cost because of their unique and complex healthcare needs. Magellan is paid by on a per member per month basis, so it is in Magellan's best interest to improve the health outcomes of the individuals to generate cost savings.

Magellan's pharmacy management segment operates as a PBM for their managed care segment. A PBM is a third party between the drug manufacturers and pharmacies. They are able to negotiate discounts and rebates to generate cost savings. The goal is to generate cost savings while still improving the health outcomes of the individuals. Magellan's PBM is an extremely important part of their business because of the cost savings it can generate for the extremely costly behavioral health business. This is precisely why Magellan has put so much effort into growing this part of the business, which includes two acquisitions since 2015. Magellan has reported that their PBM has been able to generate cost savings to customers of between 12% and 20% with their medical pharmacy expenditures and improved health outcomes.

Growth:

Magellan recently acquired Senior Whole Health in October 2017 for \$400M in cash. Senior Whole Health was a privately held healthcare company focused on serving complex and high-risk populations. They provided both Medicare and Medicaid dual-eligible benefits to about 22,000 members in New York and Massachusetts. This merger was especially important because it allows Magellan to gain more presence in the MLTC segment in New York, as well as break into Massachusetts, a state that they had not previously conducted business. Magellan has grown their PBM business over the last two years with the acquisitions of Veridicus Holdings in 2016 and 4D Pharmacy Management Systems in 2015. These acquisitions have helped Magellan grow its PBM footprint which allows them to negotiate better cost savings for the expensive and specialty drugs that their populations need.

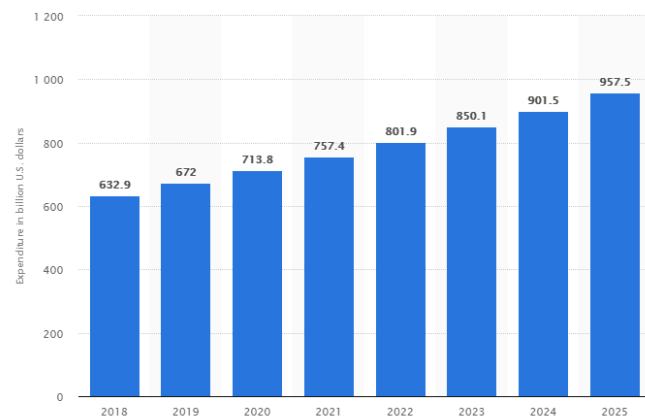
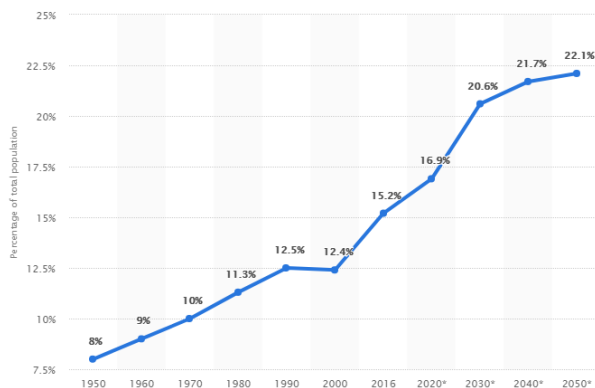
Another big deal for Magellan is the deal they struck with the state of Virginia. Magellan was one of six plans selected to participate in the Medallion 4.0 program. The Medallion program serves about 740,000 Medicaid enrollees. This contract allows Magellan to expand their presence in Virginia where they currently serve with the MLTC population, which will allow them to continue with existing staff and capabilities. The Medallion 4.0 program will phase in membership August- December 2018. This partnership has work so well that Virginia has asked Magellan to help manage their TANF population, an area where they do not usually get involved; however, they saw it as a great opportunity to expand and prove their business model of personalized care. Magellan is currently only in 30 states and the District of Columbia with bids out to other states that they would not specify in their conference calls. The graphic below shows how much of a short fall there is for treatment of mental health disorders. This proves the potential untapped customers in the United States right now. As states improve their availability of care they will need managed care companies like Magellan to cover the populations.



Magellan plans to grow their pharmacy business by reducing administrative costs by improving their systems and operational processes to increase service levels. They plan to do this by creating and leveraging more digital tools to enhance member engagement and developing advanced analytics to strengthen their clinical management capabilities. They have had an increase of PPM membership to about 2 million lives which is a 14% increase from 2016.

Congress has also helped the growth of Magellan by negotiating two short-term spending agreements. Congress reauthorized the children's health insurance program as well as authorizing the Medicare Advantage Special Needs Plans. The Medicare advantage special needs plans provide care to the Medicare population with significant healthcare needs which is the area where Magellan specializes.

Another growth opportunity that is more macro is the expected increase in Medicare members over the next decade. As you can see in the graph below on the left, the percentage of the population expected to be on Medicare is expected to grow significantly, as well as the projected spend on Medicaid. This is extremely important to the growth of Magellan. The aging population is going to need more medical care and long-term care especially. Magellan specializes in long-term care and recently expanded their presence in the MLTC population in New York. States are also increasing their awareness of mental illness and investing in the diagnosis and treatment of these individuals. They plan to market themselves to states that need guidance in managing the public mental health system like they have in Virginia. Mental health has been especially prevalent in the news lately, especially when there is a public event like a school shooting or mass murder. The public is crying for help with the mentally ill population and want there to be better systems in place to help get these individuals treatment.



Competitor Analysis:

In Magellan's most recent conference call with investors, there were questions about the pending CVS-Atena merger as well as questions about the Express Scripts and eviCore merger. Their response to the mergers were that it validates the integration of care that Magellan has been undertaking. They believe that this kind of integration is the only way to effectively deal with the complex and expensive populations. However, Magellan believes they are better suited because they believe in personalizing care to the individual and they believe they can do this better than their competitors and this will result in better healthcare outcomes for their customers and in turn lower costs.

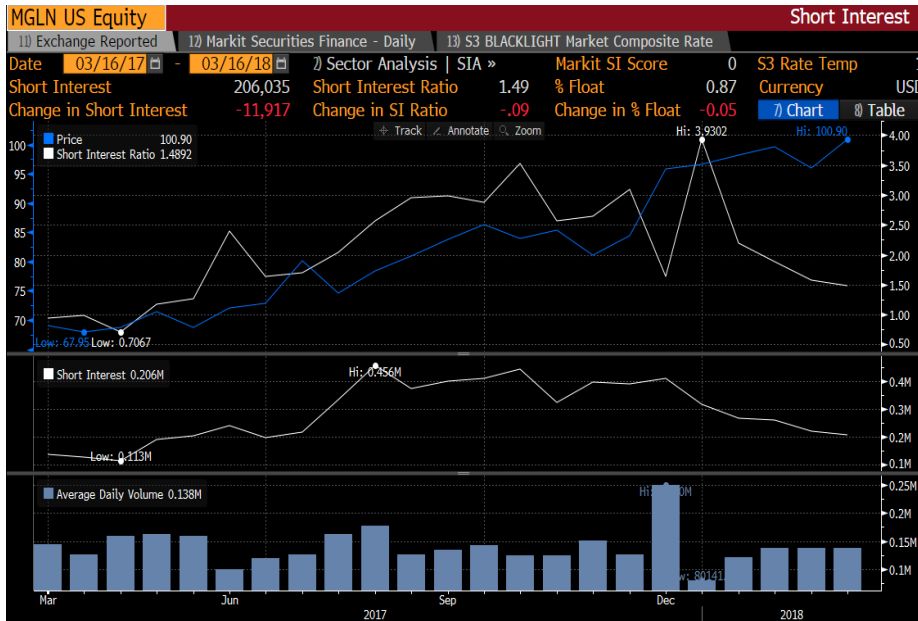
Below are Magellan's competitors on the Healthcare side. As you can see their year over year revenue growth outperforms the median. Magellan is very focused on growth as can be seen by their recent mergers and acquisitions. They believe the revenue will continue to grow next year to about \$7.8 billion, which is another large growth of over 20%. Another positive sign for Magellan is the fact that their EBITDA margin is the highest out of their three competitors. This shows that Magellan is able to control costs. This is especially important because Magellan deals with high risk populations who need very expensive care. This further proves Magellan's strategy to integrate care with their PBM business. The third metric is the medical care ratio also known as the medical loss ratio. For the two competitors the median was about 89%, but Bloomberg did not report Magellan's numbers. However, by digging through their 10K I was able to calculate the medical care ratio of Magellan by dividing revenue by the cost of care. When I calculated this ratio, I came up with 94%. This number seems high, but I believe it is higher than the others are because Magellan specializes in behavioral health, which is an inherently costly sector. I believe they are trying to make up for this higher MLR ratio by growing the PBM sector, which has a cost to revenue ratio of 84%. This is a good sign that this segment is growing the fastest as it has better margins than their healthcare segment. The integration of their PBM sector and healthcare sector is essential for the success of the business to increase their margins.

| | Name | Ticker | Mkt Cap | Rev - 1 Yr Gr:Y | EBITDA to Net Sales:Y | Med Care Ratio |
|------|-------------------------|---------|---------|-----------------|-----------------------|----------------|
| | Median | | 4.73B | 19.46% | 3.87% | 89.10 |
| 100) | MAGELLAN HEALTH INC | MGLN US | 2.62B | 20.71% | 4.64% | -- |
| 101) | MOLINA HEALTHCARE INC | MOH US | 4.73B | 11.82% | -1.90% | 90.60 |
| 102) | WELLCARE HEALTH PLAN... | WCG US | 8.85B | 19.46% | 3.87% | 87.60 |

Short Interest/Ownership:

To the right is the ownership summary type over the last year. The important thing to look at here is the hedge fund manager section. They have decreased their ownership percentage by one percent; however, they still own 9.5% of the total shares outstanding. I believe this is due to the uncertainty in Washington over what was going to happen with healthcare. However, as I mentioned earlier Washington has recently taken steps that are positive for Magellan. They have reaffirmed the children's health insurance program as well as the Medicare Advantage Special Needs Plans, which Magellan will benefit from in the short term.

| Top Ownership Type (%) | | | | |
|---------------------------|----------|-------|--------|---|
| 54) Ownership Type | 03/12/17 | Curr | Change | |
| 41) Investment Advisor | 78.41 | 80.23 | +1.82 | ↗ |
| 42) Hedge Fund Manager | 10.74 | 9.48 | -1.26 | ↘ |
| 43) Private Equity | 3.30 | 2.94 | -0.36 | ↘ |
| 44) Pension Fund | 3.09 | 2.33 | -0.76 | ↘ |
| 45) Sovereign Wealth Fund | 0.94 | 1.82 | +0.88 | ↗ |
| 46) Insurance Company | 0.70 | 1.15 | +0.45 | ↗ |
| 47) Individual | 0.98 | 0.86 | -0.12 | ↘ |
| 48) Bank | 1.05 | 0.76 | -0.29 | ↘ |
| 49) Government | 0.25 | 0.21 | -0.04 | ↘ |



Short interest for Magellan has decreased significantly since December to about 1.49. This has coincided with an increase in stock price. This signals to me that investors still believe the price of Magellan's stock will increase because the short interest is low while the stock price keeps climbing. It also shows that investors in the company are not betting against Magellan by shorting it. I believe this relationship between short interest and price is a strong buy signal for Magellan's stock

Conclusion:

Magellan Health is an industry leading behavioral health managed care company. This can be seen by their recent success achieving a bid in Virginia to manage their behavioral health populations. Mental health is currently a very hot topic for states as many are realizing the significance of treating this population as it is currently underserved in the United States. Magellan has been able to successfully integrate their care with their PBM business to generate important cost savings. They have been able to generate savings of 12-20% to the customer, which will allow them to have make captivating bids to companies and states looking for help with their behavioral health population. I believe they will continue to target companies for acquisitions in order to grow both sides of the business. They have been able to achieve revenue growth of 20% year over year from 2016-2017, and are projected to have the same growth in 2018. I believe that now is the time to invest in Magellan as they continue to grow throughout the US, as they are currently only present in 30 states and the District of Columbia. They compare favorably with their competitors in both revenue growth and EBITDA margin. Healthcare spending in the United States is going to increase significantly because of the increasing cost of care and prescription drugs as well as the aging population. Magellan is a buy because they are growing their PBM to control costs on the managed care side and they are able to offer customers personalized treatment generating better health outcomes and therefore more profits to shareholders.

Magellan Health, Inc. (MGLN)

CENTER FOR GLOBAL FINANCIAL STUDIES

BULLISH

Analysis by Al Capone

3/16/2018

Current Price:

\$103.50

Divident Yield:

0.0%

Intrinsic Value

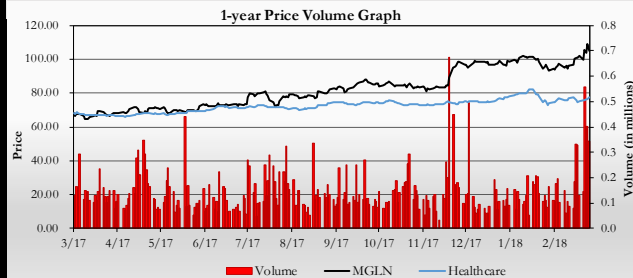
\$120.59

Target Price

\$130.61

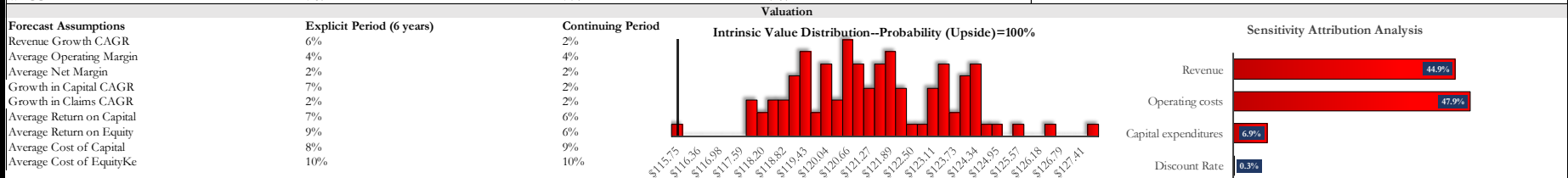
Target 1 year Return: 26.19%

Probability of Price Increase: 100%



| Description | Market Data |
|---|---|
| Magellan Health, Inc. provides healthcare management services in the United States. | Market Capitalization \$2,517.55 |
| | Daily volume (mil) 0.13 |
| | Shares outstanding (mil) 24.32 |
| | Diluted shares outstanding (mil) 24.44 |
| | % shares held by institutions 109% |
| | % shares held by investments Managers 81% |
| | % shares held by hedge funds 11% |
| | % shares held by insiders 1.03% |
| | Short interest 0.85% |
| | Days to cover short interest 1.33 |
| | 52 week high \$109.80 |
| | 52-week low \$64.05 |
| | Volatility 28.05% |
| General Information | |
| Sector Healthcare | |
| Industry Healthcare Providers and Services | |
| Last Guidance February 12, 2018 | |
| Next earnings date April 30, 2018 | |
| Market Assumptions | |
| Estimated Equity Risk Premium 5.00% | |
| Effective Tax rate 21% | |

| Quarter ending | Revenue | EBITDA | Market and Credit Scores | Industry and Segment Information |
|---|---|----------------------------|--|--|
| 12/31/2016 | -4.96% | -16.83% | Recommendation (STARS) Value--0 | LTM Revenues by Geographic Segments |
| 3/31/2017 | -2.07% | -9.28% | Recommendation (STARS) Description--0 | LTM Revenues by Business Segments |
| 6/30/2017 | 1.18% | -39.14% | Quality Ranking Value--B | United States--100% |
| 9/30/2017 | -4.80% | -2.48% | Quality Ranking Description--Below Average | Healthcare--55% |
| 12/31/2017 | 4.91% | N/A | Short Score--0 | Pharmacy Management--47% |
| Mean | -1.15% | -16.93% | Market Signal Probability of Default % (Non-Ratings) | Corporate and Elimination--2% |
| Standard error | 0.8% | #VALUE! | -0.15% | -- |
| | | | CreditModel Score (Non-Ratings)--bb | -- |
| Management | Position | Total Compensations Growth | Stock Price Growth During Tenure | Peers |
| Smith, Barry | Chairman & CEO | 109.29% per annum over 5y | 1.01% per annum over 5y | Molina Healthcare, Inc. |
| Rubin, Jonathan | Chief Financial Officer | 6.19% per annum over 5y | 1.01% per annum over 5y | MEDNAX, Inc. |
| Gregoire, Daniel | General Counsel & Secretary | 2.42% per annum over 5y | 1.01% per annum over 5y | Diplomat Pharmacy, Inc. |
| Srivastava, Sanjeev | Chief Executive Officer of Magellan Healthcare | 22.55% per annum over 2y | 11.96% per annum over 2y | Universal Health Services, Inc. |
| Kamal, Mostafa | Chief Executive Officer of Magellan Rx Management | 12.65% per annum over 1y | 22.04% per annum over 1y | Community Health Systems, Inc. |
| West, Jeffrey | Principal Accounting Officer, Senior VP & Contr | | | Tenet Healthcare Corporation |
| | | | | Premier, Inc. |
| Profitability | MGLN (LTM) | MGLN Historical | Peers' Median (LTM) | Porter's 5 forces (Scores are percentiles) |
| Return on Capital (GAAP) | 11.5% | 18.43% | -4.26% | Bargaining Power of Suppliers-- MIDDLE TIER 56 |
| Operating Margin | 4% | 5.48% | 8.86% | Bargaining Power of Customers-- MIDDLE TIER 50 |
| Revenue/Capital (GAAP) | 3.08 | 3.37 | -0.48 | Overall Position among Peers-- MIDDLE TIER 42 |
| ROE (GAAP) | 12.2% | 11.5% | 9.8% | Threat of New Competition-- LOWEST TIER 8 |
| Net margin | 2.3% | 3.2% | 4.1% | Intensity of Existing Rivalry-- MIDDLE TIER 58 |
| Revenue/Book Value (GAAP) | 5.31 | 3.59 | 2.40 | Threat of Substitutes-- MIDDLE TIER 67 |
| Invested Funds | MGLN (LTM) | MGLN Historical | Peers' Median (LTM) | |
| Cash/ Capital | 17.5% | 28.0% | 27.6% | |
| NWC/ Capital | 18.9% | 10.8% | -20.3% | |
| Operating Assets/ Capital | 18.1% | 21.0% | 69.7% | |
| Goodwill/ Capital | 45.3% | 40.3% | 22.9% | |
| Capital Structure | MGLN (LTM) | MGLN Historical | Peers' Median (LTM) | |
| Total Debt/Market Capitalization | 0.42 | 0.18 | 0.49 | |
| Cost of Debt | 3.5% | 3.4% | 6.6% | |
| CGFS Rating (F-score, Z-score, and default Probability) | B | | 9.0% | |
| WACC | 7.8% | 7.9% | | |



January 2, 2018

Craft Brew Alliance(NASDAQ:BREW)

Eric Bjorklund

Sector: Food, Beverage and Tobacco

Industry: Consumer Staples

Current Price: \$18.85

Target Price:\$20.34

Craft Brew Alliance (BREW) is a group of craft brewers that are based mainly out of the California, Pacific Northwest, New England and Appalachian regions. Recent deals with Anheuser Busch Inbev have made this company gain a competitive advantage due to the use of ABI's vast distribution network. BREW's business model consists of breweries and brewpubs, along with constant innovation of product to keep up with changes in the market.

BUY

Current Price: \$18.85

Target Price: \$20.34

Market Cap: 364M

Beta: .51

Other key Metrics/Ratios

ROA 4.64

Gross Margin 31.46

1 year EBITDA Growth 35.73

Kd 2.5%

Inventory Turnover 8.64

TEV/EBITDA 14.47x

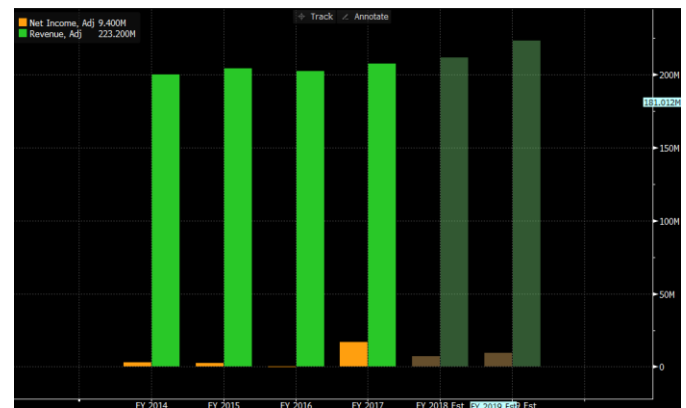
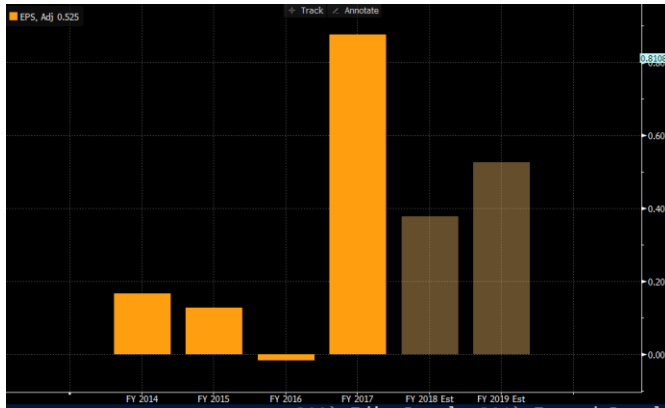
P/BV 2.36x



Thesis: Craft Brew Alliance is an interesting company due to its structure being nothing like large alcoholic beverage companies or small brewers. Their success will come from a commitment to innovative brands, such as gluten free and healthy lifestyle craft beers, and their ability to redefine their operations to adapt to a constantly changing alcoholic beverage market. One of the main sources of value in this company is their partnership with Anheuser Busch Inbev for brewing and distribution purposes. This is unlike any other craft beer breweries on the market and will allow CBA to take advantage of large scale networks, while still being viewed as a craft brand.

Catalysts: Forward looking projections that call for positive/negative outlook that will strengthen your thesis. Example:

- Short Term (within the year): Capitalize on new operating efficiencies as well as innovative brands expanding their market.
- Mid Term(1-2 years): Completion of new Kona brewery with 100k barrel capacity as well as fulfilling all current brewing capacity
- Long Term(3+): International Expansion via the Anheuser Busch Inbev Distribution Network



Earnings Performance:

CBA overcame a tough year for brewers in 2017 and posted their best financials to date. Their revenues grew 2.4% during a turbulent year, and thanks to a tax benefit of \$.35/share, their EPS increased to \$.88 (\$.53 without one-time tax benefit). CBA successfully sold their Wynwood Brewery for \$24.5 million and used that to pay off all of their outstanding debt. Their current cost of debt comes from a line of credit with BoA and it is at 2.5%. Over 2017 their gross margin grew 320 basis points and eclipsed the 35% milestone. This signifies strong growth in the operations segment of the income statement. The net income for the year increased exponentially due to increased operating efficiencies, as you can see by the graph comparing Net Income and Revenue. CBA has been able to increase their inventory depletions 10% in the past year, much in part to streamlined efficiencies from the partnership with Anheuser Busch Inbev and the closure of the Wynwood Brewery. Currently, CBA is in the works to revamping their logistical processes, which could affect gross margins by 40-50 basis points. ABI continues to have a huge effect on the pricing of this stock, and while the market has most likely already priced that synergy correctly, there is still plenty of upside to the equity.

International Expansion:

- Currently, CBA brands are not prominent in other countries.
- ABI plans to aggressively attack the Brazilian market
- 2017 60% depletion growth in international markets via Kona brands shows potential for these markets in coming years
- CBA and ABI both are taking a long term “measure twice, cut once” approach to international brand roll out.
- 2017 was a planning year with regards to expansion, so over the next 3-5 years we can see bullish growth in the international craft beer markets

Current Dealings and Future with Anheuser Busch Inbev:

Anheuser Busch Inbev (ABI) is one of the largest and most aggressive companies in this sector. Their network extends around the world and they currently hold the largest market share of beer volume sales at 28%. In 2016, CBA entered a contract brewing and distribution agreement with ABI. The market reacted fondly to this, as seen by a 61% price increase. The market suddenly had eyes on this relatively small company. Highlights of this agreement include:

- CBA has the right to brew 300,000 barrels of beer at ABI breweries with a guaranteed cost savings of \$10/barrel. This amounts to a guaranteed cost savings potential of \$3 million.
- ABI will be the exclusive international distributor of beer from CBA. This is especially important considering ABI's initiative into Latin American countries that may have a taste for richer beers.
- ABI will cover the production and shipping costs incurred by CBA as well as pay a royalty of \$40 to \$30 per barrel of beer exported. This is subject to escalation in 2018.
- ABI will pay CBA one-time fees of \$3m, \$5m, and \$6 million (amortized over the 10 year life of the agreement per CBA's financials) with the \$6 million due in 2018 and another one-time payment of \$20 million due in 2019, barring breach of agreement.
- ABI has the right to purchase CBA at \$23.25/share before August 23, 2018 or \$24.50/share after that date.

This agreement is huge for the continued success of CBA. The distribution network alone gives them a competitive advantage over every other craft brewer out of the network of large companies. CBA is the only independent craft brewer to have established a wholly aligned distribution network through ABI. As of this moment, 87% of their beer is shipped via the vast ABI network. Due to brewery capacity issues, CBA did not take advantage of the full brewing capability of the ABI contract. In 2017, they used 187,000 barrels of ABI capacity, but in 2018 plan to fulfil the entire 300,000 barrels through ABI. This shift in capacity is mainly due to the closure and sale of an inefficient brewery.

An interesting part of the brewing and distributing agreement pertains to the cancellation of the agreement in the event of a change of control via ABI acquiring CBA. If ABI buys out the shares of CBA before August 23, 2018, they will return 23% at the current pricing of \$18.85. If they chose to buy out after that date, it will shift to a 30% return of the current pricing. There is speculation as to whether or not this will happen, so it is not a strong catalyst, but defiantly something to consider. In September of 2017, ABI announced they would no longer acquire new craft beer brands for the time being. ABI currently owns 31.5% of CBA, so it is certainly still possible they would make an offer, but for now, the partnership seems to be the course they are taking.

One of the intangible factors of this partnership involves the public perception of large beer conglomerates. Many craft beer drinkers have an attachment to smaller micro-breweries and non-corporate brands. With CBA not being under the umbrella of ABI completely, this distances their brands from those potentially adverse stigmas. ABI still has considerable control over CBA, so in terms of market research and expansion, this will mutually benefit both parties.

In February, CBA and ABI entered into an agreement that enabled CBA to brew some of ABI's high-end beers at their breweries. This includes brands such as Goose Island, a popular beer out of Chicago. This allows CBA to use more of their capacity, thus spreading out overhead costs and not wasting any ability to brew. The terms of this agreement are tiered based on production in barrels of beer, and the exact per barrel payments were not disclosed.

Innovative Brands:

CBA prides themselves on their ability to innovate with the market. They have a wide variety of brands that appeal to almost every demographic in the alcohol consuming market. With strong, well known brands such as Red Hook Brewing and up and coming powerhouse brands such as Kona Brewing, they stand to continue to dominate niche markets.

Red Hook Brewing is produced all over the nation currently, and has an almost cult-like following in the Pacific Northwest. This is one of CBA's flagship brands and they have built their company around it. They have recently started brewing via high efficiency production methods designed to use less water and energy. This not only lowers costs, but also gives them a socially responsible aspect that attracts certain demographics.

Kona brewing is the fastest growing sect of their company and much of their short-term business model focuses on the Kona+ initiative. Kona is a Hawaiian inspired brewing company that uses traditional means of local brewing. In the past year, they have mainly focused on moving the brand to the mainland via the West Coast. It is the #5 craft brand in California and stand to make a nationwide impact with the release of its Hanalei Bay IPA. Ever since its recent release, it has been the #4 new craft brand nationally. The market favors IPA's in the coming summer months, so Q2/3 revenues due to this brand are set to be large this year. The international exports of this brand increased 45% with a similarly projected increase in 2018. Kona is also releasing a Hawaiian style beer for the active lifestyle consumer, which only has 5 carbs and 99 calories. This taps into a rapidly growing demographic that has been touched by very few craft brands in the past. CBA is in the process of constructing a 100,000 barrel per anum brewery with a start of operations date in Q1 2019.

One of the most innovative brand CBA carries is the Omission brewery line of beer. Omission was the first gluten free beer on the market in the US and now maintains its position at the top of the segment in overall rating and market share (37%). The brand is nationally recognized and does not sacrifice taste like many GF products. Omission is also tapping into the active lifestyle market by unveiling a 99 calorie beer in January 2018.

Other smaller, local brands CBA owns are Square Mile Cider CO., Cisco Brewing Inc., Wynwood Brewing, Widmer Bros. Brewing, and Appalachian Mountain Brewing. Square Mile Co. targets a growing craft cider market in the U.S. Cisco Brewing has grown 146% in Massachusetts alone in 2017. Wynwood Brewing grew 260% in 2017. Widmer Bros. Brewing produces "Hefe," Oregon's #1 craft beer. They also are switching to a profitability based distribution and production model by focusing on popular markets and brewing via the ABI brewery. Appalachian Mountain Brewing is located in North Carolina and is one of their more recent acquisitions. Since acquisition in mid 2017, they have grown 51% in revenues.

Operating Efficiencies:

CBA over the past year has restructured their operating process. They implemented their World Class Craft initiative designed to increase cost efficiencies, reduce beer loss, and improve their supply chain. CBA's core mission over the past 4 years has been to strengthen their top line of products, improve the core business health, and actualize the future of the company. They are very proud of their ability to stick to that model, and it has paid dividends. With the closure of the Wynwood brewery and the shift of capacity to the ABI Ft. Collins Brewery, they stand to save \$3 million annually. The \$24.5 million they received for the brewery helped pay off all existing debt, putting them in an attractive state for growth or potential M&A. Through the WCC initiative, CBA improved their supply chain inventory days by 10. They also increased the efficiency of their packaging lines as well as drastically reduced beer loss.

One of the overlooked parts of this company is their network of brewpubs. With brewery tourism at an all-time high, these can not only be revenue generators, but also can provide valuable intangibles at a low cost. Through their brewpubs, CBA is able to gather market data such as demographics and taste preferences. They can test new lines before going all in on a national scale. They receive over 1.5 million combined total visitors to their brewpubs on a yearly basis. The spread of their brand and increase in brand loyalty is also evident via the brewpubs as seen by the localized market loyalty towards brands.

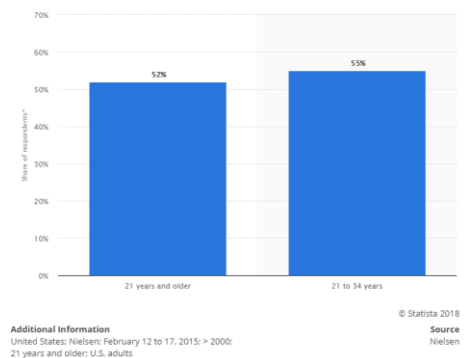
CBA has a lower supply risk than many other breweries. It grows its own yeast supply in dedicated labs, and is entered in midterm contracts for hops, barley and other ingredients necessary for brewing. CBA is also hedged against interest rate changes. They can handle a 10% swing in either direction without material consequences on their business.

Management:

| <u>Position</u> | <u>Name</u> | <u>Background</u> |
|--------------------------|--------------------|---|
| CEO | Andrew J. Thomas | With CBA since 2011, before that was CEO of Heinekin USA Inc. Heavy experience in expansion of beer brands in international regions |
| CFO | Joseph Vanderstelt | CFO since 2015. Senior Director of Miller Coors before CBA. |
| COO | Scott J. Mennen | With CBA since 2011, CFO since 2017. Heavy accounting background as well as supply chain management. |
| Chairman of Board | David R. Lorde | Been involved with CBA companies since 2003. Independent director since 2005. Heavy craft beer industry knowledge from the bottom floor up. |

Market for Craft Beer:

- Shift of drinkers towards “good beer” in the past decade.
- 12.3% of US beer production volume is craft
- 57% of millennials drink craft beer on a weekly basis
- Local beer is becoming more important to consumers
- Growth is slowing; potential shakeout on the horizon could be good for CBA. Only the fit survive.
- Estimated per capita expenditure on alcohol in 2018: \$585.5
- Healthy Active Lifestyle beer is a rapidly growing market
- Global Gluten Free craft beer market set to grow at CAGR 17.43%



Competitive Analysis:

CBA is tough to compare to competitors because, while each of the individual brands face fierce competition, the whole company is unique in nature. One can view the large assortment of brands as a hedge for CBA. The craft beer market boomed in 2015 and that gave rise to many small breweries. There is speculation of an industry shakeout, which would drive much of CBA's small-scale competitors out of business, while leaving them intact due to strong brand image and financials. Their partnership with ABI sets them apart from the pack in that no other company has a partnership like that. CBA retains autonomy while still reaping the benefits of the worldwide distribution network of ABI. Having a friend in ABI is an intangible asset, as they control so much of the American market, they influence trends and even pricing sometimes. For example,

ABI was criticized for buying the entire supply of South African hops, thus increasing the price of alternatives and imposing hardship on other brewers.

Conclusion:

I have BREW at a buy due to a strong future in the company. It will continue to be a power player in the craft beer industry and its advancement into new markets bodes well for revenues and pricing in the near and far future. The gluten free and active lifestyle demographic will prove to be a very profitable market to continue to advance their brands through. The partnership with Anheuser Busch is fruitful and will continue to provide the support needed for success. Management of CBA is a strong suit, with a cast of experienced beer industry professionals. Efficiencies are increasing and there is plenty of room to improve and take advantage of new opportunities to lower costs. This company is extremely sensitive to operating costs. A 2% shift in either direction of Operating expense/ revenues can make or break the pricing of this company. I am bullish on their future because of this. CBA is constantly working to lower its cost margins and has been having great success. 2017 was their best/strongest year yet, and I believe that they were still holding back due to certain speed bumps such as the Wynwood Brewery closing and shift of capacity to ABI. In 2018 we will continue to see operating costs drop and the financial health of the company grow stronger and stronger. In a craft beer market that is leveling off, CBA continues to innovate and generate wealth for shareholders.

Craft Brew Alliance, Inc. (BREW)

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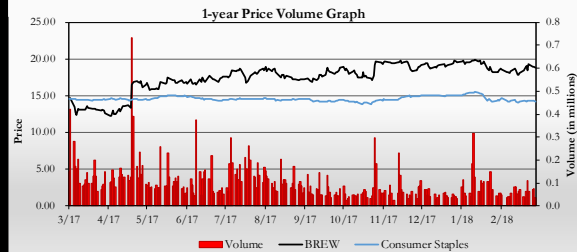
NEUTRAL

Analysis by Eric Bjorklund
3/16/2018

Current Price: \$18.75
Divident Yield: 0.0%

Intrinsic Value: \$18.77
Target Price: \$20.34

Target 1 year Return: 8.46%
Probability of Price Increase: 56.6%



| Description | |
|--|-------------------|
| Craft Brew Alliance, Inc. brews and sells craft beers and ciders in the United States and internationally. | |
| General Information | |
| Sector | Consumer Staples |
| Industry | Beverages |
| Last Guidance | February 12, 2018 |
| Next earnings date | May 9, 2018 |
| Market Assumptions | |
| Estimated Equity Risk Premium | 5.69% |
| Effective Tax rate | 21% |

| Market Data | |
|---------------------------------------|----------|
| Market Capitalization | \$362.06 |
| Daily volume (mil) | 0.09 |
| Shares outstanding (mil) | 19.31 |
| Diluted shares outstanding (mil) | 19.45 |
| % shares held by institutions | 109% |
| % shares held by investments Managers | 24% |
| % shares held by hedge funds | 10% |
| % shares held by insiders | 18.63% |
| Short interest | 2.73% |
| Days to cover short interest | 7.61 |
| 52 week high | \$20.10 |
| 52-week low | \$12.00 |
| Volatility | 47.73% |

| Past Earning Surprises | |
|------------------------|---------|
| Quarter ending | Revenue |
| 12/31/2016 | -6.42% |
| 3/31/2017 | 10.72% |
| 6/30/2017 | 3.43% |
| 9/30/2017 | -1.32% |
| 12/31/2017 | 0.06% |
| Mean | 1.30% |
| Standard error | 1.0% |

| EBITDA | |
|----------------|---------|
| 12/31/2016 | -30.37% |
| 3/31/2017 | -67.49% |
| 6/30/2017 | 70.70% |
| 9/30/2017 | 47.60% |
| 12/31/2017 | 32.79% |
| Mean | 10.64% |
| Standard error | 1773.0% |

| Market and Credit Scores | |
|--|---------|
| Recommendation (STARS) Value--0 | |
| Recommendation (STARS) Description--0 | |
| Quality Ranking Value--B- | |
| Quality Ranking Description--Lower | |
| Short Score--1 | |
| Market Signal Probability of Default % (Non-Ratings) | -0.357% |
| CreditModel Score (Non-Ratings)--b+ | |

| Management | |
|---------------------|---|
| Management | Position |
| Thomas, Andrew | Chief Executive Officer |
| Vanderstelt, Joseph | Executive VP, CFO & Treasurer |
| Mennen, J. | Chief Operating Officer and Vice President |
| Kunze, Kenneth | Chief Marketing Officer and Vice President |
| Glick, John | Vice President of Emerging Business |
| Smith, Edwin | Corporate Controller & Principal Accounting Off |

| Total Compensations Growth | |
|----------------------------|--|
| 20% per annum over 5y | |
| 10.17% per annum over 1y | |
| -5.48% per annum over 2y | |
| -5.9% per annum over 2y | |
| 8.01% per annum over 2y | |

| Industry and Segment Information | |
|-------------------------------------|-----------------------------------|
| LTM Revenues by Geographic Segments | LTM Revenues by Business Segments |
| United States--100% | Beer Related--87% |
| | Brewpubs--13% |

| Profitability | |
|---------------------------|-----------------|
| BREW (LTM) | BREW Historical |
| Return on Capital (GAAP) | 3.7% |
| Operating Margin | 4% |
| Revenue/Capital (GAAP) | 1.02 |
| ROE (GAAP) | 7.1% |
| Net margin | 4.1% |
| Revenue/Book Value (GAAP) | 1.73 |

| Peers' Median (LTM) | |
|---------------------------|--------|
| Return on Capital (GAAP) | 8.26% |
| Operating Margin | 14.26% |
| Revenue/Capital (GAAP) | 0.58 |
| ROE (GAAP) | 13.9% |
| Net margin | 8.8% |
| Revenue/Book Value (GAAP) | 1.59 |

| Peers | |
|---|------------------------------|
| The Boston Beer Company, Inc. | Zambian Breweries Plc |
| Molson Coors Brewing Company | Namibia Breweries Limited |
| Shepherd Neame Limited | Phoenix Beverages Limited |
| Constellation Brands, Inc. | Harboes Bryggeri A/S |
| Kulmbacher Brauerei Aktien-Gesellschaft | Ceylon Beverage Holdings PLC |

| Invested Funds | |
|--------------------------|-----------------|
| BREW (LTM) | BREW Historical |
| Cash/Capital | 0.3% |
| NWC/Capital | 8.2% |
| Operating Assets/Capital | 84.1% |
| Goodwill/Capital | 7.3% |

| Peers' Median (LTM) | |
|--------------------------|-------|
| Cash/Capital | 9.0% |
| NWC/Capital | 2.2% |
| Operating Assets/Capital | 80.2% |
| Goodwill/Capital | 8.6% |

| Capital Structure | |
|---|-----------------|
| BREW (LTM) | BREW Historical |
| Total Debt/Market Capitalization | 0.26 |
| Cost of Debt | 2.3% |
| CGIS Rating (F-score, Z-score, and default Probability) | A |
| WACC | 7.4% |

| Peers' Median (LTM) | |
|---|-------|
| Total Debt/Market Capitalization | 0.34 |
| Cost of Debt | 7.7% |
| CGIS Rating (F-score, Z-score, and default Probability) | |
| WACC | 12.0% |

| Forecast Assumptions | |
|---------------------------|-------------------|
| Explicit Period (5 years) | Continuing Period |
| Revenue Growth CAGR | 4% |
| Average Operating Margin | 14% |
| Average Net Margin | 7% |
| Growth in Capital CAGR | 7% |
| Growth in Claims CAGR | 2% |
| Average Return on Capital | 7% |
| Average Return on Equity | 9% |
| Average Cost of Capital | 7% |
| Average Cost of EquityKe | 8% |

