

December 1, 2017

**Alaska Air Group: ALK**  
Connor Morelli

**Sector: Industrials**  
**Industry: Regional Airlines**  
**Current Price: \$69.68**  
**Target Price: \$80.92**

Alaska Air Group is the holding company for Alaska Airlines and Horizon Air. Alaska Airlines primarily offers long-haul, full service flights along the Pacific coast and is currently the fifth largest U.S airline following the purchase of Virgin America. Horizon Air offers short-haul commuter service in the same markets, under Alaska Air's livery and logo. Alaska Air Group operates in three business segments, mainline, regional, and under the Horizon Air brand. Alaska Air Group operates a network of approximately 1200 flights per day to over 118 locations across the United States, Canada, Mexico, Costa Rica, and Cuba. Alaska Air Group was founded in 1932 and is currently located in Seattle, Washington.



**BUY**

Current Price:	\$69.68
Target Price:	\$80.92
Market Cap:	8.503B
WAAC:	7.6%
ROIC:	20.7%
ROIC/WACC:	2.71
Average Volume	1.77M
D/E:	0.77
S&P Debt Rating	BB+
EBITDA Margin	11.58%
Capital Usage	2.34



## Thesis:

Alaska Air Group's acquisition of Virgin America in December 2016 has resulted in a reduction in share price over the last year due to integration difficulties. However, Alaska Air Group is an industry leader in cost strategy and historically has led the industry in sales growth and operating margins. As the operational difficulties of the Virgin America acquisition cease, full annual efficiency benefits are expected in 2018. Along with continued United States economic growth and expansion in to the growing California market, Alaska Air Group should continue to grow at a rate faster than industry averages, while keeping operating costs stable.

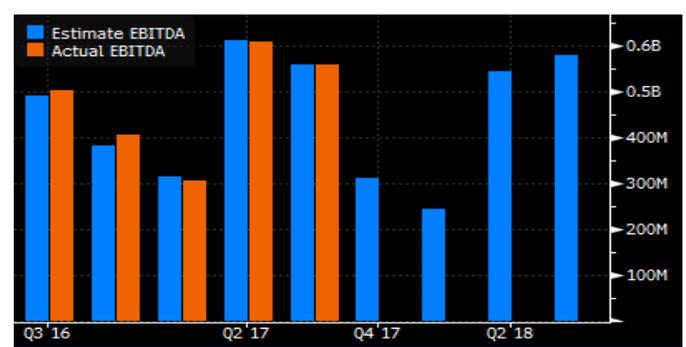
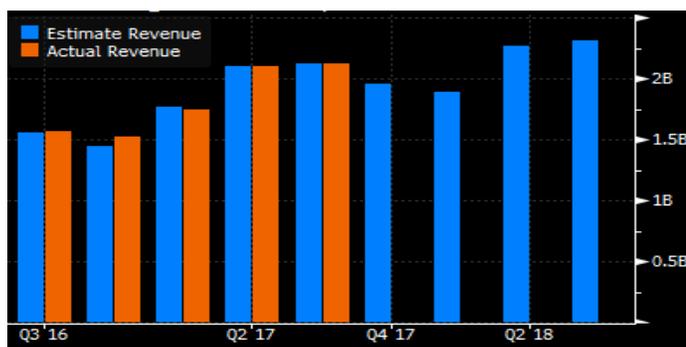
## Catalysts

- Short Term (within the year): Increased traffic from holiday season travel. Updated 2018 guidance in January.
- Mid Term (1-2 years): Acquisition of Virgin America should experience full annual efficiency benefits. Operational difficulties from merger cease. Expansion into large California Market
- Long Term (3+): Continued United States economic growth.

## Third Quarter

### Earnings Performance:

On October 22, 2017, Alaskan Air Group released Q3 earnings and reported record operating GAAP revenues of \$2.12B, which represented a growth of 35% year over year and 5.4% from the previous quarter. Same store capacity, which are markets that have been in service for longer than one year, which represents 94% of Alaskan Air Group's total capacity, grew 0.7% while RASM was slightly positive. Same store load factor was reported at 86% for the 3Q as well. Management commented, "Certain yield suffered from close-in pricing, primarily intra-California and California transcendental." Twenty new markets commenced in the nine months ended 2Q 2017 contributed to one third of revenue growth for the third quarter and 60% of these new markets have already become profitable. Utility for the state of California is 44%, up 28 points from pre 2016 merger network levels. Alaska Air Group posted a \$278mm adjusted profit for the 3Q 2017, a \$6mm increase over last year's period. Alaska Air Group experienced significant cost increases for the 3Q 2017. Fuel costs rose \$70mm, which equates to a 23% increase year over year. Non-fuel costs also rose by \$97mm for the 3Q as well. This translate to unit costs up 1% on 7% available seat miles (ASM) growth. For the 3Q 2017, CASM excluding fuel and special items was 7.98 cents per dollar or revenue while for FY 2017, CASM excluding fuel and special items was 8.09 cents on the dollar a decrease from 8.16 the prior year. Overall, management adjusted guidance for the 4Q of 2017 and for the full fiscal year as well. Management expects unit costs to be up about 1.5% on an 11% increase in capacity. These cost increases stem from a newly signed engine services deal with GE, which is expected to impact near term CASM, but will stabilize engine expenses long term. Alaska Air Group ended the quarter with \$1.7B of cash on hand and has generated \$1.4B of operating cash flow for FY 2017. Capex for



the first nine months of FY 2017 was reported at \$850mm, which translates to a free cash flow of approximately \$600mm for FY 2017, excluding merger related expenses accrued in 2016.

### Airline Industry Outlook:

The commercial airline industry is a highly cyclical industry that often replicates the current business cycle environment as well as severe and extreme weather events that affect the ability of airlines to conduct travel, which act as short-term revenue headwinds. Overall, the world economy as a whole is expected to modestly over the next 5-10 years at a CAGR of 3.8% while advanced economies are projected to grow between 1.7% and 2.2% CAGR over the same period. There is also a broad consensus that oil prices will continue to rise to the range of USD 80 to USD 100 per barrel by 2030 which will serve as a cost headwind for the airline industry over a moderate to long-term time horizon. The airline industry is a very cost sensitive industry and growing oil and jet fuel prices have the ability to be destructive to operating margins. Airlines are expected to manage costs by switching from a network-based approach to a per-passenger basis. In order to do so, airlines will need to invest in right size aircraft in the range of 100-150 seat aircraft. These smaller aircrafts are key to cost control and new route potential for the industry. Intra-regional routes represented 80% of global air traffic in 2016 and are expected to grow at a CAGR of 5% over the next twenty years. These routes also generate the highest yield but often suffer from outdated fleets. Newer aircraft orders are expected to be filled over the next twenty years with technologies that aim to reduce CASM and are fuel-efficient. For 2016 unit revenues weakened however, for 2017, there has been improvement from 2016 levels. Airlines have been currently trimming excess capacity over FY 2017 due to the overestimate of demand from 2015 and 2016. This has allowed for better pricing power in 2017. For the ttm period ending 2016, total revenue passenger miles (RPMs) rose 3.6%, available seat miles rose 3.8% and the passenger load factor fell by 0.1 percentage points to 83.0. Over the next twenty years, the International Air Transport Association (IATA) expects air traffic to grow at a CAGR of 3.7%, which would put air traffic passengers to 7.2 billion for the year 2035, double what they were in 2016, 3.8 billion. Overall, economic growth drives the commercial airline industry, and as the United States airline market grows to 1.1 billion annual passengers over the next twenty years, Alaska Air Group is poised to capitalize on these trends.



Source: Company Annual Reports, Industrial Journals, Technical Publications, KOLs, and TMR Analysis

## Business Operations and Strategy:

Alaska Air Group is the holding company of Alaska Airlines, Virgin America and Horizon Airlines. Alaska Airlines generates the majority of the revenues for Alaska Air Group at 82% of revenue while Horizon accounted for 18% for FY 2016. Alaska Air Group reports their revenue between mainline and revenue which are synonymous to Alaska Airlines and Horizon. Alaska Airlines is currently the fifth largest United States airline following the purchase of Virgin America. Alaska Airlines has code sharing agreements the other U.S legacy carriers such as Delta, United Continental, and American Airlines. Alaska Airlines primarily serves north/south routes along the pacific coast. It also serves destinations in Alaska as well as north/south service internationally between cities located in the United States, Canada, and Mexico. Alaska Airlines also provides east/west route service to Hawaii as well as twelve additional cities in the United States, primarily out of the airlines hub in Seattle. In 2016, Alaska Airlines carried 25mm passengers, up 9% from 2015. West coast passenger traffic accounted for 36% of revenue passenger miles, while passenger traffic within Alaska and between Alaska and the continental United States contributed 15% of revenue passenger miles. Additionally, transcontinental, Hawaii, Mexico, and Canada contributed 22%, 18%, 6%, and 3% of revenue passenger miles respectively. Horizon Air provides regional airline service and was acquired by Alaska Air Group in 1986. In 2016, Horizon carried 9.4mm passengers primarily between Washington, Oregon, Idaho, and California. The mainline fleet consists of 155 total Boeing 737 and Airbus A319 and A320's, with an average fleet age of 8.4 years. Alaska Air Group maintains two frequent flyer plans: the Alaska Airlines Mileage Plan and Virgin America Elevate. Benefits are earned using the Alaska Airlines credit card and can be used through a syndicate of 24 partners and 3 major global alliances. Members of the rewards program have access to over 900 worldwide destinations. Reward incentives are based on miles flown and purchases made on flights or [alaskaair.com](http://alaskaair.com).



Corporate strategy is focused on expansion into target markets and routes not yet served by Alaska Air Group, primarily in California and the West Coast through the merger with Virgin America in December of 2016. Management is also concerned with continuing the low cost, low fare strategy that has seemed to dominate this industry over the past decade. The low cost, low fare strategy employed by Alaska Air Group has resulted in an increase in a net change in seats of 27mm between 2000-2015, while the industry has seen a

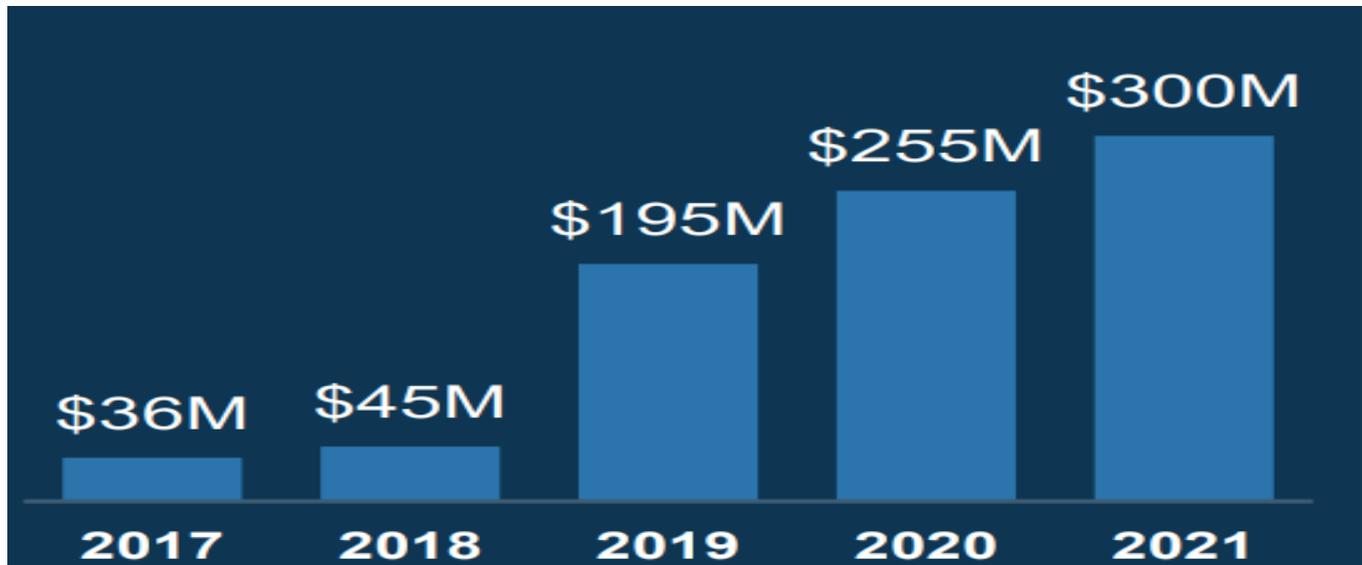
decline of 26mm over the same period. Currently, the average fare paid is \$160 for an Alaska Airlines flight, which is in line with other low cost carriers such as JetBlue and Southwest, while significantly lower than legacy carriers. This pricing strategy mirrors the passenger demand for low fares while still receiving a premium product and service. The key growth strategy of management is build Pacific Northwest relevance to build loyalty in the significantly larger California market. California is currently 3x the population of the Pacific Northwest and has more than 2.5x the amount of daily passengers. This represents a significant opportunity for Alaska Air Group to gain market share in a growing population and network. Currently AS/VX relevance is 38% for the California market and management hopes to grow this by 10% over the next two-three years. Alaska Air Group has recently added 27 new California markets, making them the #1 airline in passenger relevance on the West Coast. Passenger relevance is defined as the percent of North American O&D passengers in markets that each carrier service serves with non-stop service. These new markets include destinations in San Francisco, San Jose, the L.A Basin, and San Diego. An additional strategy is to deploy the fleet mix in a way that matches capacity to demand. Alaska Air Group's plan is to offer more seats in capacity constrained markets, which will offer lower trip costs on off-peak flights, which helps execute the low cost strategy. Alaska Air Group is also expanding premium seating on the Airbus fleet. Management expects this initiative to increase revenues by \$40mm per year and in hand will lower unit costs.

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## Acquisition of Virgin America:

On December 14, 2017, Alaska Air Group announced that it had completed the acquisition of Virgin America, a low cost, west coast airline with \$1.5B in annual revenues. The goal of this acquisition is to offer broader national reach and position the company to better serve people on the West Coast. The combined airline now provides 1,200 daily departures and the combination of loyalty programs and networks will provide greater benefits for guests and expand the international partner portfolio. At the time of the acquisition, Virgin America operated 200 daily departures and 63 aircraft. Alaska Air Group purchased Virgin America for \$4.0B, including the assumption of all debt. The agreed upon price of \$57/share was over an 80% premium to Virgin America's trading price prior to the news of the acquisition being made public and represented 44.645mm shares of Virgin America common stock. Alaska Air Group still expects to receive \$225mm in synergies at total integration, which is expected at some point in FY 2018. By 2019, Alaska Air Group has announced they will fully retire the Virgin America brand name. Since the time of Alaska Air Group's acquisition of Virgin America, shares are subsequently down nearly 22% due to the ineffective execution as well as the difficulties in integrating the Virgin America network that has seen costs rise. Despite headwinds in the acquisition and merger of the Virgin brand, approximately a \$400mm one-time cost increase, cost synergy targets are still up 20% since announcement of the deal. Pre-tax margins have also benefited from the merger. LCC's average pre-tax margin is approximately 19%, where legacy airlines typically incur higher costs, their margins are typically around 14%. The potential impact of \$300mm in run-rate synergies, net of amortization and interest, put Alaska Air Group's pre-tax margin at 25%, well above competitors. By 2024, Alaska Air Group expects a fleet size of 297 committed airliners, with an option of 109 to lease. I believe this figure is a positive metric as it shows management expects capacity and demand to grow following the acquisition. There has been significant headwinds faced by Alaska Air Group following the merger. Management has struggled to meet earnings and revenue expectations, primarily due to the lower operating margins as well as operating systems still not being fully integrated. Following the acquisition, Virgin America saw RASM fall 8%, while Alaska Air Group has remained flat. In turn, legacy carriers on the West Coast have in turn lowered fares, initiating a price war. In the recent third quarter earnings call

management said that walk-up fares for the quarter fell precipitously. However, these challenges are not uncommon for airline mergers and acquisition and I believe that management’s target date of 2019 to fully resolve all issues and see the full benefits of the acquisition as a positive catalyst to this stock. If the integration of operating systems becomes efficient and Alaska Airlines can tap into Virgin America’s previous market in a greater capacity, there is significant value creation available. The chart below shows the projected



synergies of the Alaska Air Group and Virgin America acquisition.

## Cross Sectional Analysis and Company Performance:

Name	Sales Growth (%)	EBITDA Margin	Operating Income Margin	Net Income Growth (%)	Net Profit Margin	Capex/Sales (%)	Return on Invested Capital	Return on Assets	Return on Equity
Median	4.11%	20.83%	15.27%	-15.36%	8.90%	12.85%	12.94%	6.77%	25.87%
ALASKA AIR GROUP INC	29.58%	23.99%	19.23%	-1.58%	11.63%	11.43%	15.97%	8.97%	27.42%
SPIRIT AIRLINES INC	13.06%	21.00%	15.86%	-24.61%	9.16%	23.30%	9.79%	6.70%	16.09%
HAWAIIAN HOLDINGS INC	10.46%	24.17%	19.95%	19.82%	11.78%	7.30%	30.94%	11.41%	41.34%
AIR CANADA	9.86%	14.63%	8.64%	17.10%	7.22%	19.90%	13.09%	7.10%	70.95%
JETBLUE AIRWAYS CORP	4.78%	22.30%	16.04%	-16.62%	9.38%	15.24%	12.79%	6.75%	16.21%
AMERICAN AIRLINES GRO...	3.43%	16.36%	11.66%	-46.26%	5.84%	14.26%	10.97%	4.67%	58.02%
SOUTHWEST AIRLINES CO	3.19%	23.32%	17.33%	-14.09%	10.20%	9.98%	19.90%	9.05%	25.41%
UNITED CONTINENTAL HO...	2.22%	16.07%	10.41%	-31.65%	5.90%	8.82%	12.42%	5.32%	25.33%
DELTA AIR LINES INC	1.95%	19.92%	14.68%	-19.52%	8.63%	8.55%	17.63%	6.79%	26.34%

Alaska Air Group operates in two segments, Mainline and Regional, which includes Freight and Mail, and other services. Alaska Airlines (mainline) for FY 2016 reported passenger revenue of \$4.098B and Horizon (regional) reported revenues of \$908mm. Freight and mail contributed \$108mm in revenue while other net revenues were reported at \$817mm. Other net revenue increased primarily due to increases in Mileage Plan revenue. This resulted in net revenues of \$5.931B. Alaska Air Group does not report operating expenses per segment. However, GAAP operating expenses for FY 2016 were reported at \$4.582B, resulting in GAAP operating income of \$1.349B. Expenses primarily consist of fuel expenses and on fuel expenses such as wages, benefits, and defined contribution plans. Fees such as aircraft leases and maintenance in FY 2016 increased by \$9mm and \$17mm, or 9% and 7% respectively. Management expected maintenance expenses to

increase by approximately 50-55% due to the acquisition of Virgin America in FY 2017. Revenue generation of Alaska Air Group is highly cyclical with the business cycle of the United States. In the event of a recession or slowdown of the United States economy, revenues expediently decline for that period of downturn. At this moment, the growth of the United States economy is expansionary and that is expected to continue for the near future. Alaska Air Group is an industry leading low cost, low fare carrier and over the last twelve months, has seen sales growth out pace competition. Over the LTM, sales growth has grown 29.58%. Alaska Air Group also has industry leading margins. With a GAAP EBITDA margin of 23.99%, which outpaces all competitors except the low cost Hawaiian Airlines with a GAAP EBITDA, margin of 24.17%. However, Alaska Air Group is a considerably larger carrier, which comes along with higher costs. In my view, this leads me to believe that Alaska Air Group is the industry leader in cost control. Overall, Alaska Air Group outperforms the peer group median for operating income margin, net income growth, net profit margin and return on invested capital (ROIC). This signals a healthy company who has been growing sales as well as keeping costs low. On a multiple basis, Alaska Air Group currently has a GAAP P/E ratio of 9.82x, which is below the median P/E ratio for peer groups. EV/TTM EBITDA is currently 5.27, which also is below the median for the peer group. These multiples indicate that Alaska Air Group is currently undervalued by the market. Alaska Air Group's CAPEX/Sales is currently 11.43%. This number is in line with the peer group median, which is 12.85%. I believe these capital expenditures are justified due to an industry leading ROIC of 20.7%.

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## Capital Structure:

Alaska Air Group currently holds \$2.701B of debt, which represents 43.6% of total capital for the firm. Consequently, this translates to a D/E ratio of 0.77. A significant portion of long-term debt was raised to finance the acquisition of Virgin America in December of 2016. The long-term debt of Alaska Air Group consists of senior bonds and notes and holds no revolving credit. Undrawn revolving credit consists of \$475mm. Currently, net debt to EBITDA is 0.4x where total debt to EBITDA is 1.2x. Debt structure currently consists of \$1.179B of fixed rate notes payable due through 2028 at a coupon base rate of 4.3% and \$1.803B of variable rate notes payable through 2028 at a coupon base rate of 2.6%. These variable rate notes payable bear interest at a floating rate per annum equal to a margin plus the three or six-month LIBOR in effect at the commencement of each semi-annual or three-month period. The average interest expense over the next five years is \$394.2mm with \$1.007B paid thereafter. In my opinion, even with the large amount of debt, the company should have no issues with paying back debt due to their large number of assets and operating cash flows expected to range between \$1.5-2.0B over the period interest must be paid back. The LTM ROIC/WACC ratio of Alaska Air Group is 2.71 compared to a competitor average of 1.38 over the same period. Historically, Alaska Air Group has generated returns on capital of 1.51, which is lower than competitors. However, due to the recent improvement in ROIC/WACC, Alaska Air Group has begun to create more value with their assets compared to competitors. Competitors have also deviated from their historical ROIC/WACC, indicating some competitors have been destroying the value of their firms. Another metric such as ROIC (NOPAT/Invested Capital), over the LTM has been 20.7%, an increase from the historical average of 15.4%, which has historically been near the industry average as well. Over the LTM, competitors have been generating ROICs of 10.2%. This shows that Alaska Air Group's capital allocation strategy is performing better than competitors' over the LTM. Alaska Air Group management has a history of share repurchases. In FY 2012 and FY 2014, they respectively bought back \$900mm in common stock. Additionally, in FY 2015 management authorized a \$1.0B share repurchase program, which was paused in the

second quarter of 2016 due to the acquisition of Virgin America. As of FYE 2016, the company held 5,861,583 shares in treasury and does not anticipate retiring these shares for the foreseeable future.

ROIC /WACC		
	<i>History</i>	<i>LTM</i>
ALK	1.51	2.71
Competitors	1.74	1.38
<b>Target</b>	<b>1.69</b>	

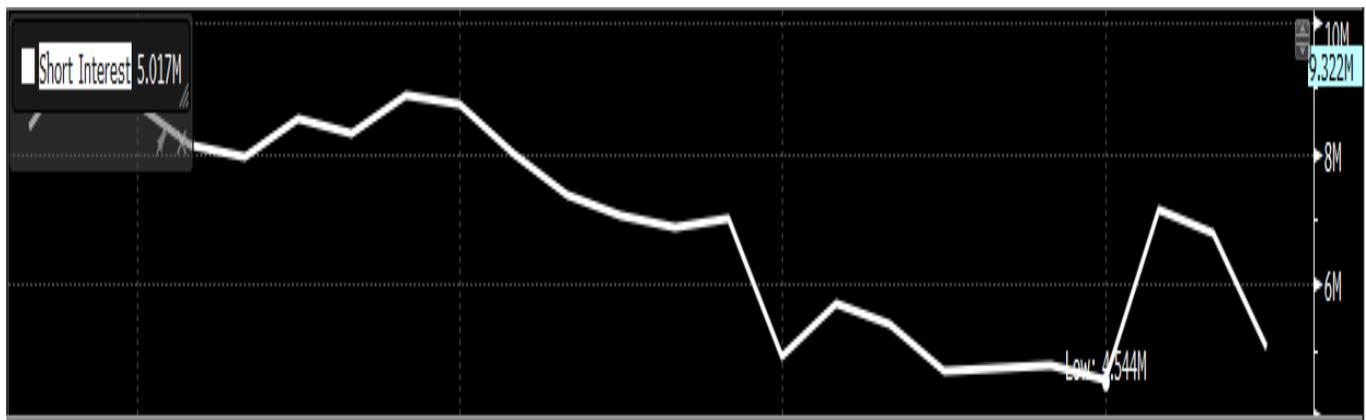
WACC		
	<i>History</i>	<i>LTM</i>
ALK	9.9%	7.6%
Competitors	8.2%	7.5%
<b>Target</b>	<b>7.6%</b>	

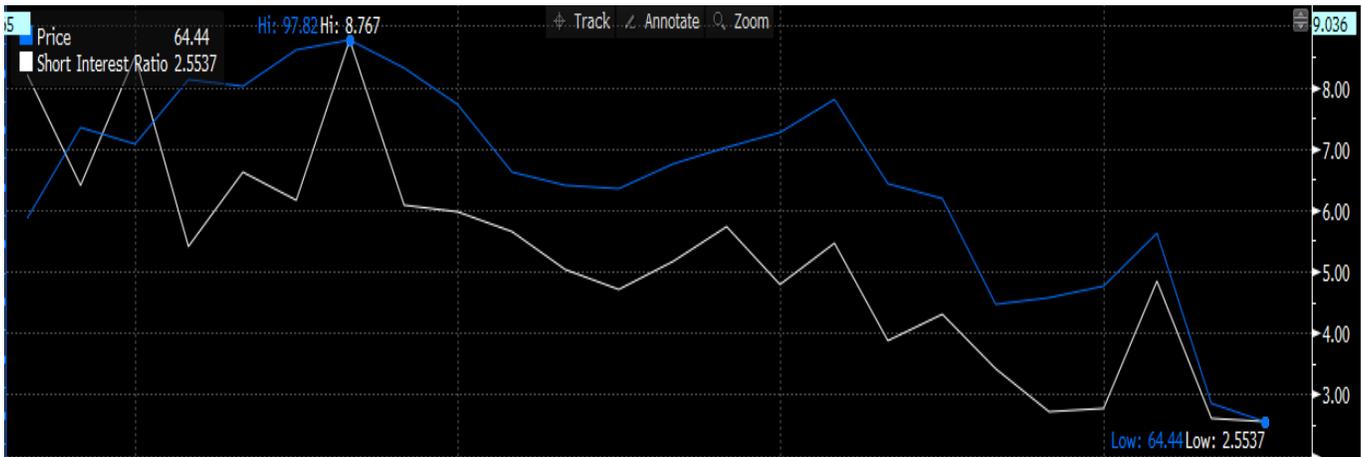
ROIC (NOPAT/IC)		
	<i>History</i>	<i>LTM</i>
ALK	15.4%	20.7%
Competitors	15.2%	10.2%
<b>Target</b>	<b>12.9%</b>	

ROC /WACC		
	<i>History</i>	<i>LTM</i>
ALK	0.99	1.93
Competitors	1.09	1.09
<b>Target</b>	<b>1.85</b>	

## Ownership Summary:

The majority of holders of Alaska Air Group common stock consist of Investment Advisors and Hedge Funds. Over the last three months, the percentage change of ownership has stayed relatively flat. Investment advisors have decreased their position to 80.43% of float, a decrease of 1.01% over the three-month period. Hedge Fund managers have increased their positions in Alaska Air Group over the last three months to 12.01% of float. This represents a slight increase of 0.13% over the period. The largest holders of Alaska Air Group consist of Vanguard, T Rowe Price Group and Blackrock funds. There has been a mix in investment advisors both entering and exiting their positions over the last three months. There is not a single entity who controls over 10% of the float outstanding; which puts the threat of management takeover low. The short interest is currently at twelve-month lows. The short interest ratio is currently 2.55%, while the short interest is 4.10% of float. Short interest ratio has historically followed the price decline of Alaska Air Group over the course of the year and is currently at yearly lows. In my analysis, I believe investors have exited their short positions as price dropped, taking profits. Due to the current low short interest, I believe investor sentiment is now that share price has hit a bottom and is expected to appreciate over the next year.





## Conclusion:

In conclusion, I recommend a buy for Alaska Air Group at current price levels. The difficulty management has experienced with the acquisition of Virgin America has been troublesome, but I believe that the low cost, low fare business model, along with the competence of management will create synergies from this merger. Alaska Air Group has historically shown that they are industry leaders in cost management and has experienced significant value creation over the LTM as seen in industry leading ROIC and ROIC/WACC. I believe that the Virgin America acquisition will grow capacity and recognition in the growing West Coast market and along with positive trends in the United States economy, share price will appreciate over the next year in the double digits.

**Alaska Air Group, Inc. (ALK)**

**CENTER for GLOBAL FINANCIAL STUDIES**

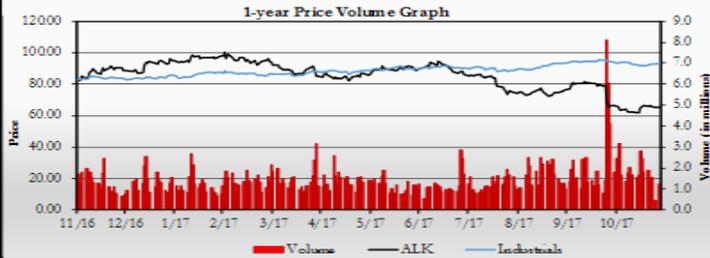
**BULLISH**

Analysis by Connor Morelli  
11/30/2017

Current Price: **\$69.11**  
Dividend Yield: **1.9%**

Intrinsic Value: **\$82.15**  
Target Price: **\$82.77**

Target 1 year Return: **21.7%**  
Probability of Price Increase: **87%**

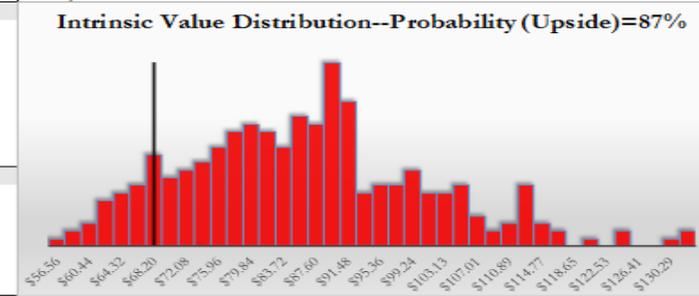


Description	
Alaska Air Group, Inc. through its subsidiaries, provides passenger and cargo air transportation services primarily in the United States.	
General Information	
Sector	Industrials
Industry	Airlines
Last Guidance	November 3, 2015
Next earnings date	January 23, 2018
Estimated Country Risk Premium	4.12%
Effective Tax rate	24%
Effective Operating Tax rate	24%

Market Data	
Market Capitalization	\$5,503.63
Daily volume (mil)	2.88
Shares outstanding (mil)	123.04
Diluted shares outstanding (mil)	124.35
% shares held by institutions	11.6%
% shares held by investment Managers	71%
% shares held by hedge funds	11%
% shares held by insiders	0.33%
Short interest	4.08%
Days to cover short interest	2.69
52 week high	\$101.43
52-week low	\$61.10
Volatility	29.25%

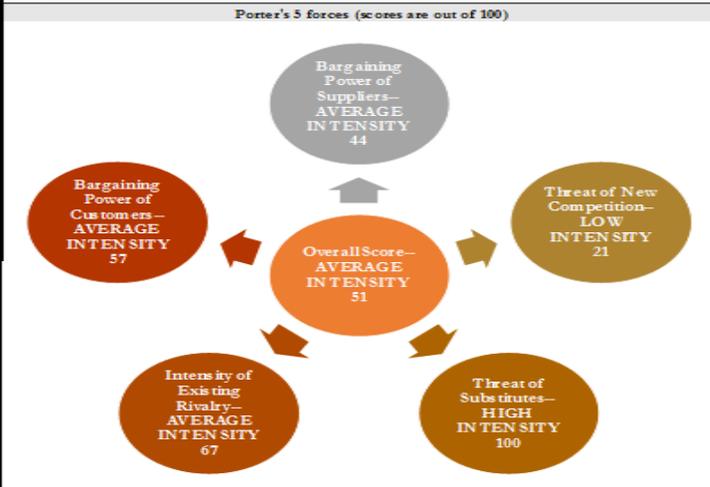
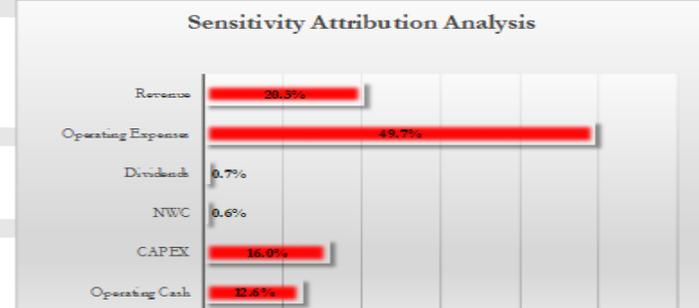
Past Earning Surprises	
Quarter ending	Revenue
9/30/2016	0.39%
12/31/2016	6.76%
3/31/2017	0.05%
6/30/2017	0.14%
9/30/2017	-0.07%
Mean	1.45%
Standard error	1.3%

EBITDA	
Quarter ending	EBITDA
9/30/2016	3.30%
12/31/2016	0.16%
3/31/2017	-22.53%
6/30/2017	-10.67%
9/30/2017	-14.66%
Mean	-8.88%
Standard error	4.8%



Management	
Tilden, Bradley	Chairman, CEO & President
Pedersen, Brandon	CFO & Executive VP of Finance
Mannucci, Dennis	President of Alaska Airlines
Campbell, David	Chief Executive Officer of H
Harrison, Andrew	Chief Commercial Officer of
Thiel, Kevin	Managing Director of Account
Profitability	
Return on Capital (GAAP)	20.7%
Operating Margin	9%
Revenue/Capital (GAAP)	2.34
ROE (GAAP)	30.4%
Net margin	10.6%
Revenue/Book Value (GAAP)	2.87
Invested Funds	
Cash/Capital	-7.1%
NWC/Capital	-38.3%
Operating Asset/Capital	108.4%
Goodwill/Capital	37.1%
Capital Structure	
Total Debt/Market Capitalization	0.76
Cost of Existing Debt	3.4%
CGFS Rating (F-score, Z-score, and default Probability)	BB
WACC	6.4%

Total compensations growth	
10.18% per annum over 5y	22.29% per annum over 5y
15.84% per annum over 5y	N/M
61.07% per annum over 1y	N/M
Peers	
JetBlue Airways Corporation	8.21% per annum over 5y
Southeast Airlines Co.	8.21% per annum over 5y
Spirit Airlines, Inc.	8.21% per annum over 5y
American Airlines Group Inc.	36.09% per annum over 1y
United Continental Holdings, Inc.	N/M
Delta Air Lines, Inc.	N/M
Alliant Travel Company	N/M
Hawaiian Holdings, Inc.	N/M



Revenue Growth Forecast	
Period	Revenue Growth Forecast
Base Year	30%
9/30/2018	14%
9/30/2019	8%
9/30/2020	2%
9/30/2021	2%
9/30/2022	2%
9/30/2023	2%
9/30/2024	3%
9/30/2025	3%
9/30/2026	3%
9/30/2027	3%
Continuing Period	4%
Return on Capital Forecast	
Period	Return on Capital Forecast
Base Year	21.0%
9/30/2018	11.1%
9/30/2019	16.9%
9/30/2020	17.9%
9/30/2021	17.7%
9/30/2022	17.4%
9/30/2023	16.9%
9/30/2024	16.3%
9/30/2025	15.4%
9/30/2026	14.8%
9/30/2027	13.7%
Continuing Period	13.0%

Valuation	
NO PAT Margin Forecast	Revenue to Capital Forecast
2.68	2.68
7.8%	1.56
7.1%	1.85
9.1%	1.82
9.8%	1.84
9.6%	1.86
9.3%	1.87
9.0%	1.84
8.7%	1.89
8.3%	1.89
8.0%	1.84
7.5%	1.82
7.1%	1.82
WACC Forecast	
Price per share Forecast	
6.4%	\$79.91
6.0%	\$79.38
6.0%	\$79.33
6.6%	\$78.87
6.6%	\$79.61
6.6%	\$81.72
6.7%	\$82.74
6.7%	\$83.11
7.1%	\$87.37
7.1%	\$91.05
7.5%	\$94.75
7.6%	