



CFA Institute

CFA Institute Research Challenge

Hosted in

Central America

Barna Business School



Figure 1

Profile	Class A Shares
CLOSING PRICE (JAN 4TH, 2017)	91.55
OUTSTANDING SHARES	42.01 MM
36 MONTH DAILY PX BETA	1.18
ENTERPRISE VALUE	3.8 BN

Sources: Bloomberg, Beta Source: Team Analysis

Figure 2

FINANCIAL LEVERAGE & VALUE SNAPSHOT	
DEBT+ OP LEASES/CAPITAL	62.9%
EV/ EBITDAR	6.98x

Source: Team Analysis

Figure 3

Valuation Date	Jan 4th 2017	
METHODOLOGY	WEIGHT	PRICE
FCFE	30%	109.66
PEERS: EV/EBITDAR	70%	117.87
12 MONTH TARGET PRICE		115.41
TARGET PRICE UPSIDE RETURN%		26.06%
2017 DIVIDENDS		2.89
TOTAL 12 MONTH RETURN %		29.22%

Source: Team Analysis

Figure 4

INDUSTRY METRICS
RPM: Revenue Passenger by mile
ASM: Available seats per mile
CASM: Cost per available seat mile
Passenger Yield: Average fare per mile per passenger
RASM: Revenue per available seat mile
Block Hours: time between an aircraft leaving a gate and arriving to another

Source: Company Annual Report

Valuation Date: January 4th 2017

Current Price: \$91.55

Ticker: CPA

Recommendation: BUY

Target Price: \$115.41

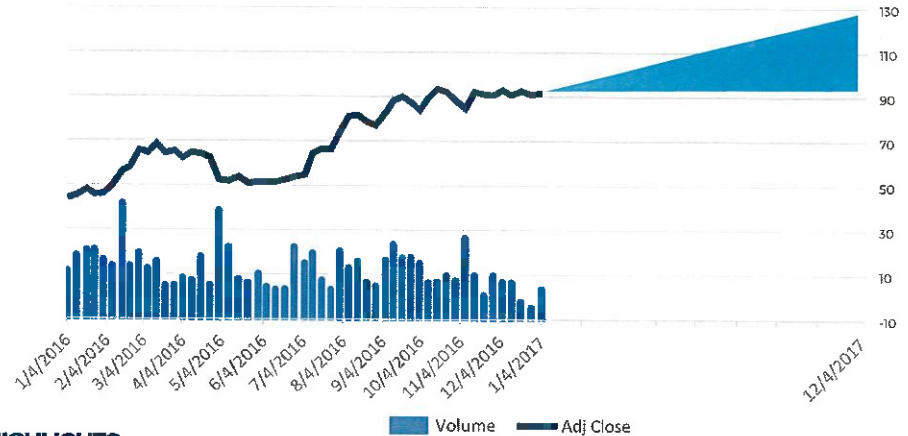
Upside: 26.06%

Stock Exchange: (NYSE)

Sector: Industrials

Industry: Airlines

SUMMARY: CPA is a commercial aviation provider of passenger and cargo flights to countries in South, Central and North America and the Caribbean.



HIGHLIGHTS

We issue a BUY recommendation with a 1-year target price of \$115.41 per class A share; representing 26.06% upside from its January 4th, 2017 closing price of \$91.55. Our valuation is based on a 70/30 mix of EV/EBITDAR multiple analysis and the Free Cash Flow to Equity Model. Our recommendations lays on the following key catalysts:

CPA CAPITALIZES ON LATIN AMERICAN ECONOMIC RECOVERY

Recent implementation of initiatives from CPA: efficient allocation of Capacity, reduction of Cost per Available Seat Miles (CASM), the launch of a Low-Cost Carrier (Wingo) and ConnectMile in-house loyalty program, will boost profitability under a more favorable Latin America market. Economic activity pickup in key Latin American countries that were affected by negative shock during the last two years are now recovering, translating into a stronger air travel demand restoration and the cease of pressure on yields. CPA has been very effective moving capacity to more profitable markets in Latin America, as well as opening new destinations in North America, which are growing at a higher pace. The top line was 4%, higher during 3Q16 than in previous year same quarter. During 2017 and forward, the combination of better passenger demand outlook and stabilizing yields will lock the path to sustained growth that the company has exhibited in the last 4Qs.

EFFICIENT COST MANAGEMENT WITH HIGH PREMIUM SERVICE

Ex-fuel Cost per Available Seat Miles (CASM) is following a downtrend in conjunction with maintaining a Premium Service. CPA has one of the lowest CASM among its peers (6.53 cents per ASM 5-years average for CPA vs 7.63 5-years average for peers) and continues to allocate investments in lower cost maintenance assets, such as modernization of their fleet. An average fleet age of 7 years, contributes to lower fuel costs and more Available Seat Miles per block hours. Altogether, CPA will compete in a robust position as it continues to increase cash for shareholders due to lower CASM and higher assets turnover.

STRONGER LOAD FACTOR:

CPA has been able to adapt to a low yield environment faster than other carriers in the region and has managed to tailor its operations to this context being able to increase the load factor to a historical high

Key Financials	2017 F	2018 F	2019 F	2020 F	2021 F
EBITDAR Margin	27.7%	25.7%	25.0%	24.7%	24.4%
ROA	7.8%	6.9%	6.8%	7.0%	7.0%
Revenue Growth	8.2%	5.8%	7.0%	7.4%	7.3%
Ex-Fuel Cost to Revenue	60.2%	59.3%	58.5%	57.5%	56.6%
Dividend per share	2.89	3.02	2.85	2.98	3.27
Dividend yield	2.6%	2.7%	2.5%	2.6%	2.9%
Debt/Capital	31.2%	29.9%	28.7%	27.5%	26.4%

Source: Team Estimates For further details and explanations please see appendix 24.

of 84% in 3Q16. A more disciplined capacity growth plan and commercial strategies are also in motion. We expect CPA to keep capitalizing from those measures in the near future.

In addition, CPA stock significantly outperformed the S&P 500 over the past year: 88.21% of CPA vs 9.54% of the Index. Furthermore, an improvement in dividends per share is expected this year due to last period positive net income estimates (US\$2.89 per share). For the following five years, an increase in dividend per share is foreseen.

Figure 5

AIRCRAFT TYPE	CAPACITY	2014	2015	2016
EMB-190	94 PAX	26	23	21
737-700	124 PAX	18	14	14
737-800	154/160 PAX	54	63	64
MAX-9	173 PAX	0	0	0
		98	100	99

Source: Company Data

Figure 6 Revenue by Geography

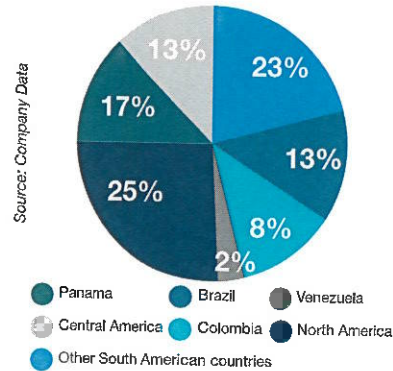
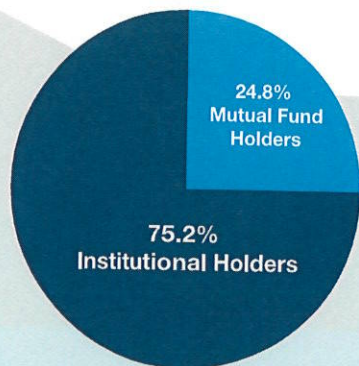


Figure 7



Source: Company Data

Figure 8 Class A Shares, Ownership Structure



Source: The Wall Street Journal

Figure 9

SHAREHOLDERS	SHARES	%
CLASS A	20,924	73.7
CLASS B	7,466	26.3
TOTAL	28,390	100

Source: Company Data

BUSINESS DESCRIPTION

Copa Holdings S.A. (NYSE: CPA) is a foreign private issuer with headquarters in Panama City, Panama. CPA is the parent company of Copa Airlines, and Copa Airlines Colombia (1), which operate under the Hub & Spoke network model. During 4Q16, the company launched WINGO, a low-cost carrier, which is autonomous but operates under Copa Airlines Colombia. Through each airline, the company acts as a commercial aviation provider of passenger and cargo scheduled flights to countries in the Caribbean, South, Central and North America. Founded in 1947, it operated as a privately owned company until its IPO in 2005. CPA is considered a leading commercial aviation provider of the region and is recognized as the most-on-time carrier in Latin America by FlightStats, providing 360 daily scheduled flights, on 74 destinations in 31 countries.

FLEET AND SERVICE DESCRIPTION

Copa Holdings operated a fleet of 99 aircrafts by the end of 2015, 14 of them Boeing 737-700, 64 Boeing's 737-800 and 21 Embraer's 190. (Figure 5) As of 2016, aircraft leases represented one-third of the fleet with an average maturity of 4.3 years. They usually return leased fleet upon fulfillment. The modern fleet, such as Boeing Max-9, contributes to the achievement of a strong and elevated completion factor (scheduled flights not canceled), and allows them to optimize their CASM, bringing more efficiency and profitability (Appendix 22). At the moment, CPA provide access to more than 200 destinations through its alliances. Strategic destinations are placed with convenient schedule, on-time performance and competitive fares, which increases passenger loyalty along with the frequent flyer program, ConnectMiles.

GEOGRAPHIC LOCATION

Panama is one of the fastest growing economies in Latin America due to high public and private investment, an increase of multinational companies headquarters instauration and substantial touristic dynamism. The country has the second largest containers port in the region. Furthermore, Tocumen International Airport (PTY) in Panama City, enables connections to major markets, consolidating traffic to serve destinations that do not generate enough demand for a point-to-point service(2). Moreover, Copa's hub in Panama allows the benefit of a free-trade zone and stable, dollar-based economy. The company's hub helps their strategy of providing its service to regional destinations in Central America and the Caribbean by enhancing the overall connectivity and profitability of their network. Copa considers their intra-latin American network is the most convenient option for them to expand as 65% of their passengers derive from 45% of the underserved markets in which they are present. According to Copa's investors presentation of September 2016, there still are more than 25 underserved new destinations in America that could be included in its network.

COMPANY STRATEGIES

EXPAND NETWORK

CPA is seeking to integrate route networks to enhance profitability with both, Copa Airlines and Wingo. They are focusing on increasing frequencies of more profitable routes, as well as adding new destinations to meet growing demand on markets that need a hub. A concrete action to reach new markets and improve network presence was the launch of Wingo; through which they added domestic and international destinations not completely covered by existing low-cost carrier competitors in Colombia. Their strategy rests on their proven choice of using Panama's Tocumen International Airport as Hub, and complementing it with their new low cost business line in Colombia.

INCREASE COST EFFICIENCY: MODERN FLEET & REDUCE DISTRIBUTION COSTS

The company has aircraft orders and lease agreements with Boeing and Embraer for the next eight years. The size of the fleet is expected to slightly increase starting 2017. Firm ordered aircrafts are expected to be delivered between 2017 and 2025, aiming to to replace 31 leased aircrafts maturing along the same time frame, and to cover expected demand increment. The new aircrafts promise to cost less than 8.17 cents per nautical mile, considerably below than 14.12 cents and 9.52 cents of current planes. (Appendix 22) In addition, CPA is aiming to decrease its distribution costs through direct sales. To reduce transactions fees paid to travel agents is a priority. In order to do so, new technology and automated process are planned to be implemented.

FOCUS ON QUALITY SERVICE AND LOYALTY

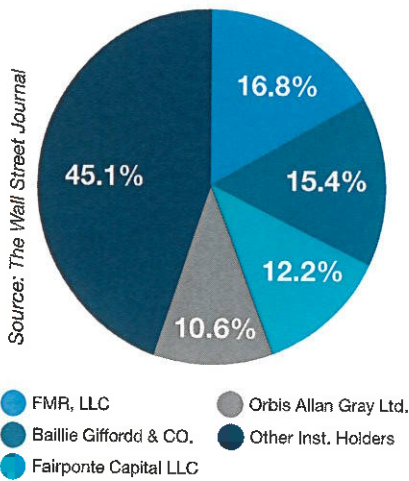
The company places great emphasis on making its brand associated with quality through their operational differentiation from other airlines, mainly by on-time performance and offering convenient and attractive schedules and destinations. Also, adding more services for their customer such as the new program ConnectMiles, were members are eligible to earn and redeem miles to any of the destinations within the Star Alliance, adding more value for their clients.

CORPORATE GOVERNANCE

SHAREHOLDER STRUCTURE

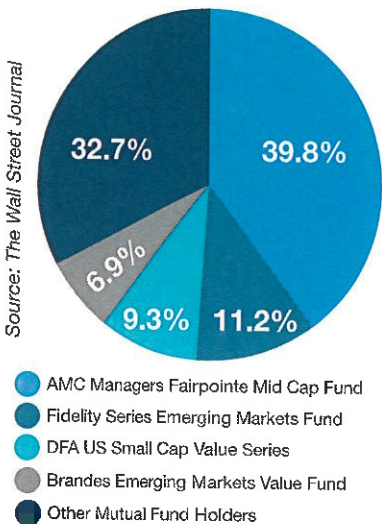
CPA's authorized capital stock consists of Class A, Class B, and Class C shares, 80 million shares of common stock without par value. Class A shares represent 73.7% of economic interest of CPA and is the only Class listed on NYSE (Figures 8 & 9). Class A and Class B shares posses the same economic rights and privileges, including dividends. CIASA (Corporación de Inversiones Aéreas, S.A.), a group of Panamanian investors, currently owns 100% of Class B shares, which grants them voting power within the company. Class A shares are entitled to vote only on specific matters like changes affecting their rights and privileges, a transformation, merger, acquisition, spin-off or change in the corporate purpose of the company. Class A shares have limited voting power under certain particular circumstances, for instance, a proxy representation and tag-along rights. As of March

Figure 10 Top Institutional Holders



Source: The Wall Street Journal

Figure 11 Mutual Fund Holders



Source: The Wall Street Journal

Figure 12

List of Board of Directors	
Pedro Heilbron	Carlos A. Motta
Stanley Motta	John Gebro
Alvaro Heilbron	José Castañeda Velez
Jaime Arias	Roberto Artavia Loria
Ricardo A. Arias	Josh Connor
Alberto C. Motta Jr.	Andrew C. Levy

Source: Company Data

Figure 13

List of Executive Officers	
Pedro Heilbron	CEO
José Montero	CFO
Daniel Gunn	Senior VP of Operations
Dennis Cary	Senior VP of Commercial
Vidalia de Casado	VP of Human Resources
Julio Toro	VP of Technology
Ahmad Zamany	VP of Maintenance
Rulon J. Starley	VP of Flight Operations
Michael New	VP of Safety
Michael Hinckley	VP of Frequent Flyer Program
Edwin García	VP of Airport Services
Eduardo Lombana	CEO of Copa Colombia

Source: Company Data

31, 2016, there were 249 holders of Class A shares. According to CPA Holdings profile on The Wall Street Journal, Institutions have 75% of ownership and Mutual Funds 25%. (3)

CORPORATE MANAGEMENT The team of directors is diverse regarding experience. Stanley Motta, Chairman and Director, has been with the company since 1998 and Pedro Heilbron, the CEO, has been through every transition of the business since 1988 and was elected at the end of 2016 as Chairman of the Star Alliance. On the other hand 83.33% of executives have relevant experience in the airline industry, not only with CPA but with other important airlines in the continent such as American Airlines, United Airlines, and Northwest Airlines. For the recent launch of Wingo, the company chose Catalina M. Breton as General Manager. She has occupied leadership positions for Avianca and Jet Blue for 12 years, focusing specially in Latin America and the Caribbean. While in Avianca, she implemented new routes and major network changes which resulted in market share gains and EBITDA improvement. Also, with several implementations of communication mechanisms, Catalina led Avianca's employees towards a common goal. Executive Officers have demonstrated to make the necessary changes to keep up with customer's needs and industry changes, creating with this a competitive advantage.

CORPORATE GOVERNANCE CPA has a Board of Directors of twelve members, with four different committees: Audit, Compensation, Nominating Corporate Governance and Independent. Incidentally, corporate governance differences take place between NYSE Standards and companies registered in Panama. CPA Board of Directors has four independent members (33.33%), not considering specifications under the NYSE Standards. However, they do have a Nominating and Corporate Governance Committee, even though it is not mandatory in Panama(4). Moreover, the company does not hold executive sessions nor equity compensation plans and related individuals conform the structure of the Board of Directors, (Appendix 8) which we believe allows the company to focus on long-term growth opportunities. Historically, this can be one of the main reasons of how rapidly the company has implemented changes, innovations, and improvements to adapt to market changes. Consequently, according to Chong and Lopez-de-Silanes, very high levels of ownership, voting rights concentrations and solid governance structures are common in Latin American companies.

SOCIAL RESPONSIBILITY CPA's efforts towards their pillars of youth education and the environment led them to understand it is everyone's task to acknowledge and transmit sustainable development. One of the company's programs is intended to improve the communities in which they operate with social and educational initiatives, thus benefiting more than 25,000 children. On the other hand, the company has implemented the 3 R's (Reduce, Recycle and Reuse) program to reduce the impact of CO2 emissions. The company believes that, for them to be successful, they depend on helping the nearby communities. This is the reason they encourage the Corporate Volunteerism, led by employees to help nearby communities on topics such as education, childhood, and environment. According to CPA, they helped to train 150 public school professors, benefited more than 100 children from the Jr. Achievement Program and more than 250 thousand dollars were invested in scholarships for employees and their children.

INDUSTRY OVERVIEW & COMPETITIVE POSITIONING

The Airline Industry is characterized for its aggressive competition, thin margins and high sensitivity to economic changes of the regions in which it operates, volatility of oil prices, and variation in consumer trends. In 2015, the industry mobilized more than 3.5B passengers and 51MM metric tons of cargo worldwide, with a workforce of 10MM employees in an average of 100,000 flights a day in over 51,000 routes (5). During the same year, for the first time, the airline industry as a whole managed to generate a return on invested capital that surpassed the cost of capital, with US\$33.5B in net profits (6). Even though 2015 proved to be a challenging year for carriers in Latin America, mainly due to a economics shocks in Brazil, Colombia and Venezuela, the company was efficient in analyzing the region's environment and making strategic decisions to improve its results in 2016 by managing its capacity and growth plans. Overall operational efficiency seems to be at the top of the agenda for airlines around the world, including CPA who managed to achieve their highest load factor yet (84.2%) in the 3Q of 2016.

MACROECONOMICS

One of air travel demand's key drivers is raising per capita income, as rising purchasing power translates into more travel experiences. Industry's growth has historically been about twice the annual GDP growth of a country or region (7). IATA expects 0.9% of world's GDP to be spent on air transport on 2017, or the equivalent of approximately US\$769 billion. Economic factors have given the air transportation industry a significant boost, such as increasing connections between cities and more available prices for passengers and cargo services. At the same time, high fuel cost has provoked airlines to replace less efficient aircraft to increase aircraft's fuel efficiency.

LATIN AMERICA'S ECONOMY EXPECTED RECOVERY ON 2017 AND FORWARD According to the latest IMF's projections for 2016, aggregated real growth of the Latin America region is projected to decline by 0.7%, a downturn drove mainly by the recession of Brazil and Argentina as their size represent a significant share of the LAC region aggregate (8). Also, currencies in commodities export

countries like Brazil and Colombia have depreciated 21% and 27% respectively with FX rates affecting consumer capacity via the pass-through effect, and ultimately yield of the industry. Nevertheless most countries in the region are projected to grow at positive rates.

Some of the region's largest economies that recently experienced slowdown have turned the corner. (Figure 16). In 2017, a recovery of the regional outlook is expected as a result of a slightly recovery of commodity prices and a political environment with less uncertainty. Thus, a better fiscal position to implement reforms and public spending necessary to medium term and long term growth (9). As a result aggregated GDP is expected to grow by 1.6% in 2017 and 2.6% for 2019. Brazil, which makes up 34% of the region's GDP and 18% of CPA's revenue at 2015, is expected to grow 0.5% for 2017. Similarly, Colombia's output is expected to recover as international commodities prices start to slightly recover and ease up the pressure on the currency during 2017.

Given the expected recovery in the South American economies, we anticipate CPA will capitalize on revenue and CASM implementations that took place this year to counter effect the soft demand economy from late-2014 to mid-2016. In the midst of softer demand environment in the first three quarters of 2016, CPA was able to obtain levels of profitability similar to previous years, through a disciplined management of capacity and reduction of CASM.

PANAMA'S ECONOMY According to the World Bank, Panama, a dollar-based economy, has been one of the fastest growing economies worldwide, the economy grew 5.8% and 6.0% during 2015 and 2016 respectively (10). By 2013, the aeronautical industry, which contributed 4.2 % of GDP in Panama, sustained more than forty thousand jobs and had paid more than US\$170MM in taxes (11). Furthermore, Panama is in an excellent geographic point for one of the most complete connecting hubs of the Americas, and the more positive outlook of the Latin America region as whole increases passenger traffic to and from Panama.

NORTH AMERICA'S ECONOMY The USA is growing slowly, but healthier than in previous years and close to full employment. Traffic between North America and Latin America continues to grow despite economic difficulties in the region (Figure 15). According to the Federal Aviation Administration of the United States, Latin America is still the largest international destination from the USA, and it will continue to be the market with higher grow for USA travel (12). Another important driver for traffic between the regions is the growing Latino Community currently living in the USA, which reached 56MM in 2015. Considering the circumstances, CPA has added more North American destinations throughout the years and, consequently, the revenue generated by this region has consistently increased, representing 25% of CPA's revenue for 2015. As a result of a more stable economy, the Federal Reserve of the United States, decided to raise the "target range for the federal funds rate from 0.5% to 0.75%" (13). This decision has the potential to trigger down into the debt market and affect the cost of borrowing for CPA.

DRIVERS

WORLD TRAVEL GROWTH: As a region's economy becomes stronger, air traffic demand is proven to grow. Even though Latin America's GDP growth forecast is modest for 2017, according to Airbus Global Market Forecast, traffic growth to/from/within Latin America and the Caribbean is expected to expand at an annual 4.7% rate, above the 4.6% world annual rate. Global air travel has grown 5% on average per year on the last 30 years, with important variation between each year due to "changing economic conditions and differences in economic growth in different regions of the world" (14). On that line, even if Copa Holdings RPM growth has not presented a linear growth, it has consistently increased YoY.

TRADE BETWEEN COUNTRIES IN THE REGION: Is the primary driver for cargo revenue. During 2016, world trade leveled off and, in consequence, global trade forecasts for 2016-2017 have been downgraded. This is consistent with evidence of a deterioration in the relationship between world trade and activity. In consequence, Freight Tonne Kilometers (FTKs) are expected to decrease in forthcoming years. (Figure 17)

ANCILLARY REVENUE: Airlines generate additional revenue for extra services such as on-board sales, ticket change fees, excess baggage or seats with extra leg room. With the incorporation of Wingo, we expect CPA's ancillary revenue to increase in the next years due to the Low Cost business model.

BUSINESS CONFIDENCE: Consumer Confidence is a leading indicator of spending power and overall confidence of consumers. It is particularly pertinent in the airline industry because consumers are more willing to spend on leisure services when the index is strong (Figure 18). According to Nielsen's Global Consumer Confidence Report, sentiment in Latin America is moving in a positive direction despite the economic difficulties of the region, notably in Perú, Colombia, Mexico and Brazil. The last three countries mentioned before are important markets for CPA.

JET FUEL

Aircraft fuel is the most critical operating expenses for airlines. Jet fuel, the most common fuel, is highly correlated to oil prices. In the last five years, the industry has been affected by a high volatility due to many different global factors, such as geopolitical, environmental and economic. During 2016, oil prices averaged \$43.29 dollars per barrel (Oklahoma WTI Spot Price) which is the lowest yearly average since 2004. Under these circumstance, the Organization of the Petroleum Exporting Countries (OPEC), on November 2016, agreed to a daily production target of 32.5 million barrel per day or a 3% decreased to

Figure 14 Rpm Growth Vs Gdp Growth

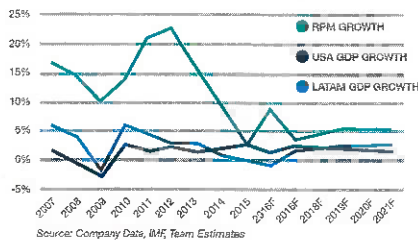


Figure 15 Number of Latin American Air Traffic Passengers traveling to or from the USA

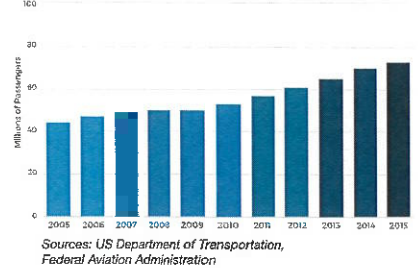


Figure 16 GDP Growth Latin American Countries

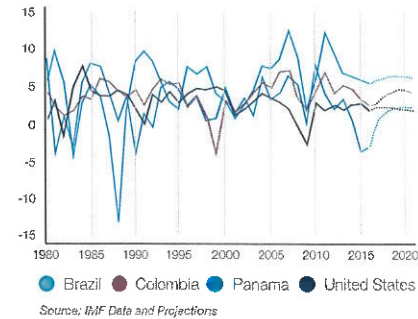


Figure 17 Air freight vs. Global Trade Growth



Figure 18 Global air travel and business confidence index

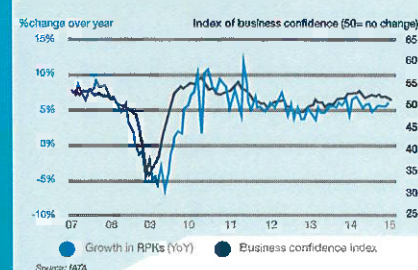


Figure 19 Jet Fuel and Crude Oil Price (\$/barrel)

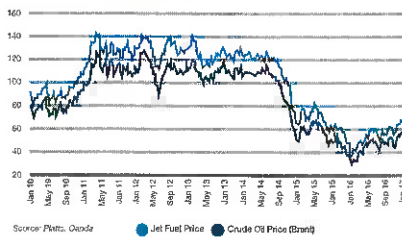


Figure 20 Low Cost Carriers Market Share (%)

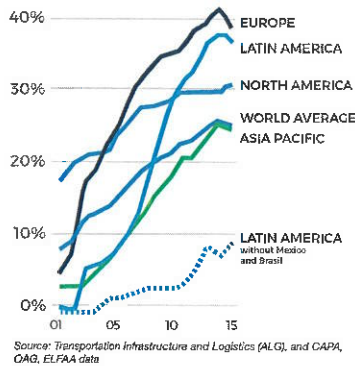


Figure 21 Why costumers participate in Reward Programs

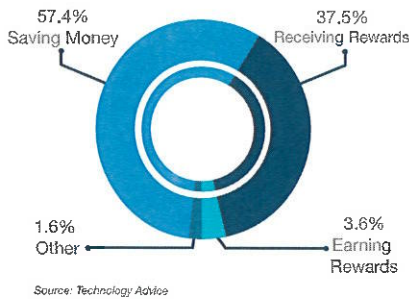
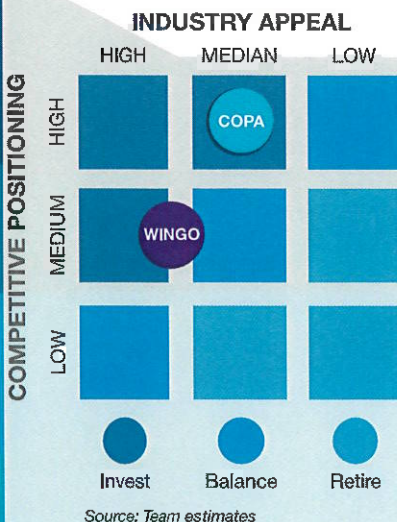


Figure 22 Mc. Kenzie Matrix



increase oil prices on the international market¹⁵. Also, Non-OPEC countries (notably the United States) reduced supply in 2016 due to cutbacks in investment in 2015 and 2014 (16). In contrast, recent developments in the productivity of shale companies in the United States can boost production and mitigate the effect of supply cuts. In effect fuel oil production in the United States increase in the second part of 2016 similar to the grow from 2012 to 2014 when fuel production of oil increase an average of 15% YoY (17). Furthermore, a weaker than expected demand, especially from the Asian countries can downside the risk of higher oil prices. CPA, as other companies in the industry, mitigates the risk of the price of oil by fuel hedging. Companies are also focusing its efforts on improving fuel efficiency by replacing existing fleet with modern aircraft and better operations.

REGULATIONS

Within the industry, established regulations vary by markets where a carrier operates, representing a key aspect of defining the performance of an airline in a particular market. Regulations have a profound impact on international routes to which an airline serves, creating agreements in regards of flight frequency and fares. Agreements based on negotiations between countries are usually based on reciprocity. Equally, the access to different airports in a connected network, such as CPA's network, portrays a crucial factor to ensure an efficient operation. Consequently, other regulatory restrictions comprise ownership limitations of the aeronautical companies. Notably, the "Panamanian Aviation Act" establishes ownership and effective control of the company must remain within Panamanian nationals to continue operating under the benefits of agreements between Panama and other countries. Furthermore, CPA acts under other markets regulations with international entities such as the US Federal Aviation Administration, by which CPA covers requirements related to security measures, safety standards, environmental issues and maintenance procedures.

TRENDS

LOW-COST CARRIERS have grown at impressive rates well over 10% per year. (Figure 20) LCC's strategy is to offer point to point routes that are much more cost efficient compared to the Hub & Spoke model used by Copa. LCC share growth in South America boosted connections to new underserved destinations and additional frequencies. As a result, at the end of 2016, CPA launched Wingo, a low-cost option that operates administratively and functionally under Copa Airlines Colombia unit, with completely free structures for its commercialization, distribution systems, and customer service.

MERGES, INVESTING AND ALLIANCES Many airlines in the industry use strategies of partial ownership, alliances or acquisition to improve their share and service in a particular region or market. Latin America is no exception to this rule, in 2015-2016 many strong European and North American carriers invested in regional carriers. According to Bloomberg, Air France and Delta Airlines (16%) invested in GOL Linhas Aéreas Inteligentes S.A, United (5%) and HNA group (24%) in Azul, Delta partially owns Aeromexico and Avianca is rumored to be in a spot for a near future merge or acquisition. As stated by CPA's CEO, Pedro Heilbron, the company does not have plans in the near future to incur in any of merger and acquisition strategies. However, CPA belongs to the Star Alliance, which conveys a connection with many top international aviation companies and regional airlines such as Lufthansa, Turkish Airlines, United Airlines, Avianca and Air Canada. The alliance is an advantage because of the joint marketing, code-sharing arrangements and cost-related benefits as they have more purchasing power in negotiations with aircraft vendors and insurers. CPA has alliances with Air France, KLM Royal Dutch Airlines, United Airlines, Gol, Cubana de Aviación and recently Emirates which will allows the company to take advantage of new markets. In fact, CPA just renewed alliance agreement with United Airlines (UAL) for another five years.

LOYALTY PROGRAMS are an important factor in the decision-making process of consumers in the industry. In 2015, CPA cease to co-branding with MileagePlus and launched its frequent flyer program ConnectMiles. Through their new program, members are eligible to earn and redeem miles to any of the destinations within the Star Alliance, adding more value for their clients. The program has had an excellent response from consumers who demonstrate their affinity and acceptance of the brand. According to Heilbron, the program is strengthening the relationship and value propositions with customers. Frequent flyer programs are a solution to the entire industry situation of customer churn, to satisfy their needs and show they know their clients, as churn occurs mainly because of inadequate services or high prices.

COMPETITIVE POSITIONING

The airline industry is characterized for strong rivalry among competitors and a significant suppliers and customers power. (Appendix 9) CPA sustains an unyielding competitive position in Latin America. Copa Airlines, the biggest company in the holding, is recognized as one of largest airline carriers in the region, conferring CPA a strong bargaining power with industry suppliers and an advantage regarding customer airline selection.(Appendix 8) On the other hand, their recent addition to the holding, Wingo, allows them to be a part of the low-cost playfield which has shown incredible growth in the region and will expectantly help them boost their market share in Colombia.

COPA AIRLINES COMPETITIVE POSITIONING Copa Airlines maintains a leadership position in Latin America focusing on underserved thin markets that cannot sustain point to point service. Hence, Copa's network is in many cases the most favorable option. These markets make up for 65% of Copa's

Figure 23 Porter 5 Forces

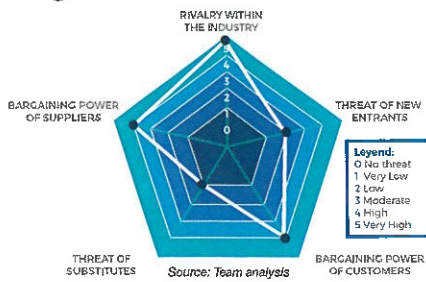


Figure 24 Positioning Matrix



Figure 25 Positioning Among Consumers In The Region

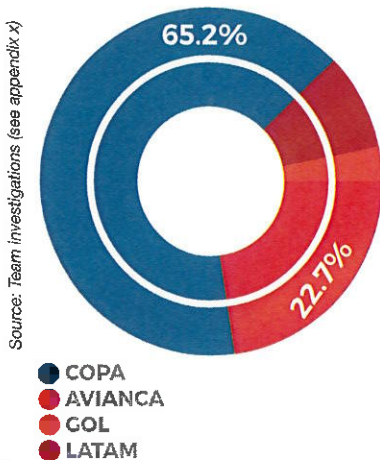


Figure 26

Relative Valuation (M)	
EV/EBITDAR (with Premium)	7.85
Projected EBITDAR 2017	665
Enterprise Value	4,956
Total Debt	1,274
Cash & Cash Equivalents	1,008
Market Cap	4,956
Outstanding Shares	42.05
Price Relative Valuation	117.87
Weight of Relative Valuation	70.0%
Free Cash Flow to Equity Valuation (M)	
PV FCFE	1,159
Terminal Value	3,452
Equity Value	4,611
Outstanding Shares	42.05
Price FCFE Valuation	109.66
Weight of FCFE Valuation	30.0%
TARGET PRICE	115.41

Source: Team analysis

passengers. CPA's value proposition focuses on offering a world-class product (world's 2nd best on-time carrier by FlightStats), supported by a robust infrastructure through an extensive network of routes which allows them to become one of the most trustable and known carriers in the region. This is a favorable trait to have in a highly competitive industry. (Appendix 8)

Our analysis has identified the following main competitors: LATAM Airlines Group S.A., Avianca Taca Holdings S.A., United Airlines, American Airlines and Delta Air Lines, due to the similarities in markets, routes, and destinations where they operate. We based our analysis on a competitor's assessment taking into consideration key success factors and weighted each one by importance. The purpose of the assessment is to measure the overall competitive strength for each rival. Our presented key factors are customer service, reputation, price/value, employee satisfaction, time efficiency and others (Appendix 12). According to our analysis CPA enjoys a competitive advantage based on the overall strength rating.

WINGO COMPETITIVE POSITIONING Wingo, the newest venture of CPA, is a low-cost carrier focused in a younger segment, offering cheaper traveling without compromising quality. Wingo's point to point operation is centralized in Colombia servicing 16 cities in 10 countries throughout Latin America and the Caribbean. Its launch is a strategic response to Colombia's dynamic market opportunities. Wingo's main competitor is Viva Colombia, a Colombian low-cost carrier partly owned by Ryanair (Europe's biggest LLC). They compete directly on four domestic and two international routes.

INVESTMENT SUMMARY
INVESTMENT THESIS

We issue a **BUY** recommendation on Copa Holdings (CPA) with a target price of \$115.41 per Class A shares, representing an 26.06% upside from closing price of US\$91.55 per share of January 4th, 2017. Our target price is based on a mix of the Discounted Cash Flow to Equity Model and EV/EBITDAR multiples, attributing 30% and 70% weighting respectively to each methodology. The key drivers for our recommendation are:

KEY POTENTIAL DRIVERS

STEPPING UP REVENUES: GDP GROWTH RECOVERY Activity pickup in some Latin American countries that have been affected by negative shocks on their economies could boost air travel demand and ease off the pressure on Yield. CPA has been very effective moving capacity to more profitable markets in Latin America, as well as opening new destinations in North America, which are growing at a higher pace. CPA operates in some markets, such as Panama, South America (except Brazil) and others, which are projected to grow at higher rates than world average. IMF projections estimate an average GDP growth of 2.60% over the next five years for the region and 2.20% for the United States. Based on this outlook, during 2017 we expect Copa's RPM to grow 4.74% due to the correlation between GDP growth and RPM growth; for the following years an average of 6.49% RPM increase is forecasted. The soft demand environment and high depreciation of some currencies in the region have deteriorated the passenger yield during the last few years. Nevertheless, a yield recovery is expected in the short term.

STRONG LOAD FACTOR Copa have been able to adapt faster than other carriers in the region to this scenario. As yields have suffered during the last few years due to a higher competitive environment, CPA has been able to efficiently accommodate to these conditions and was capable of increasing the load factor to a historical high of 84% in 3Q 2016. The company has taken important actions reveals its fast operational adaptability to changes produced by external shocks on key streams as yield; evidenced by a more disciplined capacity growth plan and the successful commercial plans in place. We expect Copa to grow an average of 6.9% YoY in ASM, balancing the estimated RPM growth and higher load factor.

EFFICIENT COST MANAGEMENT Ex fuel Cost per Available Seat Miles (CASM) is in a decreasing trend. (Appendix X) Even if the company's value proposition contemplates to provide quality service, they still have the lowest CASM among peers and competitors. Their investments has been allocated in lower cost maintenance assets, such as modern fleet, contributing to lower fuel costs and more ASM per block hours. In addition, sustained improvement in daily aircraft utilization is foreseeable.

VALUATION

Our valuation arrives at a \$115.41 target price, driven by 30% of our DCF to Equity model price of \$109.66 and 70% of EV/EBITDAR multiple analysis price of \$117.87. The 70% assigned to relative valuation was based on the fact that FCFE model has a significant weight on terminal value. We considered it to be more accurate to provide more weight on multiples due to a suitable amount of comparable companies to CPA, allowing us to build a sound analysis. In addition, the comparable method allowed us to work around the volatility of business cycles.

INTRINSIC VALUATION: FREE CASH FLOW TO EQUITY FCFE model was selected because CPA has a stable Free Cash Flow to Equity expected to increase over time which reflects the fundamentals of the company. This method consists of a two-stage growth model. The first phase is based on a specific year to year forecast up to 2021 and the second phase of a constant growth of 2.44%. Based on our FCFE analysis, the estimated price is \$109.41. (Appendix 23)

COST OF EQUITY was calculated through the Capital Asset Pricing Model adjusted to country risk

Figure 27

Cost of Equity	
RISK FREE RATE	2.44%
BETA	1.48
MARKET RISK PREMIUM	5.69%
CAPM	10.86%
COUNTRY RISK PREMIUM	2.81%
ADJUSTED CAPM	13.68%

Sources: Team Analysis

premium. The 10-years US Government bond rate was used as risk-free rate, estimated at 2.44%. We determined CPA's beta by using four years weekly prices vs S&P 500 index in a regression analysis, resulting in a 1.48 beta; above the airline industry average 1.12. The expected market risk premium was defined to be 5.69% (Damodaran), which lead us to a 10.86% preliminar cost of equity. On the other hand, as CPA has considerable risk exposure to economies in Latin, Central and South America, we considered appropriate to include an additional country risk premium of 2.81%. This country risk premium is a weighted average premium of countries where CPA has business exposure (Figure 27). We obtained a Cost of equity of 13.68%.

TERMINAL GROWTH VALUE The projected Latin America and US GDP growth rates for 2030 are 2.86% and 2.67% respectively. By weighting them into CPA current geographically revenue composition, we obtained a GDP growth of 2.72%. However, we considered the 10-year US Government Bond yield to be a more assertive proxy for CPA Terminal Growth Rate as its implicitly reflects the nominal growth of the economy. At Valuation date, the 10-y US Gov Bond rate was 2.44%. (Appendix 16)

RELATIVE VALUATION: PEER ANALYSIS We identified Enterprise Value (EV) to Earnings before Interest, Taxes, Depreciation, Amortization and Rent (EBITDAR) as the most appropriate multiple to compare CPA to its peers. We used EV/EBITDAR mainly because the airline industry is a capital intensive business comprised by companies with complex financial leverage, substantial depreciation, amortization and rent or leasing expenses. As Rent is equivalent to operating leases, subtracting Rent from EBITDA is healthy for industries where operating leases are heavily used as financing alternative.

TICKER	PEER NAME	PRICE (JAN 4TH)	ROI (5Y)	GROWTH (5Y)	MKT CAP (\$US BN)
AVH	Avianca Holdings SA	10.05	5.47%	12.83%	1.16
ADR	Col Linhas Aereas Inteligents	16.40	-9.44%	8.57%	0.59
HA	Hawaiian Holdings Inc	57.85	13.36%	12.16%	3.10
JBLUE	JetBlue Airways Corp	22.65	6.19%	11.84%	6.73
LFL	Latam Airlines Group SA	8.42	3.63%	22.17%	5.60
SKYW	SkyWest Inc	37.45	2.72%	3.20%	1.87
WJA	WestJet Airlines Ltd	23.73	9.43%	10.08%	2.70

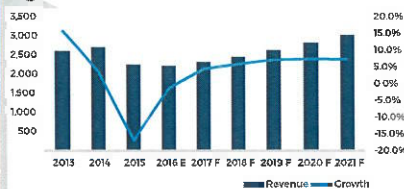
Source: Bloomberg

This adjustment enables a fair relation of the company's value with actual earnings exclusive of non-cash expenses. The peer group is comprised of major and regional airlines companies with a comparable size (Small & Mid Market Cap. only). Our peer analysis lead us to a 1 year horizon target price of \$117.87, which weighs 70% of the total valuation analysis. (Appendix 18)

We did not consider exclusively airlines within the same market as a comparison factor for the peer valuation as we understand airlines with similar behavior and composition in other markets can also be considered. Likewise, airlines such as United Continental Holdings Inc, American Airlines, Southwest Airlines nor Delta Air Lines Inc have been contemplated because of their size regarding the factors we considered: revenue growth and market cap.

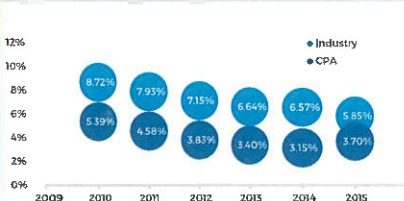
CPA's EV/EBITDAR has had a premium over its peers for 8 out of the last 10 years; fact we took into consideration in our analysis. This premium has been a reflection of higher ROI than the rest and lower risk profile (beta).

Figure 27 Revenue



Source: Company Data & Team Estimates

Figure 28 Cargo Weight on Total Revenues



Source: Bloomberg & Team Analysis

FINANCIAL ANALYSIS

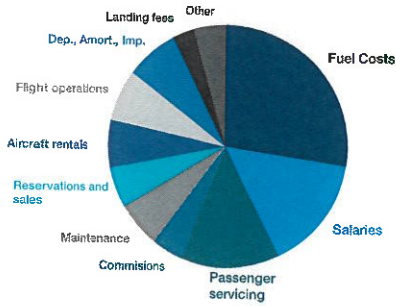
REVENUE GROWTH: RPM & YIELD: CPA has historically shown consistent growth rates, with only two exceptions: 2009 and 2015, due to unusual economics shocks produced in specific countries. In spite of this, through 2016 quarterly results, growth rates have improved. Clear signs of recovery are perceived with a 12.7% passenger traffic (RPM) increase, leading to 4% YoY revenue growth during 3Q16. Revenue, conformed by multiplying the RPM and yield metrics, is directly impacted by GDP growth. We foresee a 4.75% RPM increment for Copa Holdings on 2017, as the result of CPA's GDP/RPM growth relation and the predicted GDP of each country where the company operates. (Appendix 19).

For 2017, yields are expected to preserve (stay flat) and break the previous downtrend they were experiencing given a healthier travel demand and the expected economic recovery in Latin America (18). Our forecast contemplates the last four quarters yield weighted average by the RPMs per quarter, resulting in a weighted average annual yield of 0.1202 cents. We are not contemplating any further increase in yield for the following years. Considering this, if the weighted average annual yield falls below 0.1161 cents our recommendation would be HOLD, if it plunges below 0.1140 levels, our recommendation would be a SELL.

Cargo revenue stream has followed a decreasing trend from 6.14% in 2006 to 3.70% in 2015. In line with commercial airline industry tendency of contracting from 8.72% weight in 2010 to 5.85%. For the future, we expect cargo to maintain a similar proportion of total revenues.

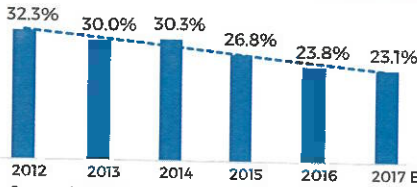
FUEL COSTS: CHANGES IN JET FUEL: Fuel Costs as proportion of revenue has been decreasing during

Figure 29 Operating Expenses 2016E



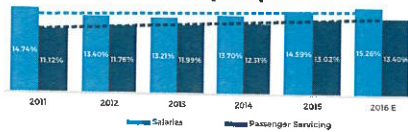
Source: Company Data, Team Estimates

Figure 30 Total Fuel Costs as % of revenue



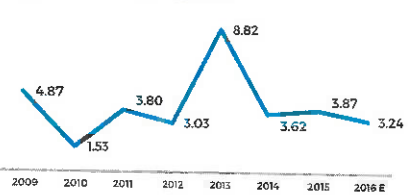
Source: 20F and Team Estimates

Figure 31 Salaries & Passenger Servicing as % Of Op. Expenses



Source: Bloomberg and Team Analysis

Figure 32 CapEx Ratio

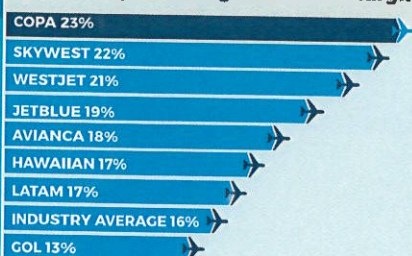


Source: 20F and Team Estimates

Figure 33 Current Ratio

Current Ratio	2016 3Q	2015	2014	2013
Avianca	0.63	0.66	0.70	0.78
Copa	1.10	0.92	1.03	1.35
Gol	0.42	0.44	0.71	1.03
Latam	0.49	0.50	0.62	0.77
Hawaiian	1.03	0.96	0.83	0.92
JetBlue	0.80	0.60	0.62	0.56
SkyWest	1.48	1.35	1.89	2.36
WestJet	1.31	0.97	1.29	1.09

Figure 34 5yrs. Average EBITDAR Margin



Source: Bloomberg

the last 5 years from 32.3% in 2012 to 23.8% in 2016. Jet fuel prices are estimated based on oil, given a 92% correlation between jet fuel and oil prices. For 2017, changes in oil prices were determined using futures commodity prices, since the current price of futures reflects the pricing expectation at the maturity of each contract. For the following years, we used an average per year of oil prices forecast of three strong references: World Bank, International Monetary Fund, and Economist Intelligence Unit.

PASSENGER SERVICING AND SALARIES: Salaries represented 14.59% of total operating expenses in 2015, placing them in an important position. Even if several situations have raised over the past two years with employees, from which 58% are unionized, there are no major issues on the horizon that could impact or provoke unusual wages increase. They have historically increased at the rate of inflation and number of employees. CPA has a significant lower labor cost per ASM than Peers average. (0.83 vs. 2.05 cents), and below the industry media of 1.80 cents.

Passenger servicing represents the third most important expense, right after fuel costs and salaries with 13.02% of total revenues in 2015. They comprise the costs related to dependent of airport and aircraft services such as baggage handling, insurance, catering, entertainment and others. The costs are usually related to the passengers they transport or the flights they serve and directly associated to the level of service provided. It is expected to continue its moderate uptrend.

MARGIN: Copa Holdings last five years average EBITDAR Margin has been the higher between its peers (Figure 34). Considerably higher than the global industry average, 22.5% CPA vs 15.9% Industry. (Appendix 20) The main reason being the remarkable balance between RASM and CASM. We understand their business model is consistent and profitable. Excluding 2015 as an unusual year (Appendix 24), during the previous ten years the EBITDAR Margin averaged 26.2%, similar levels to what we expect for the following years.

CASH GENERATION: The company's business model allows them to be a sound cash generator. The average collection period prowl below 17 days while the average payable days usually surpasses 100 days. This gap allows CPA to have available cash to make considerable short-term investments along the year and generate interest income. During the last few years, Copa Airlines has been able to meet their working capital requirements through cash for operations. Consequently, in the last ten years, net cash provided by operating activities was never under 14% over sales. For upcoming years, a similar behavior is expected. Also, CPA shows a healthy current ratio, allowing them to meet their short term commitments with current assets as cash and short term investments. Compared to peers, they are in a very competitive position.

CAPITAL EXPENDITURE: CapEx is primarily focused on aircraft purchases, flight, and related ground support equipment. As they are set in advance, they are predictable. During the last five years, the company generated more from its main activity than spending on maintaining or expand them. The CapEx Ratio has been above 1.5 over the same period (Figure 32). For our forecast, we took in consideration the shift tendency to a more efficient and modern fleet, contributing to optimize their Revenue per Available Seat Mile (RASM) hence maintaining a high load factor. In addition, we considered the use of operating leases for further expansion.

OPERATING & FINANCIAL LEASES: At the end of 2015, 40.17% of total adjusted CPA's debt corresponded to operating and financial leases, from which 59.2% were operating leases. This financing method allows for reductions in their CapEx requirements, to have more flexibility over their fleet plan and to mitigate the aircraft residual value risk. During the last few years, they mainly finance these leases with JOLCO. CPA had 28 of their 33 operating leased aircraft at fixed rate, which is positive in the current rates uptrend context. As operating leases impact financial statements, they should be contemplated for valuation purposes. In our relative valuation, we used EV/EBITDAR multiple, considering operating leases (Rent) to have a more objective comparison with peers. On the other hand, according to Damodaran, there is no effect on free cash flow to equity on reclassifying operating lease expense as financing expense.

CAPITAL STRUCTURE: Debt+Op.Leases/Capital ratio for the closing previous fiscal year amounted 62.9%, considerably below the same market peers Avianca, LATAM, and Gol, with 78.3%, 85.9% and 138.4% respectively (Figure 35) This reflects that, if growth opportunities arise, there is enough room for leverage. Up to 3Q16, all debt is related to aircraft financing. Our forecast proposes an increase in the ratio as they have an active profile and contemplates an increase in financial expenses due to FED rate hikes expectations up to 2021. Additionally, we understand CPA can confront this level of debt considering an average five-year Altman Z-score of almost 3, which is positive, as it is the Z-score considered by investors when purchasing a stock. (Appendix 7)

REPORTED EARNINGS: Annual audits have been conducted by EY, expressing that consolidated financials objectively present CPA's financial position. We performed the 8 variable Beneish M-score analysis for the last five year-end financial statements to evaluate CPA's earnings quality. Based on the variables, the company has a low likelihood of manipulating earnings. We notice an average of an M-score of -3.74 during the last five years, which is below the -2.22 indicator. The lower the indicator, the less likely is the firm to manipulate earnings results. (Appendix 6)

RISKS TO TARGET PRICE

MONTE CARLO SIMULATION AND SENSITIVITY ANALYSIS: Alterations in our assumptions variables

Figure 35 Debt + Op. Leases/capital

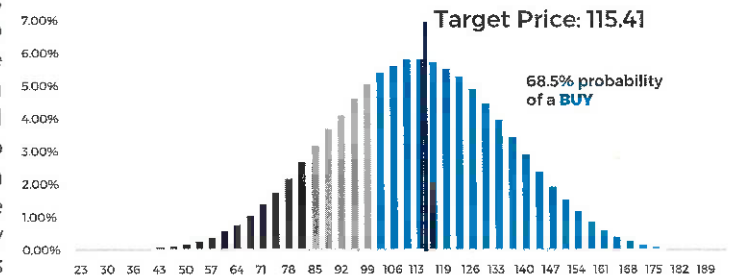


Source: Companies Data, Team Estimates

could distress our target price and may halt our BUY recommendation. We developed two independent approaches to evaluate the impact these potential variables and how different results might change our recommendation.

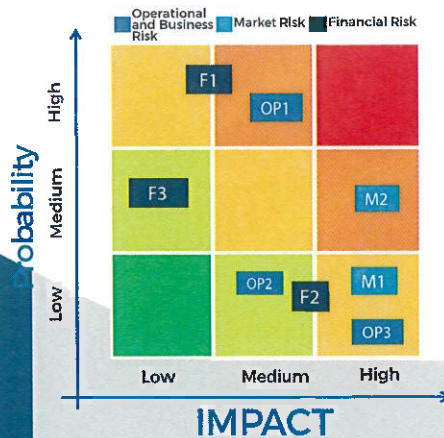
MONTE CARLO SIMULATION: We executed a Monte Carlo Simulation to understand the sensitivity of our model to variations in our adopted assumptions. For this, we tested the variables related to income, such as yield and growth in Latin America and the United States economies. Second, regarding operating expenses, we stressed oil prices, increase in wage prices and the services to passengers/revenues ratio. Finally, within the operative variables, we measured load factor, average aircraft utilization growth and the percentage of decreased in block hours vs ASM due to the changing composition of the company's fleet. After running the simulation, we observed a 68.5% potential of obtaining a target price above 10% upside or \$100 per share. Lastly, a 8.38% probability of the stock downgraded to a SELL.

From the simulation's result, we concluded that the most sensitive variables in our model are oil prices, yield and load factor. Hence the importance of continuing mitigating the risk of oil through hedges and reducing the fuel cost through new airplanes. This last one also allows CPA to have more ASM with the same block hours and sustain the advantage of CASM which allows more space to maneuver on yield. In addition, keeping the improvement on the capacity allocation achieved on 2016 is crucial.



SENSITIVITY ANALYSIS: Based on our insights, we also performed a sensitivity analysis on the primary variables of the model emphasizing on testing values for oil prices and passenger yield. Oil prices have to increase US\$10 dollars per barrel yearly over the next five year to change our recommendation to a SELL. Given the volatility in recent years on oil prices and the impact on our operating expenses, this is one of the main risks of our model. Similarly, reductions of 7% in yield can deteriorate the company's revenue and change our recommendation. Given that, yield is operating at its lowest level in more than a decade and there is no foreseeable pressure on the demand side, we do not expect a deterioration of this metric to continue, we understand it is more likely to recover.

Figure 36 Risk Matrix



Source: Team Analysis

INVESTMENT RISKS

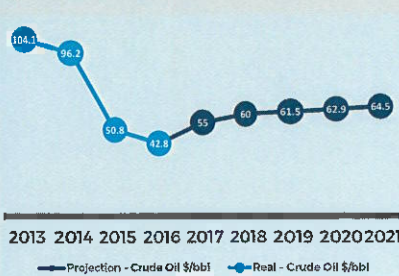
MARKET RISK:

MK 1: SYSTEMIC DETERIORATION OF LATIN AMERICAN ECONOMIES (IMPACT: HIGH \ PROBABILITY: LOW) The primary market of CPA comes from passengers from Latin America. If we measure it by revenue, 75% comes from Latin American economies. A deterioration of Latin American economies has a direct impact on the number of passengers and puts pressure on yield, which is already low. We consider a systemic decline in most of these markets an unlikely event. Mitigant: CPA has been able to rapidly move its available capacity from markets with low profitability to other potential markets. For example, according to Copa Holdings CEO, Pedro Heilbron, in 2015 the company moved around 30% of its available capacity in Brazil to others markets. Second, CPA's revenue is diversified across the different countries of Latin America and North America.

MK 2 : INCREASE COST IN JET FUEL PRICES (IMPACT: HIGH \ PROBABILITY: MEDIUM) Oil price on international market has a direct effect on income through higher operating expenses. Operational results may be affected by the volatility of fuel prices considering it accounted for 27% and 24% of operating expenses on 2015 and 2016 respectively. Recent announcement by members of the Organization of the Petroleum Exporting Countries (OPEC) to cut output from 33.0 to 32 barrels per day can put pressure on the oil price. Non-OPEC countries (notably the United States), reduced supply in 2016 due to cutbacks in investments in the past couple of years. Recently, developments in the productivity of shale companies in the United States and slightly higher prices can boost the production and mitigate the effect of supply cuts. Furthermore, a weaker than expected demand, especially from Asian countries can downside the risk for CPA of higher oil prices. Mitigant: Hedging decisions are the point on which future pricing will have to balance budget decisions, subsequently affecting forecasted profits. Notwithstanding, a sudden and steady lower fuel price can increase price competition, resulting in a decrease in revenues for all carriers affected. For an attempt at reduction of exposure to changes in fuel prices, CPA periodically enters into derivatives instrument contracts.

MK 3: PROTECTIONISM AND MITIGATION POLICIES IN THE UNITED STATES AND EUROPE (IMPACT: MEDIUM \ PROBABILITY: MEDIUM) The recent change in the United States government and uncertainty about Europe's political landscape can affect free trade policies these countries have pursued over the years. This turnaround can impact Latin American economies recoveries, such as Mexico and Colombia, where 80% and 28% of total exports are directed to the USA (data taken from

Figure 37 Crude Oil Prices Current Prices

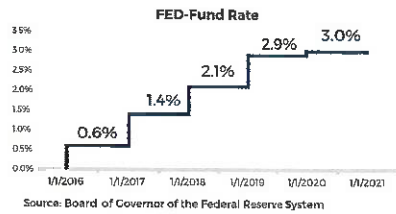


Source: World Bank Commodities Projections

WTI World Bank). Negotiation of trade agreements can add uncertainty and, eventually, reduce investments in the short term. Mexico and Central American countries, where CPA does not have a strong presence, have a higher exposure to this risk.

The second cause of concern is a change in the US immigration policies as it adds uncertainty to latin immigrants which can cause lower spending. Related to CPA's revenue, North America's segment is consistently increasing its share and changes in this market can have a modest future impact future revenue growth. Mitigant: CPA has been able to rapidly move its available capacity from markets with low profitability to other potential markets.

Figure 38 Federal Fund Rate



FINANCIAL RISK

FI 1: INTEREST RATE- FINANCIAL RISK (IMPACT: LOW\ PROBABILITY: HIGH) Most of the company's long-term debts are international syndicated loans related to aircraft acquisitions. Recent announcements from the Federal Reserve of the United States, to increase the Federal Funds to 1.1% in 2017 and subsequently increments can impact the availability of CPA to incur in debt at a low-interest rate³. Mitigant: CPA has kept a significant portion of its debt in fixed-rate instruments. At 3Q of 2016, 60% of its debt was in fixed income instrument. Also, CPA is recurring to mitigating the risk by Interest Rates Swap contracts to hedge against market rate fluctuations.

FI 2: AVAILABILITY OF CREDIT/LIQUIDITY- FINANCIAL RISK (IMPACT: HIGH\PROBABILITY: LOW) Lack of capability of the company to fulfill its contracted obligations, originating financial losses for CPA. Also, it maintains sufficient cash on hand and in banks or equivalents of easy realization into cash. The company also has lines of credit in financial institutions that allow them to withstand potential cash deficit to fulfill financial commitments. Conducting business with strong financial institutions with liquidity indicators above the market average is a possible mitigant for the risk in reference.

FI 3: CURRENCY FLUCTUATION- MARKET RISK (IMPACT: LOW\PROBABILITY\MEDIUM) As of 2016, 45.7% of revenues and 67.9% of expenses are in U.S. dollars. However, Colombian peso, Brazilian real, Argentine peso and Mexican peso represented 13.4%, 11.6%, 5.6% and 3.5%, respectively in 2015. The period of exposure to most foreign currencies is limited to two weeks between the sale and the conversion to U.S. dollar. (Excluding Venezuela). As a result of inflation and devaluation, focusing on the US dollar could lead to a decrease in revenue from foreign countries. According to IATA, FX changes impact the airlines by the composition of passenger demand and its sensitivity that varies from market to market. Approximately 60% of CPA's passengers are driven by leisure factors, being this segment the most sensitive. Mitigant: the company is increasing sales in US dollar and opting for factoring agreements on credit card sales and receivables outstanding.

BUSINESS AND OPERATIONAL RISK:

OP1: LABOUR RELATIONS AND COST OF LABOUR -OPERATIONAL RISK (IMPACT: MEDIUM\PROBABILITY: HIGH) The industry is labor intensive, demanding a large number of pilots, flight attendants, mechanics and other personnel. Under Panamanian law there is a limit to the maximum number of non-Panamianians a company can employ. Panama median salaries have increased on average 8.1% YoY from from 2011 to 2016. Additional increments can put pressure on CASM consequently in the EBITDAR margin of CPA. Likewise, approximately 60% of CPA workforce is unionized; strikes or labor disagreements may harmfully disturb the ability to operate normally. On the other hand, the company is dependent on the experience and industry knowledge of its officers and pilots and other key employees to implement the business plans. Mitigant: CPA has been active in bargaining with the 9 different unions that covered their employees. Also, CPA sponsors "Escuela Latinoamericana de Aviacion Superior" and aviation school to attract and stimulate future pilots for the company.

OP2: NEW COMPETITORS IN THE MARKET\LOW COST CARRIER (IMPACT: MEDIUM\PROBABILITY: LOW) The threat of new entrants in the airline industry is low due to a large amount of capital needed to operate. New entrants are a consequence of more Joint Ventures, Mergers, and Acquisition to target international growth. In addition, expansion of the LCC's business model heightens aggressive competition. CPA reacted recently to this risk by launching Wingo. Mitigant: Copa is becoming a connected airline through alliances with airlines from the same region and worldwide.

OP3: OTHER UNFORESEEABLE RISK-OTHER RISKS (IMPACT: HIGH\PROBABILITY: LOW) Events outside the company's control such as natural disasters and terrorist attacks can hinder the business. As an example, terrorist attacks on September 11, US passenger traffic dropped 25%. After every major air disaster, the airline industry usually experiences a decrease in air traffic, leading to a crisis. Latin American countries are not especially in danger of a terrorist attack, but attacks on other nations as the United States where CPA has substantial revenues, can meaningfully reduce the demand for air travel. If a CPA aircraft is involved in a crash, the company acknowledges it as a significant liability. If insurance is not adequate, they will be forced to bear substantial losses from the accident. Furthermore, any accident concerning an alliance aircraft, public perception unreliability or unsafely could be created, harming the company's brand image and reputation as a result of air travelers being unwilling to fly on CPA's fleet. The company holds a liability insurance as a contingency for this kind of events. (Appendix 26)

Figure 39 Panama Average Salary- Median

