

Delta Air Lines: A Financial Analysis and Corresponding Recommendations for
Delta Air Lines, Inc.

by
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A thesis submitted to the faculty of The University of Mississippi in partial fulfillment of
the requirements of the Sally McDonnell Barksdale Honors College.

Oxford

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Approved by:

_____ Advisor: Professor Victoria Dickinson

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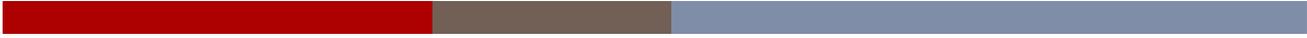
ABSTRACT

Delta Air Lines: A Financial Analysis and Corresponding Recommendations for Delta Air Lines, Inc.

This alternative thesis project is a financial analysis of Delta Air Lines, Inc.

Utilizing the 10-K Financial Statements from 2009 to 2013, along with some correlating outside resources, a full business and financial analysis was completed. Starting with the business background and operations, and then working into analysis of the Financial Statements, corresponding recommendations were created for tax, audit and advisory planning strategies.. The bulk of the analysis utilized the 10-K data provided by the SEC, only using minimal other resources for background research.

The research found that since filing Chapter 11 bankruptcy Delta Air Lines has improved substantially. Delta's largest issues to overcome in the coming years are finding ways to continue growing while keeping costs low. The company has already had to file for bankruptcy once in the last decade; they do not need a repeat. Looking at the current financials, Delta is on the right track for success but needs to consider implementing strong controls for property, plant, equipment, and inventory. The company also needs to ensure that taxes remain low, seeing that right now they have a large tax benefit due to carry forward losses and other tax credits. Future tax expenses could cause a negative impact on net income, so the company should seek tax-planning strategies to ensure future deductions. Finally the company may want to consider utilizing better methods for flight times and online payments, and increasing the capacity of their fuel segment. These recommendations and corresponding financial analysis is outlined throughout the contents of the paper.



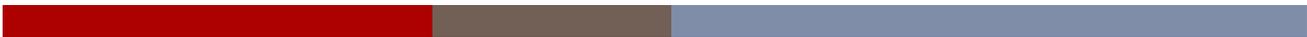
Delta Air Lines:

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Spring 2015

Delta Air Lines

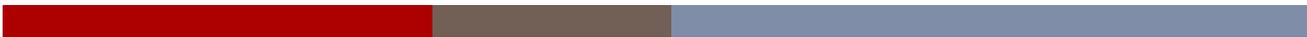


PREFACE

The Accountancy Alternative Thesis Course, ACCY 420, has allowed me to not only complete my thesis, but also learn more about accounting than ever achievable in a classical classroom setting. First semester, the course gave students the ability to meet with various firms, corporations and personnel in the accounting business world to gain a deeper understanding of the three main service lines, the recruiting process, and life as an accountant. The first semester prepped my classmates and myself for the months and years to come in public or even private accounting, and I most definitely feel I have the “inside scoop” compared to some of my peers not in the course.

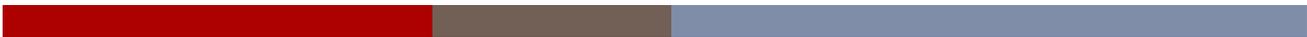
Second semester took a different route with the focus lying in the completion of the thesis. The assignment was to select any publicly traded, US domiciled company and complete an in depth analysis of its business functions, financial statements and then to suggest corresponding recommendations based off the analysis. For my thesis I chose Delta Air Lines because recreational companies are heavily concentrated in my internship city of Phoenix, Arizona. Companies such as Mesa Air Lines, Starwood and professional sports teams are all key clients in that region. Choosing a company that provides similar travel and recreational services heavily paralleled and prepared me for the internship I would complete the following year.

Delta Air Lines



Overall, the skills learned while completing this paper will translate into my professional career. Before this course, I had no clue how to read actual financial statements and only knew the premises of financial accounting. By completing this course, I have gained an in depth knowledge how to utilize company's 10-Ks, and how to complete financial, audit and tax work for a real life corporation rather than just a book example. The value of the course is beyond what can be described, but the benefits are sure to present themselves in the coming years.

Delta Air Lines



**Any sections not cited can be assumed to have used the Delta Air Lines' 10-K Financial Statements and Footnotes for the years 2009-2013 located on Securities and Exchange Commission's Website

Delta Air Lines

TABLE OF CONTENTS

Chapter 1

Company History.....	Page 8
Company Operations.....	Page 25
Value Chain.....	Page 27
Business Processes Diagram.....	Page 28
Board of Directors.....	Page 29

Chapter 2

Mission Statement.....	Page 33
Goals.....	Page 34
Business Strategy.....	Page 37
Assessing Demand for Products.....	Page 38
Assessing Supply of Inputs.....	Page 39
Competitors.....	Page 42
Geopolitical Risks.....	Page 44
Porter's Competitive Forces.....	Page 46
SWOT Analysis.....	Page 47

Delta Air Lines

Chapter 3

Asset Composition.....	Page 48
Company Financing.....	Page 51
Cash Flows	Page 57
Liquidity, Solvency and Earnings per Share.....	Page 58

Chapter 4

Accounts Receivable.....	Page 61
Inventory.....	Page 64
Property, Plant and Equipment.....	Page 69

Chapter 5

Intercorporate Investments.....	Page 73
Restructuring.....	Page 79
Foreign Currency.....	Page 82
Returning Wealth to Shareholders.....	Page 86
Pensions.....	Page 87

Delta Air Lines

Chapter 6

Operating v Non-Operating.....	Page 89
Financial Statement Analysis.....	Page 92
RNOA Disaggregation Analysis.....	Page 98
Decomposition of Non-Operating Return.....	Page 102

Chapter 7

Lagging Macroeconomic Indicators.....	Page 106
Leading Macroeconomic Indicators.....	Page 111
Revenue Recognition Principles.....	Page 115
Analysts' Forecasts.....	Page 117
Earnings Management.....	Page 119

Chapter 8

Capitalization of Operating Leases.....	Page 121
Weighted-Average Cost of Capital.....	Page 124
Sales Forecasting.....	Page 126
Stock Value per Share.....	Page 127

Delta Air Lines

Chapter 9

Management Assertions.....	Page 131
Audit Risks.....	Page 137
Foreign Tax Rates.....	Page 141
Tax Credits.....	Page 142
Tax Recommendation.....	Page 143

Chapter 10

The Balanced Score Card.....	Page 145
Recommendation One.....	Page 148
Recommendation Two.....	Page 149
Recommendation Three.....	Page 150
Effect of Recommendations.....	Page 152

Works Cited	Page 154
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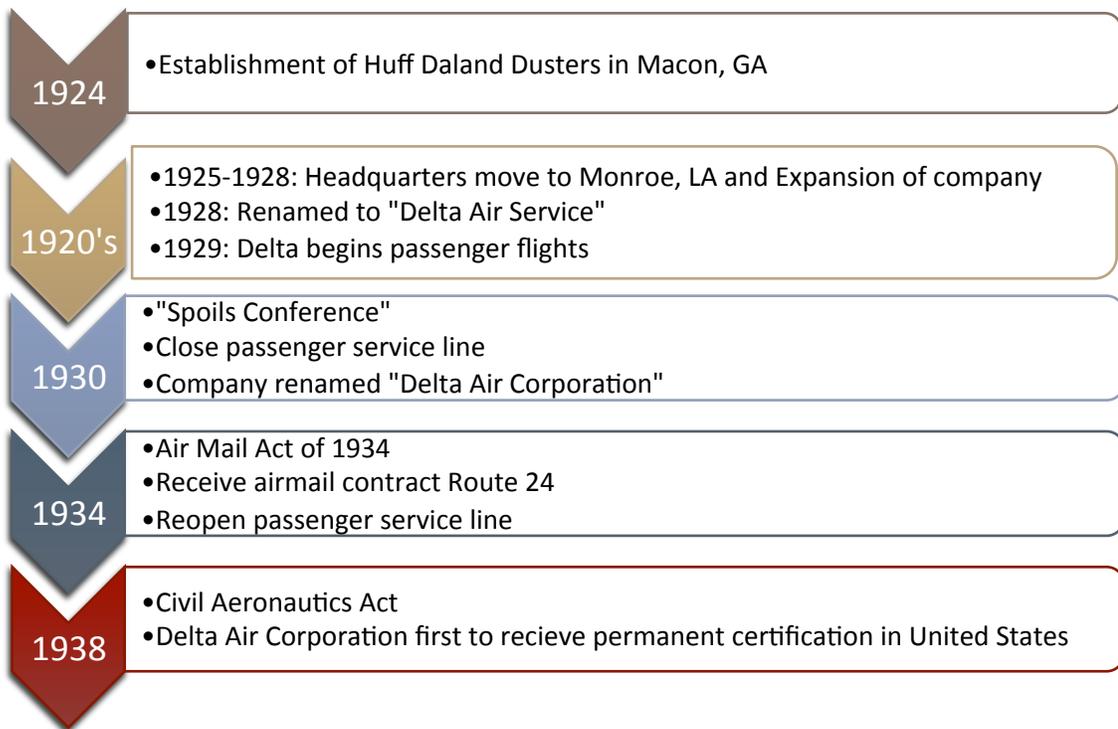
Delta Air Lines

CHAPTER ONE

COMPANY HISTORY

Sources: *DeltaAirlines.com, DeltaMuseum.org, Fairweather, Malcom. "The Historical Development of Delta Air Lines." ReferenceforBusiness.com*

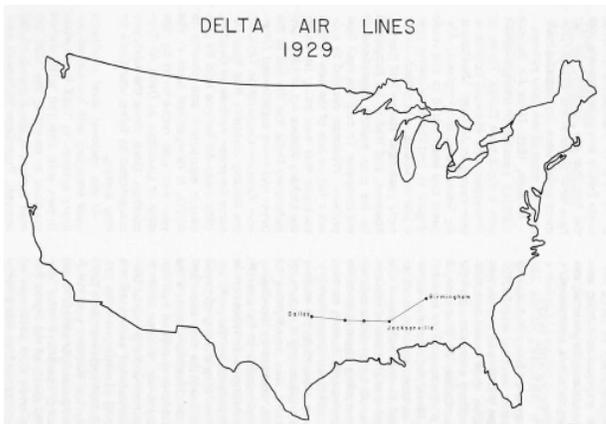
The Beginnings



Huff Daland Dusters, later to become Delta Air Lines, originated on May 30, 1934, in Macon, Georgia. Owned by a military aircraft company, Huff Daland, hoped to aid farmers with keeping their agricultural products insect-free by dusting the fields with pesticides via plane. Collett Everman "C.E." Woolman advised Huff Daland during the service line's creation and was essential to the company's formation. Between 1925 and

Delta Air Lines

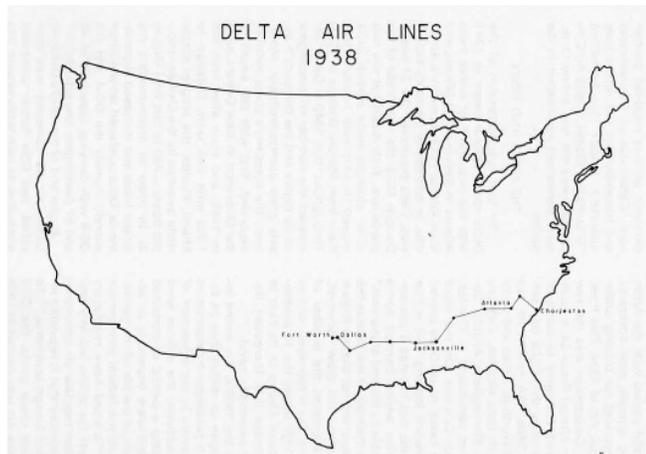
1928, the company moved headquarters to Monroe, LA and a massive expansion was in the works. The dusting service line became available in much of the southern and western United States, and abroad in multiple South American countries. Woolman later went to purchase the company with D.Y. Smith and renamed it “Delta Air Service” in



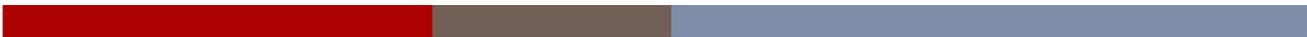
1928. The name Delta originates from the Mississippi River Delta region where the company mainly conducted operations. The name change was due to Woolman’s intent to expand the company’s services from crop dusting to mail and passenger

services. Finally, in 1929 Delta Air Service began to offer passenger flights. The routes ranged from Jackson, Mississippi, Dallas, Texas, and Monroe, Louisiana. Delta later added stops in Charleston, South Carolina, Birmingham, Alabama, and Atlanta, Georgia.

Moving into the 1930s, Delta realized a need to secure an airmail contract to keep revenues up due to the high cost and little profit produced by passenger services. In 1930, the



Delta Air Lines



United States Government decided to delegate airmail contracts to domestic air carriers. Unfortunately, Delta lost the bid to American Airlines during this “Spoilers Conference.” Due to the lack of income, Delta was forced to shut down its passenger services temporarily on October 1, 1930. During this period Delta Air Services also was renamed to Delta Air Corporation. The United States Government determined that the contracts were assigned unfairly and therefore they created the Air Mail Act of 1934. The Air Mail Act of 1934 left Delta Air Corporation with airmail Route 24, which handled United States Postal Service Mail in the southeast region. The company began mail service on July 4, 1934, and shortly after on August 5, 1934, Delta was able to recommence their passenger service line. Delta also added in-flight meals for passenger flights in 1936. Finally, near the end of the decade airline passenger services were on the rise, and the government realized that it needed a regulatory power on air transportation much like federal highways. So in 1938, the government passed the Civil Aeronautics Act that required airline companies to apply for “Certificates of Convenience and Necessity” for their routes. Delta Air Corporation became the first airline industry to gain permanent certification.

Delta Air Lines



1930: Logo for Delta Crop-Dusting Service Line; utilized Thor to represent war between insects and the crops



1934-1951: Greek Letter "D" still utilized sometimes with AM24 in the triangle referring to their airmail service line



1929: Delta Air Service Logo; Triangle shape represents for Greek letter "D"

Becoming Delta Air Lines Inc.

Early
1940s

- 1940: Add stewardesses to flight crews and begin serving bottled Coca-Cola in flight
- 1941: Move headquarters to Atlanta, GA
- 1942: Delta aids in WWII.

Mid
1940s

- 1945: Changed name to Delta Air Lines, Inc.
- 1945: Nationally recognized by National Safety Council
- 1946: Begins cargo service line

Late
1940s

- 1948: Partner with TWA for expanded routes
- 1949: Begin coach services

Early
1950s

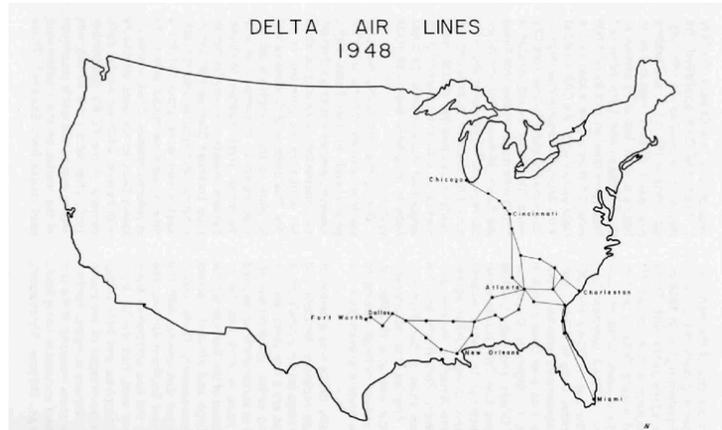
- 1950: Souvenirs for children
- 1953: Merge with Chicago and Southern Air Lines; international flights

Late
1950s

- 1955: Utilize hub and spoke system; secure Atlanta to New York route
- 1956: Weather avoidance radar technology
- 1958: Ultra luxurious upgraded first class

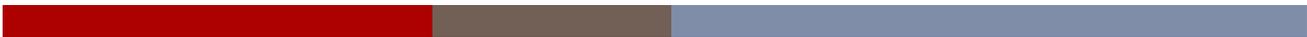
Delta Air Lines

The 1940s to 1950s era of Delta Air Lines is marked by the massive growth and technology advancements within the company. The 1940s began with an essential



addition to the Delta staff, stewardesses. The addition of the stewardesses was just the beginning of services that illuminated Delta's extreme focus on customer satisfaction, with bottled Coca-Cola being offered during in flight beverage service that year as well. Just a year later, Delta Air Corporation Headquarters relocated from Monroe, Louisiana, to Atlanta, Georgia, due to massive growth in routes. What once began as flights highly saturated in the "deep south" had moved into eastern states and therefore caused the move to Atlanta, a city that could hold the capacity of the expanding business. As World War II began, Delta Air Corporation gave aid to the war effort and temporarily terminated civilian services. The company modified planes for military use, trained Army pilots and mechanics, and ran cargo supply routes throughout the war. Throughout the 1940's and 1950's Delta was recognized for its superior service and safety standards on a national platform. With World War II over, in 1945 Delta Air Corporation returned to its passenger services, but changed its name to what it is known as today, Delta Air

Delta Air Lines



Lines, Inc. That year they received recognition from the National Safety Council for achieving 300 million passenger miles and 10 years without any fatalities. By 1946, Delta's service lines even further expanded with the addition of cargo services. Moving into the later 1940s growth continued with partnerships with TWA that allowed Delta to expand its routes. The deal allowed Delta planes to be flown by TWA crews from Cincinnati to Detroit, Columbus, Dayton or Toledo. In return, Delta employees flew TWA planes from Cincinnati to Atlanta, Miami and Dallas. This further allowed Delta to increase its presence in the northern markets. Also during this time, Delta increased plane cabin luxury by upgrading to in cabin pressurization and air conditioning, and including seat trays. As the 1940's came to an end expansion continued with the commencement of Coach Class services on Delta flights.

Delta Air Lines growth and extensive concentration on amenities and technology continued into the 1950's era. A new target-market Delta began to focus on during this period was children passengers. With the 1950 children's souvenir of a Junior Pilot Certificate for young boy and girl passengers and the 1958 souvenir of "kiddie wings" pins, Delta once again strived to make all passengers' trips enjoyable. In 1953, a merger between Delta Air Lines and Chicago and Southern Air Lines allowed the company's flight routes to expand exponentially. The merger created a name change for two years of "Delta-C&S," but allowed Delta to obtain its first international flights to the Caribbean

Delta Air Lines

and Caracas. The merger created the fifth largest airline company in the United States and added 5,000 miles of new routes to Delta's service lines. Throughout the mid 1950's, Delta continued its development with the utilization of the hub and spoke system beginning in 1955. The hub and spoke system is a technique that involves dropping passengers off at airport terminals or "hubs" and allowing them to get onto a connecting flight or a "spoke." This allowed more passengers to utilize flights and less flights go under seated. By 1956, weather avoidance technology added to aircrafts created safer trips for passengers and crews. The upgrades continued in 1958, with first class flights utilizing three instead of two flight attendants, playing boarding music and offering free champagne and steaks in-flight.



1945-1953: Flying D Logo



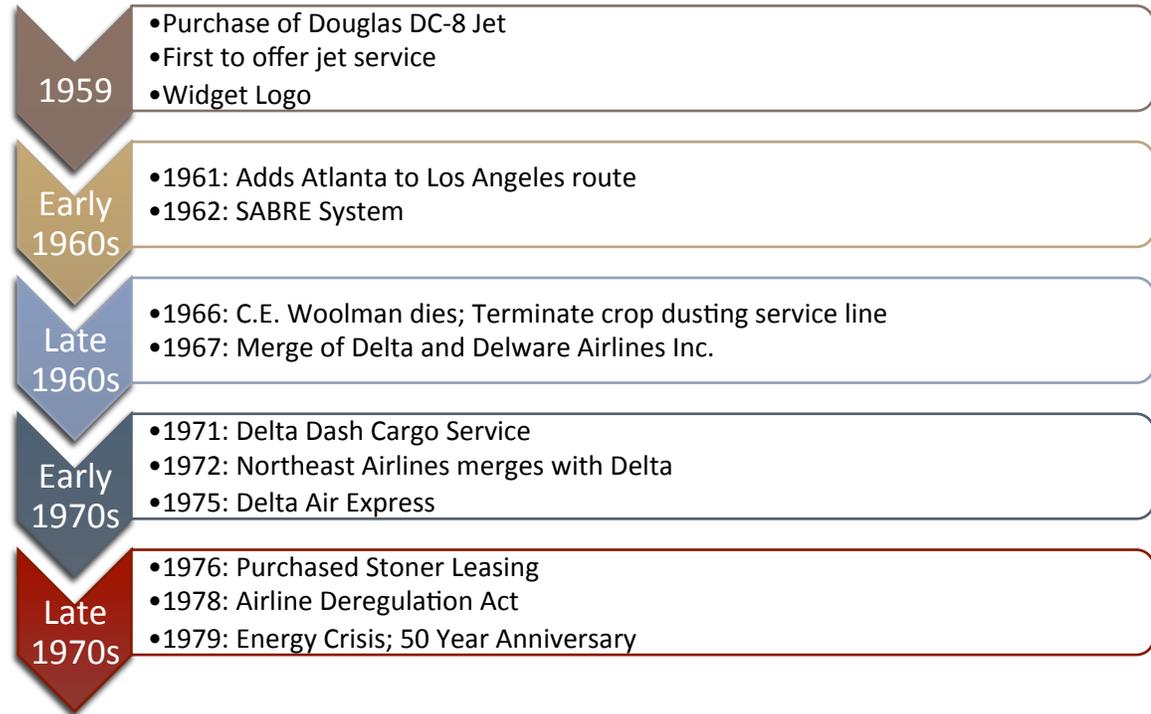
1953-1955: Delta-C&S Logo; Logo used when Delta merged with Chicago and Southern Airlines that caused brief name change



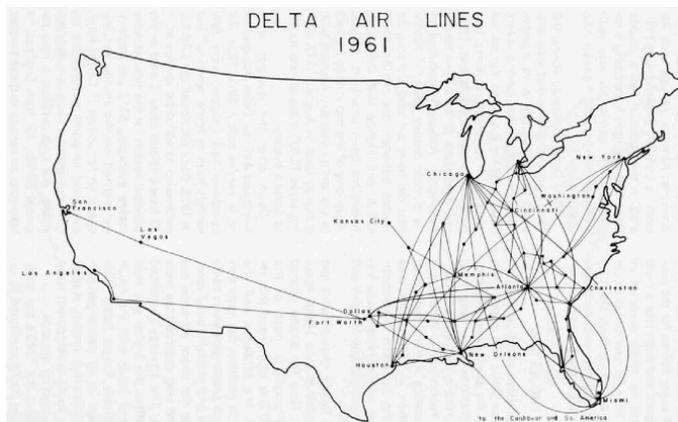
1955-1959: Flying D Logo used before the merger returns

Delta Air Lines

The Jet Era



As the 1950's came to a close Delta moved into the Jet Era, becoming the first airline to start a jet service in 1959. The change leads to a new "widget" logo representing the swept-wing look of jets. Of course, Delta continued with its customer satisfaction

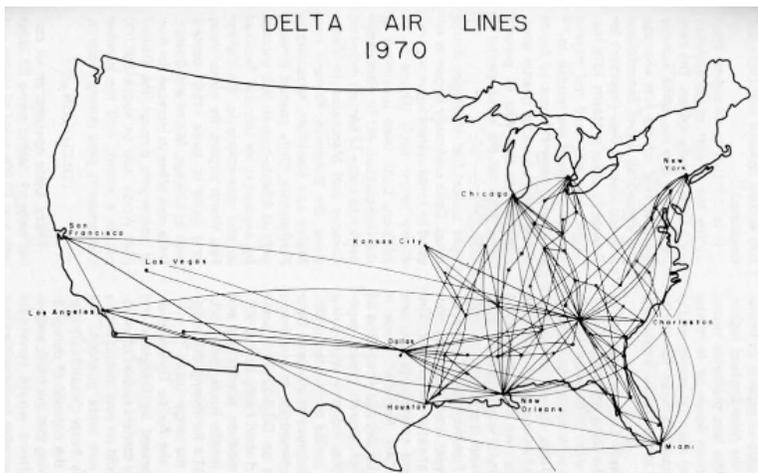


innovations by introducing in-flight meals to coach passengers. The 1960s began with even more expansion, when Delta flies the first non-stop flight from Atlanta, Georgia, to

Delta Air Lines

Los Angeles, California, in 1961. In 1961 they also were the first air service with flights from California to Montego Bay and Caracas, and were recognized again with the National Safety Award for 11 billion passengers without any fatalities. Technological advancement followed in 1962 with the initiation of the SABRE system, which allowed “instant” reservations through their “Deltamatic” system. Sadly, in 1966, original founder of Delta and current CEO C.E Woolman passed away. With his passing, the crop-dusting service line ended. Unlike other airline businesses, Delta’s CEO’s passing did not hurt the company’s growth and income. Delta had a smooth transition from C.E. Woolman to modern, collective management style, which aided in decreasing the difficulties some companies face with management changes.

A series of mergers and purchases occurred in the proceeding years for Delta Air Lines. Delta merged with Delaware Airlines (1967) and with Northeast Airlines (1972),



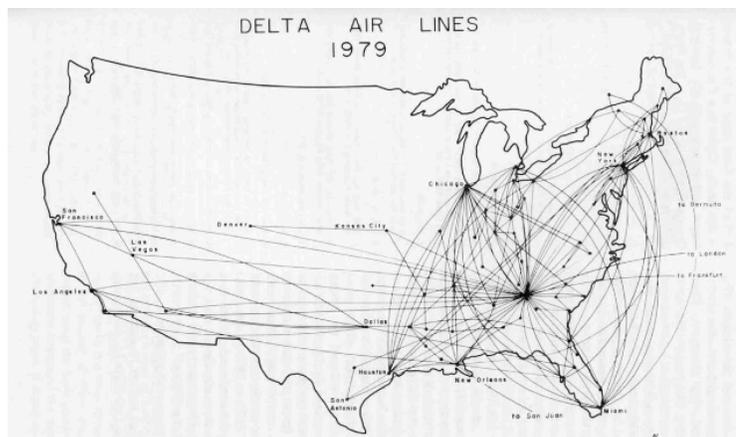
and purchased Stoner Leasing (1976). Delta merger with Northeast Airlines was especially important because it permitted more routes for

Delta in the Northern United States regions with direct flights to New York and New

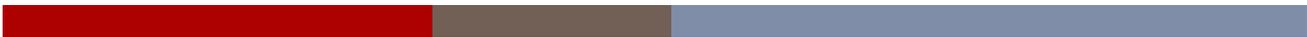
Delta Air Lines

England to Florida, Bermuda, Bahamas, and Canada. The Northeast Airlines merger also brought a change in company route policy. Delta decreased the number of smaller New England routes by giving those routes to a northern regional company, Air New England. Doing this allowed Delta to focus on the more profitable routes and longer haul destination flights. During the same period, expansion was also happening in the cargo service line. In 1971, Delta created Delta Dash Cargo, a service for small package delivery. By 1975, the company decided to create Delta Air Express, a guaranteed cargo service. Delta once again was a leading innovator becoming the first airline to own an air express service. Customer amenities continued to improve during the 1970's with the upgrades providing the first in-flight audio entertainment for passengers.

In 1978, the United States Government Passed the Airline Deregulation Act. The act removed government control of airline routes, prices and entry into the market. Many airline companies scurried to grab as many new routes as possible, but Delta was more conservative. Delta was cautious about the change because they were concerned that it would ruin profitability of their hub and spoke systems, and also



Delta Air Lines



concerned that it would diminish flight services to small airport destinations. This cautious behavior was very typical management style of Delta during the Jet Era. The company was technologically advanced and focused heavily on improving customer satisfaction, but it was careful with their purchases by only buying aircrafts that were proven to be durable and safe. This management policy, known as a “wait-and-see” policy, saved Delta large amounts of money in the 1970’s because they did not have frivolous expenses. As Delta Chairman during the time period, W.T. Beebe stated, “We don’t squander out money on goofy things like advertising.” This further highlights the company’s culture of conservative spending on items that they could ensure were value-added profitable activities. As the 1970’s drew to an end, Delta Air Lines celebrated its 50th Anniversary of passenger services, and also received recognition in 1979 for the first airline to board one million passengers in one city (Atlanta) in one month and a Public Interest Award for their efforts in reducing jet noise. 1979 also marked the beginning of flight services to Frankfurt, West Germany. Although 1979 was a year of successes, it began as a year of turmoil. The 1979 Energy Crisis occurred due to the Iranian Revolution that caused an oil shortage worldwide. Due to the decreased supply with the demand remaining constant, prices grew exponentially and affected the airline industry for the brief period. During the beginning months of 1979, Delta, along with other airline service companies, was forced to cut back on the number of flights

Delta Air Lines

due to the oil shortage. Delta Air Lines dropped an average of 18 flights a day and their first quarter earnings were 61% lower than they were in the first quarter of 1978. This subsided expansion of routes for Delta, but luckily the Iranian Revolution concluded by the end of the 1979 allowing expansion to commence once again in the 1980s.



1959-1965: Sideways Widget, symbolizes speed of widgets



1962-mid 1960's: Oval Widget Logo



1960's-1970's: Upright Widget to Left of Company name

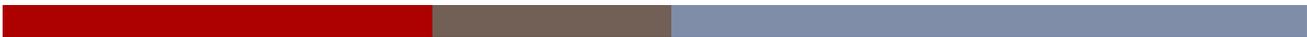
Delta Air Lines

Expansion to an International Carrier



The 1980's to 1990's for Delta Air Lines was marked by the extreme growth domestically and internationally due to the transition in internal management style. In the decades before, Delta Air Lines had been known for their conservative and “wait-and-see” policies for business purchases and ventures, but during the coming decades Delta began utilizing aggressive and risky strategies in hopes of expanding the company even more (ReferenceforBusiness.com). Throughout the period, Delta continued to develop and innovate in customer amenities and aircraft technology. In 1980, Delta was working on a computer reservation system (CRS) to ease the boarding pass reservation

Delta Air Lines



process for consumers. That year, in-flight videos were added as a customer amenity and Delta continued to be ranked Number One by the Department of Transportation. By 1981, customer satisfaction projects continued with the development of a frequent flyer mile program later to called “Sky Miles” in 1995. Delta wanted to improve the boarding pass process further, so in 1983 the company upgraded to computer generated boarding passes and automated advance seat selection. That year Delta also became the first US aircraft line to meet new federal flyover noise standards. Continued improvements and innovations were a large part of the beginning of the 1980’s for Delta Air Lines. In 1987 Delta acquired Western Airlines to aid in the expansion of west coast routes. The merger caused Delta Air Lines to become the fifth largest aircraft carrier worldwide. (DeltaMuseum.org). Ronald W. Allen was named CEO that year as well, which further constructed the aggressive business structure Delta began to utilize during this time period (ReferenceforBusiness.com).

The late 1980s and early 1990s was a period of recession due to the conflict in the Middle East which caused oil shortages and increased oil prices throughout the world. The increasing oil prices and decreasing customer traffic affected Delta Air Lines by diminishing profits during the early 1990s period. Although a period of little income, Delta’s assertive business policies pushed for the purchase of Pam Am Assets in 1991. The purchase was \$1.7 billion worth of assets and \$668 million worth of liabilities, it also

Delta Air Lines

opened numerous hub routes for Delta abroad and domestically. The purchase of Pam Am Assets put Delta at a loss due to the high cost of the transaction and poor economic conditions, ending with \$506 million in losses in 1991. In order to deal with the multiple years of losses, Delta created the Leadership 7.5 Program to get back on track. The Leadership 7.5 Program was a cost cutting scheme to reduce costs by 7.5 cents for every mile, per seat to reduce cost by 2 billion dollars in the next three years. The Leadership 7.5 Program along with the Rapid Redemption Flyer Program, a program created to encourage passengers to fly often and instantly redeem miles for free tickets, the company finally returned to a positive profit in the fourth quarter of 1994.

In 1995, Delta received a huge promotional boost by being named the Official Airline of the 1996 Olympics. Moving into the end of the century, Delta continued its expansion with growth of US-Latin American routes and a purchase of an entire new aircraft fleet in 1997. In 1998 and 1999 respectively, Delta created the first international cargo alliance and acquired ASA Holdings Inc. As the 20th century came to a close, Delta Air Lines had grown to an international and prestigious aircraft carrier.



1985-1991: Signature Service Logo visible on customer items



1993-1995: Full Corporate Logo

Delta Air Lines



1995-2000: Full Corporate Logo

The 21st Century



Delta entered the 21st Century as a leading competitor in the Airline Industry. In the age of technology Delta launched their Delta.com website in 2000, allowing the company to interact with customers easier. On September 11, 2001, terrorists struck the United States via aircraft hijacking. In response, the company shut down for two days and had its first reported loss in six years. But Delta bounced back from the horrible event by continuing to improve its systems. In 2003, they became a leader in upgraded check-in systems with a system that had kiosk boarding pass check-ins, expanded gate

Delta Air Lines

information systems, lobby redesigns, better signage to reduce congestion and check-in capabilities on Delta.com. These improvements set Delta apart from its competitors. 2004 marked the 75 Year Anniversary of passenger service, but turmoil was on the horizon. In 2005, Delta implemented “Operation Clockwork” which was the largest scheduling redesign in airline history. On September 24, 2005 Delta filed for bankruptcy, but in November had the largest expansion of routes in company’s history. By 2006, Delta Air Lines had overcome its bankruptcy issue and avoided a hostile takeover by US Airways. In 2008, the company merged with Northwest Airlines further expanding the company’s routes and size. They also added wi-fi to select flights that year. By the end of the 2000s, Delta Air Lines was undergoing an enormous international route expansion. They became the only US Airline to serve six continents and has the largest passenger loyalty program, Sky Miles, with 74 million members. Delta Air Lines started off this decade with a two million dollar upgrade of aircrafts-making them ultra luxurious. In both 2011 and 2013 Delta Air Lines was named *Fortune’s* Most Admired Airline, proving its customers’ love for the amenities and services they provide. Finally in 2014 the company celebrated 85 years of passenger services.



2000-2007: Heritage Logo



2007-now: 3D widget Logo

Delta Air Lines

COMPANY OPERATIONS

Delta Air Lines has two main business segments according to Delta Air Lines' Segment Reporting Footnote of the 2013 10-K Financial Statement. Delta stated in their 10-K Documents that they determined these two segments by the groups in which the executive leadership team regularly discusses and reviews. Using this basis, Delta Air Lines therefore arrived at two operating segments of: Airlines and Refinery. The Airline Segment covers the passenger and cargo services that Delta offers domestically and internationally, plus the maintenance and repair of third party aircrafts Delta serves. Where the Refinery Segment, a new service line for Delta, focuses on the refining and production of jet fuel. Delta purchased the refinery from Phillips 66 and has acquired deals, mostly with BP, to supply crude oil for Delta to refine. The main goal of the Refinery Segment is to provide jet fuel to Delta Aircrafts for a cheaper amount than outsourcing, but also to sell jet fuel to third parties for extra income. Delta's 10-K stated that because the Refinery Segment's main goal is to provide a resource for the Airline Segment, that many operating gains and losses are realted to portions in both business segments. The table below highlights the segmented data by business process for Delta Air Lines for the year end of 2013.

Delta Air Lines

Segment Data: Delta Air Lines: for year ended December 31, 2013

(in millions)	Airline	Refinery	Intersegment Sales	Consolidated
Operating Revenue	\$37,773	\$7,003		\$37,773
Sales to airline segment			(\$1,156)	
Exchanged products			(\$5,235)	
Sales of refined products to third parties			(\$495)	
Operating income (loss)	\$3,516	\$116		\$3,400
Interest expense, net	\$698	--		\$698
Depreciation and amortization	\$1,641	\$17		\$1,658
Total assets, end of period	\$51,080	\$1,172		\$52,252
Capital expenditures	\$2,516	\$52		\$2,568

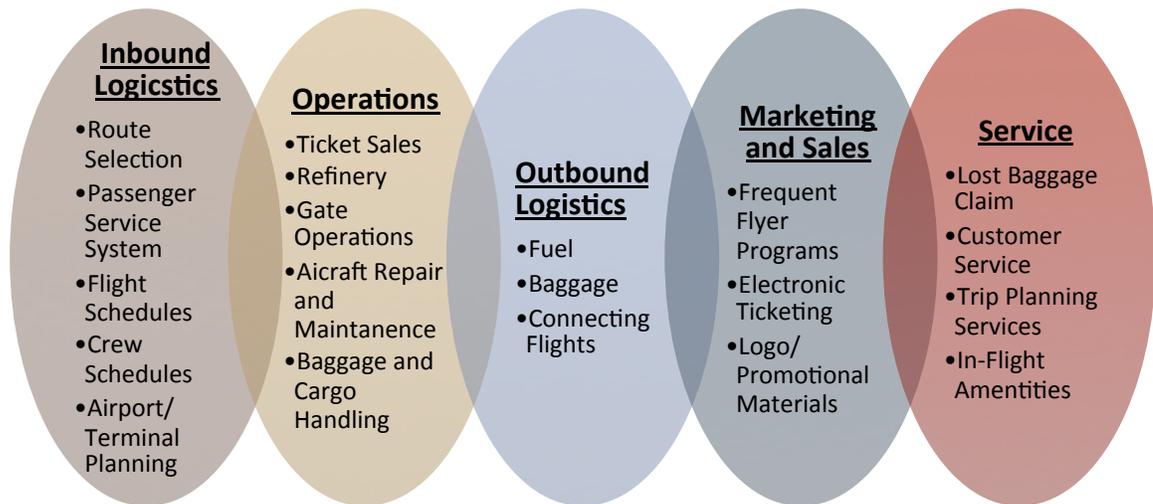
The data in the table above is provided from the 10-K on SEC.gov

Delta's Corporate Headquarters is located in Atlanta, Georgia, which is also the head of the Airline Segment. The Airline Segment also has key operating business hubs in Amsterdam, Atlanta, Cincinnati, Detroit, Minneapolis-St. Paul, New York-LaGuardia Airport, New York-John F. Kennedy International Airport, Paris-Charles de Gaulle, Salt Lake City, Seattle and Tokyo-Narita (MergentOnline.com). The Refinery Segment mostly resides in Philadelphia, Pennsylvania where the refinery and its assets are located.

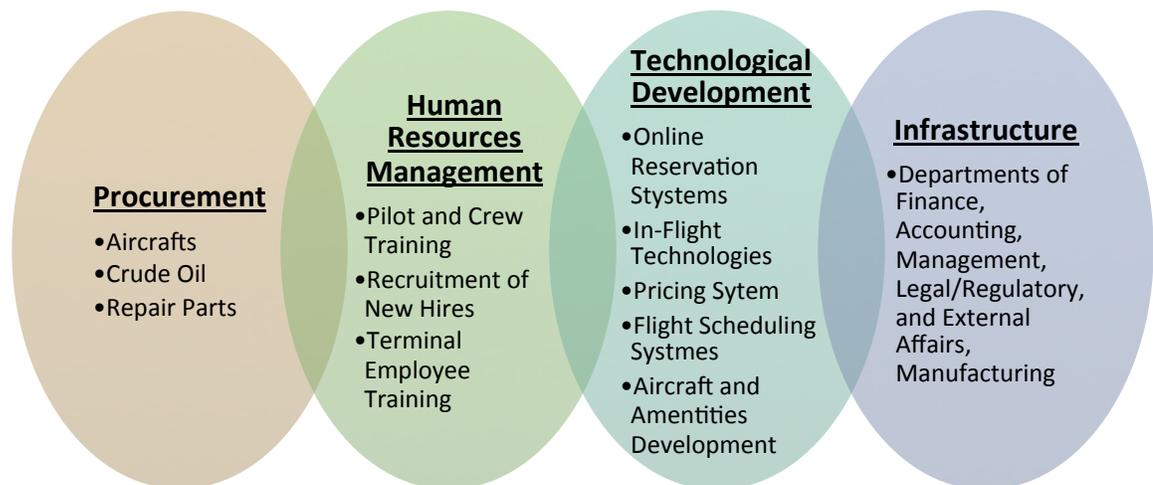
Delta Air Lines

VALUE CHAIN

PRIMARY ACTIVITES



SECONDARY ACTIVITIES

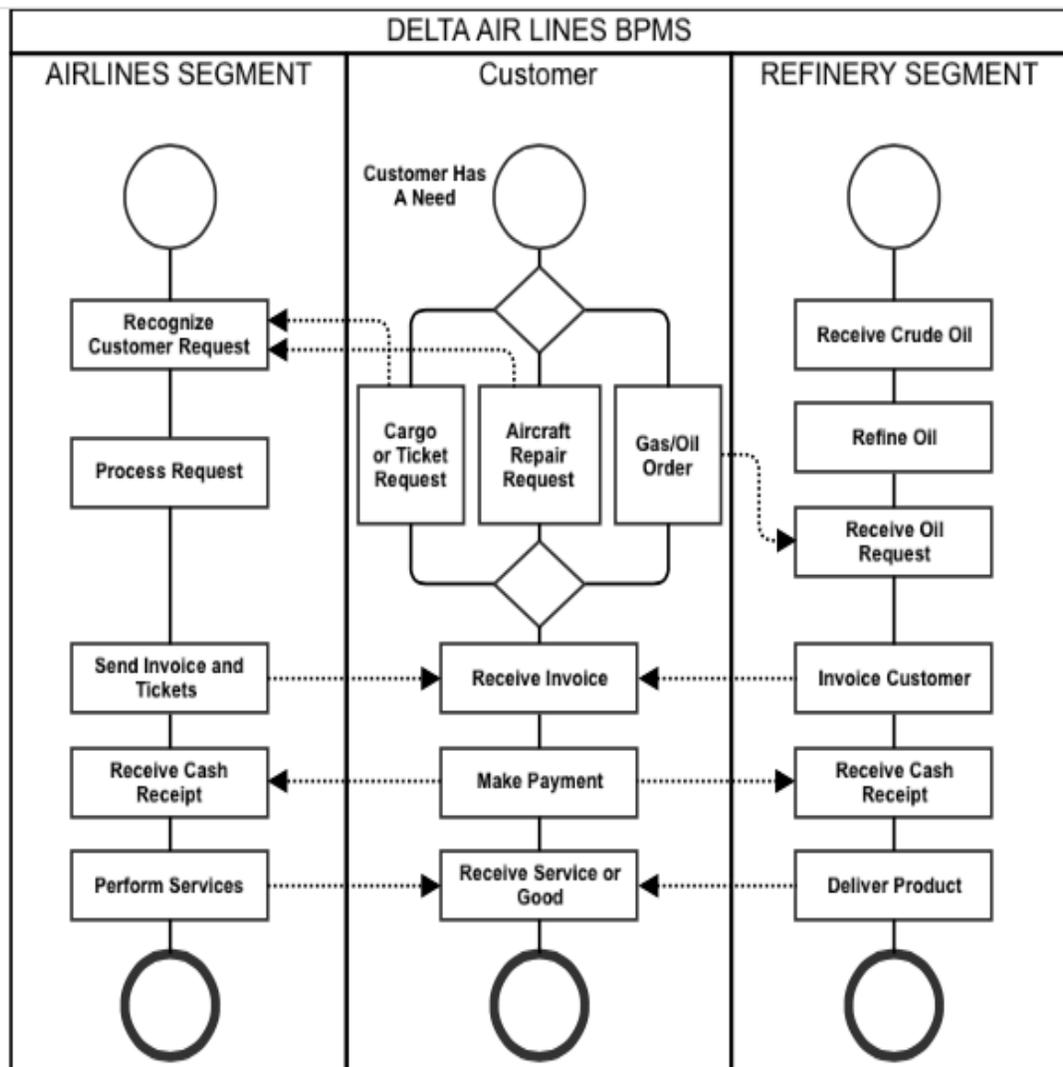


Delta Air Lines

BUSINESS PROCESSES DIAGRAM

Points where the Operating Value Chain Activities Take Place in BPMN Model:

- *Cargo/Ticket Request* → delivering cargo or passenger to desired destination
- *Aircraft Repair Request* → fixing aircrafts for third parties
- *Refined Oil Order* → provide jet fuel for Delta planes and third parties



Delta Air Lines

BOARD OF DIRECTORS

Delta Board of Directors currently consists of sixteen members, although one does not have voting power. The Board meets four times a year regularly, but will meet extra times for special situations. According to Delta Air Lines Website, “The Board believes sound corporate governance practices provide an important framework in assisting the Board to discharge its responsibilities. Accordingly, the Board has adopted corporate governance principles relating to its functions, structure, and operations” (DeltaAirLines.com).

Name	Position	Age	Total Pay	Tenure	Background
Daniel A. Carp	Non-Executive Chairman	66	\$412,854	8	Current Director of Norfolk Southern Company and Texas Instruments Inc.; Former CEO of Kodak
Roy J. Bostock	Non-Executive Vice-Chairman	74	\$276,394	7	Current Director of Northeast Airlines Corporation and Chairman of the Partnership for a Drug-Free America; Former CEO of McManus Group (communication services) and Director of B/Com3 (advertising)
Richard H. Anderson	Director	60	\$14,375,902	8	Current CEO of Delta Air Lines Inc.; Former CEO of Northeast Airlines
Edward H. Bastian	Director	57	\$8,845,206	17	Current President of Delta Air Lines Inc.; Former CFO of Delta Air Lines Inc. and CEO of Northeast Airlines
John S. Brinzo	Director	73	\$234,956	8	Current Director of AK Steel Holding Corporation and Board of Trustees for Kent State Endowment Foundation; Former CEO of Cliffs Natural Resources
David G. DeWalt	Director	51	\$224,555	4	Current Board of Director of Five9 Inc. and CEO of FireEye Inc. (security company); former EMC software group employee, Board of Director of Jive Software Inc. and Polycom Inc.
William H. Easter	Director	65	\$220,389	3	Current Director of Concho Resources Inc. and Board of Memorial Hermann Hospital System; Has a 30 year career in natural gas marketing, transportation and refining from ConocoPhillips, Former CEO of DCP Midstream

Delta Air Lines

Mickey P. Foret	Director	69	\$229,110	7	Current President of Aviation Consultants LLC, Director of Nash Finch Company and Spartan Stores Inc.; Former CFO Northeast Airlines, specializes in cargo transport
Shirley Clarke Franklin	Director	70	\$235,810	4	Current CEO of Purpose Built Communities (nonprofit), Co-Chair Atlanta Regional Commission of Homelessness and Director of National Center Civil and Human Rights, visiting Professor at University of Texas; Former Mayor of Atlanta
David R. Goode	Director	74	\$240,666	16	Current Member of the Business Council; Former CEO Norfolk Southern Corporation specialize in ground transportation, Director of Caterpillar Inc.
George N. Mattson	Director	49	\$233,730	3	Current Board Member of Boys' Club New York and Board Member of Pratt School of Engineering at Duke University; Former Partner at Goldman Sachs Co., specialized in Goldman Sachs investment banking in Delta
Sergio Rial	Director	54	\$--	--	Current CEO of the international company Marfrig Global Goods; Former CFO and VP of Cargill Inc. and Managing Director of Investment Banking at Bear Stearns & Co.
Kenneth C. Rogers	Director	54	\$--	7	Current Delta Pilot and Boeing First Officer; Pilot in US Air Force; nonvoting associate member of Delta Board
Kenneth B. Woodrow	Director	70	\$239,038	11	Former President and Vice President of Target Corporation
Paula Rosput Reynolds	Director	58	\$232,387	11	Current CEO and President PreferWest LLC; Former Chief Restructuring Officer of American International Group, CEO of Safeco Corporation, CEO AGL Resources,

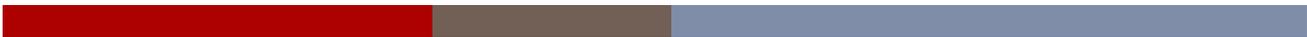
Delta Air Lines

Francis S. Blake	Director	65	\$--	1	Current Director of the Georgia Aquarium, CEO and Former Director of Home Depot, specializes in real estate, construction, credit services, strategic business development, growth, international and call centers at Home Depot; Former executive at General Electric handled international acquisitions.
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DATA FROM THE TABLE IS FROM MERGENT.COM (POSITION, WAGES AND TENURES) AND DELTAIRLINES.COM (NAMES, AGE AND BACKGROUND)

Looking at the table of the Board of Directors for Delta Air Lines, I believe they did a great job at diversifying the expertise of personnel on their Board of Directors. The company represents the supplier side of the company through the multiple Directors whom have experience in the oil refinery and aircraft industries. The customer side is represented through the Directors with Communications and Relations backgrounds such as, Roy J. Bostock and international customer affairs being represented through Sergio Rial and Francis S. Blake's backgrounds. I do believe that international affairs could be more widely represented because the only strong representation is Rial's connection with South America. Delta has numerous business processes ongoing in Europe, so it would be beneficial to have European representation. Financially speaking, Delta Air Lines' Board of Directors contains numerous officers who used to work in financial services or as CFO's such as, Rial or Mattson. The technical aspects of the company such as the refining process (understood by Easter) and the automated programming used to schedule, book and manage flights and the company (background

Delta Air Lines



fits DeWalt) are clearly covered on multiple levels. The company's well-differentiated board allows the company to have a better understanding of the outside forces that could possibly hinder the company's growth. But, the board lacks clear personnel that have worked in United States Transportation Regulatory Offices, although a political aspect is covered with the former Atlanta Mayor, Shirley Franklin's background. I did enjoy that the company included a pilot on its Board of Directors. This allows the company to stay up to date on pilot codes, what its employees really want, and understanding how the aircrafts work. Overall I believe that Delta's Board of Directors is well diversified but could improve through the addition of members with US Airways Regulatory/ backgrounds and international experience.

Delta Air Lines

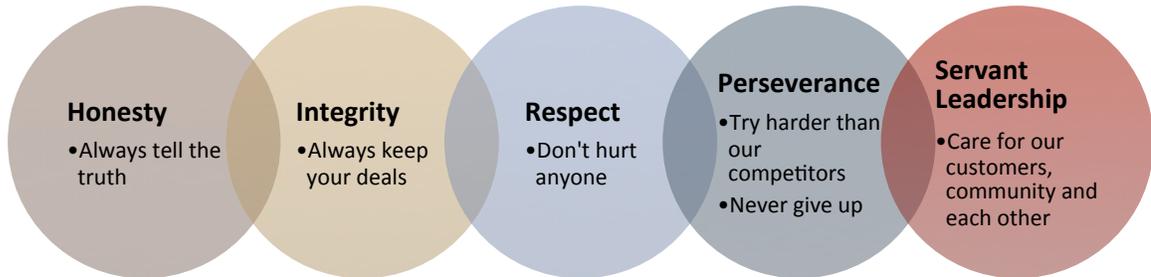
CHAPTER TWO

MISSION STATEMENT

"We—Delta's employees, customers, and community partners—together form a force for positive local and global change, dedicated to bettering standards of living and the environment where we and our customers live and work. We are Delta's Force for Global Good" (Farfan).

The mission statement highlights Delta Air Lines' purpose of organization, business statement and values of the organization. We see that the purpose of the organization is to "form a force of positive and global change". The business statement, or how the organization will meet its purpose is seen in the statement of, "bettering standards of living and the environment where and our customers live and work." Finally the business values in a bit ambiguous but it is portrayed in the statement, "We are Delta's Force for Global Good." The mission statement would be better if it gave more specific values that are necessary for creating a force for global good. Although Delta cover its core values later in its Core Responsibility Report. The report states the Core Values of Delta:

Delta Air Lines



And the Five Pillars to Global Good continue to highlight Delta Air Lines' Values in their Core Responsibility Report:



GOALS

Delta's 2013 Corporate Responsibility Report states the company's goals for 2013 and whether they were completed successfully or not and also indicates future goals for 2014:

Delta Air Lines

ENVIRONMENTAL GOALS

2013 Goals

- Notices of Violations
 - Aciheved
- Non-Compliance/Permit Exceedences
 - Did Not Meet Goal
- Spills
 - Did Not Meet
- Achieve 1.5% fuel efficienct improvement
 - In Progress
- Reduce Greenhouse Gass Emissions below 2012
 - Met with use of Carbon Offsets

2014 Goals

- Achieve 1.5% Fuel Efficiency Improvement
- Reduce Electricity Consumption at Selected Atlanta Facilities by 10%
- Set and Archieve a Water Reduction Goal for Atlanta TechOps
- Meet Environmental Goals for Notices of Violaitions (2), Non-Compliance/Permit Exceedences (4), and Spills (69)
- Reduce Greenhouse Gas Emissions below 2013 Levels

SUPPLY CHAIN GOALS

2013 Goals

- Achieve set targets in percentage spend through MBE, WBE and SBE
 - Achieved

2014 Goals

- Achieve set targets in percentage spend through MBE, WBE, and SBE
- Continue to support all NMSDC and WBENC local and regional organizations and efforts
- Focus on further maturation of 2nd tier supplier diversity reporting, and 2nd tier goal of increasing MWBE by 10% overall
- Focus on ethics and compliance for SCM staff, suppliers and entire corporation

Delta Air Lines

EMPLOYEE GOALS

2013 Goals

- Pay profit sharing at or above target
 - Achieved
- Earn 21 or more Shared Reward payments
 - Achieved
- Continue building a great place to work and achieve a 5 percent overall improvement on the 2013 Employee Survey
 - Achieved
- Pursue two additional VPP sites
 - Achieved
- Submit application to OSHA for two sites
 - Achieved
- Continue to focus on reducing serious injuries from driving on the ramp through increased observations; provide third party to conduct observations and several locations
 - Achieved
- Provide a safe work environment for employees
 - Achieved

2014 Goals

- Pay profit sharing at or above target
- Earn 21 or more Shared Reward payments
- Invest \$1.5 billion in retirement plans (pension and 401K)
- Provide a safe work environment for employees

CUSTOMER GOALS

2013 Goals

- Improve customer preference measured by "net promoter" score for both domestic and international services by 10%
 - Achieved
- Earn J.D. Power Award for Customer Service among carriers
 - In Progress
- Win Business Travel News survey
 - Achieved

2014 Goals

- Earn J.D. Power Award for Customer Service among network carriers
- Win Business Travel News survey
- Increase "net promoter" score in select categories by 10%
- Be industry leader in DO (on-time departure) and taxi times

Delta Air Lines

FINANCIAL GOALS

2013 Goals

- Produce at least \$300 Million of value through the Monroe Trainer Refinery
 - In Progress
- Deliver projected return from \$1 Billion ancillary and seat related revenue
 - Achieved

2014 Goals

- Quarterly dividends of approximately \$200 Million a year
- Produce at least \$300 Million of value through the Monroe Trainer Refinery
- Improve ancillary revenue to \$670 Million and improve digital channel customer satisfaction to industry-leading levels

BUSINESS STRATEGY

Source: Delta Air Lines Corporate Responsibility Report

Airline corporations tend to fall into two categories of cost leaders or product differentiators. Delta Air Lines is clearly a product differentiator due to their extensive focus on customer relations and amenities. Delta has built its business utilizing the belief that Delta is a “family” and customers are a part of that as well. Customer satisfaction built through the utilization of the most innovative and efficient technology and luxurious amenities have put Delta at the forefront of high quality commercial airline services. Delta attempts to offer its passengers the best amenities possible while keeping prices low and comparable to other airline providers. As seen through their goals at each business process level, Delta has a focus on making their customers more comfortable, their employees happier and the world a better place. This same idea is outlined in their mission statement and not surprisingly effects the strategic position of

Delta Air Lines

the company. Rather than being a cost is the bottom line company, Delta puts the focus on quality and satisfaction, differentiating themselves from many of their competitors.

ASSESSING DEMAND FOR PRODUCTS

SOURCE: FLIGHTFOX.COM, CHRIS SCHLICK

Air travel services are normal goods because as demand rises the cost of the good also rises. When looking at the airline industry, this can be seen in the pricing of passenger tickets. Ticket prices in the airline industry change constantly due to demand and seat availability. Depending on factors such as the time of day the flight is, the day of the week, and when to flight is booked can affect the quoted ticket price for a passenger's seat. When demand rises, the airlines raise prices accordingly, but when demand falls for certain flights the company will lower the cost of passenger seats temporarily. Prices levels are on a flight-by-flight basis. In the sub class of normal goods, passenger airline services would be considered a luxury good. Airline services are leisure goods and when the economy is doing poorly the average family's income spent on leisure activities decreases significantly. Because consumers can do without air travel during tough economic times, the service would most likely fall in the luxury category. Overall air service companies profits soar during good economic times due to increase leisure travel, the only exception would be business travel, which would still become more limited by employers during economic downturns. On the other hand, the

Delta Air Lines

refinery segment of the Delta would also be a normal good, but instead of being classified as a luxury item it would fall under the necessity category because of the need for jet fuel to provide the service to customers.

ASSESSING SUPPLY OF INPUTS

SOURCES: DELTA AIRLINES.COM, BOEING.COM

The biggest input in the airline industry is gasoline and aircrafts. Since Delta Airlines has taken away the supplier portion of the gasoline supply chain due to their refinery segment, Delta's inputs are heavily focused on their aircraft fleet. These input costs include airplanes, parts and innovative technology upgrades. According to DeltaAirlines.com the company spent money in the following three main categories last year: Aircraft, Ground Support Equipment and Simulators.

Aircrafts	Ground Support Equipment	Simulators
Aircraft & Engine Parts	Insurance (Corporate)	Supplies
Airport Services	Mail & Postage	Technology - Hardware
Beverages	Marketing	Technology - Phones & Pagers
Cargo	Meetings & Events	Technology - Software
Environmental Services	MRO (Mtc. Repair & Overhaul)	Tooling
Equipment	Paper & Printed Products	Transportation
Facilities Maintenance	Passenger Expenses (IROPs)	Travel & Expenses
Food	Professional Services	Uniforms
Fuel	Safety & Security	

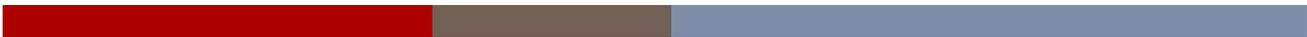
Delta Air Lines

Aircraft	Owned	Leased	Total
B717-200	-	45	45
B737-700	10	-	10
B737-800	73	-	73
B737-900ER	17	10	27
B747-400	4	9	13
B757-200	92	35	127
B757-300	16	-	16
B767-300	11	5	16
B767-300ER	51	7	58
B767-400ER	21	-	21
B777-200ER	8	-	8
B777-200LR	10	-	10
A319-100	55	2	57
A320-200	50	19	69
A330-200	11	-	11
A330-300	21	-	21
MD-88	76	41	117
MD-90	57	8	65
Total	583	181	764

Focusing on the biggest investment of inputs in the Airline Industry, the aircrafts are provided by two companies: Boeing and Airbus. Boeing and Airbus are for the most part the only two commercial aircraft manufacturers with substantial market shares. The small amount of competition in the aircraft manufacturing allows manufacturers to build long-term contracts with airlines and leaves air service

corporations such as Delta with little choice in manufacturer. Delta currently has an aircraft fleet of 764 planes with 583 of those owned and 181 leased. The majority are Boeing aircraft models with a few Airbus planes as well. Looking at Boeing's website most of the 700 line planes that Delta purchases have a sticker price between \$330 and \$380 million, further highlighting the extensive investment airline service providers must place in their companies. The table below shows the aircrafts in Delta's current

Delta Air Lines



fleet with “B” aircrafts standing for Boeing produced planes, “A” for Airbus, and “MD” for McDonald-Douglass (now owned by Boeing) planes.

Although an aircraft fleet is a large initial investment, the planes last many years allowing airplane companies to utilize the asset to its full depreciation. The plane itself may stay structurally throughout its years of use but the consumer amenities are updated to provide more comfortable and enjoyable flights. Airline purchases are often very volatile and will be postponed depending on the current state of economy and demand for flights. If customers are currently unwilling to spend on air transportation companies, such as Delta, will postpone aircraft purchases. Therefore the relationship between aircraft inputs and consumer demand is direct and has a high correlation.

Delta’s values continue to shine even with their choice in suppliers. The company created a plan towards supplier diversity by utilizing suppliers that are owned, operated and controlled by one of the following minority groups: Women, African Americans, Asian American, Hispanic American, Native Americans, Disabled Veterans, Gay, Lesbian, and Bisexual & Transgender. Delta’s goal is to build relationships with more qualified and diverse suppliers and they encourage their other suppliers to do so as well. They also hope that the program will aid in the growth of jobs, the US Economy, and Delta stockholder’s return.

Delta Air Lines

COMPETITORS

SOURCE: IBISWORLD.COM

DOMESTIC MARKET SHARE BY COMPANY



INTERNATIONAL MARKET SHARE BY COMPANY



Delta has competitors on both the domestic and international level. Although there are multiple competitive forces that rival Delta Air Lines, the two main companies that compete directly with Delta Air Lines on both the domestic and international field are American Airlines Group Inc. and United Continental Holdings Inc. While Delta is not the leader in the domestic or international markets, it does hold a substantial market share with 18.0 percent and 21.1 percent of the domestic and international market share, respectively.

Delta Air Lines

United Continental Holdings Inc.

Domestic Market Share: 16.9 percent

International Market Share: 26.2 percent

United Continental Holdings Inc. is the parent company of United Airlines and Continental Airlines. They are headquartered in Chicago, IL and the two subsidiaries merged in 2010. The company has about 5,600 flights a day and serves domestic and international locations. The company serves international locations through its Star Alliance network and employs 80,500 staff earning \$38.8 billion worldwide.

American Airlines Group Inc.

Domestic Market Share: 19.9 percent

International Market Share: 23.1 percent

American Airlines Group Inc. is the parent company of American Airlines and US Airways. American Airlines is headquartered in Fort Worth, TX and the two subsidiaries merged in 2013. The merger was not easy with the Department of Justice forcing American to give up landing spots at multiple airports in order for the merger to take place. The company has about 6,700 flights a day to 339 destinations in 54 countries around the world. In 2011, American Airlines filed for Chapter 11 Bankruptcy when it had \$29.6 billion in debt. The merger between the two companies earned \$41.2 billion

Delta Air Lines

in 2014, making it the highest revenue airline service. The company employs over 100,000 worldwide.

DIRECT COMPETITOR COMPARISON

	DAL	AAL	UAL	Industry
Market Cap	39.90B	36.11B	26.01B	2.50B
Employees	79,655	111,852	80,500	59.71K
Qtrly Rev Growth	.06	.63	0.00	.25
Revenue	40.36B	39.86B	39.90B	14.75B
Gross Margin	.20	.27	.28	.21
EBITDA	4.70B	5.67B	4.48B	1.52B
Operating Margin	.07	.11	.07	.09
Net Income	659M	284M	1.13B	N/A
EPS	.78	.51	2.93	.51
P/E	62.00	98.32	24.05	63.05
P/S	1.01	.95	.68	1.01

Data in Table Provided by Yahoo! Finance

DAL: DELTA AIR LINES, AAL: AMERICAN AIRLINES, UAL: UNITED CONTINENTAL HOLDINGS

GEOPOLITICAL RISKS

Source: IBISWorld.com

1. Oil Prices

Oil Prices are volatile and therefore have a major impact on the cost of transportation including the airline industry. Luckily, Delta has created a refinery segment decreasing some of the middleman costs of refining crude oil. Still, crude oil prices change daily and therefore affect the cost of flying their planes. Delta has no control over the price of crude oil and trends only foreshadow a

Delta Air Lines

continued rise in its average price in the future. The estimated barrel price in 2015 was \$56.70 per barrel, but in reality it rose to \$72.60 per barrel that year.

2. International Travel

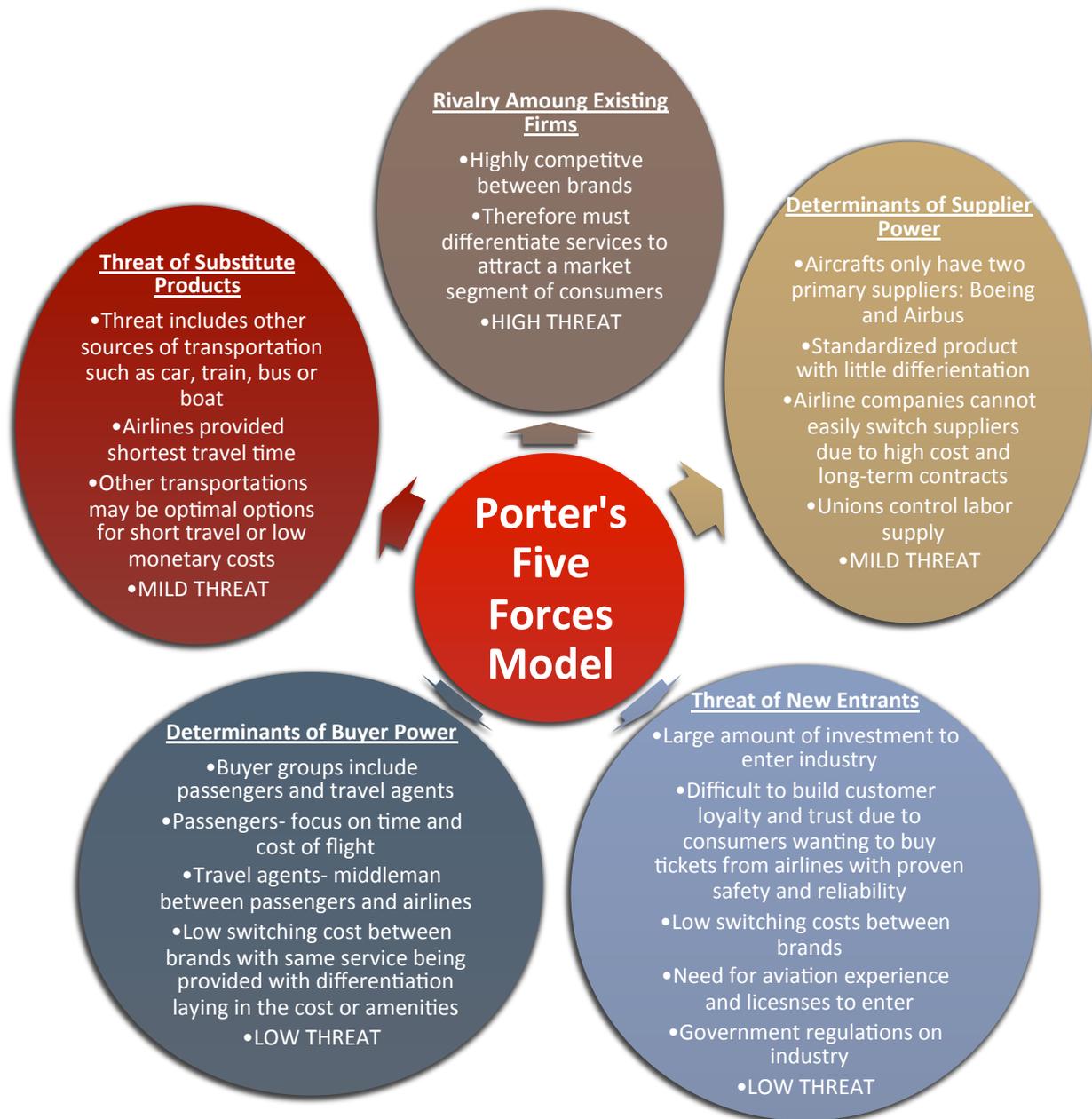
Since the recession it has become safer and cheaper for international travel. The largest number of visitors came from Canada and Mexico to the US in 2014. The concern is the safety of US passengers flying internationally to sometimes conflicting nations. The other concern is foreign passengers traveling to the US. With recent outbreaks such as Ebola, international travel regulations are taking new meaning to give the health and security of the US in check.

3. Terrorism and Conflict

Increased security needs due to conflict abroad and terrorist attacks and attempts such as 9/11. 9/11 took a hard hit on the airline industry, causing a complete restructuring of the security regulations and rules. Flying into conflicting nations brings worries of safety for passengers and aircrafts.

Delta Air Lines

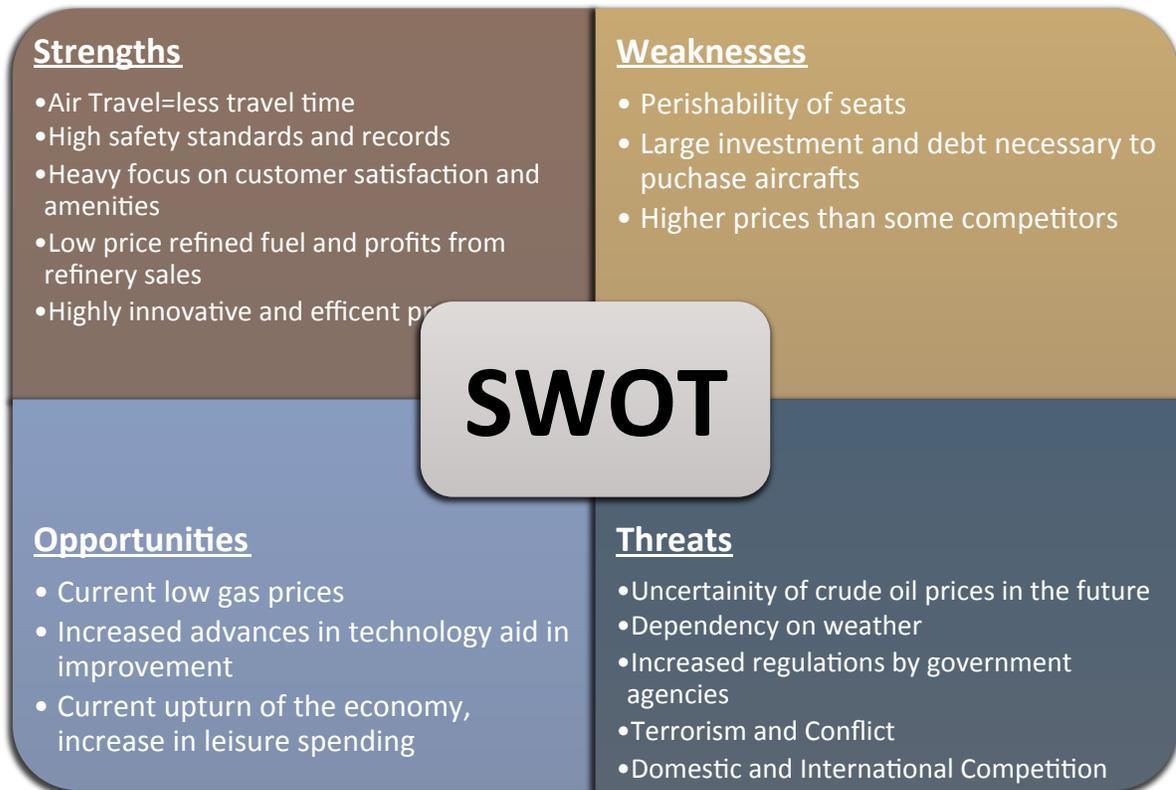
PORTER'S COMPETITIVE FORCES



Reference for Model: Investopedia.com and Airline Industry Analysis

Delta Air Lines

SWOT ANALYSIS

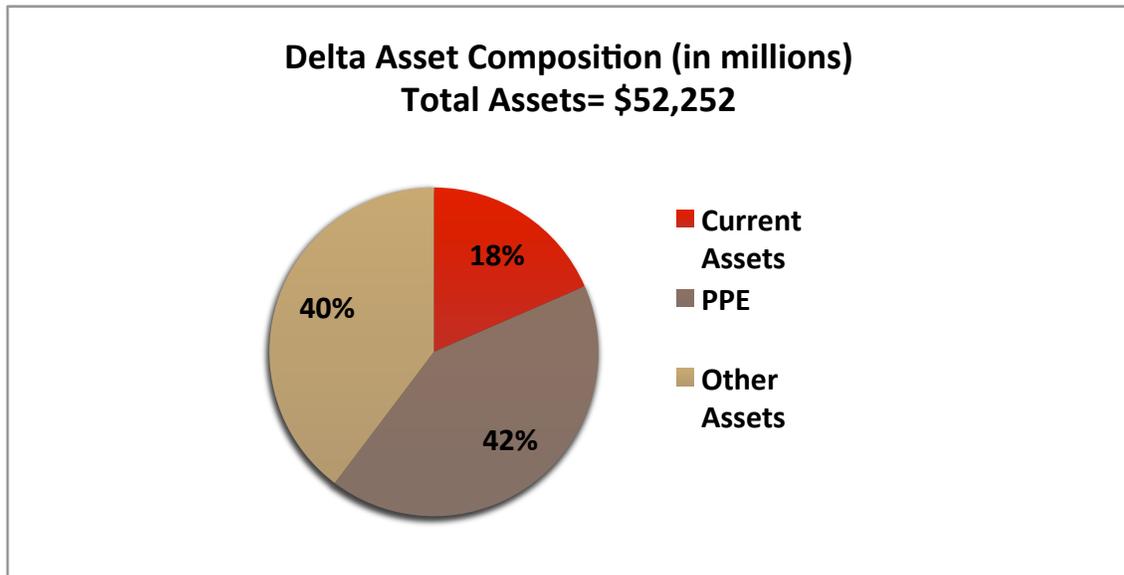


Reference for Model: Investopedia.com

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CHAPTER THREE

ASSET COMPOSITION



Delta currently has assets totaling \$54,252 million, and its composition can be split into three main groups: Current Assets, PPE (Plant, Property and Equipment), and Other Assets. Current Assets includes the subgroups of cash, cash equivalents, short-term investments, restricted cash, account receivable, fuel inventory, expendable parts and supplies inventories, deferred income taxes, and prepaid expenses. Totaling at \$9,651 million, current assets only composes 18 percent of Delta's total assets. The PPE category is comprised of the property and equipment Delta owns such as their aircrafts, which results in 42 percent of Delta's assets. Finally Other Assets includes subgroups of goodwill, identifiable intangibles, deferred income taxes, and other

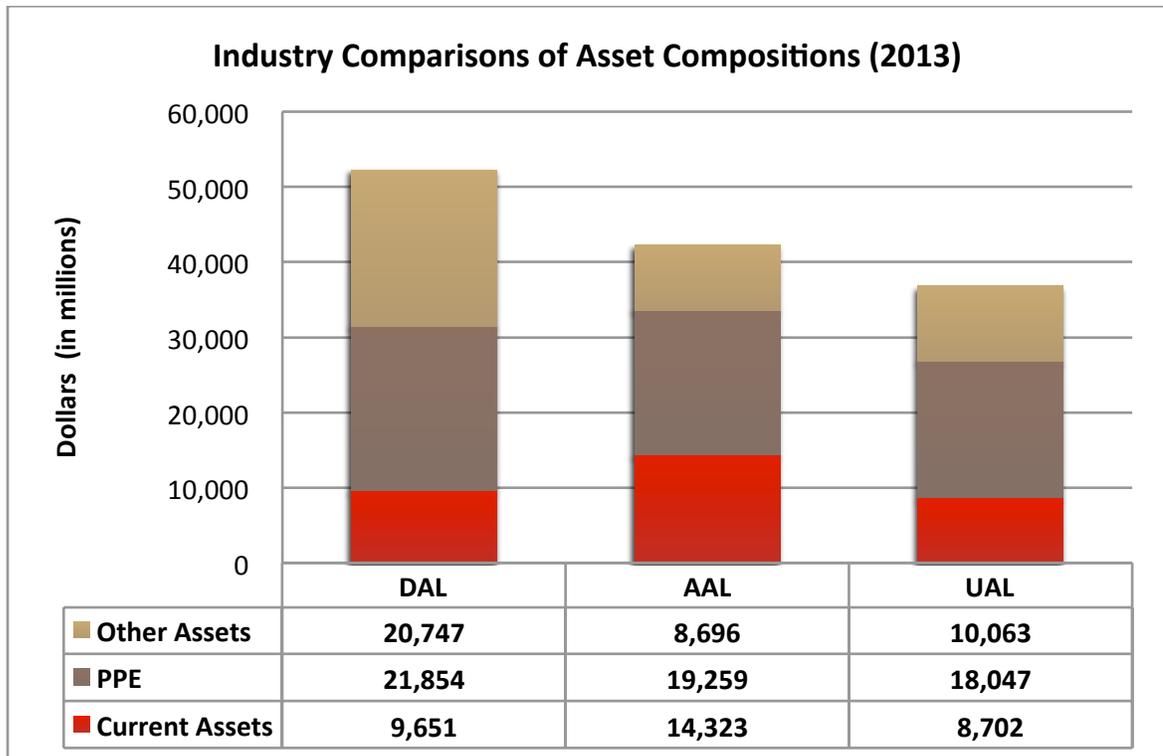
Delta Air Lines

noncurrent assets. These also take a large portion of the asset composition at 40%. The company does have quite a bit of goodwill and intangible assets with \$14,362 million creating approximately 27 percent of the total asset composition.

The company makes some valuations utilizing fair market value but must estimate for others. According to the companies 10-K they do make estimations on certain values of assets and other entities, but comply with GAAP policies. For goodwill and intangibles the 10-K states that Delta utilizes a fair market value impairment to set the value of intangible assets. Items in PPE are recorded utilizing impairments, depreciation and predictors for future cash flows to determine the carrying value of the property, plant or equipment item. Fair market value assets included cash, cash equivalents, long-term investments, restricted cash, and hedge derivatives. The main entities Delta Air Lines estimates that may not be precise with actual value according to their 10-K is the Frequent Flyer Program, Passenger Ticket Sales Earning Mileage Credits, Sale of Mileage Credits, Breakage, Goodwill, Intangibles, Long-Lived Assets (PPE), Income Tax Valuation Allowances, Defined Benefit Pension Plans, Weighted-Average Discount Rate, Expected Long-Term Rate of Return, and Funding. Items that are estimated that involve customer contact (Frequent Flyer Program, Passenger Ticket Sales Earning Mileage Credits, Sale of Mileage Credits) are more likely to be sensitive to change because the external environment affects them, which is outside of Delta's

Delta Air Lines

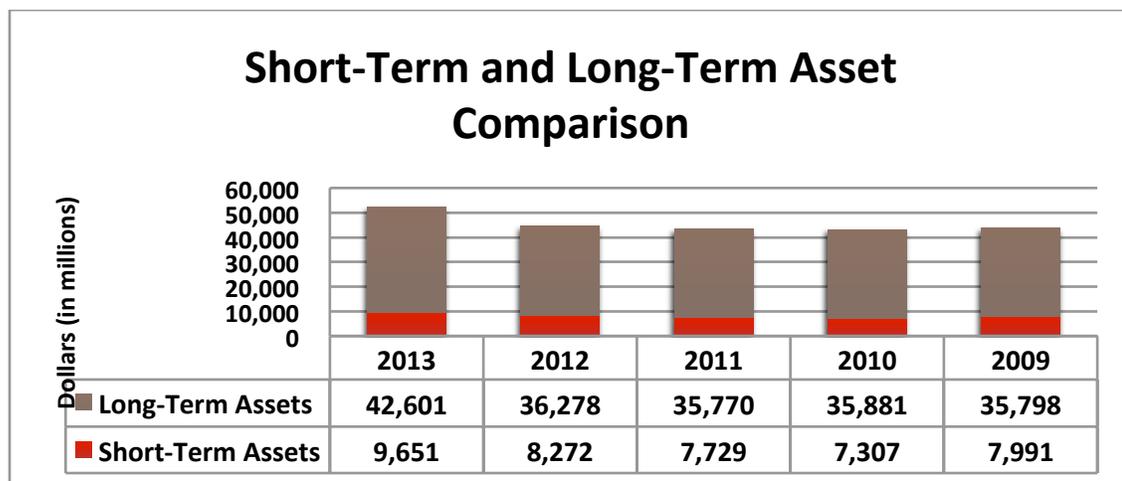
control. Plus customers tend to be more unstable and volatile than entities such as taxation, depreciation of long-term assets and set pension plans.



Delta Air Lines (DAL) main domestic and international competitors are American Airlines Group (AAL) and United Continental Holdings (UAL). The three industry leaders all contain primarily the same composition of assets, with variances between the groups lying in the amount of Other Assets. Overall PPE is the highest asset group, followed by Other Assets and finally Current Assets across all industry competitors. Current Assets are usually low for airlines due to the large investment in PPE. PPE is essential to function of the company because the planes and airport gates needed to provide the

Delta Air Lines

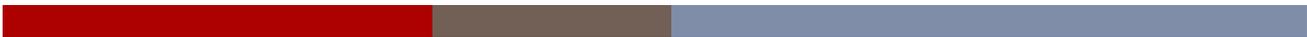
service are classified as PPE, where most retail companies classify what they are selling as inventory, a current asset. So, this classification of the service provided as a long-term asset tends to hurt Airline Company's current asset ratio, due to its exclusion of long-term assets in its calculations. This trend of short-term or current assets being low and long-term or PPE and other assets being high can be seen throughout the past five years at Delta Air Lines and is depicted in the graphic below. The airline industry most likely will not see a change in this type of composition of assets due to the requirement to place their product/service provided into the long-term category rather than a short-term entity.



COMPANY FINANCING

(IN MILLIONS OF DOLLARS)	2013	2012	2011	2010	2009
TOTAL LIABILITIES	40,609	46,681	44,895	42,291	43,544
PIC	13,982	14,069	13,999	13,926	13,897

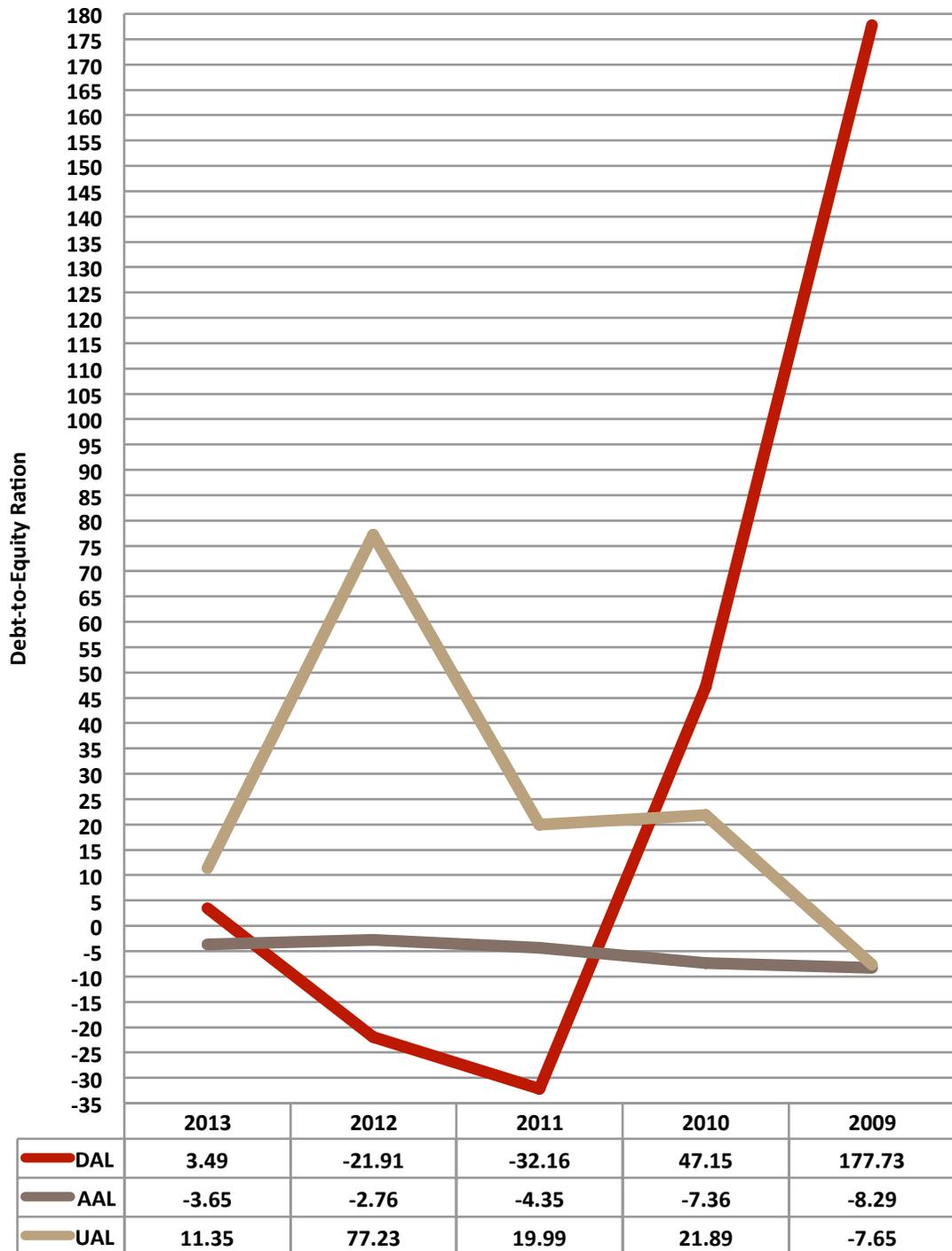
Delta Air Lines



Looking at Delta Air Lines financing, an adjustment was necessary when comparing total liabilities with total equity to determine which primarily handles the company's financing. Total Stockholder Equity would not be appropriate to use in this situation due to the deficit in Retained Earnings occurring in many of the years at Delta, seemingly looking like there was no income from stock. Therefore, in this section the comparison of total liabilities was paired with Paid in Capital. Unsurprisingly, Delta Air Lines had much higher amounts of liabilities than stock income in the past five years meaning that the company relies heavily on loans and debt to finance expenditures. This is risky because it can put the company in debt and negatively affect the solvency ratios due to the large amounts of liabilities and small amounts of equity. Large debt-to-equity ratios mean the company is more risky due to the increased loans. On the next page, a graphic showing the debt-to-equity ratios of Delta Air Lines over the past five years compared to its competitors depicts the enormous range of change in Delta's ratio. In 2009, the company was facing extremely high risk due to its high debt-to-equity ratio. This later fell in 2011 and 2012 to a negative debt-to-equity value. A negative solvency ratio often implies that the company has a large portion of investment in goodwill or intangibles. Finally in 2013, Delta was able to restore its debt-to-equity ratio to a normal value for airline service industry providers. Further proving the company's improvement in recent years and decreased risk to shareholders.

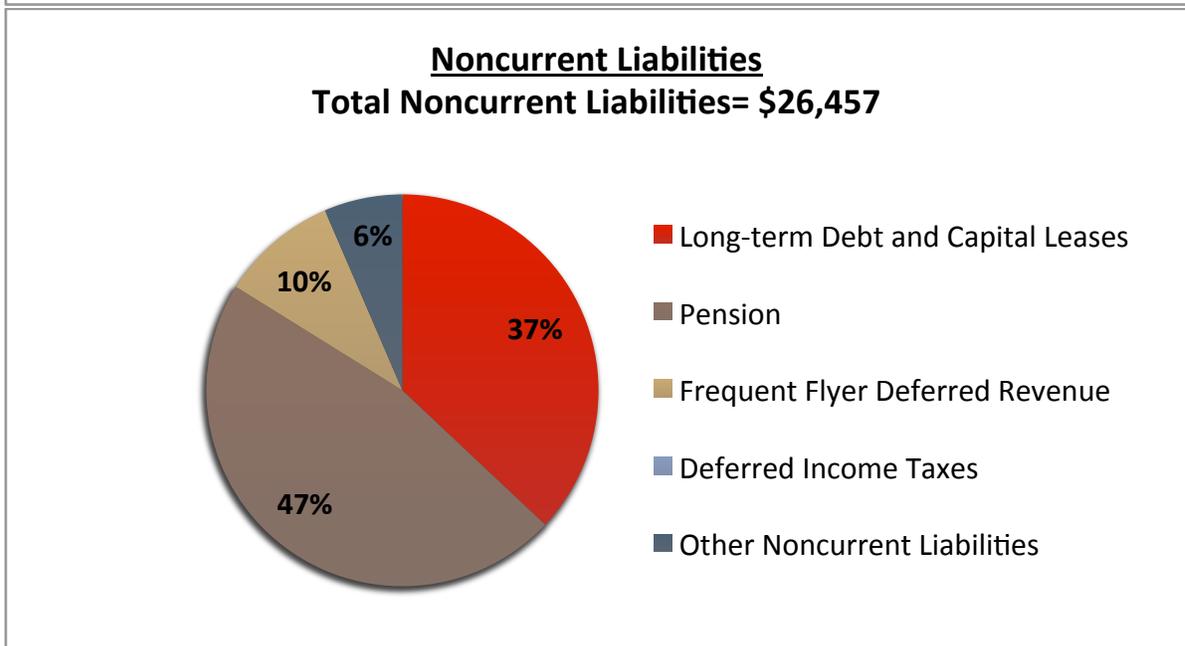
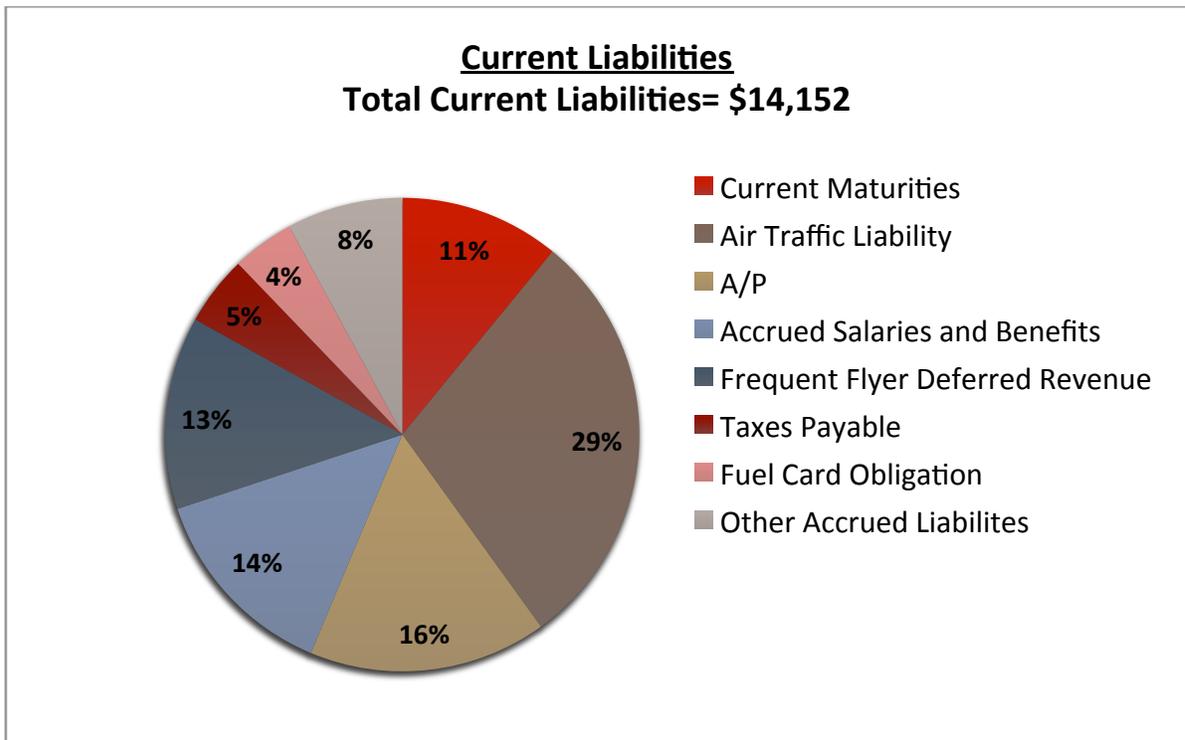
Delta Air Lines

Debt-to-Equity: 5 Year Industry Comparison



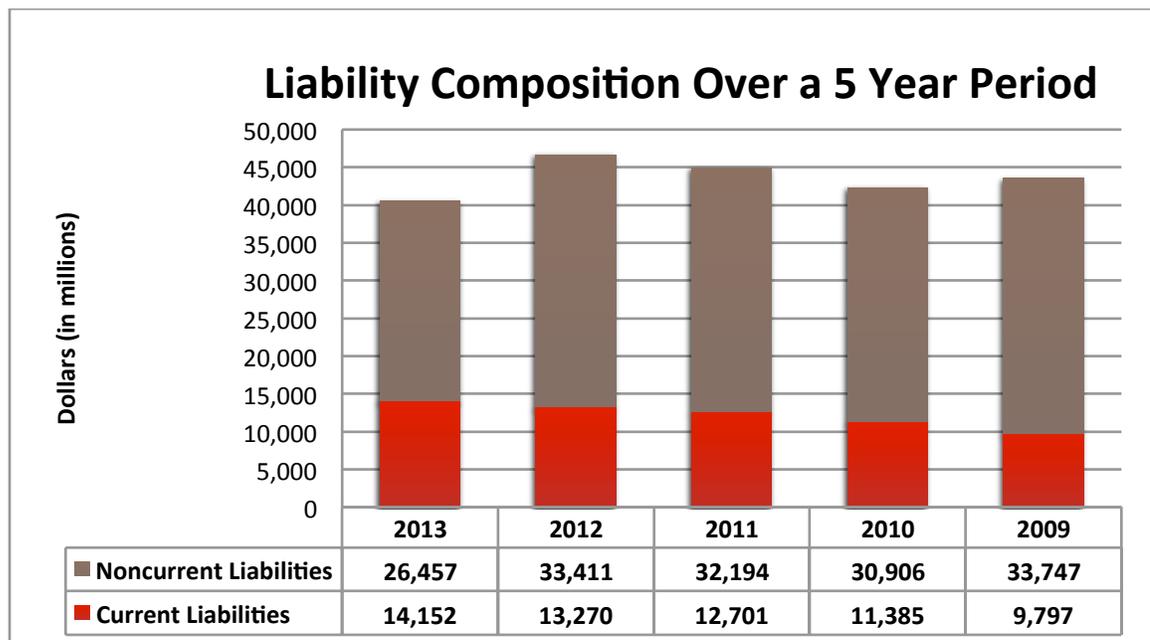
Delta Air Lines

The following is Delta Air Lines' composition of both current and noncurrent liabilities:

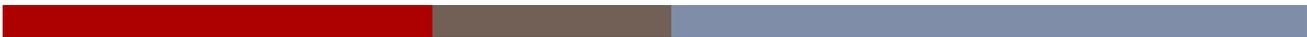


Delta Air Lines

A majority of Delta Air Lines' liability resides in long-term liabilities, which have a larger and longer commitment than current liabilities. This makes sense once again due to the equipment needed to provide flight services to customers. Aircrafts are a huge expense, meaning that they cannot be paid in one year or less. This mere fact alone, cause Delta's noncurrent liabilities to be much larger than current. Another large part of Delta's noncurrent liabilities is their pension plans. This is in line with Delta's core value of providing high levels of customer and employee satisfaction by offering superior pension plans to their employees. Looking at the table below, the comparison of current to noncurrent liabilities is shown over the last five years:



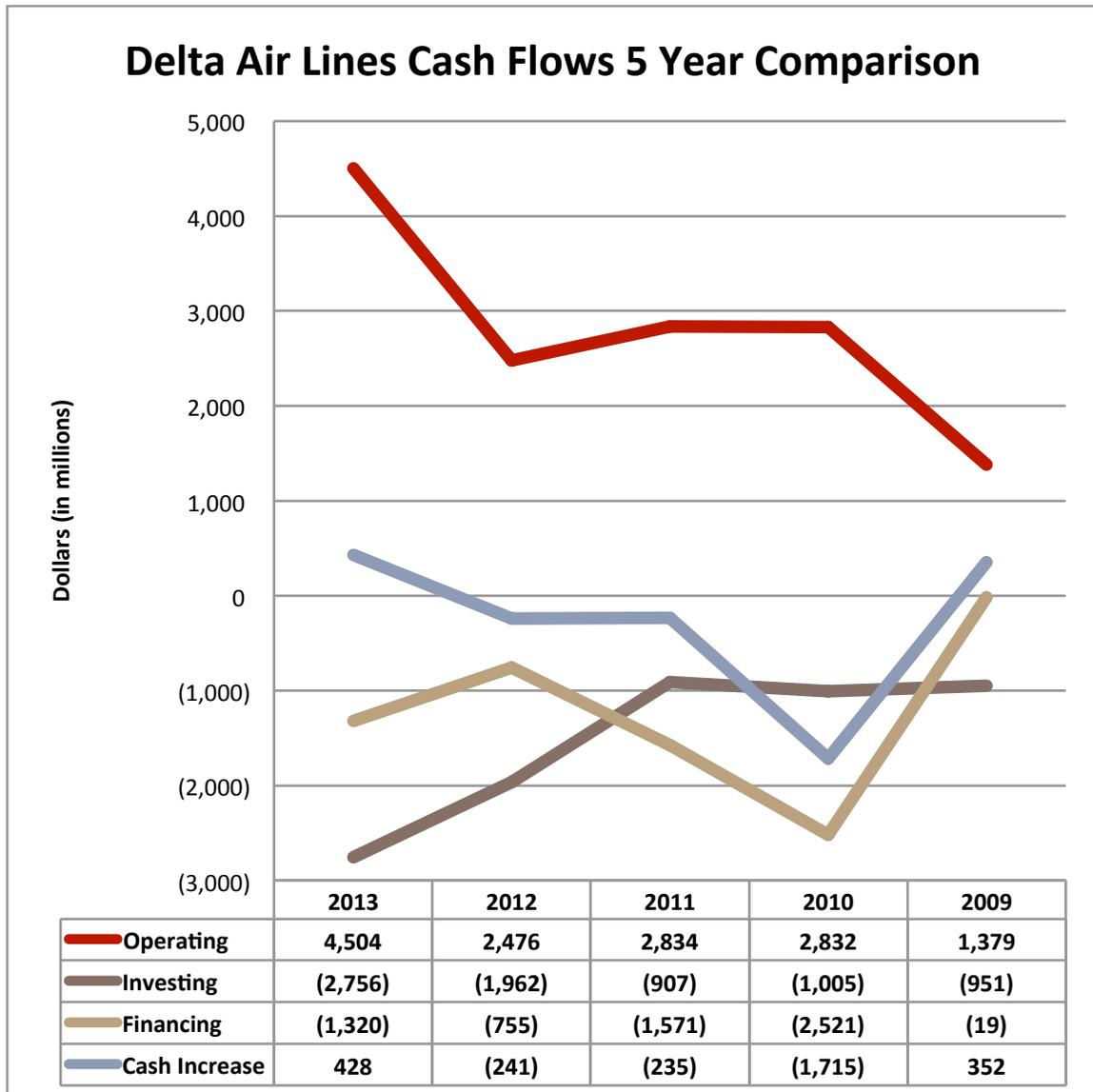
Delta Air Lines



Over the past five years Delta has been increasing its current liabilities and normally decreasing its liabilities except for 2012 and 2011. This could mean a few different things. First, Delta could be paying off their noncurrent liabilities making them current liabilities. This would be a positive change for the company and further highlight the recent financial improvements the company has been making since the beginning of the new decade. Second, Delta could be making more transactions or contracts on a short-term loan basis rather than a long-term holding. This could be a positive change if it is due to the fact that Delta can afford and has the assets to pay for the amount of purchases on a short-term basis rather than needing to extend to long-term contracts.

Delta Air Lines

CASH FLOWS



The trend over the last five years in Delta Air Lines cash flows highlights the company's economic life cycle stage. With operating activities being positive values over the past five years, and financing and investing activities being negative integers, this

Delta Air Lines

indicates that the company is at the mature stage of its life cycle. The mature cycle indicates that the profits will begin to fall and sales will peak. During the maturity stage of a company it is essential for the organization to innovate and differentiate itself from its competitors due to the high saturation of the market. In order to avoid falling into the declining stage the company must find a way to increase profitability and continue to update the services and products it provides to customers to stay relevant and coveted.

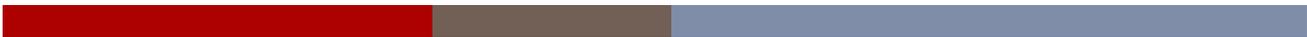
LIQUIDITY, SOLVENCY AND EARNINGS PER SHARE

(IN MILLIONS OF DOLLARS)	2013	2012	2011	2010	2009
CURRENT RATIO	0.68	0.62	0.61	0.64	0.82
DEBT-TO-EQUITY	3.49	(21.91)	(32.16)	47.15	177.73
TIMES INTEREST EARNED	5.00	2.26	1.85	1.63	(0.79)
EARNINGS PER SHARE	12.41	1.20	1.02	0.71	(1.50)

Liquidity: Current Ratio

The current ratio has been slightly improving since is substantial fall after 2009. As discussed earlier the likely cause of such a low current ratio is that the majority of assets needed to provide air passenger services to customers are long-term and therefore not included in the ratio. This causes the numerator to be extremely small in

Delta Air Lines



comparison to the large amount of liabilities needed to pay for the long-term assets, making the current ratio consistently less than one for Delta Air Lines.

Solvency: Debt-to-Equity and Times Interest Earned

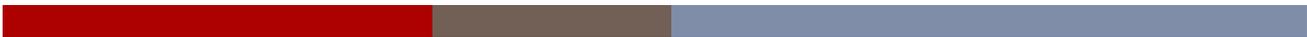
Debt-to-Equity has substantially improved with it going from extreme highs in 2009 and 2010, to negative values in 2011 and 2012 and finally a normal amount for the industry in 2013. This type of change depicts that Delta has moved from extreme debt, to extreme investment in intangible assets, to finally a balanced relationship between the amounts of debt they have and the amount of equity they are receiving from their investors.

Times Interest Earned clearly shows the improvements of Delta Air Lines over the past five years. The times interests earned values have grown each year since 2009, with a significant jump from 2012 to 2013. This implies that company can pay back its interest costs more times with their income. This shows that the riskiness of the company is falling and that the company is becoming more solvent.

Earnings per Share

Earnings per Share have also significantly increased in the past five years, with a large growth between 2012 and 2013. This number has been achieved in the recent

Delta Air Lines



years due to the large income growth with relatively same numbers of outstanding shares; meaning the numerator had a drastic increase with a constant denominator.

This is a good sign for Delta Air Lines because it implies that the company has increased its profits and therefore can pay more dividends to its shareholders.

Delta Air Lines

CHAPTER FOUR

ACCOUNTS RECEIVABLE

According to Delta Air Lines' 10-K the Accounts Receivable account is mainly composed of the amount due from credit card companies for passenger's airfare, maintenance and cargo transportation services payments and mileage credits from SkyMiles Program. Most of Delta Air Lines' accounts receivables are from passengers, which make the credit worthiness highly differentiated.

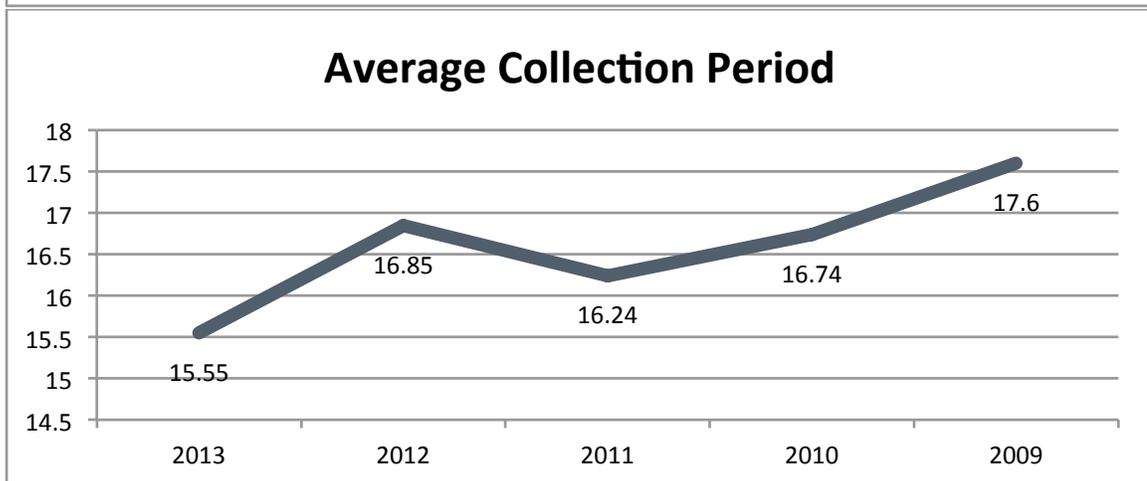
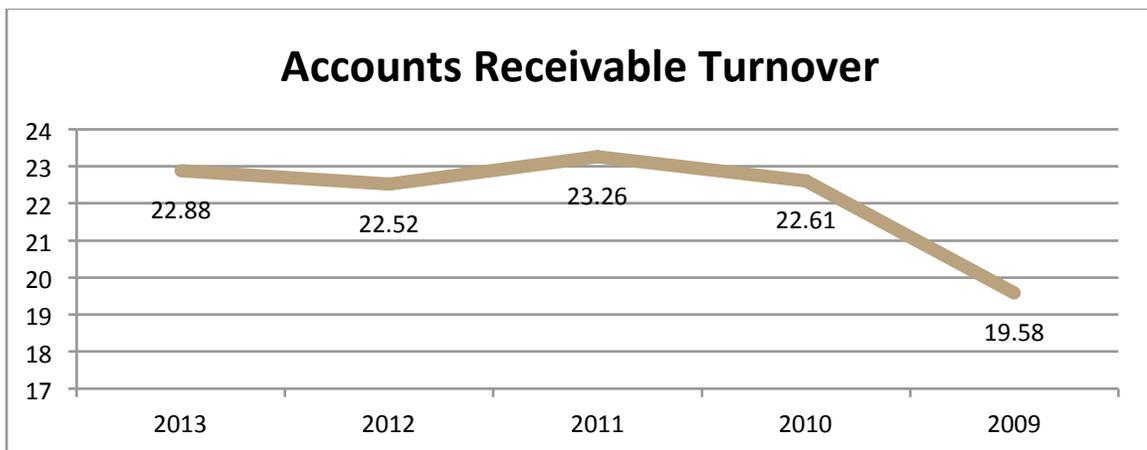
ACCOUNTS RECEIVABLE DATA

	2013	2012	2011	2010	2009
Accounts Receivable (in billions)	\$1,609	\$1,693	\$1,563	\$1,456	\$1,353
Accounts Receivable Turnover	22.88 times	22.52 times	23.26 times	22.61 times	19.58 times
Average Collection Period	15.55 days	16.85 days	16.24 days	16.74 days	17.60 days
Allowance for Doubtful Accounts (in billions)	\$23	\$36	\$33	\$40	\$47
Allowance for Doubtful Accounts as a Percent of Accounts Receivable	1.43%	2.13%	2.11%	2.74%	3.47%

Over the past five years Delta's accounts receivable turnover has fluctuated up and down, but had a major increase after 2009. 2013's accounts receivable turnover was higher than 2012's meaning the company is collecting more of their receivables throughout the year. The company overall has been fairly consistent since 2010 in the

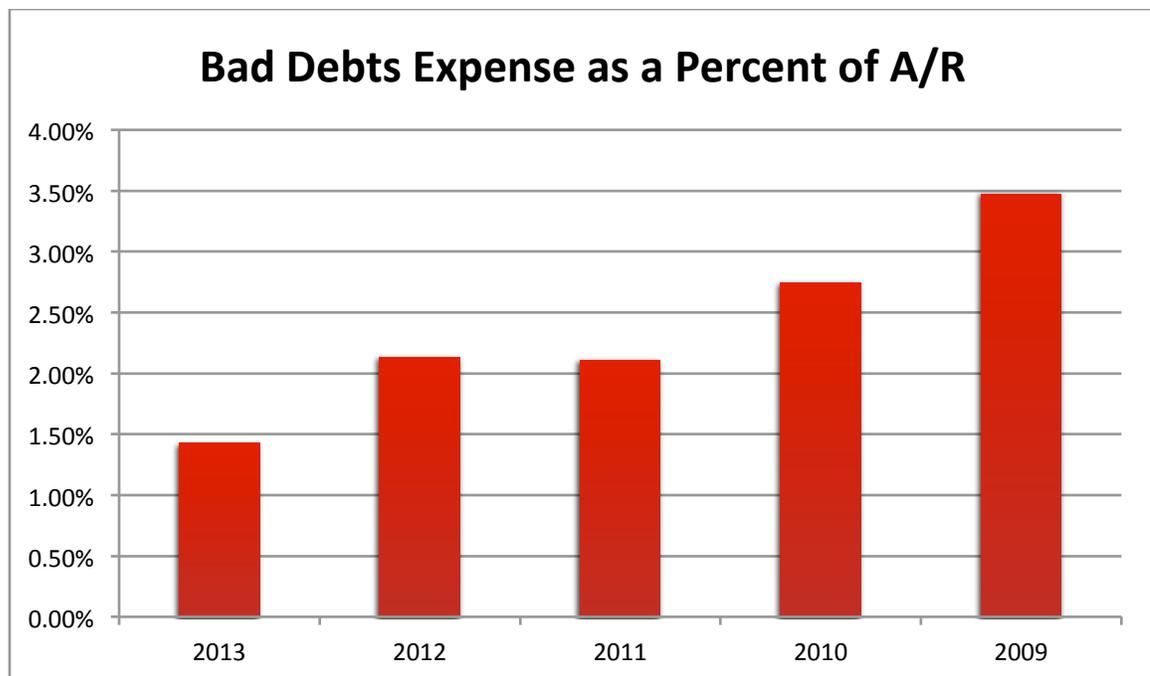
Delta Air Lines

area of accounts receivable turnover. As for average collection period the value has been overall a decreasing trend over the past five years. This decreasing trend is positive because it means the company is collecting customer's payments more quickly. Below trend graphs depict the accounts receivable turnover and average collection period. Most of the credit is from passengers so the values represent that most of the accounts receivable has a fairly short collection period due to the credit being spread out between many consumers rather than just a few buyers.



Delta Air Lines

The company estimates their bad debts expense by using historical chargebacks, write-offs, bankruptcies and other specific analyses, but the bad debts expense is immaterial and therefore fairly irrelevant. But the bad debts expense data does illuminate that the company is typically predicting less bad debts expense each year over the past five years, meaning that the company is expecting to receive more of accounts receivable payments. The effect of a low bad debts expense would be higher net income because the company would have less expense reported on their income statement.



A company such as Delta Air Lines may manipulate their accounts receivable in order to increase net income. Their bad debts expense is immaterial, meaning it does

Delta Air Lines

not have a huge effect on the accounts receivable. However, the low estimation could have been purposeful. By reporting less bad debts expense, Delta is decreasing the amount of expenses reported on the income statement and consequently increasing net income. That being said, it makes sense for Delta to have fairly low bad debts expense due to the large amount of accounts receivable being low amount consumer airfare credit purchases. Channel stuffing would be difficult to manipulate due to the limit in the amount of product (number of seats) available to sell to consumers. In other words, there is a limit in the amount the company can report as sales through a distribution channel. Meaning that channel stuffing is most likely not where Delta Air Lines could manipulate accounts receivable. Finally, there is a possibility of the company selling its accounts receivable. This would cause artificially high revenue due to the “collection” of the accounts receivable, which would cause net income to increase. The company could be motivated to manipulate accounts receivable because stakeholders tend to only care about income. Having a bigger bottom line would motivate companies to perform this type of manipulation.

INVENTORY

According to the 10-K, Delta Airlines’ types of inventory fall in two main categories: Spare Parts and Refinery Items. Spare parts inventory includes disposable parts related to flight equipment that cannot be reused and then flight parts that have

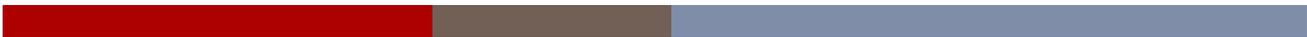
Delta Air Lines

value after the aircraft is retired from service. The parts that are disposable have a carrying value of average cost and are charged to operations when they are used. The company creates an allowance for obsolescence by computing the remaining useful life of spare parts when the aircraft has been retired. There also is an allowance for parts that are in excess or obsolete that is used to lower carrying value to lower of cost or net realizable value. Spare parts are predicted to have a residual value of 5% of original cost. The other types of inventory include refinery products, feedstock and blendstock. These are all finished goods from the refinery process and have a carrying value of lower of cost or market. FIFO method is utilized to determine cost allocation and the total costs include direct material, direct labor and manufacturing overhead. If the ending inventory costs of a product are higher than market value they are written down at net recoverable values and placed in operating expenses.

INVENTORY DATA

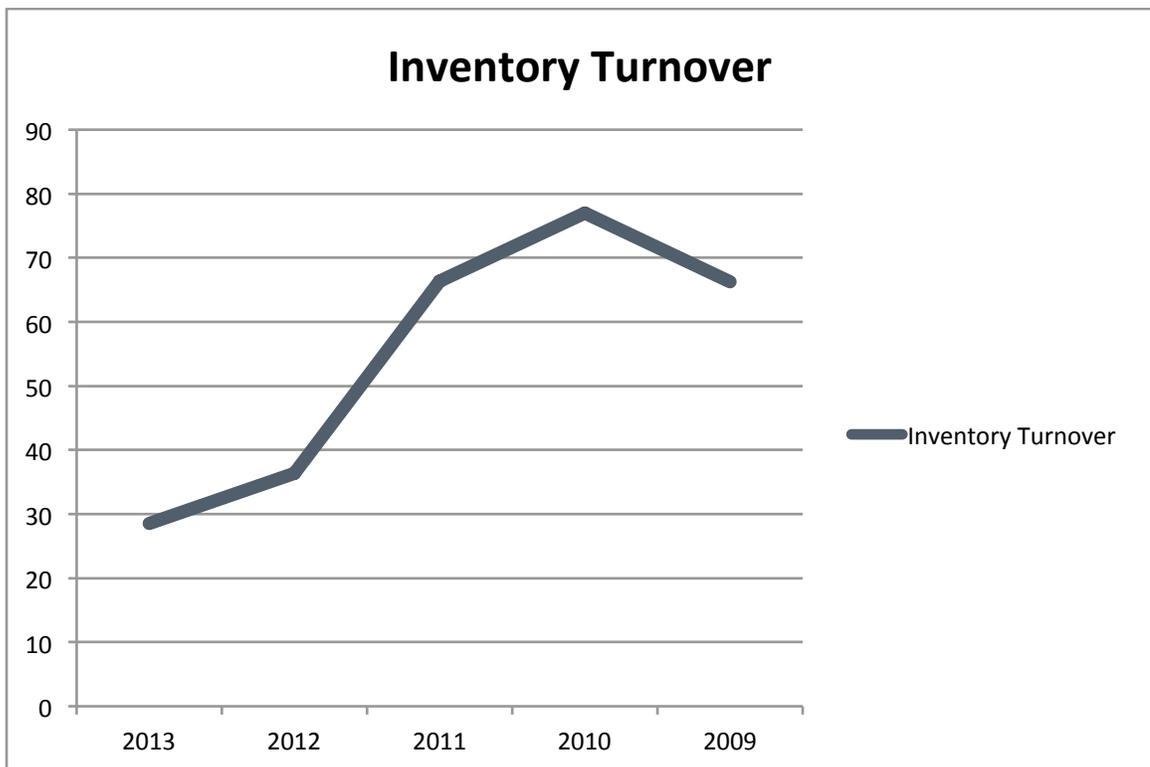
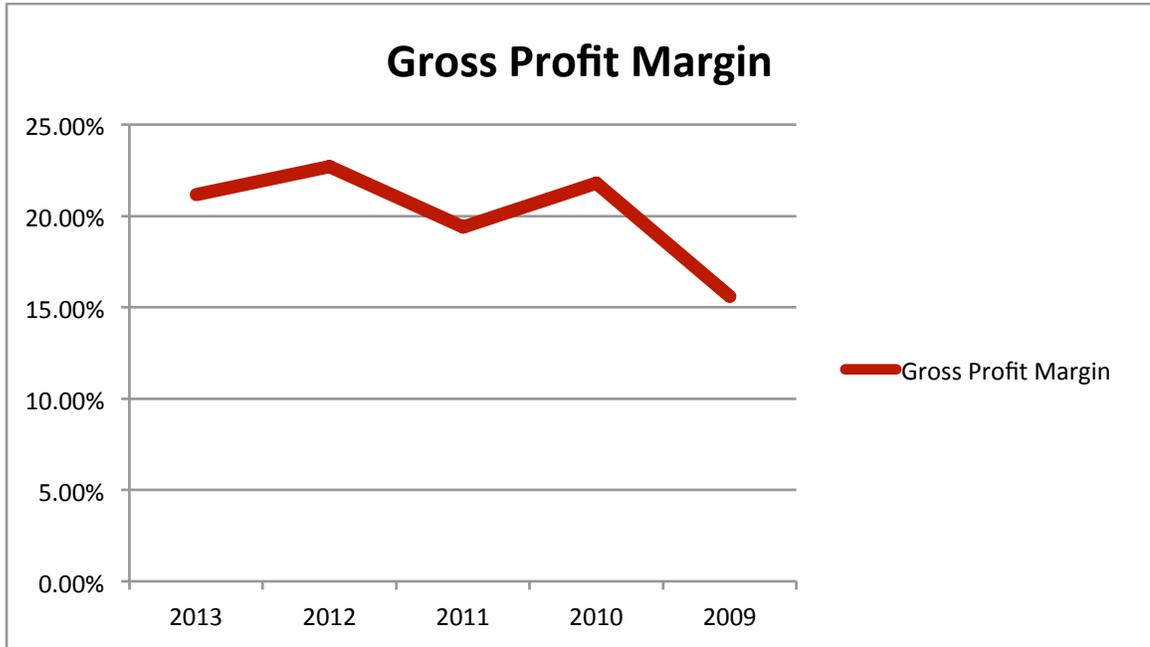
	2013	2012	2011	2010	2009
<i>Spare Parts Inventory (in billions)</i>	\$357	\$404	\$367	\$318	\$327
<i>Fuel Inventory (in billions)</i>	\$706	\$619	\$168	X	X
<i>Total Inventory (in billions)</i>	<u>\$1063</u>	<u>\$1023</u>	<u>\$535</u>	<u>\$318</u>	<u>\$327</u>
Gross Profit Margin	21.18%	22.70%	19.39%	21.80%	15.59%
Inventory Turnover	28.54 times	36.39 times	66.37 times	77.00 times	66.29 times
Average Inventory Days Outstanding	13.03 days	13.17 days	6.90 days	4.67 days	5.04 days

Delta Air Lines

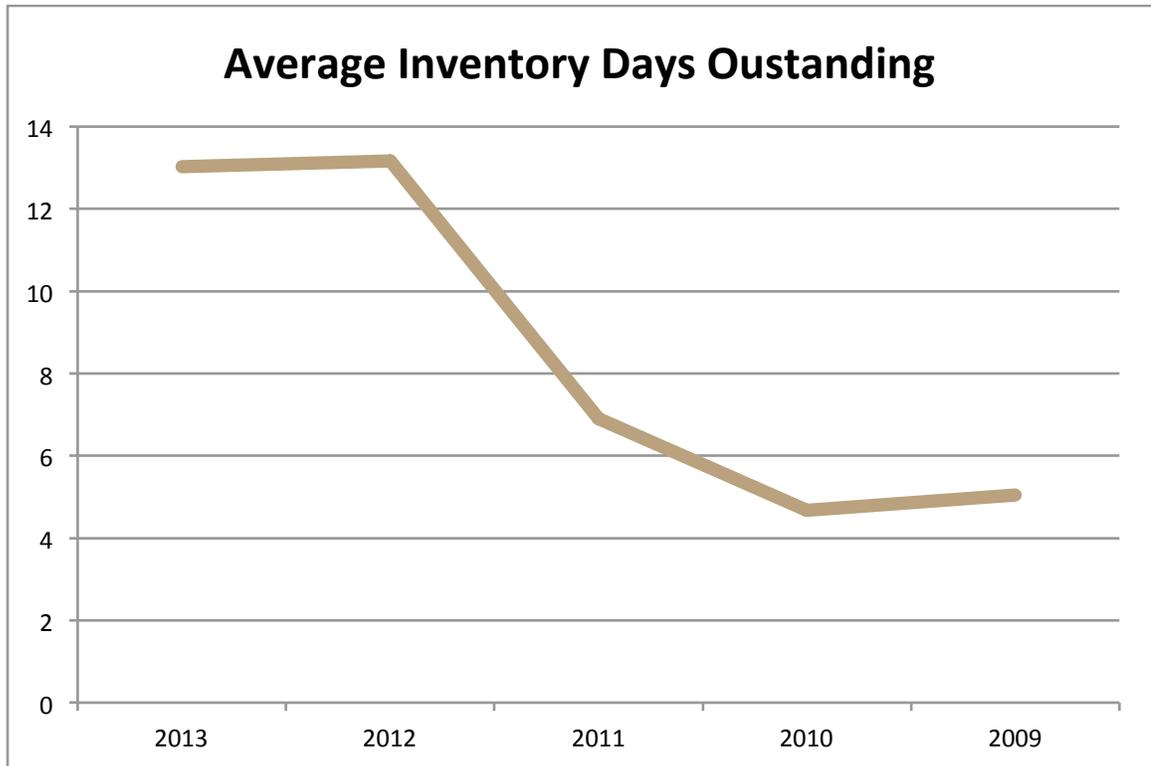


The gross profit margin over the past five years increased greatly after 2009, but since then has stayed fairly stable with a slight drop in 2010. The gross profit margin depicts the amount a company receives for a sale of a product once costs have been deducted. A constant gross profit margin provides that costs per unit and sales price per unit are staying relatively stable as well. When looking at both inventory turnover and average inventory days outstanding, a dramatic change occurs in 2010 and thereafter. This is due to the implementation of the refinery segment for Delta Airlines. Delta refines crude oil to jet fuel that they utilize on their own aircrafts and sell the excess to other airline carriers. Because Delta uses some of its inventory for its own services, the inventory turnover decreased significantly and average inventory days outstanding increased drastically due to an increase in the amount of inventory on hand but little change in the amount of sales. Although a low inventory turnover and high average inventory days outstanding is typically a negative attribute, the data is a bit distorted due to Delta's refinery segment implementation.

Delta Air Lines

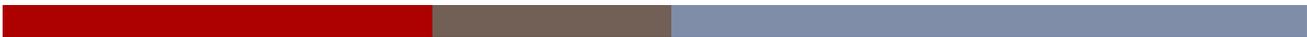


Delta Air Lines



Possible inventory manipulations could have occurred to provide higher income for Delta Air Lines. Some companies are able to manipulate their inventory if they use LIFO valuation method by releasing LIFO reserve to earnings by decreasing production relative to sales. Since Delta does not utilize LIFO valuation, the company would not be able to implement such a manipulation. Another possibility of manipulation is delaying inventory write-downs to avoid a loss. This could happen when Delta is reporting inventory at lower of cost or market. The company could delay this process until the market price rises again, therefore avoiding a loss on their products on hand. Avoiding this loss will artificially raise incomes, which once again allows Delta to be perceived

Delta Air Lines



better by stockholders. Finally, Delta could manipulate inventory by low market value write-offs that would later show extreme profits when sold at a much higher market value. This kind of manipulation would show profits that did not actually exist and consequently cause net income to increase. Inventory is yet another aspect that companies can possibly manipulate to cause higher stated profits on their financial statements.

PROPERTY, PLANT AND EQUIPMENT

Delta Air Lines contains a large amount of property, plant and equipment due to the fact that its service involves providing a long-term asset for consumer transportation. The company has two main types of PPE: flight equipment and ground and property equipment (owned and under capital leases). The company computes depreciation by reporting property and equipment at cost and depreciating it utilizing the straight-line method based on an estimated salvage value and estimated years of useful life. Salvage value of owned equipment is five to ten percent of cost.

Delta Air Lines

PROPERTY, PLANT, AND EQUIPMENT

(in millions except useful life)	Estimated Useful Life	2013	2012	2011	2010	2009
Flight Equipment	21-30 years	\$23,373	\$21,481	\$21,001	\$20,312	\$19,513
Ground Property and Equipment	3-40 years	\$4,569	\$4,254	\$3,256	\$3,123	\$2,963
Flight and Ground Equipment under Capital Leases	Shorter of lease term or estimated useful life	\$1,296	\$1,381	\$1,127	\$988	\$717
Assets Constructed for Others	30 years	X	X	\$234	X	X
Advance Payments for Equipment		\$381	\$253	\$77	\$48	\$191
(Accumulated Depreciation and Amortization)		(\$7,792)	(\$6,656)	(\$5,472)	(\$4,164)	(\$2,924)
Total property and equipment		<u>\$21,854</u>	<u>\$20,713</u>	<u>\$20,223</u>	<u>\$20,307</u>	<u>\$20,433</u>
Fixed Asset Turnover Rate		1.73 times	1.77 times	1.74 times	1.56 times	1.37 times

From 2012 to 2013, the company acquired new flight equipment and ground and property equipment. This can be recognized due the increase in amounts from 2012 to 2013 rather than a decrease that would occur through normal straight-line depreciation from year-to-year. Also, we see an increase in advance payments for equipment,

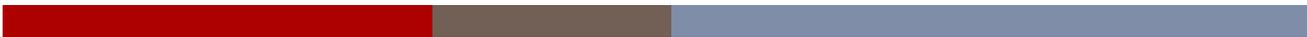
Delta Air Lines

meaning the company has plans to get more equipment or property in the near future. Since 2010, the fixed asset turnover ratio has stayed fairly stable, but it increased from 2009 to 2011. An increase in fixed asset turnover is a positive change meaning that Delta's fixed assets were more productive in generating sales in recent years.

Delta reports impairments on long-term assets for multiple reasons including: 1) decision to remove flight equipment permanently, 2) large changes in useful life estimate 3) large changes in projected cash flows, 4) permanent and large decrease in aircraft fleet fair values 5) a change in regulation. Long-term assets held for sale have discontinued depreciation and impairment losses when carrying value is greater than fair value minus cost of good. The impairment on aircrafts is done by grouping aircrafts by type, estimating future cash flows based on numerous factors (capacity, mile yield, fuel cost, labor cost, etc.) and recognizing an impairment loss when the carrying value is greater than the estimated fair market value. Fair market value estimation is provided through appraisals, bids and third party sources. Looking at the 10-K, no impairment is noted or recorded specifically for long-term assets, so it is assumed that none have occurred in the past five years.

(In years)	2013	2012	2011	2010	2009
Average Age of Assets	4.98	4.05	3.59	2.69	1.83
Remaining Useful Life	18.93	16.68	16.84	15.78	14.64

Delta Air Lines

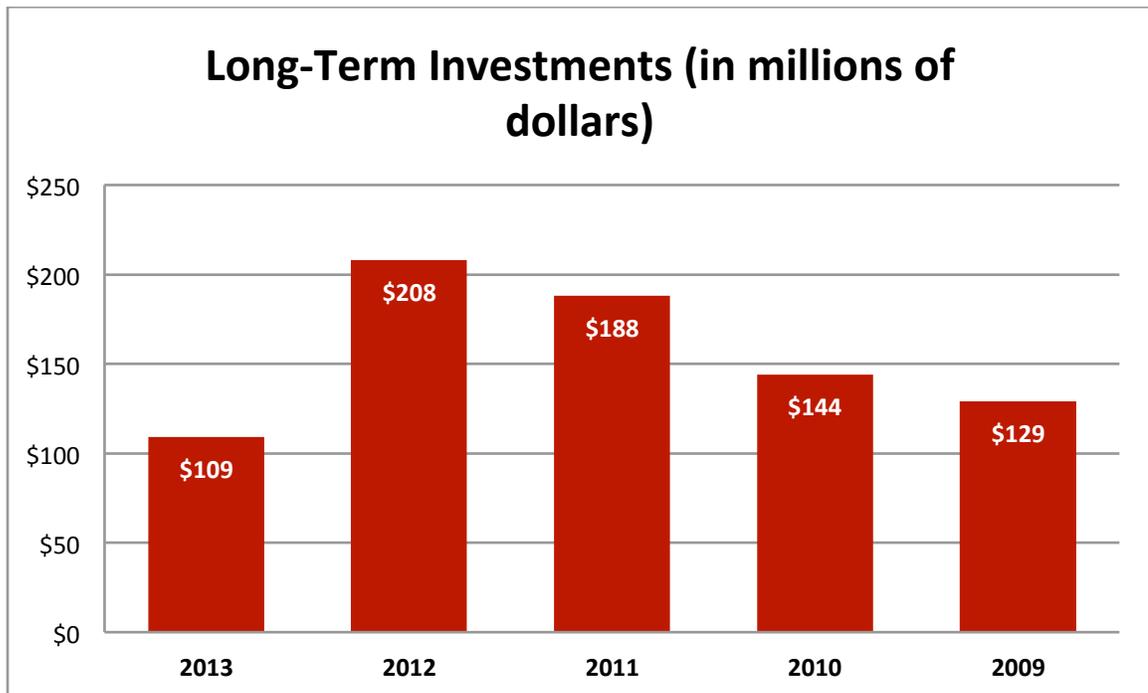


The average age of assets has increased significantly since 2009 meaning the company's assets are deteriorating more rapidly than in earlier years, but on the other hand the remaining useful life is increasing rapidly since 2009. An increasing remaining useful life indicates that assets have more time before they need to be replaced. The opposing viewpoints of the average age of assets and the remaining useful life is concerning because increasing age and increasing useful life do not correlate. This could mean manipulation of long-term assets has taken place. By increasing the remaining useful life of an asset the company is able to increase the denominator of the straight-line depreciation equation. The denominator increase causes depreciation expense to decrease, and as a result, fewer expenses reported on the income statement. Consequently, higher net income is reported. Since depreciation is very volatile depending on choices managers make in its calculation, property, plant and equipment assets tend to be easier to manipulate.

Delta Air Lines

CHAPTER FIVE

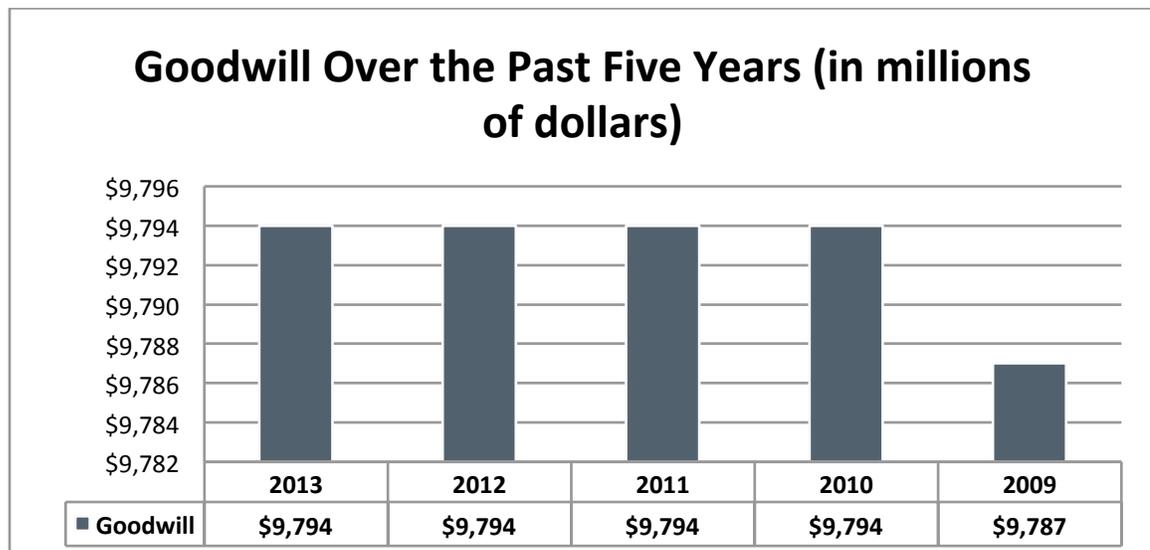
INTERCORPORATE INVESTMENTS



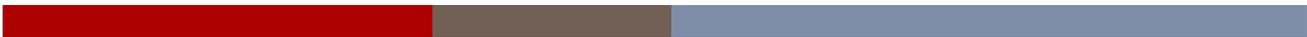
Delta Air Lines does a large part of business in intercorporate investments and acquisitions. Looking at long-term investments footnotes in the firm's 2013 10-K, long-term investments are primarily equity investments in Grupo Aeromexico SAB de C.V., the parent company of Aeromexico located in Mexico and Linhas Aereas Inteligentes S.A., the parent company of GOL located in Brazil. Delta basis its investments on the quoted market price of the publically traded firms and they sold all their auction rate securities this year. The equity investments in the two companies are separate and

Delta Air Lines

Delta has an exclusive commercial relationship with the companies. Delta invests in the two Latin American Airline Carriers because they operate in the largest Latin American markets. The investment allows the companies to share entities such as frequent flyer miles program, airport lounge access, passenger connections and joint sales. Specifically with Aeromexico, Delta has a joint venture that allows for shared repair and maintenance on aircrafts in Queretaro, Mexico. The long-term investments in 2013 and 2012 were primarily auction rate equity investments in GOL and Aeromexico, but prior to 2013 and 2012 Delta had investments in other entities. From 2009 to 2011, long-term investments consisted of student loan back available-for-sale and trading securities. Long-term Investments significantly dropped in 2013, but consistently grew from 2009 to 2012.

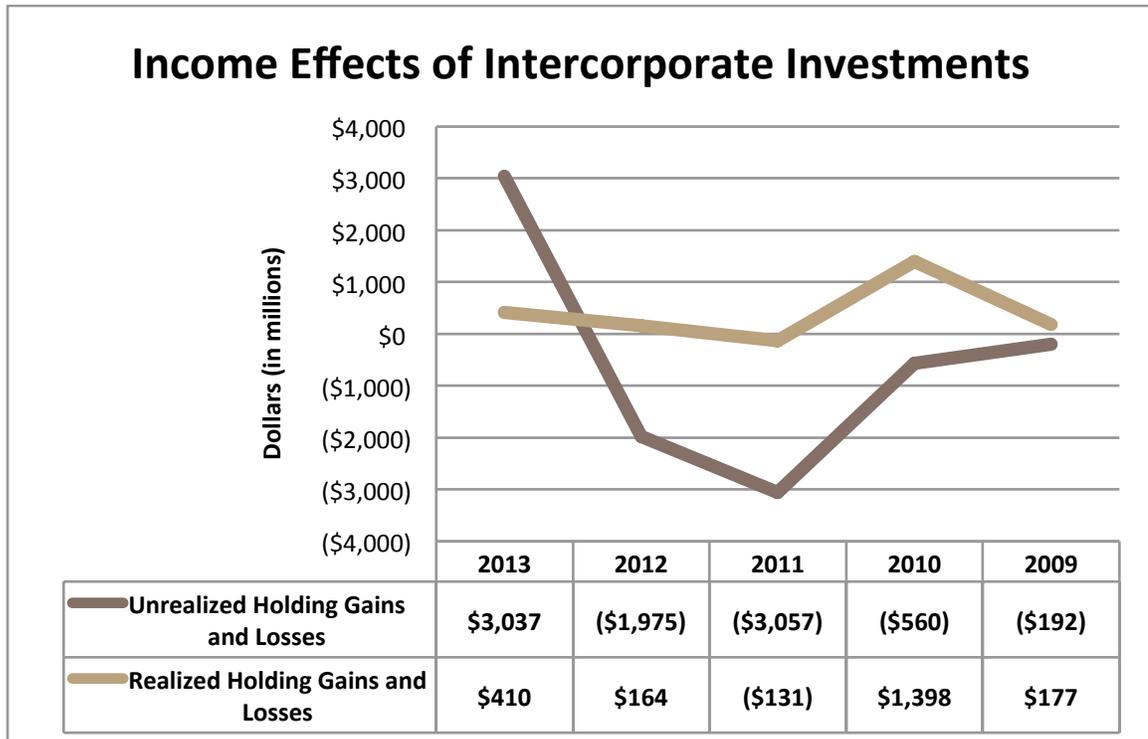


Delta Air Lines



Delta Air Lines grows through acquisition and mergers rather than organically through new markets and customers. During the 2013, the company made a 49% equity investment in Virgin Atlantic for \$360 million. Also it is noted that in May 2013 Delta acquired Endeavor Air, Inc. as part of a reorganization plan. From 2009 to 2011, long-term investments consisted of student loan back available-for-sale and trading securities. In 2012 the company acquired Trainer refinery and a refinery from Phillips 66 in order to further grow their business segment in crude oil refinement, and in 2011 Delta acquired more air takeoff and landing rights, otherwise known as “slot pairs” at JFK and LaGuardia Airport from US Airways. The 2009 to 2011 Merger and Acquisitions Section of the 10-K’s are primarily associated with the merger with Northwest Air Lines. Surprisingly, even with the large amount of acquisitions and mergers Delta is involved with, the company’s goodwill remains fairly unaffected with it remaining at the same amount for the past four years.

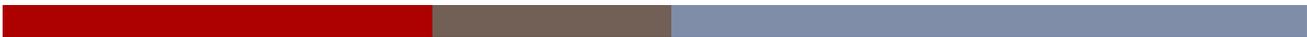
Delta Air Lines



There are no income effects related to interest revenue due to none being reported in the 10-K or goodwill impairments, due to their immaterial value according to Delta Air Lines' 10-K. As for unrealized holding gains and losses and related holding gains and losses, the values over the past five years are depicted above. While realized holding gains and losses have stayed fairly steady over the past five years, unrealized holding gains and losses has seen a dramatic jump starting in 2011 and continuing to 2013. This large jump could mean that hedge funds had to deal with more unrealized risk that year in the three areas of fuel, interest or foreign currency exchange.

The three hedges Delta Air Lines has are the three areas that the company has significant risky investments in. The derivative hedge funds and the pension plans have

Delta Air Lines



the greatest effect of the unrealized and realized holding gains for Delta and they therefore are highly interlinked to intercorporate investments. The fuel derivatives consist of call and put options, swap contracts and future contracts. The contracts are valued using market prices/trading value of fuel for the current accounting period. The volatility of these contracts range from 9 percent to 25 percent and the change in fuel price highly affects the company's cost of operation. The interest derivatives handle the risk of interest rates for long-term debt obligations of Delta Air Lines. The interest rate derivative also handles entities such as interest effects on cash, cash equivalents and benefit obligations such as pensions. To handle the change in interest rates the company utilizes interest swaps. The risk that the company endures for cash and cash equivalents is the decrease in interest income from falling interest rates. As for benefit plan obligation risk, the company is concerned in the increase in liability due to falling interest rates in the future. Finally, the last type of hedge derivative deals with foreign currency exchange. This hedge deals with the risk of losing revenues or gaining expenses due to exchange rates. Foreign currency and benefit plans will be discussed further in later sections of this chapter.

Derivatives are classified in the financial statements depending on if the values are realized or unrealized. All unrealized hedge derivative values are classified under accumulated other comprehensive income not matter what type of hedge. Realized fuel

Delta Air Lines

hedge derivatives are lumped into aircraft fuel, interest rate hedges are paired with interest expense, and foreign currency exchange rate hedges are placed in passenger revenues.

UNREALIZED HOLDING GAINS AND LOSS BY HEDGE CATEGORY

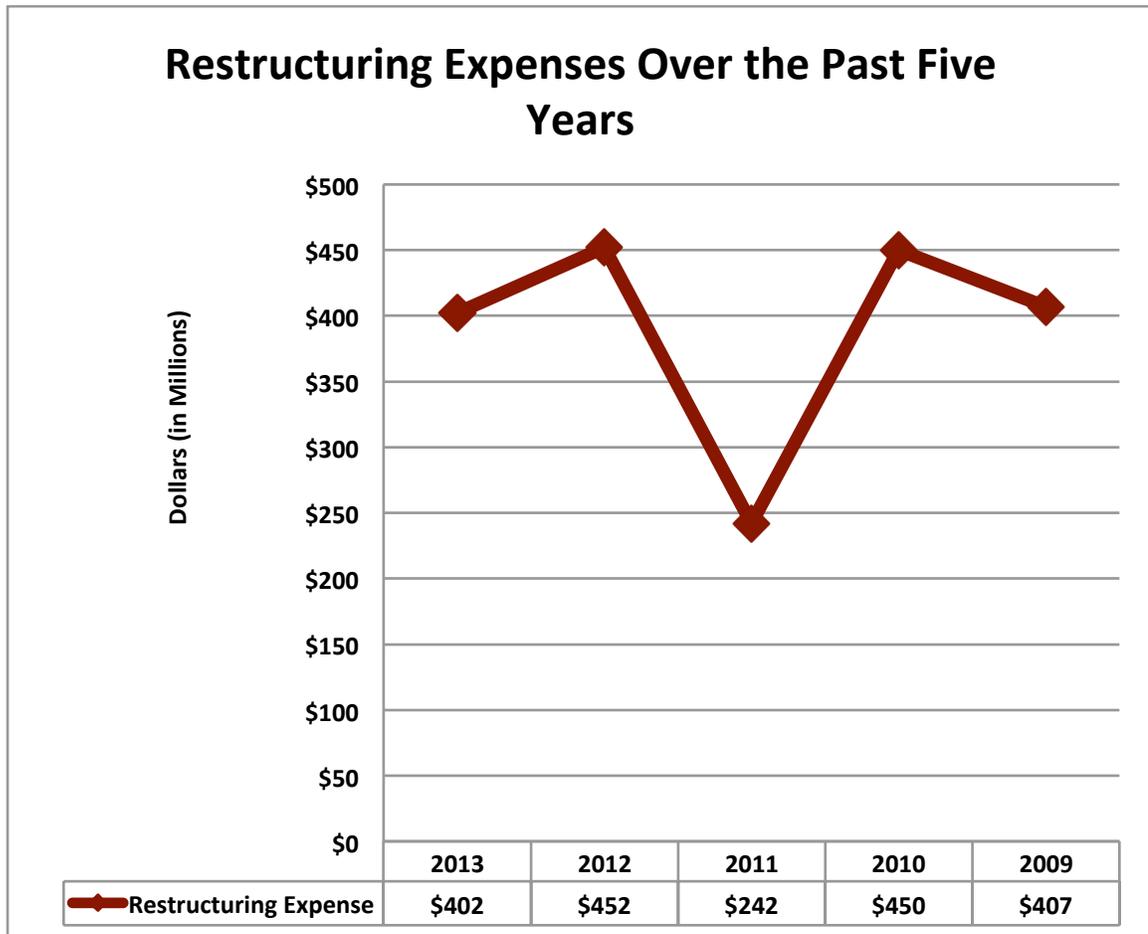
(in millions)	2013	2012	2011	2010	2009
Fuel Hedge	--	\$15	\$233	(\$87)	(\$1,344)
Interest Hedge	--	(\$5)	--	(\$5)	--
Foreign Currency Hedge	\$135	(\$25)	(\$61)	(\$31)	(\$6)

REALIZED HOLDING GAINS AND LOSS BY HEDGE CATEGORY

(in millions)	2013	2012	2011	2010	2009
Fuel Hedge	--	(\$15)	(\$166)	\$158	\$1,268
Interest Hedge	\$28	\$14	(\$8)	(\$28)	\$51
Foreign Currency Hedge	\$133	\$212	\$7	(\$73)	\$11

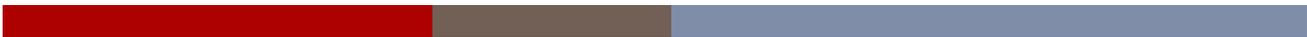
Delta Air Lines

RESTRUCTURING



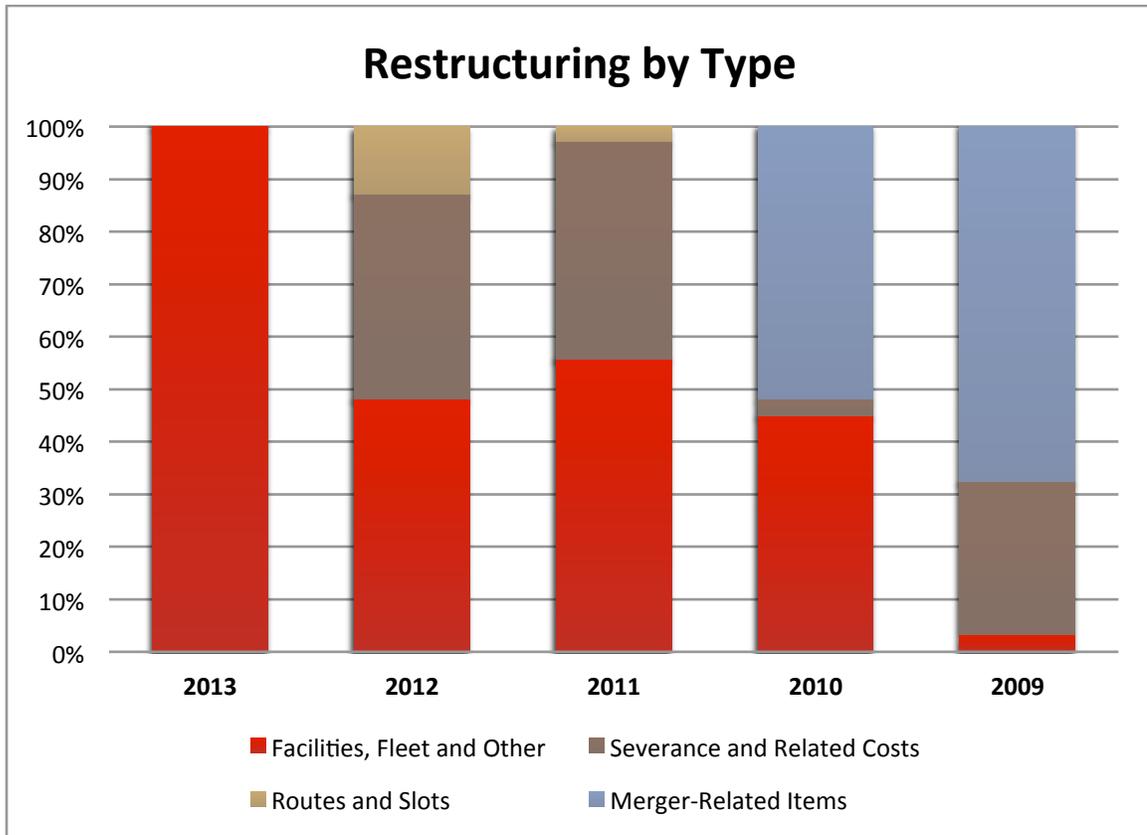
Delta Air Lines restructuring expenses of the past five years have been consistent with the exception of 2011 when restructuring expenses dropped severely. Delta categorizes restructuring expenses into four categories: facilities, fleet, and other, severance and related costs, routes and slots, and merger-related items. The graph below depicts the allocation of restructuring expenses of Delta Air Lines in each of the four categories. As depicted below, 2013 restructuring expenses all rested in facilities,

Delta Air Lines



fleet and other. This is due to Delta's focus on removing older and inefficient aircrafts from operation and replacing them with newer models. Delta hopes with the new aircraft fleet they will be able to increase fuel efficiency and customer service, and decrease maintenance costs. Severance and related costs were utilized in restructuring termination benefits that employees could elect to take in 2012 and 2011. The voluntary severance program had 2,000 employees elect to take the benefit package and also 1,700 Comair employees received severance packages when operations shutdown in 2012. The Comair employee phase out severance packages had been part of restructuring charges from 2009 until its shutdown. The voluntary severance packages were put in place to align human capital capacity with future expected operations capacity. The route and slot restructuring expenses in 2012 and 2011 were due to deals with US Airways that were spoken of earlier in the mergers and acquisitions section of this chapter. Finally merger-related items were weighted heavily in the 2010 and 2009 restructuring expenses. This was due to the merger with Northwest Air Lines. The restructuring costs helped Northwest operations integrate with Delta operations, relocate employees, train employees and re-brand Northwest aircrafts and facilities.

Delta Air Lines



In terms of restructuring expenses effect on Delta's future probability, an analyst would most likely see Delta's restructuring charges, especially in 2013 as a way to reduce future costs and expense. By upgrading their aircraft fleet Delta will be able to spend less of their revenues on fuel and repairs. They also will most likely have more consistently running airplanes with less breakdowns and therefore happier and more loyal customers. Delta also was able to eliminate unutilized human capital by offering severance packages. Volunteer severance packages allow for easier layoffs and decrease costs in the long run by the elimination of unneeded employees and therefore

Delta Air Lines

unnecessary payrolls. So although the restructuring costs are high, in the long run the purchase of these assets will decrease costs and therefore increase profitability for Delta Air Lines.

FOREIGN CURRENCY

The two largest currencies that Delta Air Lines processes transactions with are the Japanese Yen and the Canadian Dollar. In order to decrease risk with exchanges, Delta attempts to do international transactions in the same foreign currency of the transaction. Other options in dealing with foreign currency include foreign currency options and carry forward contracts (hedges). The company therefore predicts possible depreciation/appreciation of the currency and its effect on cash settlement at the beginning of each accounting period.

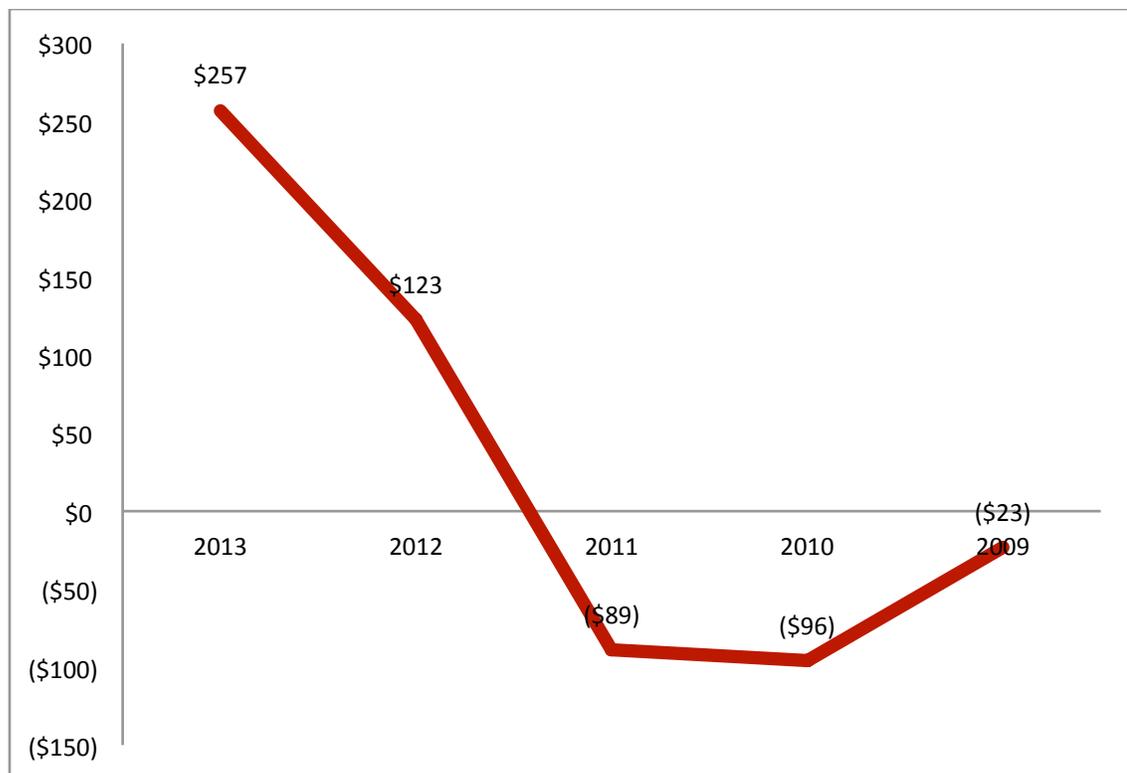
PREDICTED RISKS OF FOREIGN CURRENCY EXCHANGES

	2013	2012	2011	2010	2009
Estimated Depreciation/Appreciation of Currency	10%	10%	10%	--	--
Predicted Cash Settlement Gain, (Loss)	\$80 million, (\$100 million)	\$90 million, (\$110 million)	\$90 million, (\$110 million)	Immaterial	Immaterial

Delta Air Lines

A foreign currency hedge exists at Delta Airlines. The purpose of the hedge is to handle the risk of the exchange rate. The realized values of gains and losses from the hedge are placed in passenger revenue on the income statement. Because realized currency exchanges are placed on the income statement the company is transaction-based rather than translation-based. If the gains and losses are unrealized the values are placed in the calculation of accumulated other comprehensive income in either the Statement of Stockholder's Equity or Comprehensive Income Statement.

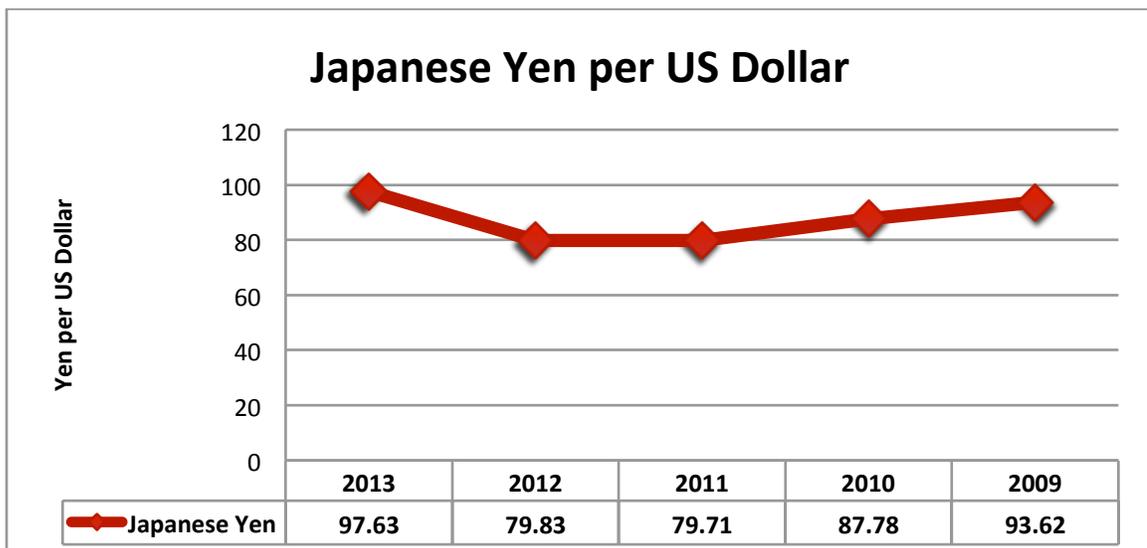
FOREIGN CURRENCY HEDGE DATA



Delta Air Lines

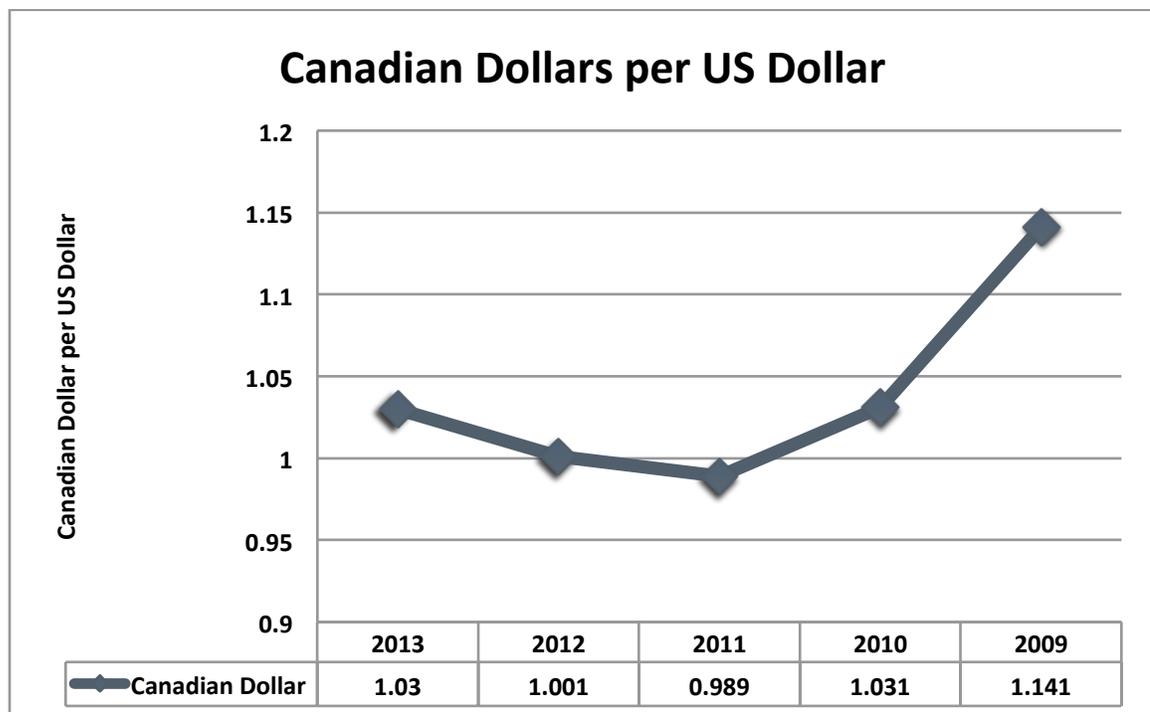
(in millions)	2013	2012	2011	2010	2009
Notional Balance	120,915 yen 438 Canadian Dollars	119,277 yen 430 Canadian Dollars	126,993 yen 313 Canadian Dollars	141,100 yen 233 Canadian Dollars	55,800 yen 295 Canadian Dollars
Final Maturity Date	August 2016	December 2015	April 2014	November 2013	September 2012
Foreign Currency Derivative	\$257	\$123	(\$89)	(\$96)	(\$23)

Exchange rates are by far the biggest risk of performing international transactions; the depreciation or appreciation of foreign currency can have effects of gains/losses from export sales or import purchases. Overall, most of Delta's international transactions are exports sales, in other words, foreign airfare ticket sales so the table only analyzes the effect of these.



Delta Air Lines

The Japanese Yen per US Dollar saw an appreciation trend from 2009 to 2011 but then began to rise and depreciate from 2011 to 2013. An appreciation in yen would cause the sale of passenger airfare to create larger gains where a depreciation of the yen would cause a loss of sales due the currency being worth less. The yen seems to be very volatile in its appreciation and depreciation making it a more risky foreign currency to exchange.



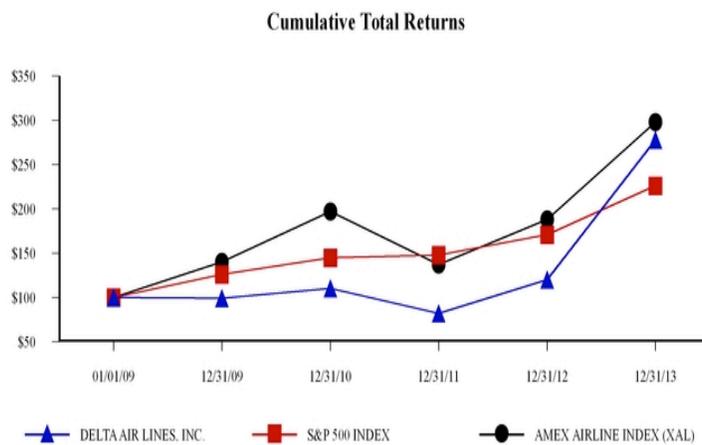
The Canadian Dollar has typically appreciated for the past five years with some minor depreciation taking place, but not very significantly. The appreciation of the Canadian Dollar implies that currencies worth is growing stronger and therefore sales of airfare passengers will result in asset gains. The consistency of the Canadian Dollar

Delta Air Lines

appreciation makes it more predictable and less of an exchange risk than the yen for foreign transactions.

RETURNING WEALTH TO SHAREHOLDERS

The graph below illustrates Delta Air Lines' return of capital. In May 2013, the company shared its plans to return over one billion dollars to shareholders over the next three years. This returning wealth to shareholders plan included the implementation of



dividends and a repurchasing plan as well. Delta declared a dividend for the first time in 2013 at \$0.06 per

share. The dividend has a quarterly payout. The dividend payout ratio for 2013 is 0.97 percent with Delta only paying \$102 million in dividends with \$10,540 million in net income. The Delta Air Lines Repurchase Program intends to repurchase \$500 million worth of equity shares by June 2016. The table below depicts the progress of the Repurchase Program.

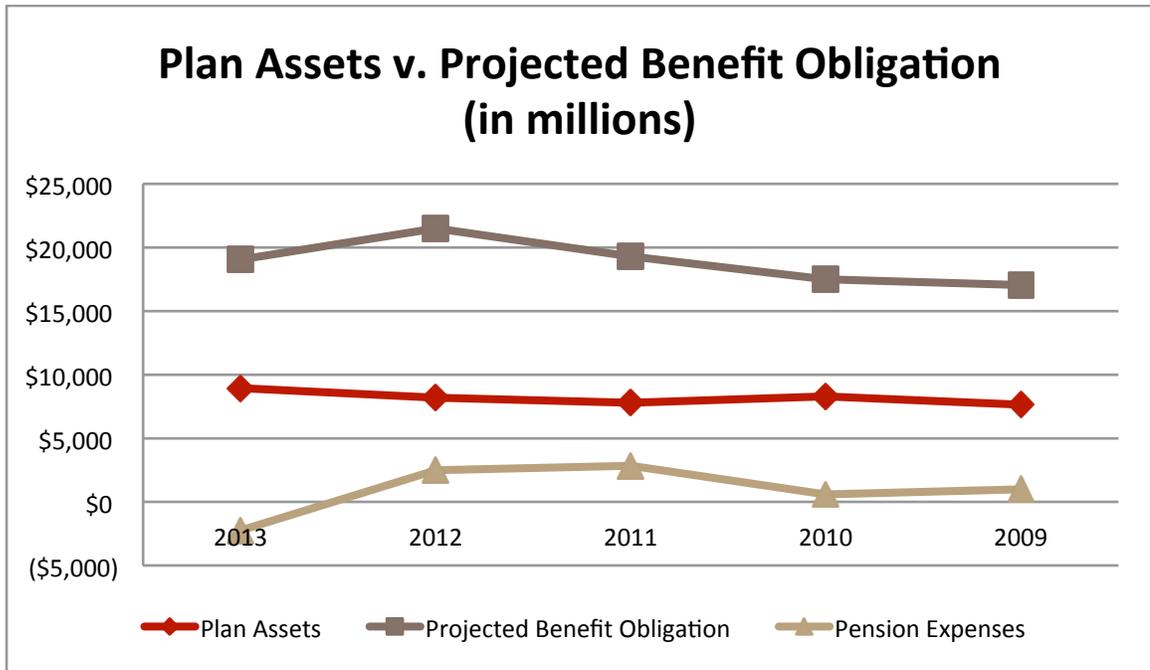
Delta Air Lines

Period	Number of Shares Repurchased	Average Price per Share	Dollar Value Yet to be Purchase Under Plan (in millions)
October 2013	1,138,700	\$25.54	\$378
November 2013	4,627,552	\$27.56	\$252
December 2013	95,000	\$29.01	\$250
<u>TOTAL</u>	<u>5,861,252</u>		

PENSIONS

Delta Air Lines provides a pension plan and other benefits for its employees such as: contribution pension plans, postretirement healthcare plans, and postemployment plans. The pension is available for eligible employees and retirees, but does not open to new entrants and the pensions are frozen for future benefit accruals. Delta contributed \$914 million in 2013, \$697 million in 2012, \$598 million in 2011, and \$728 million in 2010. Under government regulation, Delta elected to utilize the Alternative Funding Rules for pensions, in which a frozen pension can be amortized over 17 years at an 8.85 percent discount rate. Opting for the Alternative Funding Rules allows Delta to be able to more easily predict the amount of funding required each year. Delta's plan for investing defined benefit pension plan assets is to use a diverse portfolio that includes public and private equity, fixed income, real estate, and natural resource entities for investment. The rate of return in the past five years on the defined benefit pensions was 12 percent. In 2013, the return on the plan was 9 percent.

Delta Air Lines



The plan assets have been consistently lower than the projected benefit obligation over the past five years for Delta Airlines. This means the company has an underfunded plan. This is a red flag because the benefit seems to be overly optimistic and expenses seem to be unrealistically low for the expectations of the pension plan. This could mean that managers have manipulated pension values to seem more beneficial than reality.

Delta Air Lines

CHAPTER SIX

OPERATING V. NON-OPERATING

The items highlighted in blue are operating items. The non-operating items are indicated in red on the following statements.

INCOME STATEMENT

(in millions, except per share data)	2013	2012	2011	2010	2009
Operating Revenue					
Passenger:					
Mainline	26,534	25,173	23,843	21,408	18,522
Regional Carriers	6,408	6,518	6,414	5,850	5,285
Total Passenger Revenue	32,942	31,754	30,257	27,258	23,807
Cargo	37	990	1,027	850	788
Other	3,894	3,926	3,831	3,647	3,468
Total Operating Revenue	37,773	36,670	35,115	31,755	28,063
Operating Expense					
Aircraft fuel and related taxes	10,150	9,730	9,730	7,594	7,384
Salaries and related costs	7,266	6,894	6,894	6,751	6,838
Regional carrier expense	5,647	5,470	5,470	4,305	3,823
Aircraft maintenance materials and outside repairs	1,955	1,765	1,765	1,569	1,434
Contracted services	1,590	1,682	1,642	1,509	1,405
Depreciation and amortization	1,566	1,642	1,523	1,549	1,595
Passenger commissions and other selling expenses	1,565	1,523	1,682	1,511	1,536
Landing fees and other rents	1,336	1,281	1,281	1,281	1,289
Passenger service	732	721	721	673	638
Profit sharing	372	264	264	387	480
Aircraft Rent	272	298	298	313	0
Restructuring and other items	402	452	242	450	407
Other	1,592	1,628	1,628	1,646	1,558

Delta Air Lines

Total Operating Expense	(34,373)	(34,495)	(33,140)	(29,538)	(28,387)
Operating Income	<u>3,400</u>	<u>2,175</u>	<u>1,975</u>	<u>2,217</u>	<u>(324)</u>
Other Expense					
Interest expense, net	(698)	(812)	(901)	(969)	(881)
Amortization of debt discount, net	(154)	(193)	(193)	(216)	(370)
Loss of extinguishment of debt		(118)	(68)	(391)	(83)
Miscellaneous, net	(21)	(27)	(44)	(33)	77
Total other expense, net	(873)	(1,150)	(1,206)	(1,609)	(1,257)
Income before Income Taxes	2,527	1,025	769	608	(1,581)
Income Tax Benefit (Provision)	8,013	16	85	(15)	344
Net Income	<u>10,540</u>	<u>1,009</u>	<u>854</u>	<u>593</u>	<u>(1,237)</u>
Basic Earnings per Share	12.41	1.20	1.02	0.71	(1.50)
Diluted Earnings per Share	12.29	1.19	1.01	0.70	(1.50)
Cash Dividends Declared per Share	0.12				

BALANCE SHEET

(in millions, except share data)	2013	2012	2011	2010	2009
Current Assets					
Cash and cash equivalents	2,844	2,416	2,657	2,892	4,607
Short-term investments	959	958	958	718	71
Restricted Cash, Cash Equivalents and Short-Term Investments	122	375	305	409	423
Accounts Receivable, net of an allowance of uncollectable accounts	1,609	1,693	1,563	1,456	1,353
Fuel Inventory	706	619	168	x	x
Expendable parts and supplies inventories, net of allowance for obsolescence	357	404	367	318	327

Delta Air Lines

Deferred Income Taxes, net	1,736	463	461	355	357
Prepaid expenses and other	1,318	1,344	1,250	1,159	853
Total Current Assets	9,651	8,272	7,729	7,307	7,991
Property and Equipment, net					
Property and Equipment, net of acc.	21,85	20,71	20,22	20,30	20,43
Depreciation and amortization	4	3	3	7	3
Other Assets					
Goodwill	9,794	9,794	9,794	9,794	9,787
Identifiable intangibles, net of accumulated amortization	4,658	4,679	4,751	4,749	4,829
Deferred income taxes, net	4,992	0	x	x	x
Other noncurrent assets	1,303	1,092	1,002	1,031	749
Total other assets	20,74	15,56	15,54	15,57	15,36
	7	5	7	4	5
Total Assets	52,25	44,55	43,49	43,18	43,78
	2	0	9	8	9
Current Liabilities					
Current maturities of long term debt and capital leases	1,547	1,627	1,944	2,073	1,533
Air traffic liability	4,122	3,696	3,480	3,306	3,074
Accounts payable	2,300	2,293	1,600	1,713	1,249
Accrued salaries and related benefits	1,926	1,680	1,367	1,370	1,037
Frequent flyer deferred revenue	1,861	1,806	1,849	1,690	1,614
Taxes payable	673	585	594	579	525
Fuel card obligation	602	455	x	x	x
Other accrued liabilities	1,121	1,128	1,867	654	765
Total current liabilities	14,15	13,27	12,70	11,38	9,797
	2	0	1	5	
Noncurrent Liabilities					
Long-term debt and capital leases	9,795	11,08	11,84	13,17	15,66
		2	7	9	5
Pension, postretirement and related benefits	12,39	16,00	14,20	11,49	11,74
	2	5	0	3	5
Frequent flyer deferred revenue	2,559	2,628	2,700	2,777	3,198
Deferred income taxes, net	0	2,047	2,028	1,924	1,917
Other noncurrent liabilities	1,711	1,649	1,419	1,533	1,222

Delta Air Lines

Total noncurrent liabilities	26,457	33,411	32,194	30,906	33,747
Commitments and Contingencies					
Stakeholders' Equity (Deficit)					
Common stock at .00001 par value, 1,500,000,000 shares authorized	0	0	0	0	0
Additional Paid-In Capital	13,982	14,069	13,999	13,926	13,827
Retained earnings (accumulated deficit)	3,094	(7,389)	(8,398)	(9,252)	(9,845)
Accumulated other comprehensive loss	(5,130)	(8,577)	(6,766)	(3,578)	(3,563)
Treasure stock	(258)	(234)	(231)	(199)	(174)
Total Stockholders' Equity (deficit)	11,643	(2,131)	(1,396)	897	245
Total liabilities and Stockholder's Equity	52,252	44,550	43,499	43,188	43,789

FINANCIAL STATEMENT ANALYSIS

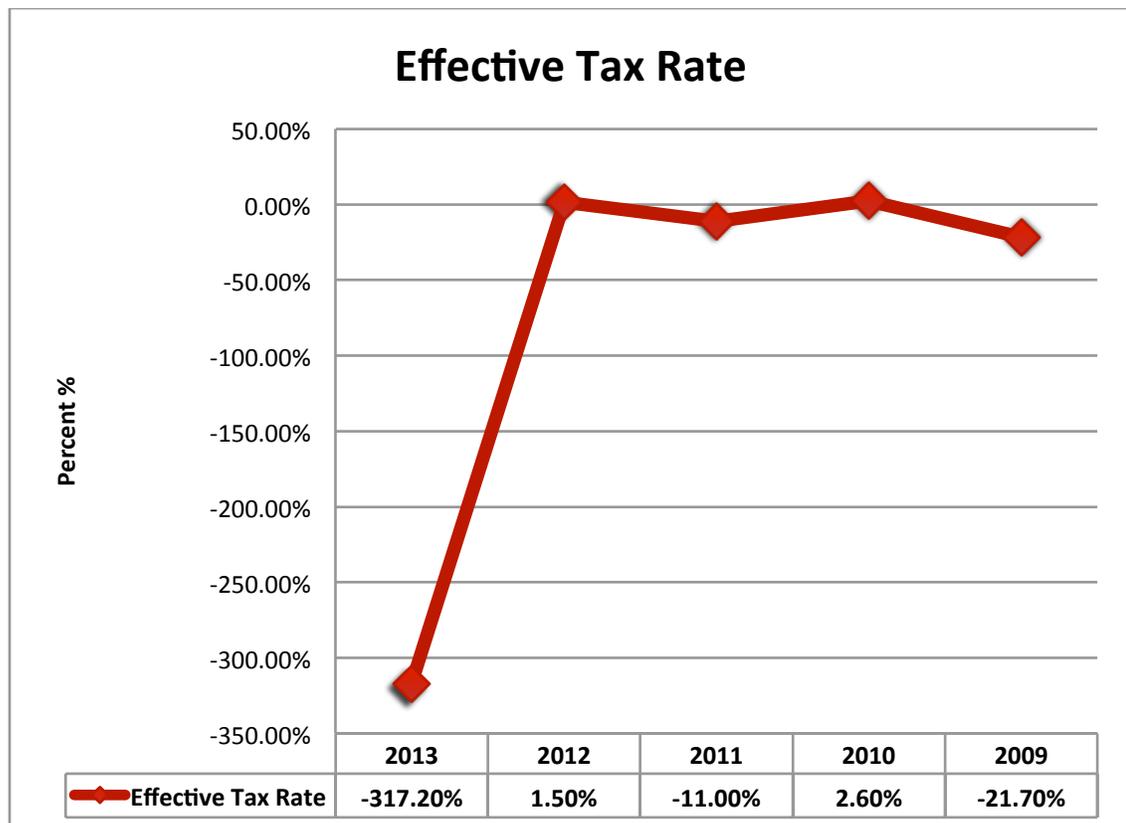
STATUTORY V. EFFECTIVE TAX RATES

INCOME TAX RATES

	2013	2012	2011	2010	2009
Federal Statutory Tax Rate	35.0%	35.0%	35.0%	35.0%	35.0%
State Statutory Tax Rate	3.0%	3.3%	3.4%	2.3%	1.8%
Effective Tax Rate	(317.2%)	1.5%	(11.0%)	2.6%	(21.7%)

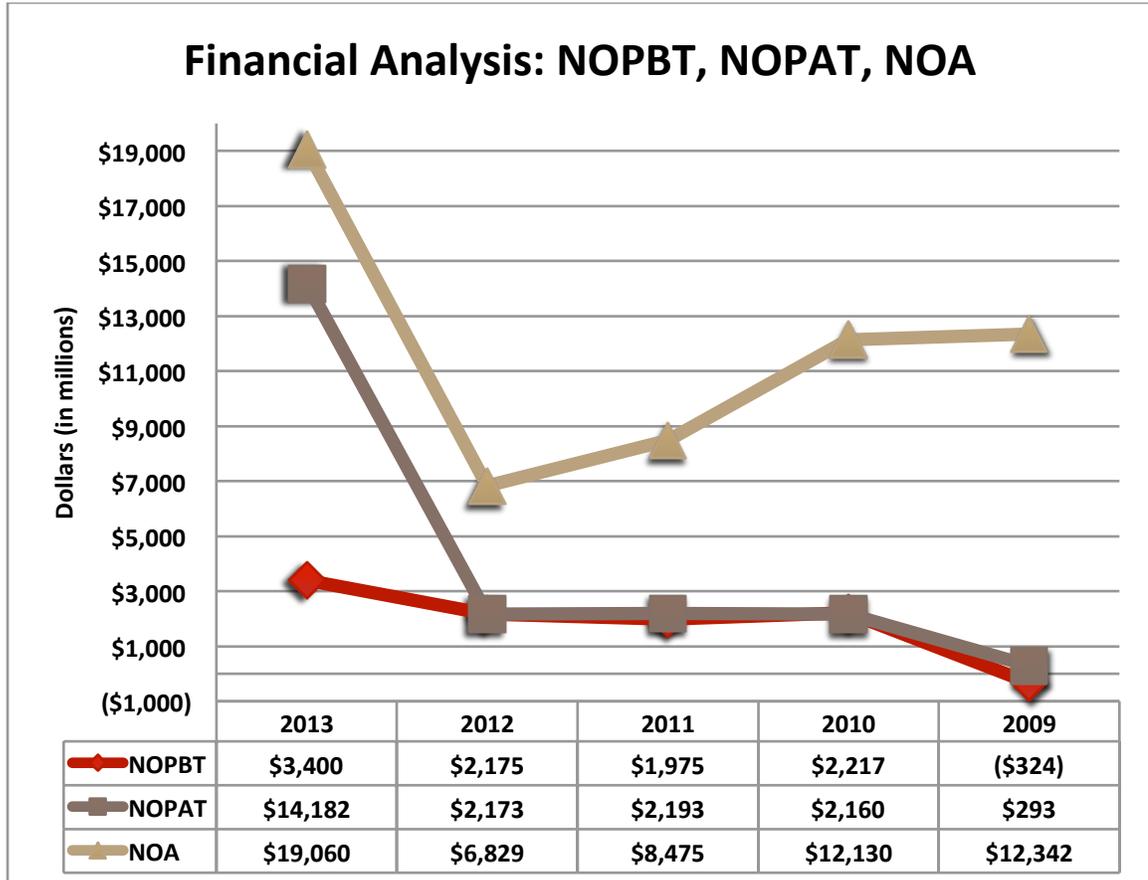
Delta Air Lines

The Federal Statutory Tax Rate has been fairly stable over the past five years at 35 percent, which is typical of large corporations. The state tax statutory tax rate also stayed relatively constant with the amounts near the three percent region in the past five years. Looking at the effective tax rate we can see that the tax effect has been fairly volatile. With negative values representing a tax benefit rather than a provision. Delta seems to have a trend of larger tax benefits one year, followed with small tax provision the next and continues with that same patten over the last five years as seen in the chart below.



Delta Air Lines

NOPBT, NOPAT, AND NOA

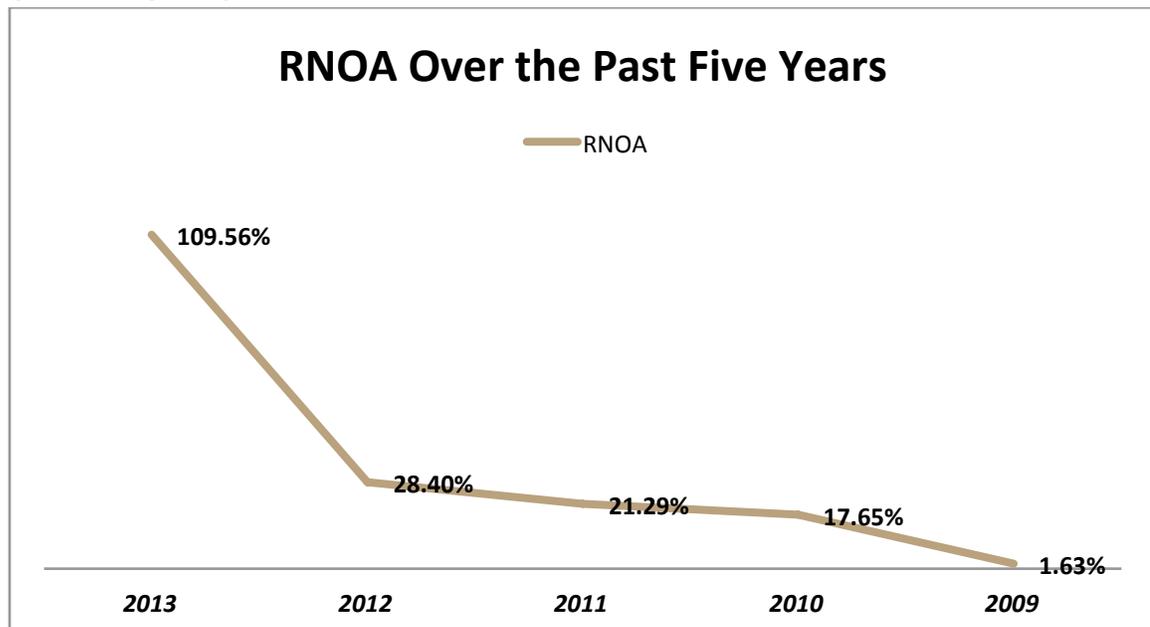


Net Operating Profit Before Tax (NOPBT), Net Operating Profit After Tax (NOPAT), and Net Operating Assets (NOA) over the past five years are depicted in the chart above. The NOPBT aligns almost exactly with the NOPAT except in 2013. The reason for the large difference between NOPBT and NOPAT is the large, 317.2 percent; effective tax rate benefit that causes profits to grow much larger after the benefit is applied. The years besides 2013 have tax benefits or provisions that do not range outside of -20 percent to 20 percent causing the before tax and after tax values to

Delta Air Lines

remain similar. Delta's NOA has been decreasing steadily from 2009 to 2012, but made a drastic increase in 2013. The increase in NOA that year was due to the massive increase in operating assets paired with the fall in operating liabilities. This indicates positive change for Delta. In other words, a growing NOA means what the company owns is much higher than what the company owes. The growth in net assets in 2013 was not due to one specific asset, but instead was spread across marginal growth in many asset fields. As for the decreasing operating liabilities, this drop took place in the noncurrent operating liability accounts that offset the minimal growth in the current operating liabilities.

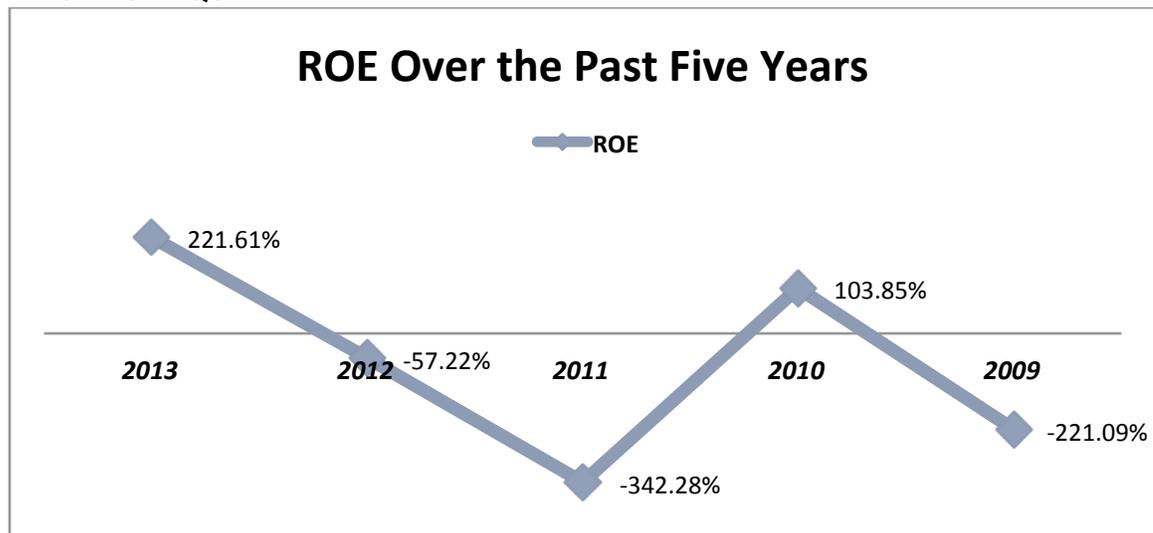
OPERATING RETURN



Delta Air Lines

Operating Return (RNOA) has increased over the past five years with a large growth in 2013. RNOA growth was due to the large increase in NOPAT, especially in 2013, where it jumped from \$2,173 million in 2012 to \$14,182 million by the end of 2013. The NOA also increased greatly in 2013 but this was offset due to smaller NOA in 2012 that was averaged into the denominator. A growing RNOA means that Delta Airlines is receiving more operating income per operating asset held. The increase in RNOA was mainly caused by the growth in operating income that was aided by the increase in sales and tax benefits, with operating expenses remaining fairly unchanged over the past five years.

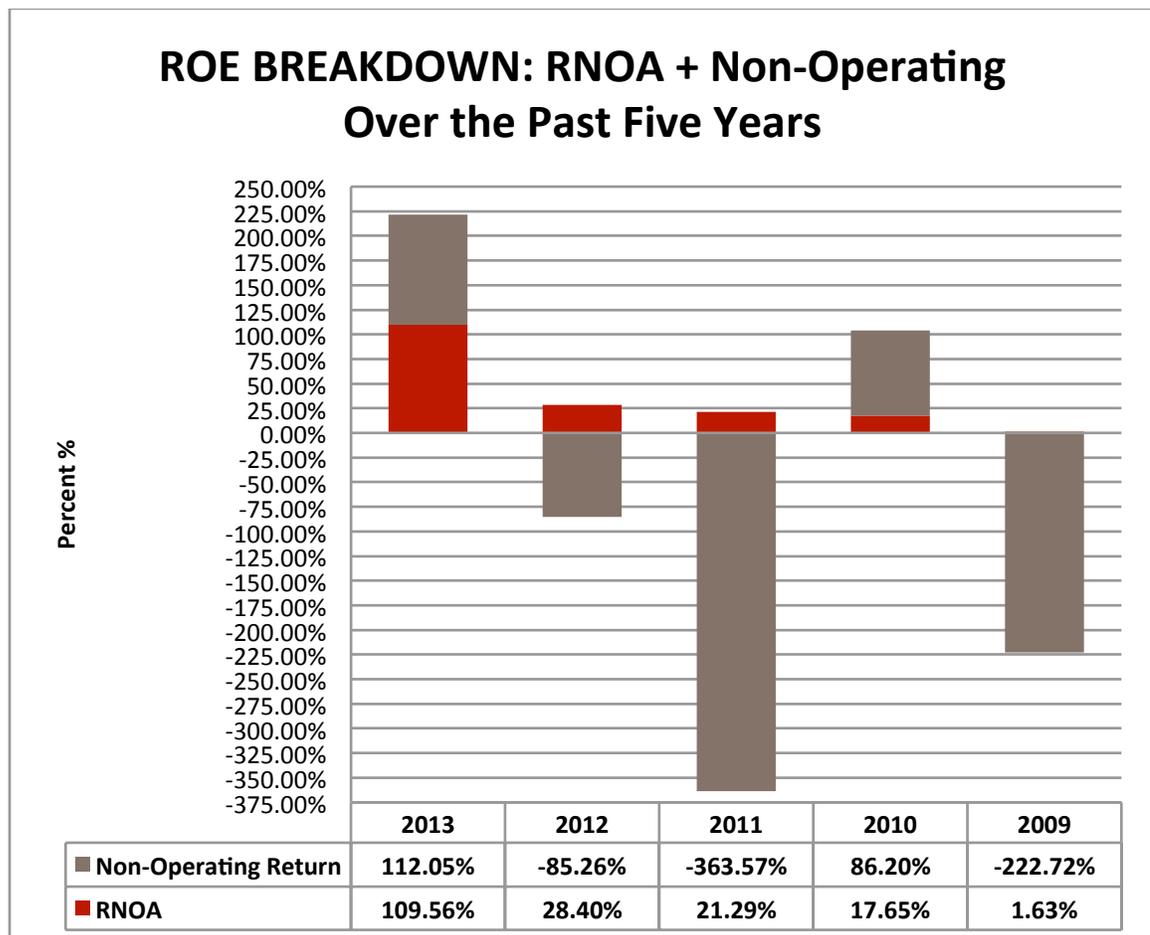
RETURN ON EQUITY



Return on Equity (ROE) was somewhat volatile over the last year five years, but has a steady growth since 2011. A growth in ROE indicates that the company is earning

Delta Air Lines

more net income per common stockholder's equity. Looking at stockholder's equity in the financial statements, it is clear the ROE was negative in 2011 and 2012 due to an equity deficit, although net income was growing dramatically. The negative ROE in 2009 was due to a net loss, which can be seen in the 2009 Net Income Statement. Finally by 2013, the equity finally moved out of a deficit due to Delta receiving a positive Retained Earnings. This paired with the extreme rise in net income allowed ROE to be a large positive amount in 2013.



Delta Air Lines

ROE can be broken down into two parts: RNOA and Non-Operating Return. The equation for ROE is equal to RNOA plus Non-Operating Return. RNOA's and ROE's calculations and effects were discussed earlier in this section. Looking at Non-Operating Return in 2009, 2011, and 2012 this figure was negative, meaning the company was taking on less risk to offset the highly negative ROE. But looking at 2013, it is clear that there is a clearly positive Non-Operating Return, this possibly implies that Delta increased their ROE by taking on more risky investments. Investigating this further in the 10-K, there seems to no investment accounts that have grown significantly implying that Delta's ROE growth most likely was due to the growth in company income, not risky investments. Delta's ROE is the same as its ROCE because there are no preferred dividends or stock.

RNOA DISAGGREGATION ANALYSIS

RNOA can be disaggregated or broken down further into two main components of Net Operating Profit Margin (NOPM) times Net Operating Asset Turnover (NOAT). NOPM times NOAT is going to equal RNOA. The table below depicts this disaggregation over the past five years.

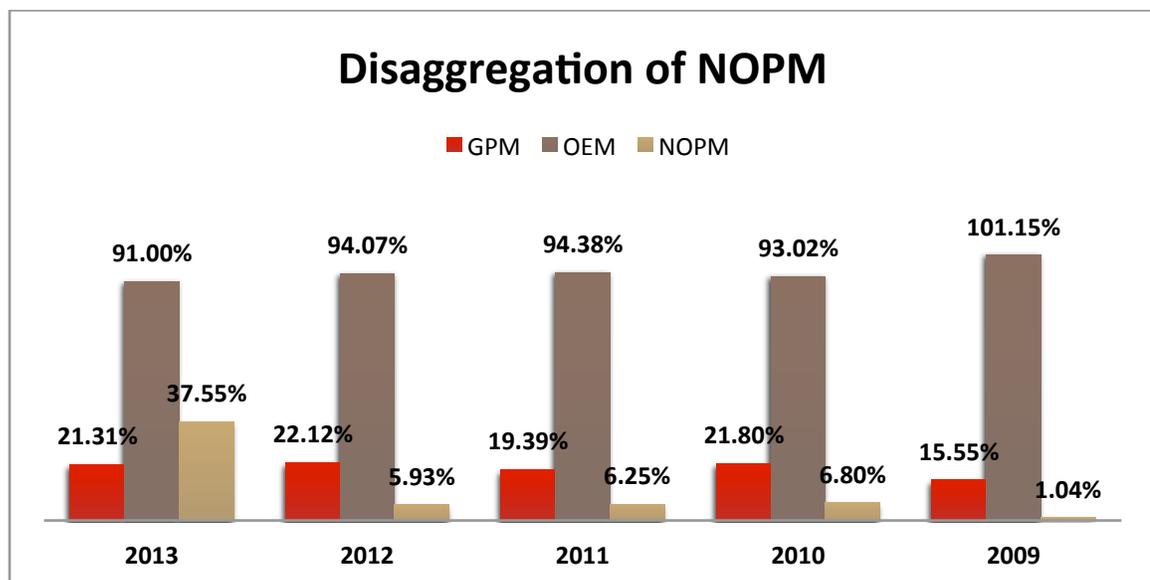
	2013	2012	2011	2010	2009
NOPM	37.55%	5.93%	6.25%	6.80%	1.04%
X NOAT	2.92	4.79	3.41	2.60	1.56
=RNOA	<u>109.56%</u>	<u>28.40%</u>	<u>21.29%</u>	<u>17.65%</u>	<u>1.63%</u>

Delta Air Lines

NOPM for the most part steadily grew over the past five years, with a larger growth occurring in 2013. On the other hand the NOAT stayed fairly constant over the past five years. A growth in NOPM implies that the operating profit per sales dollar is increasing, which is a positive change for Delta Air Lines. Aspects such as gross profit, operating expenses, and level of competition and company's ability to control loss affect NOPM. Looking at Delta Air Lines' financial statements it is clear the change is NOPM is most likely due to the increase in gross profit paired with the falling operating expense.

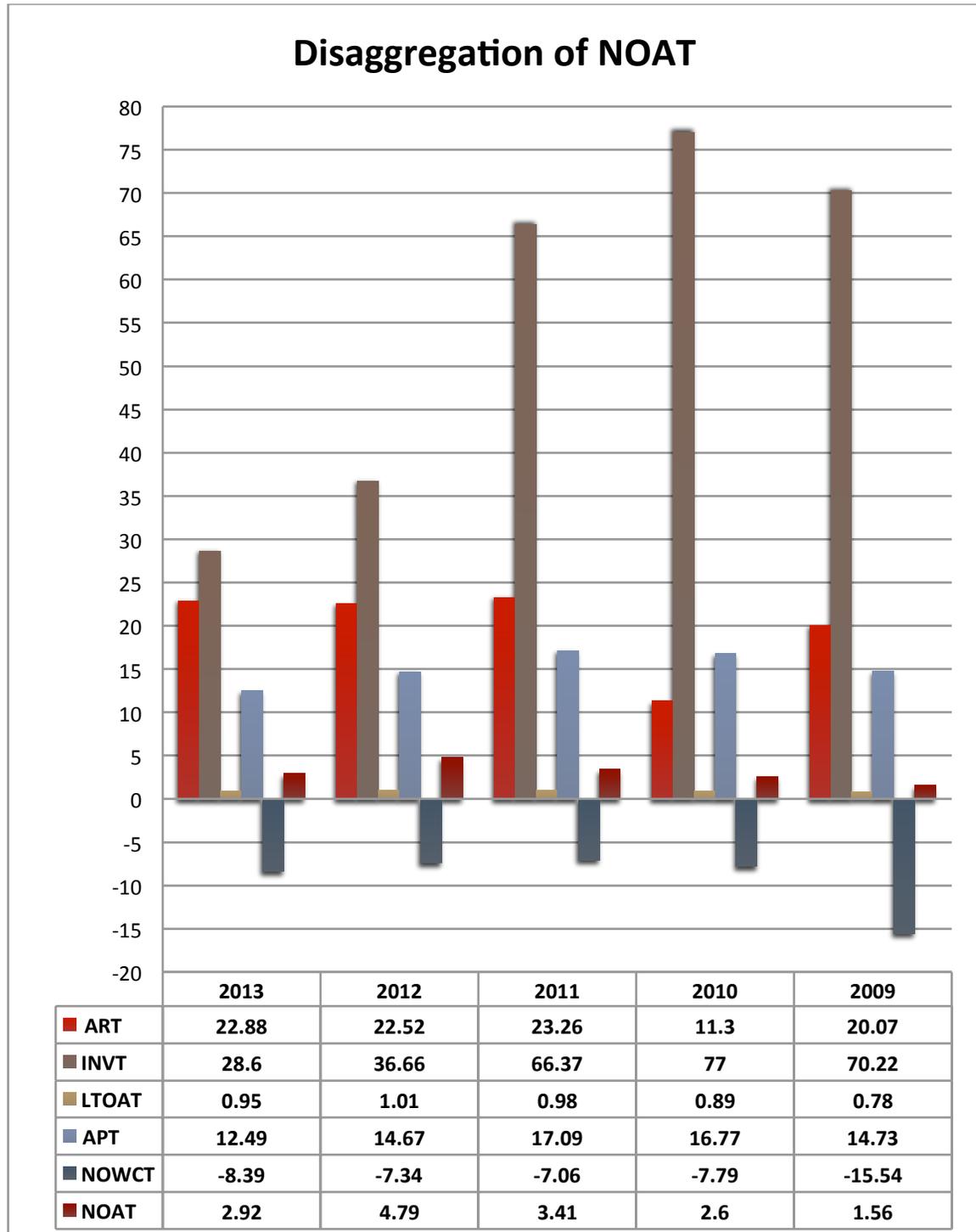
NOPM BREAKDOWN

NOPM can be further broken down into Gross Profit Margin (GPM) and Operating Expense Margin (OEM). GPM stayed constant in the last two years with OEM falling. This further illustrates the reasons for Delta Air Lines increasing NOPM.

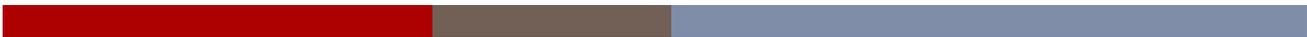


Delta Air Lines

NOAT BREAKDOWN



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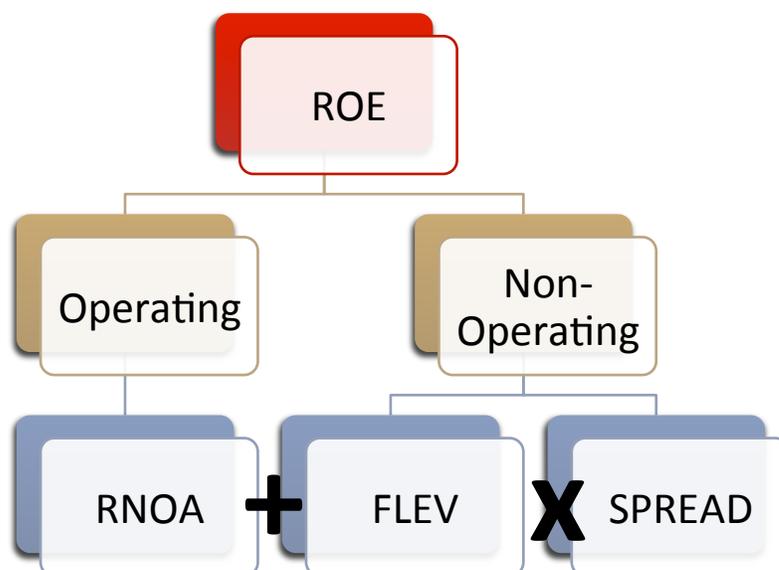


NOAT stayed fairly constant over the past five years. NOAT can be broken down into five components of: Accounts Receivable Turnover (ART), Inventory Turnover (INVT), Long-Term Operating Asset Turnover (LTOAT), Accounts Payable Turnover (APT) and Net Operating Working Capital Turnover (NOWCT). ART, LTOAT and APT stayed similar over the past five years. Inventory Turnover has fallen in the past five years due to the decrease in Cost of Goods Sold, which is a further positive change for Delta Air Lines. This was offset by the slight increase in NOWC over the past five years, which allowed Delta to remain at a constant NOAT.

Although Delta Air Lines tries to keep competitive prices with other airline carriers, they were classified as a product differentiator due to their high levels of customer service compared to other airline companies. The RNOA disaggregation proved otherwise. The constant NOAT paired with the rising NOPM means the company was more concerned with selling more tickets and making more money rather than having better aircrafts, customer service, etc.

Delta Air Lines

DECOMPOSITION OF NON-OPERATING RETURN

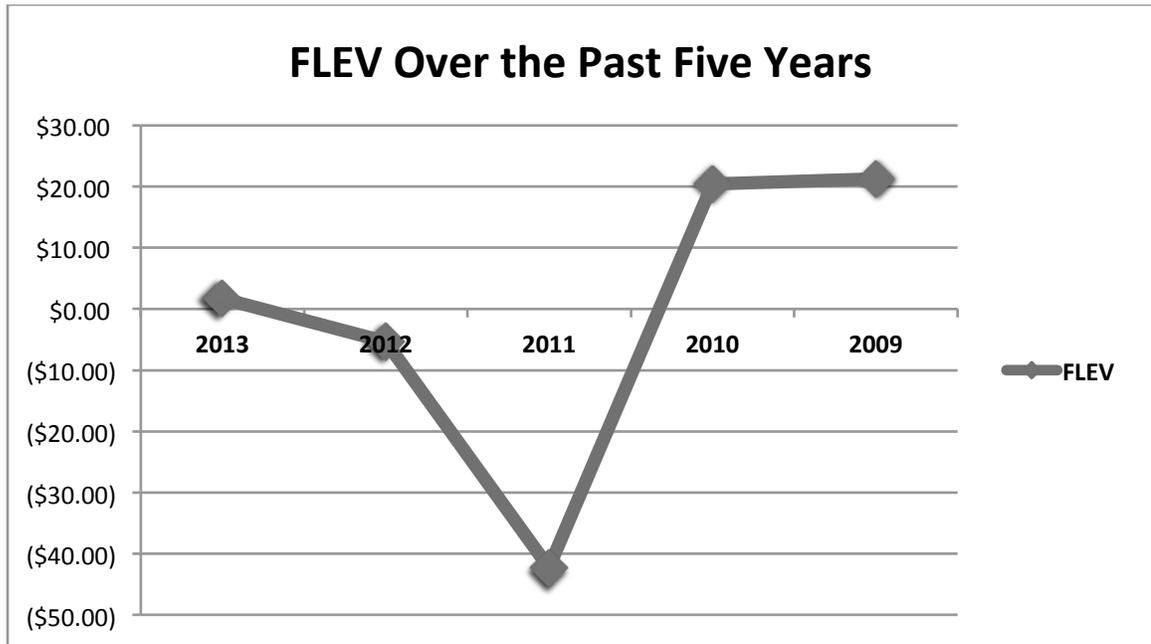


As discussed earlier ROE can be decomposed into operating plus non-operating returns. The operating returns are only composed of RNOA, which was thoroughly disaggregated in an earlier section. The non-operating portion of the equation is a mix of FLEV and SPREAD. FLEV and Spread are broken down further below to see their change over the past five years.

FLEV BREAKDOWN

(in millions)	2013	2012	2011	2010	2009	2008
NNO	\$7,471	\$8,960	\$9,871	\$11,233	\$12,097	\$11,675
Avg. NNO	\$8,216	\$9,416	\$10,552	\$11,665	\$11,886	
/Avg. Equity	\$4,576	(\$1,764)	(\$250)	\$571	\$560	
FLEV	<u>1.72</u>	<u>(5.34)</u>	<u>(42.29)</u>	<u>20.43</u>	<u>21.24</u>	

Delta Air Lines

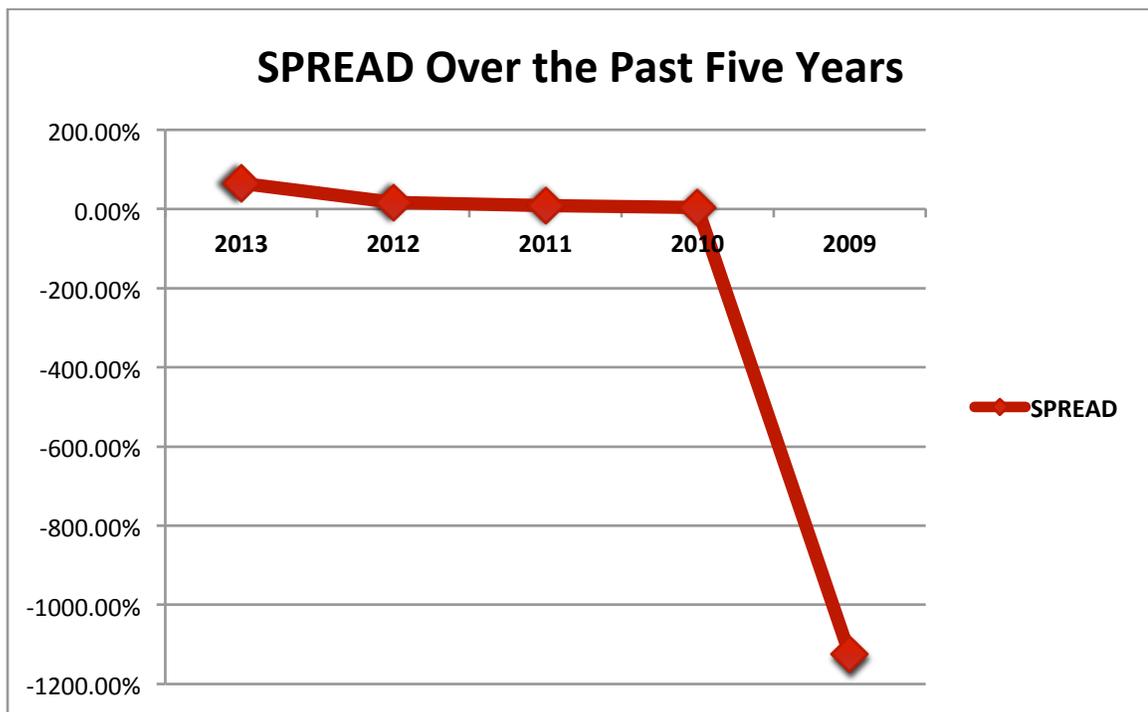


FLEV was constant from 2009 to 2010, dropped in 2011, rose again and remained constant in 2012 to 2013. FLEV mainly had a massive fall in 2011 due to the small deficit in common stockholders average equity, leaving the FLEV denominator negative and very small compared to the numerator. NNO, the numerator of FLEV, has dropped consistently over the last five years. A falling NNO means there was less non-operating liabilities compared to non-operating assets. This is a positive sign because it means that Delta has less long-term debt and more investments.

Delta Air Lines

SPREAD BREAKDOWN

(in millions)	2013	2012	2011	2010	2009
NNE	\$3,642	\$1,164	\$1,339	\$1,567	\$1,530
/Avg. NNO	\$8,216	\$9,416	\$10,552	\$11,665	\$11,886
<u>NNEP</u>	<u>44.48%</u>	<u>13.36%</u>	<u>12.69%</u>	<u>13.43%</u>	<u>12.87%</u>
RNOA	109.56%	28.40%	21.29%	17.65%	1.63%
(NNEP)	(44.48%)	(13.36%)	(12.69%)	(13.43%)	(12.87%)
<u>SPREAD</u>	<u>65.08%</u>	<u>16.04%</u>	<u>8.60%</u>	<u>4.22%</u>	<u>-11.24%</u>



Spread for Delta Air Lines had a large increase after 2009 and then continued on a low marginal rise from 2010 to 2013. This implies that the company had larger operating returns and less non-operating expenses over the last five years. Decreased

Delta Air Lines

expenses and increasing returns highlight even further Delta's improvements and growth, especially in the last year.

Finally, the table below pieced together all the parts of the ROE equation that we calculated. The slight differences in the two calculations of ROE are due to rounding.

	2013	2012	2011	2010	2009
FLEV	1.72	(5.34)	(42.29)	20.43	21.24
X SPREAD	65.08%	16.04%	8.60%	4.22%	-11.24%
+ RNOA	109.56%	28.40%	21.29%	17.65%	1.63%
=ROE	<u>221.50%</u>	<u>-57.61%</u>	<u>-342.40%</u>	<u>103.86%</u>	<u>-237.11%</u>
ROE: DECOMPOSED	<u>221.50%</u>	<u>-57.61%</u>	<u>-342.40%</u>	<u>103.86%</u>	<u>-237.11%</u>
ROE: SECTION 1	<u>221.91%</u>	<u>-57.22%</u>	<u>-342.48%</u>	<u>103.85%</u>	<u>-221.09%</u>

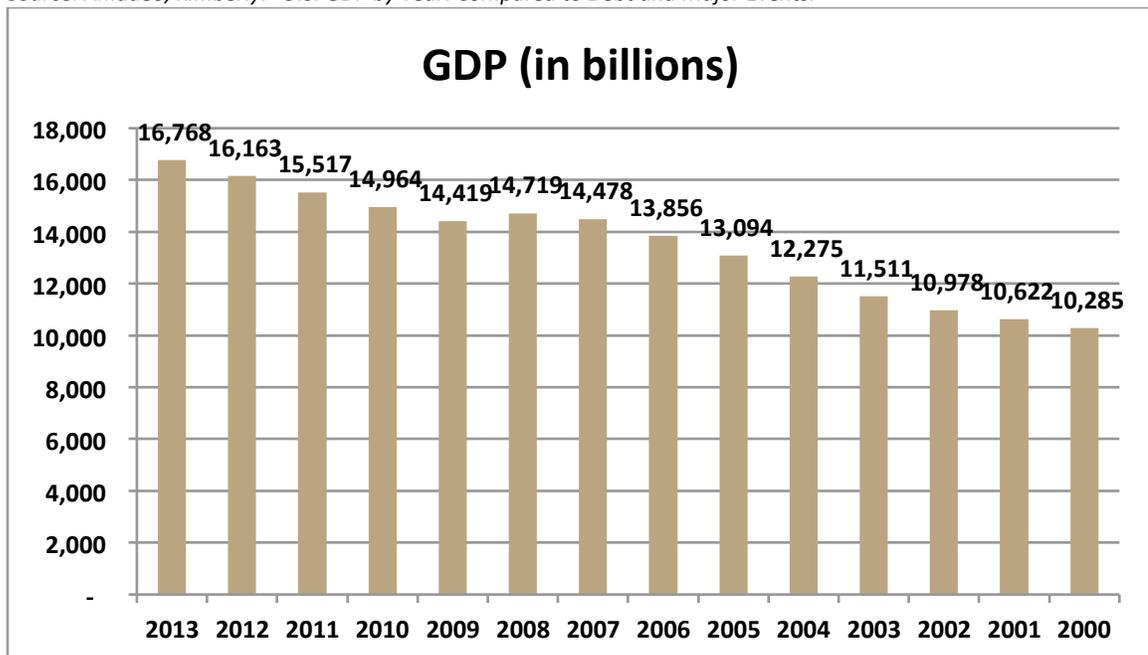
Delta Air Lines

CHAPTER SEVEN

LAGGING MACROECONOMIC INDICATORS

Gross Domestic Product

Source: Amadeo, Kimberly. "U.S. GDP by Year: Compared to Debt and Major Events."



The overall trend in gross domestic product over the past 13 years has been a steady increase. The only exception to this trend is the slight fall in gross domestic product in 2009. This can be attributed to the recession that occurred not only in the United States but also internationally due to the crash of the United States housing market. A growing gross domestic product correlates to a strong economy and therefore has positive outcomes for companies such as Delta Airlines. When the economy is strong, Delta is more likely to purchase aircrafts, hire more employees and pay better salaries. Delta has taken advantage of aircraft purchases through its restructuring plan

Delta Air Lines

that was covered in an earlier section. Looking at Delta's financial statements, there is a clear growth in inventory, payroll and investment expenditures that correlates with the rising gross domestic product.

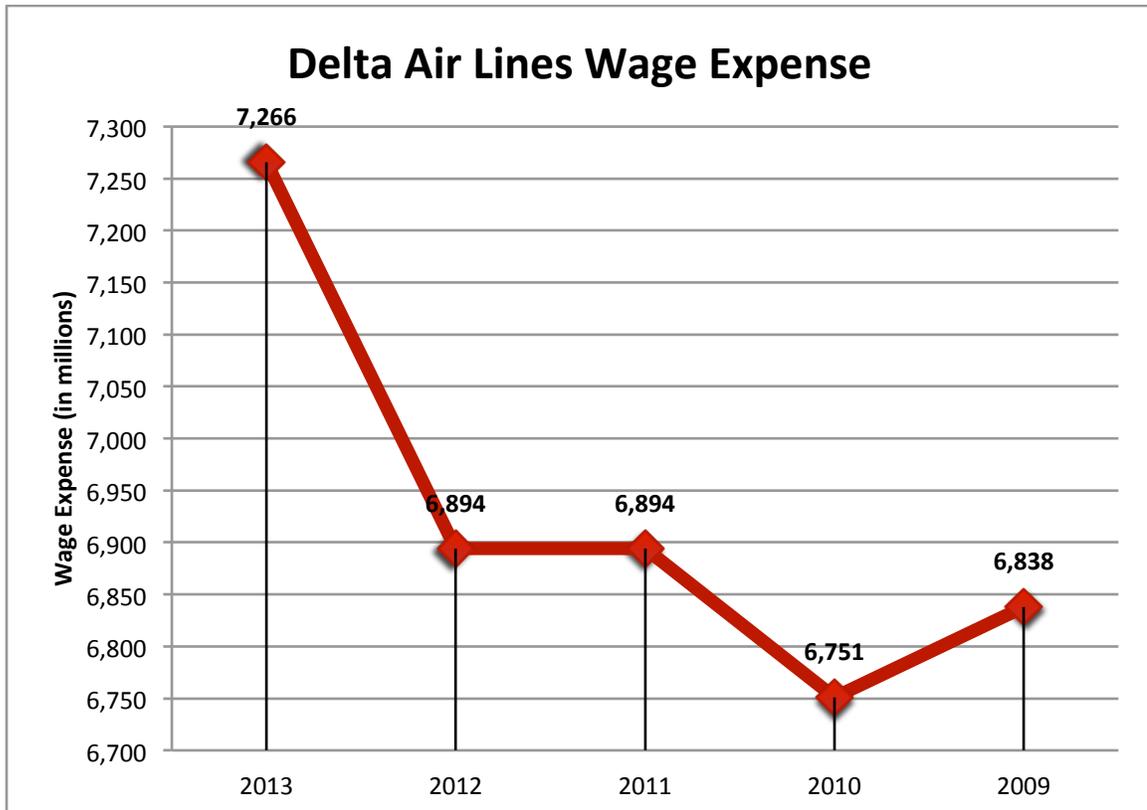
(in millions)	2013	2012	2011	2010	2009
Inventory	1,063	1,023	535	318	327
Property and Equipment	21,854	20,713	20,223	20,307	20,433
Payroll Expense	7,266	6,894	6,894	6,751	6,838

Income and Wages

Source: SSA.gov



Delta Air Lines



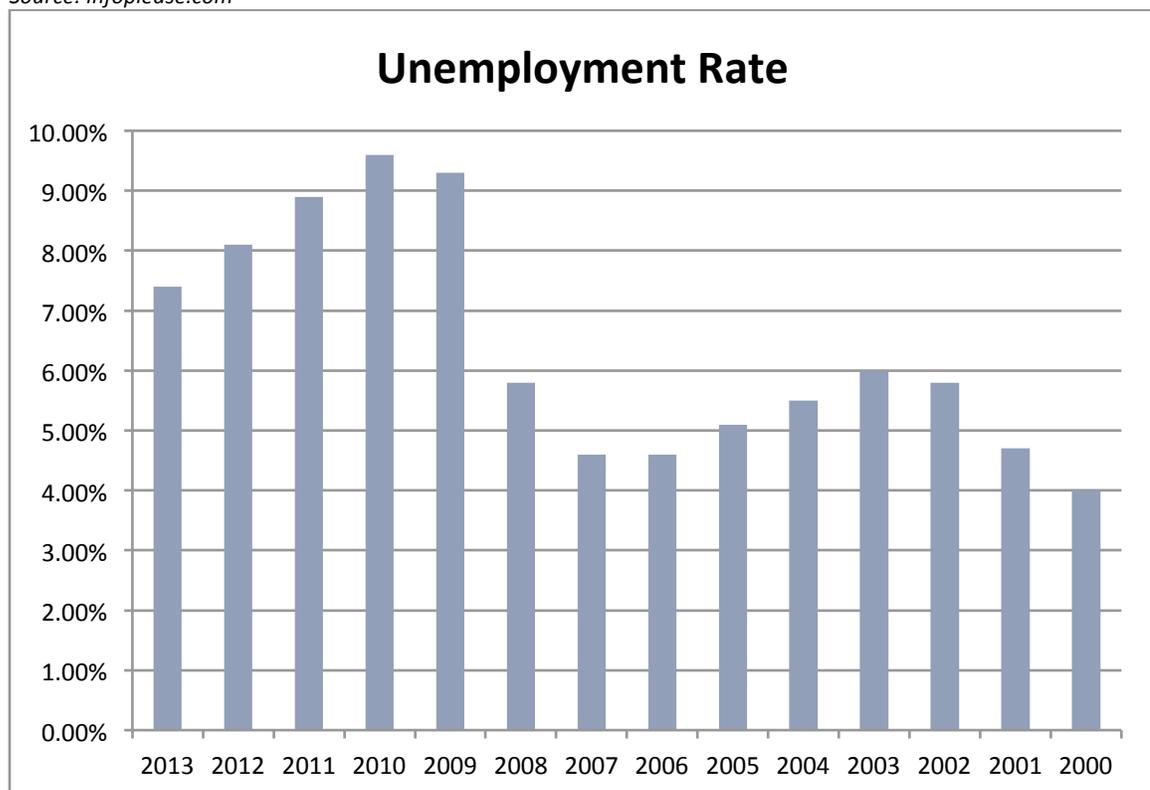
Average wage index in the United States has increased consistently every year except for 2009, which once again can be explained by the recession. Wages are increasing regularly meaning they are keeping up with the average cost of living. This is correlated to the rising cost of living that will be seen below in the Consumer Price Index section of the chapter. Looking specifically at Delta Air Lines total payroll expenses over the past five years it is clear the recession did not have the disastrous effect on wages, as some other industries experienced in 2009 and 2010. Delta's wages only dropped slightly in 2010 and remained stable in 2011 and 2012. Although the effects from the recession were not horrific, they do highlight Delta's use of lowering wages and their

Delta Air Lines

implementation of a layoff program to deal with the lower GDP and incomes from the recession.

Unemployment Rate

Source: Infoplease.com



The unemployment rate was extremely high for the same reason GDP and wages were low between 2007 and 2009. The recession hit the United States and the rest of the world hard, and Delta was no different. After acquiring airfare companies such as Northwest Airlines and Comair the company had an excess capacity of human capital. As seen in the restructuring section of this report, Delta was forced to offer severance

Delta Air Lines

packages to decrease the number of employees. This was better than many other companies during the period that did not offer their employees benefits to leave voluntarily. Layoffs helped Delta keep expenses stable during the recession even though revenues were not as high, and therefore were able to keep gross margin fairly stable through the period.

Consumer Price Index

Source: "Consumer Price Index Data from 1913 to 2015." US Inflation Calculator



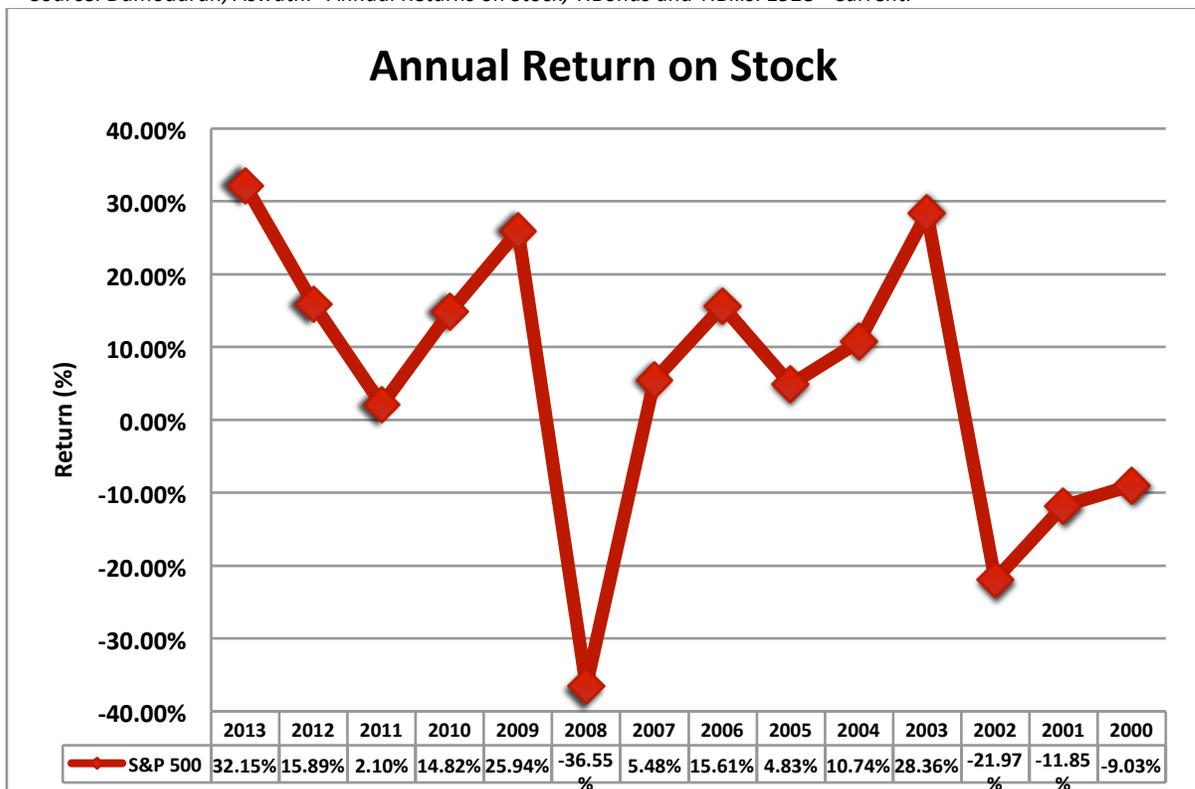
Delta Air Lines

As expected Consumer Price Index, continued to rise from 2000 to 2013 with a slight drop during the recession in 2009. This drop in Consumer Price Index is actually good because wages during the period also fell meaning that employees were being paid less because the cost of living was lower as well. The CPI calculation was also changed to exclude energy and food price. Therefore the model obscurely represents the effects of inflations and therefore means wage growth is inadequately growing for the actual cost of living expenses.

LEADING MACROECONOMIC INDICATORS

Stock Market

Source: Damodaran, Aswath. "Annual Returns on Stock, T.Bonds and T.Bills: 1928 - Current."

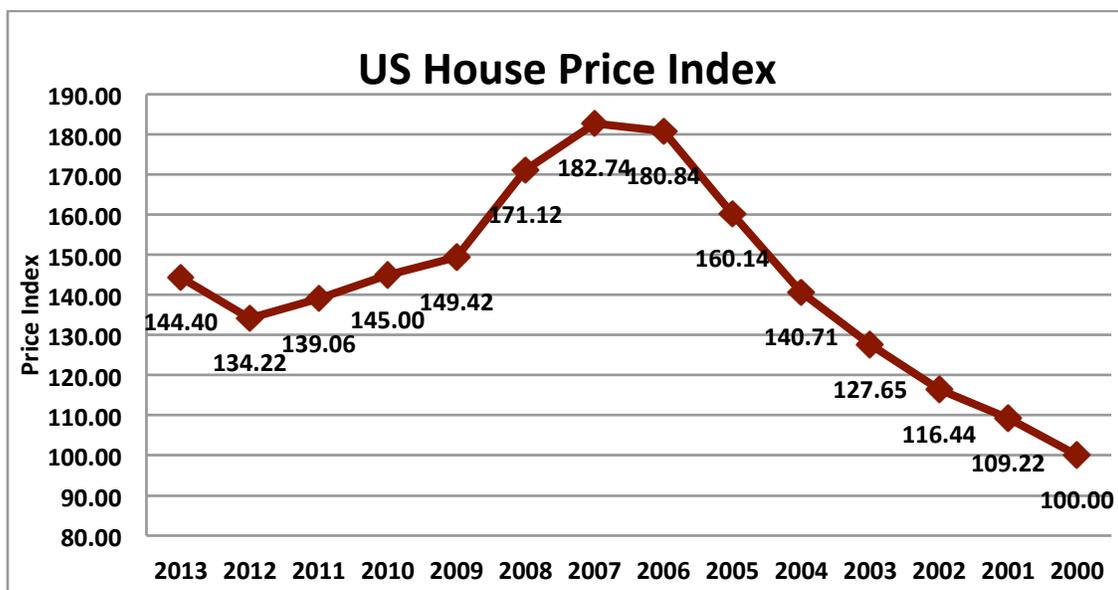


Delta Air Lines

The stock market as expected fell during the recession. The recession caused a huge issue in terms of buyer confidence. This made it difficult for firms to increase stockholder investment during the period and therefore stock prices began to fall. Layoffs did not help stock prices and caused a distain for public corporations causing the effects to be even worse. As seen in the chart, the 2008 data shows that return on stockholder investments was heavily negative. Fortunately, since 2011 the stock market has recovered enormously and has been rising consistently every year. The increased stock market value has aided in the growth and development of Delta in recent years and investor confidence is beginning to be restored.

Housing Market

Source: Dataokfn.org

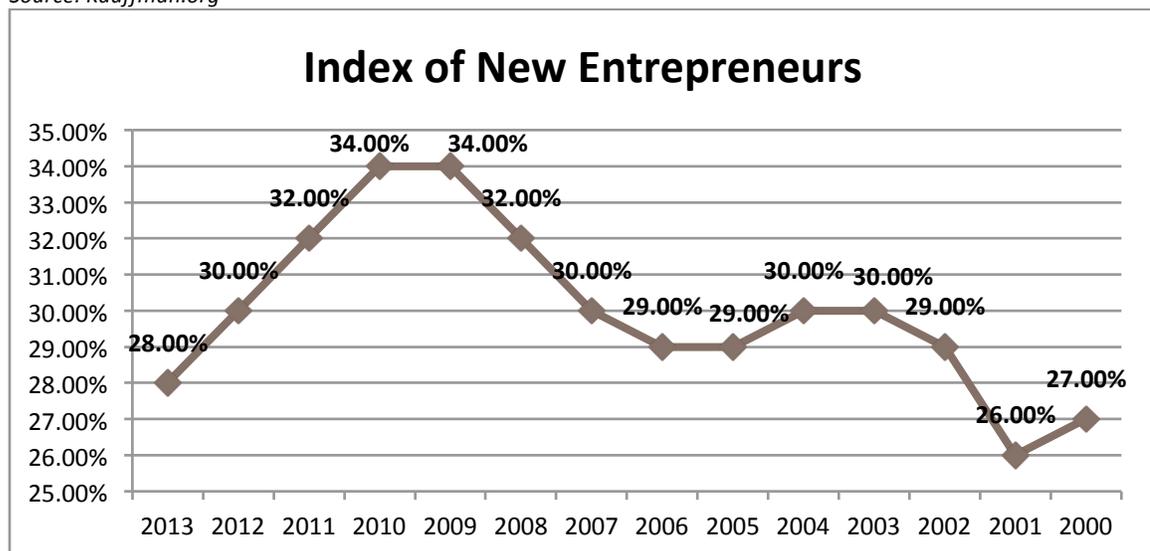


Delta Air Lines

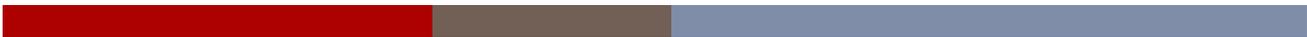
The 2008 to 2009 the housing bubble “popped” and housing price began to fall dramatically. This can be seen through the United States Housing Price Index. People could no longer afford their mortgages and had to foreclose their homes causing the average price of American homes to fall. If people cannot afford basic living expenses such as home mortgages and with the unemployment rate dramatically high, luxury good sales were put on the backburner. The airline industry is a luxury good that persons will only spend their money on if they have the extra income to do so. With businesses trying to keep expenses low due to falling revenues and families taking less vacations during the period due to lower incomes and high unemployment the housing crisis directly affected the sales of Delta Air Lines.

Level of New Business Startups

Source: Kauffman.org



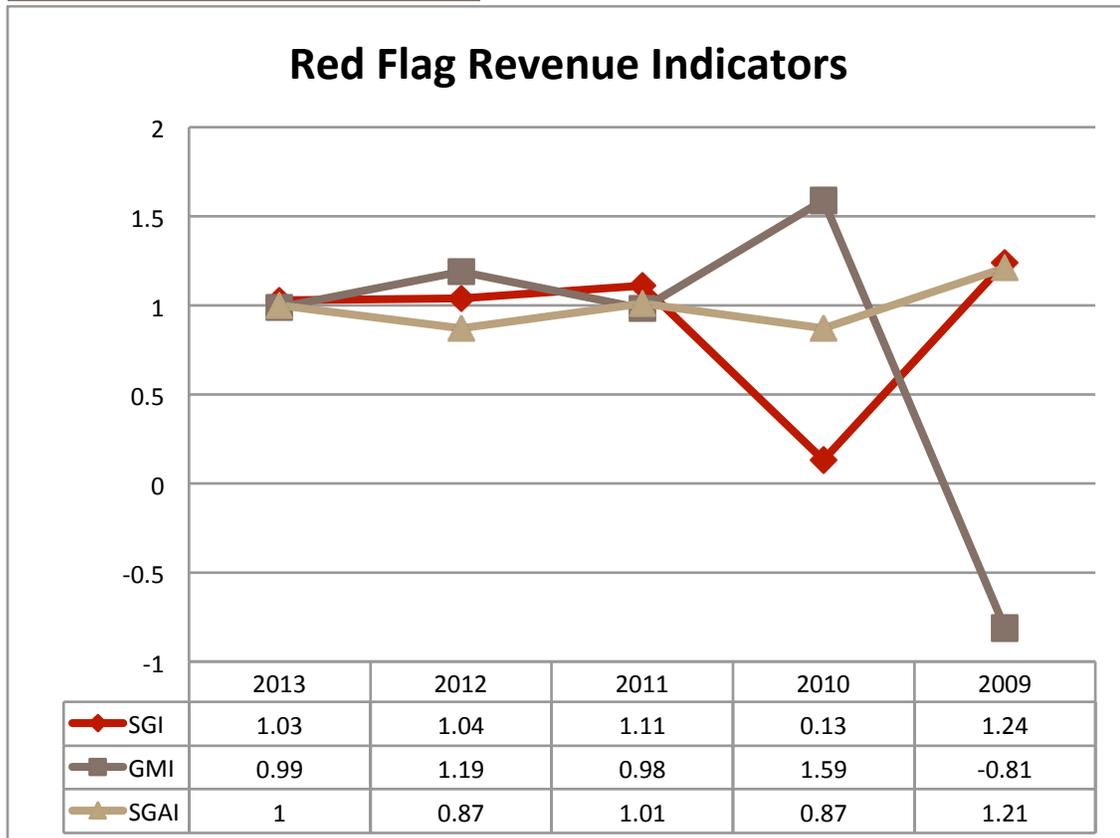
Delta Air Lines



The number of business start-ups rose during the recession (2008-2010) due to the high number of layoffs in the United States that forced working citizens to find other means of work. This often meant employees became entrepreneurs and started their own company. The airline industry on the other hand, decreased the number of competitive forces (companies) during the period. Due to the decrease in sales, the need to reduce cost and the large number of airline services available the industry began to consolidate. From the merger of Delta Air Lines and Northwest Airlines to American Airlines buy-out of United Airways, the airline industry became a much smaller service line in terms of number of competitors. This also coincides with the larger number of layoffs during the period.

Delta Air Lines

REVENUE RECOGNITION PRINCIPLES



Sales Growth Index (SGI): Sales Growth Index fell drastically from 2009 to 2010, but after 2010 made a rapid increase back to levels pre-2010. From 2011 and thereafter, the index leveled back out to a consistent level. The issue with the rapidly increasing index from 2010 to 2011 is it reflects a possible manipulation of revenue. According to the 10-K the revenue rose very rapidly because investment projects of new terminals at JFK and other airports were completed and allowed for more passenger flights. The 10-K also ruled out channel stuffing as the reason for the increased SGI. The company places

Delta Air Lines

advance ticket sales in Air Traffic Liability and does not recognize SkyMiles earned (customer loyalty program) until the flight ticket is redeemed. This proves that the company is not recognizing revenues earlier than they should.

Gross Margin Index (GMI): Delta Air Lines' gross margin index was volatile in 2009 and 2010. In 2009, the GMI was negative due to a negative gross margin that year. The negative gross margin in 2009 was most likely due to lower revenues due to the recession and the increased operating expenses from the acquisition of Northwest Airlines. In 2010 the index made an enormous jump to 1.59, which indicates that the company's gross margins have deteriorated and the management wants to improve numbers. This is clear from the large increase of gross margins between 2009 and 2010. After 2010, the index began to stabilize, teeter-tottering from just above one to just below. Delta is clearly trying to improve its revenue and decrease cost.

Sales, General and Administrative Expenses Index (SGAI): Delta Air Lines' SGAI tends to be just below or just above one every year. The close premise of the index around one every year implies that the company's expenses are increasing at a rate nearly equal rate to sales. This is a good sign, this highlights that Delta is most likely not overestimating revenues due to the near constant rate increase in both entities.

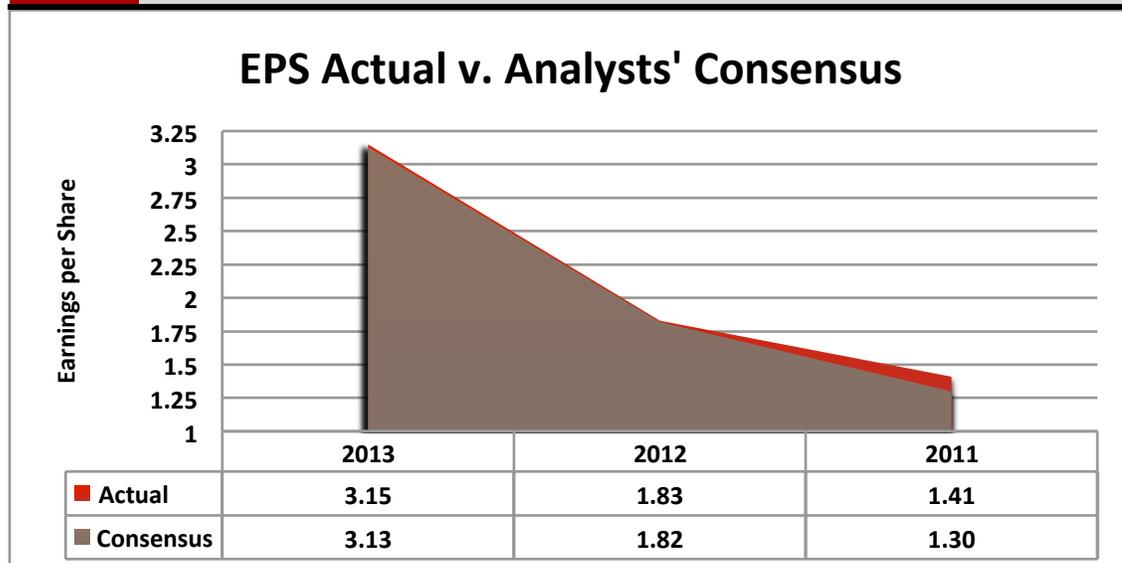
Delta Air Lines

Overall, Delta's revenue recognition red flags show little concern. Even if concern does arise, like in the sales growth index, the notes in the 10-K Statements quickly clarify any issues.

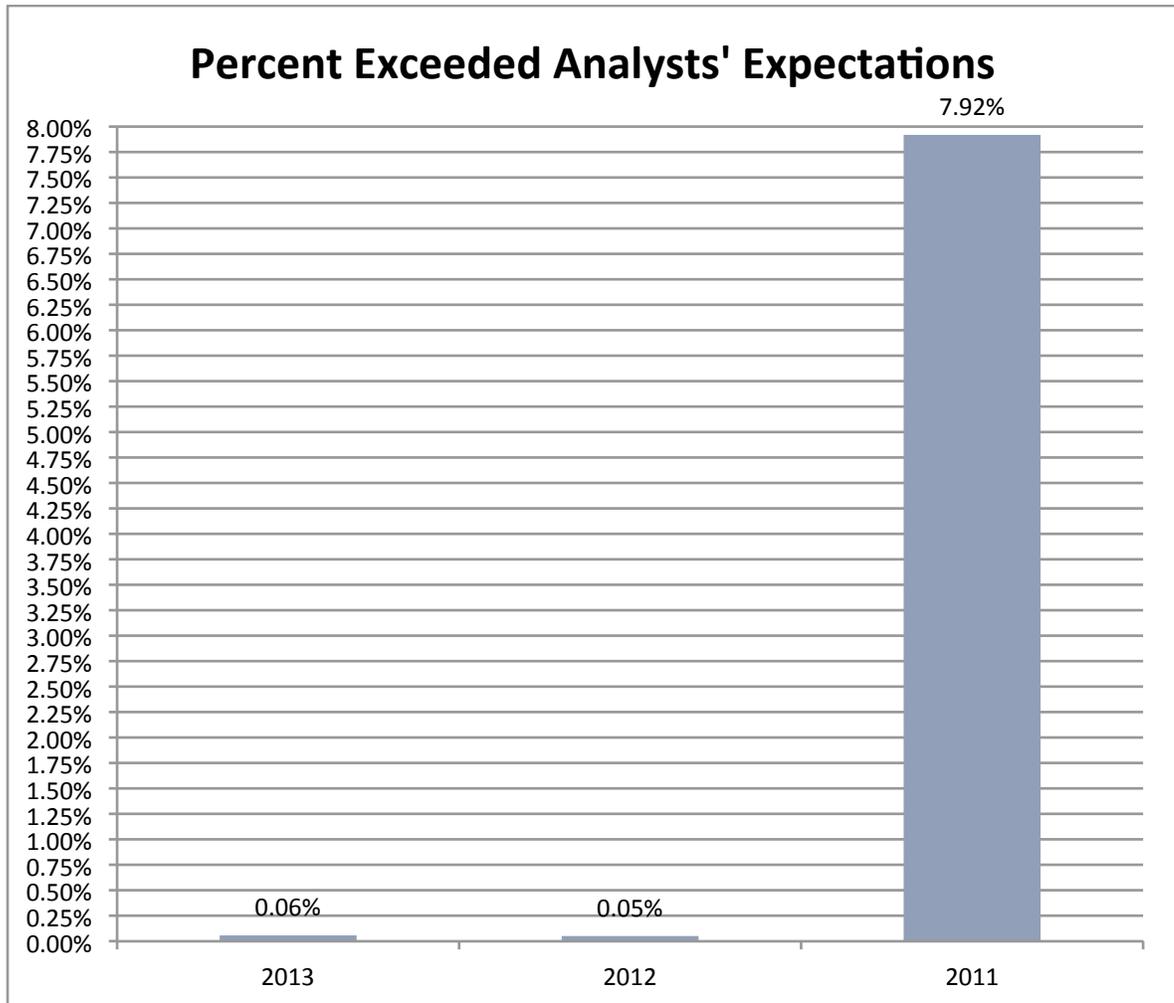
ANALYSTS' FORECAST

Analysis Forecasts historical data could only be found for Delta Air Lines for the years 2011, 2012 and 2013. Extensive research on multiple sources was completed and data prior to 2011 cannot be found even in news articles, financial websites and historical data charts.

<u>Year</u>	<u>Number of Estimates</u>	<u>High</u>	<u>Low</u>	<u>Consensus</u>	<u>Actual</u>
2011	17	1.38	1.22	1.30	1.41
2012	17	1.87	1.73	1.82	1.83
2013	16	3.39	3.04	3.13	3.15



Delta Air Lines



Earnings per share analysts' estimates were close to actual earnings per share in 2013 and 2012 with earnings per share beating the target only by .06 percent and .05 percent respectively. In 2011, the analysts' consensus was far off from the actual earnings per share with Delta Air Lines rising about the target by 7.92 percent. Delta exceeding earnings per share targets keep shareholder's content and managers out of trouble.

Delta Air Lines

EARNINGS MANAGEMENT

Managers have an immense amount of pressure to meet analysts' earnings per share targets and sometimes firms will resort to alterations in estimates to meet these standards. Delta Air Lines' most likely did not make alterations to 2011 actual earnings per share due to the large difference between analyst's estimates and the actual value at the end of the fiscal year. On the other hand 2013 and 2012, are much more likely to have changes in actual earnings per share computational values to meet target amounts due to the minute difference between actual and consensus earnings. In 2012 and 2013 Delta Air Lines exceeded its target values by only two cents and one cent respectively. Managers may have felt pressure to meet these targets due to the large amount earnings per share surpassed targets in 2011. Managers often will make actual earnings per share seem higher than the target to try to convince stockholders of the firm's success. On the other hand some managers may want to show earnings per share below target values for certain years. A manager would do this if the earnings were so bad that they could not be reprimanded to beat the target values. The manager would therefore push the earnings per share towards a lower artificial amount to carry the cost of future costs that would damage later earnings per share. The mindset here is that it's better to have one really bad year than multiple marginal bad years. Possible entities that Delta Air Lines could have manipulated to reach target earnings per share are classification of

Delta Air Lines



costs as period rather than product to increase gross margin, altering depreciation estimation, treating ordinary repairs as major capitalized repairs to increase earnings and price concessions to increase sales. Delta would be more likely to alter equipment such as aircrafts because that is large portion of their assets and is heavily based on estimates such as depreciation and major repairs. In terms of sales, passenger airfare has the ability to easily be offered at concession prices to increase sales as much as possible. Delta Air Lines most likely handle most earnings management through airfare sales and property, plant and equipment based asset values.

Delta Air Lines

CHAPTER EIGHT

CAPITALIZATION OF OPERATING LEASES

Utilizing Delta Air Lines' 10-K Leasing Obligations Note, the company has both operating and capitalized leases. Capital leases have both the lease asset and liability reported on the balance sheet, while operating leases have neither the lease asset nor the liability stated. This means that financial analysis data that was calculated in Chapter 6 need to be adjusted for the capitalize leases to accurately depict the company's financial standings. The first step in this process is imputing the discount rate, which involves finding the IRR based upon the capital leases to use to capitalize the operating leases. Step one is depicted below:

DISCOUNT RATE (in millions of dollars)	
PV of future minimum capital lease payments	(\$497)
2014	\$165
2015	\$158
2016	\$143
2017	\$100
2018	\$54
IRR	9.34%

Step two in the capitalization of operating leases is to compute the present value of future operating lease payments. To complete this step, first the operating lease payment is discounted by the discount factor, which calculates a present value amount.

Delta Air Lines

These values are summed together to get the Present Value of Operating Lease Payments. Step two is illustrated below:

PRESENT VALUE OF OPERATING LEASE PAYMENTS (in millions of dollars)			
<u>Year</u>	<u>Operating Lease Payment</u>	<u>Discount Factor (IRR=.0934)</u>	<u>Present Value</u>
1	\$1,429	0.914593737	\$1,307
2	\$1,356	0.836481703	\$1,134
3	\$1,186	0.765040927	\$907
4	\$1,026	0.69970164	\$718
5	\$831	0.639942737	\$532
Thereafter	\$831	1.12058801	\$931
		<u>PV of Operating Lease Payments</u>	<u>\$5,529</u>

Finally, now that the present value of the operating lease payments has been found the financial analysis data must be adjusted to include the operating lease asset and liability. NOA increased due to the addition of the operating leases as an asset. The NNO therefore also increases due to the addition of the lease present value. The NOPAT slightly grows because the company is reporting overall less expense by deducting operating lease payments even though depreciation expenses increase at a smaller amount. RNOA before the adjustment appears larger. This misconception makes the company seem to have more return on equity from operating activities than actually exists. NOAT is higher before the adjustment, meaning the assets are not turning over as quickly as originally believed.

Delta Air Lines

ADJUSTED BALANCE AFTER OPERATING LEASE CAPITALIZATION		
	<u>Original Value</u>	<u>Adjusted Balance</u>
NOA	\$19,060	\$24,589
NNO	\$7,471	\$13,000
NOPAT	\$14,182	\$14,996
RNOA	109.56%	60.99%
NOPM	37.55%	40.00%
NOAT	2.92	2.40
FLEV	1.72	1.85

Companies like to structure their leases as operating rather than capitalizing them because it benefits their financial data. The company's income will appear higher in years with an operating lease because the rent expense of an operating lease is less than the depreciation and interest expense of a capital lease. This means that income will be higher in years where operating leases are held. So if a company wanted to artificially raise its profits each year, it could add more operating leases each year. Rising profits look better to shareholder's, which encourages managers to report leases in this manner. Although the addition of operating leases looks good in the short-run it is not a good permanent fix for increasing profits. The issue with this is that income is not really that high because the company is increasing its debt, which is not an ideal business strategy in the long run. In other words, managers utilize operating leases as a "quick fix" to increase profits and therefore shareholder value.

Delta Air Lines

WEIGHTED-AVERAGE COST OF CAPITAL

Weighted-average cost of capital is an important financial analysis indicator utilized in performance evaluation and stock valuation models. In order to find weighted-average cost of capital (WACC), first the cost of equity and cost of debt must be computed. The cost of equity is computed by take the risk-free interest rate (2.5 percent) plus beta (.58) times the spread (six percent). The risk-free interest rate and the equity spread are constant market factors and do not differ between companies. The beta can be found on Yahoo! Finance and Delta's beta was found to be .58. The cost of equity computation is depicted below:

<u>Cost of Equity</u>	
Beta	0.58
Risk Free Rate	2.5%
Equity Spread	6.0%
Cost of Equity	<u>5.98%</u>

After the cost of equity is found, the cost of debt is computed. The cost of debt is calculated by finding the average interest-bearing debt, which consists of both long-term and current liabilities like notes, leases, etc. that pay interest, and dividing interest expense by that value. The answer to that computation gives the company's cost of debt before tax. Delta Air Lines' value was 5.80 percent. To find the after-tax cost of debt, the cost of debt before tax is simply multiplied one minus the tax rate. Delta's

Delta Air Lines

effective tax rate for 2013 was a 317.20 percent tax benefit, which caused the after-tax cost of debt to be quite high. The computation is depicted below:

Cost of Debt (dollars in millions)	
Average Interest Bearing Debt	\$12,026
Interest Expense	698
Cost of Debt before Tax	<u>5.80%</u>
Effective Tax Rate	-3.172
After-Tax Cost of Debt	<u>24.22%</u>

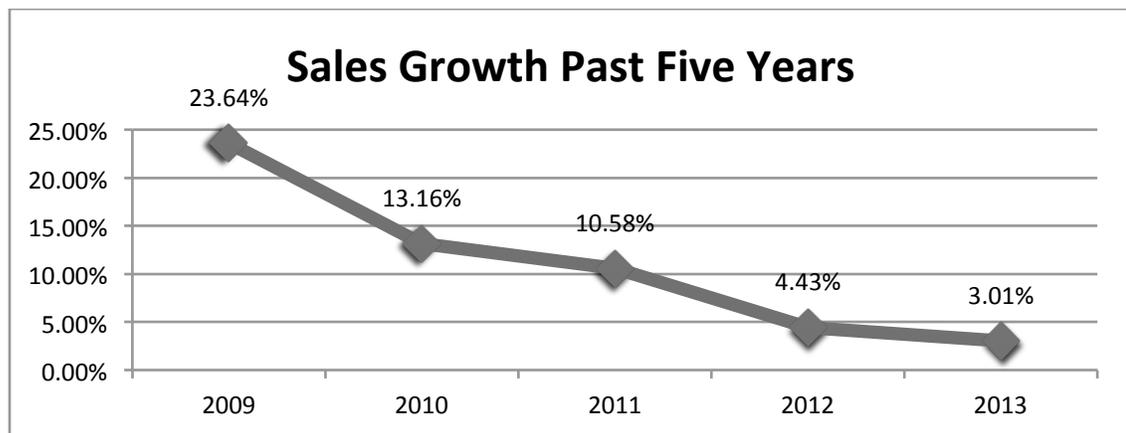
Once both the cost of equity and debt has been calculated, the WACC can be found. The equation for WACC is the stockholder's equity in 2013 divided by the sum of stockholder's equity and total debt in 2013. That value is called the equity weight. Taking one minus the equity weight finds debt weight. Finally, WACC is equated by multiplying the cost of equity by equity weight plus the cost of debt times the debt weight. Delta Air Lines has a WACC of 14.98 percent. WACC depicts the average cost of raising capital.

Weighted-Average Cost of Capital (dollars in millions)	
Stockholders' Equity	\$11,643
Total Debt	\$11,342
Equity Weight	50.65%
Debt Weight	49.35%
Weighted-Average Cost of Capital	<u>14.98%</u>

Delta Air Lines

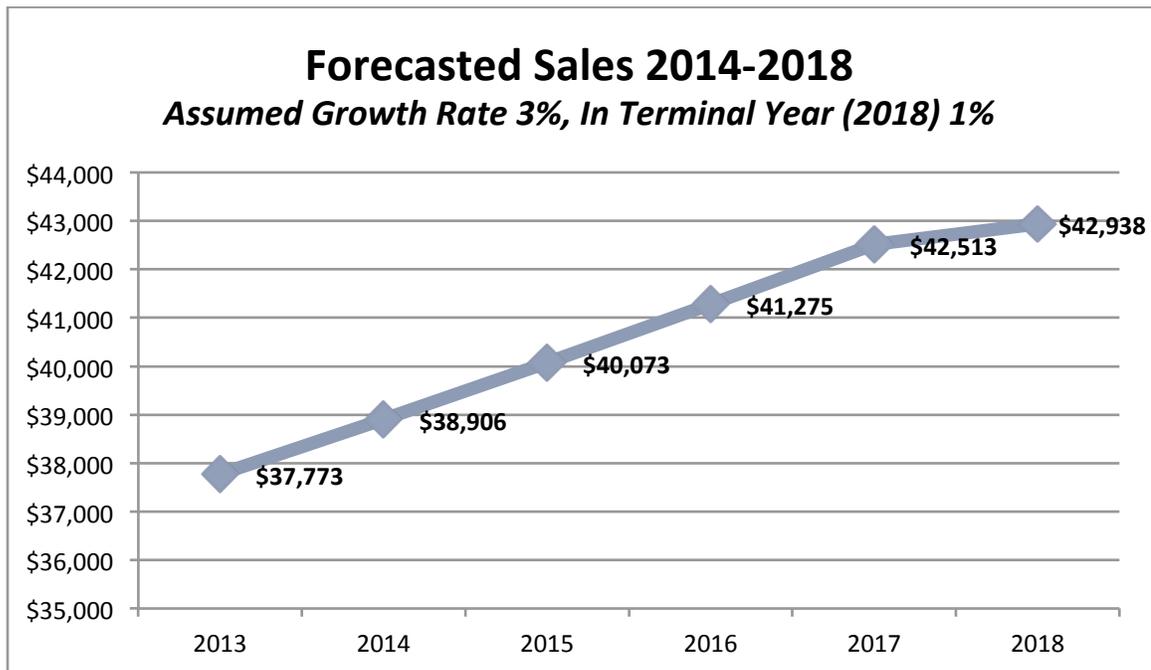
SALES FORECASTING

Sales growth forecasting was computed by first looking at sales growth percent over the past five years. The sale growth over the last five years has steadily decreased, but has begun to plateau to a more constant amount after 2012. For this reason utilizing the average sales growth over the last five years (about 10 percent) is not an accurate estimate of sales growth for the next five years. The average sales growth over the past five years would be too high due to the large range of value between 2009 and 2013. Therefore, it was much more reasonable to utilize a constant predictive growth rate of 3 percent over the next five years.



Below are the forecasted sales from 2014 to 2018. 2013 is included as the base line last reported year of sales. It is also important to note, that since 2018 is the termination year a once percent growth rate will be utilized instead of the standard 3 percent.

Delta Air Lines



STOCK VALUE PER SHARE

Stock valuation can be completed using one of two models: DCF and ROPI. DCF is a popular and widely used stock valuation model that is best when the firm reports a positive FCF. FCF is operating activity cash flows plus investing activity cash flows. DCF has the advantage of cash flows not being affected of accrual accounting, which means that noncash or unearned activities will not affect the stock valuation. DCF is poor at calculating cash investment in plant assets because it shows a cash outflow, even though these items add value to the company.

Delta Air Lines

DCF MODEL (in millions of dollars)						
Year	2013	2014	2015	2016	2017	2018
Operating	\$4,504					
Investing	(\$2,756)					
FCFF	\$1,748	\$1,800	\$1,854	\$1,910	\$1,967	\$2,026
Discount Factor		0.869	0.756	0.658	0.572	
PV of Horizon FCFF		\$1,566	\$1,403	\$1,257	\$1,126	
Cum. PV of Horizon FCFF	\$5,351					
+ PV of terminal FCFF	\$14,495					
= Total Firm Value	\$19,846					
Less NNO	(\$13,000)					
= Firm Equity Value	\$6,846					
Shares Outstanding (in millions)	/869					
<u>Stock Value Per Share</u>	<u>\$7.88</u>					
<u>Trading Price 12/31/2013</u>	<u>27.19</u>					

Delta Air Lines' DCF Model Stock Valuation output a stock value per share of \$7.88. On December 31, 2013, Delta Air Line's stock had a trading price of \$27.19, which means that the stock was very overly valued. This could be due to the fact that DCF does not calculate plant assets as a value adding activity. This is a huge issue for a company such as Delta Air Lines that is heavily property, plant and equipment based. Much of Delta's assets are the aircrafts themselves, which add value to the company, but these are not included in the DCF model calculation. Therefore, the DCF may not be the best option for calculation stock value for Delta Air Lines

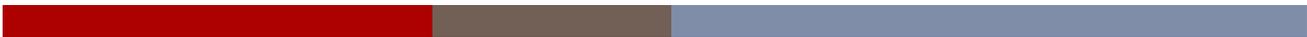
The other option for calculating stock valuation is the ROPI model. The ROPI model focuses on value drivers like asset turnovers, specifically NOAT, and profit margins, specifically NOPM. The model unlike the DCG model is affected by accrual

Delta Air Lines

accounting and utilizes numbers from the balance sheet and the income statement. The model is best for companies with most assets and liabilities reported on the balance sheet and that have off-balance sheet items as well. Although a disadvantage of the ROPI model is the financial statement do not always depict all the assets of a company such as knowledge based assets.

ROPI MODEL (in millions of dollars)						
<i>Year</i>	<i>2013</i>	<i>2014</i>	<i>2015</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>
Sales	\$37,773	\$38,906	\$40,073	\$41,275	\$42,513	\$42,938
Growth Rate	3.0%	3.0%	3.0%	3.0%	3.0%	1.0%
NOPM	0.40	0.4	0.4	0.4	0.4	0.4
NOPAT	\$15,109	\$15,562	\$16,029	\$16,510	\$17,005	\$17,175
NOAT	2.4	2.4	2.4	2.4	2.4	2.4
NOA	\$15,739	\$16,211	\$16,697	\$17,198	\$17,714	\$17,891
Residual Income Model		1	2	3	4	Terminal
Required Return		\$2,358	\$2,428	\$2,501	\$2,576	\$2,654
ROPI		\$13,204	\$13,601	\$14,009	\$14,429	\$14,521
Discount Factor		0.86972	0.75641	0.65786	0.57215	
PV of Horizon ROPI		\$11,484	\$10,288	\$9,216	\$8,255	
Cum. PV of Horizon ROPI	\$39,243					
+ PV of Terminal ROPI	\$103,873					
= Total Firm Value	\$143,116					
Less NNO	(\$13,000)					
= Firm Equity Value	\$130,116					
Shares Outstanding (in millions)	/896					
Stock Value per Share	<u>\$145.22</u>					
Trading Price 12/31/13	<u>\$27.19</u>					

Delta Air Lines



The ROPI Model calculated a stock value per share \$145.22, and the trading price on December 31, 2013 was \$27.19. This valuation method shows that the Delta Air Lines' stock is heavily undervalued. The ROPI Model is most likely the best model for Delta Air Lines largely due to the enormous amount of plant, property and equipment assets the company owns. The company also has a large interest in balance sheet liabilities such as leases. These items are not included in the DCF Model causing the stock to seem greatly overvalued, when really the opposite is taking place. Utilizing the ROPI Model, potential stockholders should invest in Delta Air Lines due to the undervaluation of its current stock price. This is line with analysts' predictions of consistent growth and encouragement to invest in Delta Air Lines and Delta's continued improvement in areas such as profits and decreased expenses over the last five years.

Delta Air Lines

CHAPTER NINE

MANAGEMENT ASSERTIONS

Every assertion reported on a public company's financial statements must be audited against management assertions. Management makes many assertions about assets, liabilities, equity, revenues and expenses and these numbers need to be checked for accuracy and validity. The five management assertions that must be checked are: existence or occurrence, completeness, rights and obligations, valuation or allocation, and presentation and disclosure. Each of the assertions has questions that auditors must try to answer as well.

Existence or Occurrence

- Do the accounts on the Balance Sheet actually exist?
- Did the transaction occur during the period?

Completeness

- Are all transactions and balances included in financial statements?
- Are items overstated?

Rights and Obligations

- Does the organization have the ownership or noncancelable use of its assets?
- Are liabilities the obligation of the company?

Valuation or Allocation

- How does the company value its rights and obligations?

Presentation and Disclosure

- Are all balances and transactions correctly classified?
- Are necessary footnotes and notations included on financial statements?

Delta Air Lines

Looking at Delta Air Lines' financial statements, the assertions can be answered for each major account:

ASSETS

<u>Account</u>	<u>Existence or Occurrence</u>	<u>Completeness</u>	<u>Rights and Obligations</u>	<u>Valuation or Allocation</u>	<u>Presentation and Disclosure</u>
Cash and Cash Equivalents	Bank Reconciliation: make sure accounts match	Cash received should equal transaction cost	If the company has the cash in possession than they have the right to the asset	Cash valued by total economic value in US dollars	<u>Classification:</u> Current Asset <u>Footnotes:</u> None
Short-Term Investments	Correct valuation of short-term investments to ensure not overstating assets	Investments should match value of item and entity related to	Company has right because of ownership in short term investments	Investments should be recorded at fair market value to avoid overstatement	<u>Classification:</u> Current Asset <u>Footnotes:</u> Valuation, Investment details
Restricted Cash, Cash Equivalents, & Short-Term Investments	The amount of cash equivalent should be recorded in bank statements and portfolios	Cash equivalents received should be equal to the transaction cost	Like cash, companies have a right to cash equivalents because they have possession of the asset's use	Investments should be recorded at fair market value to avoid overstatement	<u>Classification:</u> Current Asset <u>Footnotes:</u> FMV valuation, what it contains

Delta Air Lines

Accounts Receivable	Accounts receivable should be net bad debts expense and amount owed; should match to a transaction obligation that has occurred but not yet been paid	Accounts receivable due should match the transaction value it is in accordance with, net cash already received	The company has performed an obligation and has right to receivable in return	Amount due from customers minus an estimated uncollectible amount based upon historical data, write-offs, bankruptcy, etc.	<u>Classification:</u> Current Asset <u>Footnotes:</u> Valuation method, and details on receivables owed, bad debts expense
Fuel Inventory	All finished goods, physical count of inventory	Inventory levels recorded in correct time period, paired with transaction sales	Company has the right to the inventory it produces or owns	Valued at lower of cost or market; FIFO	<u>Classification:</u> Current Asset <u>Footnotes:</u> Valuation, items in inventory
Expendable Parts and Supplies Inventories	Physical count of parts to ensure amounts	Inventory levels recorded in correct time period, match transaction sales	Company has the right to the inventory it produces or owns	Valued at moving average cost and charged to operations when consumed	<u>Classification:</u> Current Asset <u>Footnotes:</u> Valuation, disposal
Deferred Income Taxes	Temporary difference between financial statements and tax return values	All differences must be originated and then reversed to recognize the temporary difference, then diminish it	Tax right that will eventually allow taxable income to equal income before taxes; caused because taxable income is greater than income before tax in originating year	Valued using the Liability method; carrying temporary differences	<u>Classification:</u> Current Asset or Non-Current Assets <u>Footnotes:</u> Originating or reversing status; valuation

Delta Air Lines

Property and Equipment	Physical count of long-term assets, comparing to market prices, estimates for life are more difficult to confirm	Property, plant and equipment needs to be property depreciated to current value	Delta has a right of the property that it withholds	Record at cost and depreciated on a straight-line basis	<u>Classification:</u> PPE Assets <u>Footnotes:</u> Valuation, depreciation, types
Goodwill	Hard to count due to lack of physical presence; must follow a clear audit trail of goodwill valuation and beginnings	Fair value impairment of goodwill must represent the current value of the asset	Goodwill is a right because it is an asset that Delta holds	Fair value impairment carrying value test to determine goodwill value; valued using market capitalization and income approach valuation techniques	<u>Classification:</u> Other Assets <u>Footnotes:</u> Valuation
Identifiable Intangibles	Hard to count due to lack of physical presence; must follow a clear audit trail of where intangibles came from	All intangibles must be accounted for at the accurate carrying value	Intangibles are a right that is not physical but Delta still owns	Should be recorded at gross carrying value and amortized at estimated aggregate value; valued using market capitalization and income approach valuation	<u>Classification:</u> Other Assets <u>Footnotes:</u> Valuation
Other Noncurrent Assets	Many assumptions are used in valuation due to limited market data must have clear audit trail of valuation techniques	All long term investments must be updated each year to current market value	Long-term investments are a right because Delta owns a piece of another entity	Valued at quoted market prices	<u>Classification:</u> Other Assets <u>Footnotes:</u> Valuation of long-term assets → not very clear on valuation calculations

Delta Air Lines

LIABILITIES

<u>Account</u>	<u>Existence or Occurrence</u>	<u>Completeness</u>	<u>Rights and Obligation</u>	<u>Valuation or Allocation</u>	<u>Presentation or Disclosure</u>
Current Maturities & Long-Term Debt & Capital Leases	Must mature (be paid) in next year; amount paid should equal amount recognized	Amount maturing in the next year; must remove from long term obligations	The long-term obligations that the company must pay this year	Adjusted portion of the long term debt that is currently due in the next year	<u>Classification:</u> Current Liabilities <u>Footnotes:</u> By type of liability (leases, loans etc.)
Air Traffic Liability	Should be equal to the ticket sales occurred	Total presold ticket sales accounted for, must be decreased when provide service	Obligation to provide transportation to consumers for ticket purchases	Value of advance tickets sold; market value	<u>Classification:</u> Current Liabilities <u>Footnotes:</u> valuation, description of liability items
Accounts Payable	Hedge values, must be evaluated correctly	Valuation of hedges, risk accounted for each year	The obligations the firm must meet in the next year	Margin funding contracts of hedges	<u>Classification:</u> Current Liabilities <u>Footnotes:</u> Hedges
Accrued Salaries & Related Benefits	Number of days and amount of pay worked but not paid	Adjusting entry made at end of year, must be paid next pay period	Obligation to pay employees	Value of salary/wage promised to employees	<u>Classification:</u> Current Liabilities <u>Footnotes:</u> None
Taxes Payable	Sales times the tax rate should equal the amount of sales tax due and recorded	All taxes should be applied and recorded as obligation until paid to government	Obligation of taxes due to foreign, national or local entities	Tax rate times the current value of sales	<u>Classification:</u> Current Liabilities <u>Footnotes:</u> None
Fuel Card Obligation	Should not be over card limit; should be equal to fuel inventory received	Must be paid monthly, recorded when purchase takes place	Obligation because is payment due for purchased fuel and oil to American Express	Value of purchases on the cards	<u>Classification:</u> Current Liabilities <u>Footnotes:</u> valuation, limitations

Delta Air Lines

Other Accrued Liabilities	Value of Frequent Flyer miles that are available for sale	Must recognize sale and move to revenue upon transaction	Obligation to sell Frequent Flyer miles to meet mile obligations	Residual method; marketing component of the loyalty program	<u>Classification:</u> Current Liabilities <u>Footnotes:</u> description, frequent flyer footnote
Long-Term Debt and Capital Leases	Check audit trail of lease footnote and calculate accuracy of leases; acquired should equal owed	Total leases and debt minus what is currently maturing	Obligations that must be met in the long-term (plane purchases, leases, etc.)	Adjust to fair value with discount rate	<u>Classification:</u> Long Term Liabilities <u>Footnotes:</u> lease footnote, valuation
Pensions	Benefit accruals should remain frozen, so must just calculate contribution, interest cost, service cost, etc.	Have calculations for each item in the pension worksheet	Obligations of benefits provided to employees post-retirement	Frozen from future benefit accruals; amortized over 17 year old period	<u>Classification:</u> Long Term Liabilities <u>Footnotes:</u> Pension worksheet
Deferred Income Tax	Temporary difference between financial statements and tax returns	All differences must be originated and then reversed to recognize the temporary difference, then diminish it	Tax obligation that eventually is diminished that originated due to income before tax being greater than taxable income	Valued using the liability method; carrying temporary differences	<u>Classification:</u> Current Liabilities <u>Footnotes:</u> Originating or reversing status, valuation
Frequent Flyer Deferred Revenue	Recording miles earned at fair market prices	Establish a value per mile to avoid overstatement of amount due	This is an obligation because it is a ticket for the number of miles owed to customers	Miles earned by customers of loyalty program at value of ticket price for miles	<u>Classification:</u> Long Term Liabilities <u>Footnotes:</u> Frequent Flyer Program

Delta Air Lines

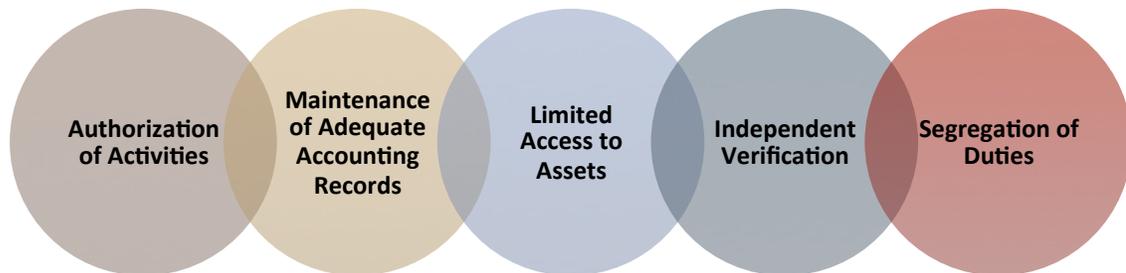
AUDIT RISKS

An audit risk is most likely to occur when three areas of the fraud triangle are met: pressure, realization, and opportunity. Assets easily meet all three of the requirements, making assets a large audit risk for Delta Air Lines. Management may feel the pressure to increase asset amounts because this usually helps improve financial analysis data and therefore shareholder value. Realization that assets can be easily manipulated to higher values furthers the ability to commit fraud. Many of Delta Air Lines' assets are valued with predicted amounts rather than the predetermined payment values like liabilities due. In terms of opportunity, assets also have an easier accessibility because they are the right of the company and therefore can be misconstrued due to the lack of obligation to pay or provide a service to another entity. In other words, the company can act single handily in asset fraud because there is no involvement with other companies. Therefore, auditors should concentrate heavily on what the company reports as owned because they have a smaller audit trail than liabilities due to the lack of multiple entity involvement. Furthermore, assets have a higher accessibility from personnel due their ability to be tangible items. The immense size of property, plant and equipment and the estimations utilized allows for an audit risk to occur and the lack of clarity in inventory controls creates a risk there as well. There are five main internal control categories that aid in decreasing the audit risk:

Delta Air Lines

authorization of activities, maintenance of adequate accounting records, limited access to assets, and independent verification and segregation of duties.

INTERNAL CONTROLS:



1. Property, Plant and Equipment:

Property, Plant and Equipment should be tested to ensure that financial values presented are what actually exist. First the auditor should take a physical count of equipment (the aircrafts). The auditor should also research the fair market value of the assets using current average sales prices. The biggest estimation for PPE is the calculation of depreciation expense. Delta Air Lines uses straight-line depreciation meaning the depreciation expense should be equal for each asset every year. The company must estimate the useful

life of the asset in order to determine depreciation expense. The best way of doing this is to look at historical useful life of similar assets and determine a standard useful life

Delta Air Lines

depending on product type. Using audit trails the auditor should ensure that the cost of the PPE, depreciation and other investment aspects calculate to the reported adjusted basis of the asset. Internal controls are also important to decrease audit risk for the valuation of depreciation, sale and purchase of property and equipment as seen below:

Internal Control	Recommendation	Effect of Risk
<i>Authorization of Activities</i>	Maintain Historical Price List	Ensure that the item is being depreciated at constant rate using straight-line method and to compare valuation of assets over time
<i>Maintenance of Adequate Accounting Records</i>	Use predetermined use life for aircrafts	Determining a set use life of equipment such as aircrafts based off historical life will allow for more consistent and accurate depreciation computations
<i>Limited Access to Assets</i>	Ledgers and Journals Maintained	Limit who can update value of PPE
<i>Independent Verification</i>	Verify that PPE disposal value has the correct adjusted basis (check original cost, depreciation and sale price)	Ensuring that all numbers are calculated correctly leads to less errors on financial records
<i>Segregation of Duties</i>	Selling or Purchasing PPE differs from personnel posting to ledger	Makes it harder for someone to get a kickback or extra commission from the sale or purchase of PPE

2. Inventory:

Inventory needs to be checked to ensure that ending inventory, inventory purchased and inventory sales and recorded accurately in the financial statement. First the auditor should take a physical count on inventory to determine if unit levels are correct. Then

Delta Air Lines

the auditor needs to check the audit trail to ensure transactions occurred at reasonable limits. The company should create a price limit to ensure that transaction data was not incorrectly entered for the sale or purchase of inventory, but also to detect if a personnel is selling inventory or purchasing inventory at higher values and pocketing some of this as commission illegally. Audit trails are essential in detecting fraud occurring in inventory. Inventory should be valued utilizing current market data on the fair market value of the items withheld. Internal controls are important for reducing the audit risk of inventory assets. This is described in further detail below:

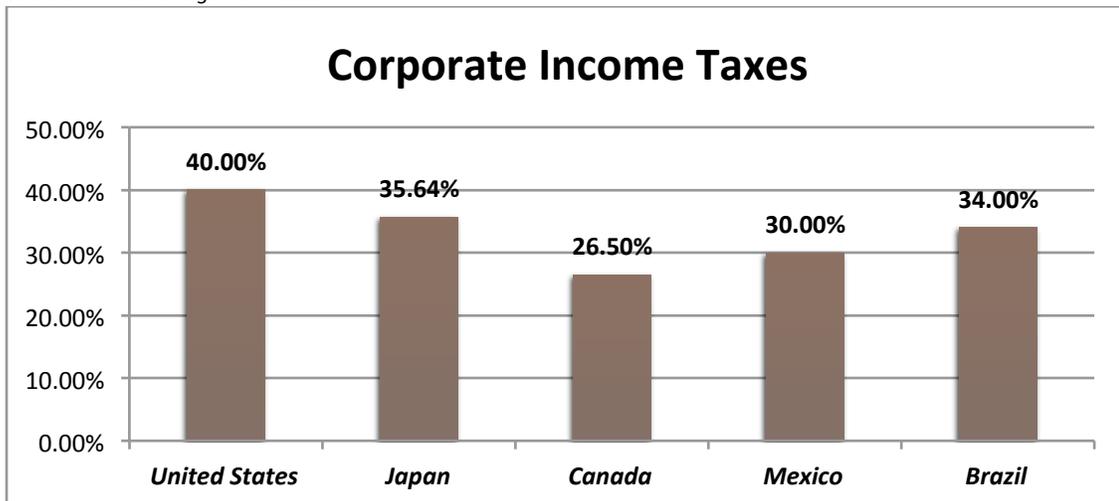
Internal Control	Recommendation	Effect on Risk
<i>Authorization of Activities</i>	<p>Establish an authorized customer list that specifies what customers are approved for inventory transactions</p> <p>Maintain historical price list</p>	<p>These reduces the risk of alias customers and therefore fake sale transactions</p> <p>Used to compare with purchase price of assets and determine if price is a standard amount</p>
<i>Maintenance of Adequate Accounting Records</i>	<p>Embed check digits in account numbers</p>	<p>This creates a barrier between the creation of the check and the deposit which means unauthorized personal would have a difficult time stealing routing number etc. to steal money</p>
<i>Limited Access to Assets</i>	<p>Move inventory only when approved with documentation</p> <p>Secure warehouse inventory</p>	<p>Inventory should not be removed from the warehouse</p> <p>Make sure inventory is locked and securely kept track of will reduce opportunity to steal</p>

Delta Air Lines

<i>Independent Verification</i>	Compare documentation: Units shipped and amount billed	The dollar value sold should equal the value of the number of units shipped; this will detect if there is fraud occurring such as illegal commissions on sales
<i>Segregation of Duties</i>	Sales from credit approval Shipping from billing Sales from receivable posting	Sales can only occur to reputable Person shipping the goods and billing Person making the sale cannot have control of money to decrease likelihood of fraud

FOREIGN TAX RATES

Source: KPMG Foreign Tax Rates



The United States has a statutory corporate tax rate of 35 percent plus the statutory tax rate for corporations of the state the company performs operations in, creating an overall average corporate tax rate of 40 percent. The United States has high corporation taxes compared to other countries. The countries chosen to compare US

Delta Air Lines

statutory tax rate with were: Japan, Canada, Mexico and Brazil. Japan and Canada are the two countries that Delta performs the most transactions in and has the highest amount of foreign currency exchange with. Japan's tax rate is only five percent lower than the United States while Canada's is about 15 percent lower. Mexico and Brazil were also included on the comparison due to Delta's large investments in aircraft manufacturers there. Although the United States has the highest statutory tax rate Delta should not move its operations to another country. First, countries with extremely low statutory tax rates often do not have the infrastructure to support a large airport and air service corporation. As for countries like Canada and Mexico, the tax rate is lower and infrastructure for large airports is in place, but leaving the United States could also mean a loss in revenues because Delta most likely would lose many of its bids on airport terminals and have increased barriers to operate in the United States air service market.

TAX CREDITS

Source: NY Times "Lawmakers May End Tax Break on Jet Fuel, to Delta's Dismay"; The Street "Delta Air Lines (DAL) Stock Soaring Today After Earnings Release."

Delta has a huge advantage during this most recent period of growth due to past losses that can now be utilized as carry forwards. In 2008 and 2009 alone, Delta Air Lines had over two billion dollars of losses that it can now carry forward for the next 20 years to offset future earnings. Plus the company has losses from years prior to that, which are still applicable to the carry forward policy. According the company's 10-K in 2013,

Delta Air Lines

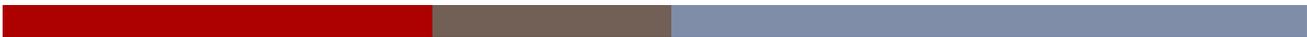
the company still has 15.3 billion of losses that relates to eight billion dollars to offset future incomes. The company does not expect to have to pay any income taxes in the next few years due to these carry forwards and other tax benefits (Bachman). Delta Air Lines also receives a tax credit for its purchase of jet fuel. This tax was credit in 2004 when Delta was struggling financially, but there have been talks of ridding this tax because of the large tax benefit Delta already receives. This tax break saves Delta about 23 million dollars a year and is vital to the huge amount of savings Delta receives from tax avoidance.

TAX RECOMMENDATION

SOURCE: SECTION 179. ORG

Delta already has quite a large amount of tax credits and does not expect to pay cash income taxes for at least the next few coming years. To continue receiving tax credits, Delta must chose more long-term tax saving options because the tax credit from carry forward losses will eventually run out and the fuel tax credit is possibly ending soon as well. One possible tax recommendation that would benefit Delta Air Lines is to acquire more aircrafts utilizing leases rather than ownership. Delta currently owns more planes than it leases, but leasing has more tax credits. Lease payments are deductible as expenses and higher priced assets usually have higher tax benefits through leasing. This is because the company can deduct the whole value of the equipment in the year of

Delta Air Lines



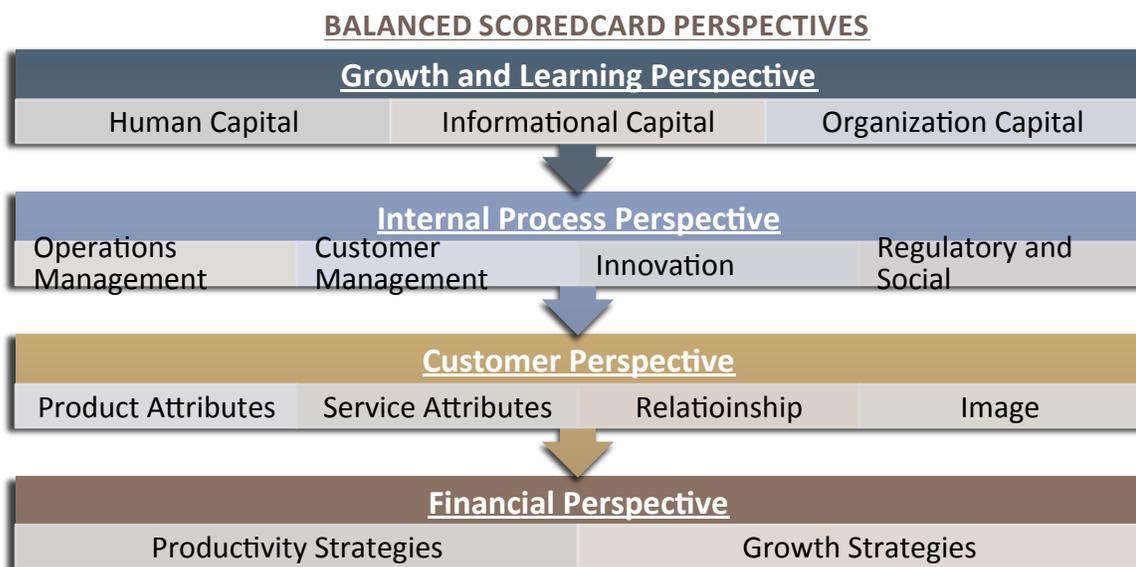
lease, but not actually pay that amount in the year because payments are split into smaller lease payment amounts over multiple years. Sometimes, the amount deducted exceeds payment amounts in the future because the asset is not leased for the length (value) of its full cost. Currently Delta owns 583 of its aircrafts and only leases 181; the recommendation is to increase the number of leases drastically.

Delta Air Lines

CHAPTER TEN

THE BALANCED SCORECARD

The balanced scorecard indicates to organizations such as Delta Air Lines possible area for improvement based on some key performance measures. The balanced scorecard is split into four perspectives that build upon one another: growth and learning, internal process, customer and financial. Each perspective has main descriptors that make up its build. These descriptors indicate the type of performance measurement that will indicate the effectiveness or growth of that perspective. For example, measures that analyze human capital relate to the growth and learning perspective. Below is the list of all balanced scorecard perspectives with their corresponding descriptors:



Delta Air Lines

As stated before, these perspectives build on one another. So the growth and learning perspective improves the firm's infrastructure and basic processes. This improvement allows for better improvement on internal processes, or how the firm performs tasks and manages multiple business areas. This leads into customer perspective, which is all about improving customer relations and the number of customers the company attains. Internal processes and customer perspectives in turn improve the financial perspectives of productivity and growth by making the company more efficient and creating a larger customer base. Clearly, the balanced scorecard has casual links between perspectives. Now we will take a look at which key performance measure are vital to the efficient operations of Delta Air Lines.

Growth and Learning Perspective	
<i>Objective: to improve firm's business processes and customer relationships</i>	
<u>Performance Measure</u>	<u>Description</u>
Employee Turnover Rate	<i>Human Capital:</i> Identifies employee retention rate and can aid in evaluating employee satisfaction
Time Spent on Employee Training	<i>Human Capital:</i> Training has a positive effect on employee performance and understanding of conduct and standards
Multilingual Employees	<i>Informational Capital:</i> With many flights being international having multilingual employees can aid in increased global networking

Delta Air Lines

Internal Process Perspective	
<i>Objective: Operate efficiently and deliver value to customers</i>	
Performance Measure	Description
Number of Flights on Time	<i>Operations Management:</i> Consumers rely on time flights to travel to their needed destination, consistency is key here
Time Between Flights	<i>Operations Management:</i> This includes layover time, boarding time, and ground time between flights, goal is to decrease non-value added time
Baggage Lost	<i>Customer Management:</i> Managing customers baggage to ensure correct placement and arrival of baggage to customers, improving this will aid in customer satisfaction
Number of Regulatory Compliance Issues	<i>Regulatory and Social:</i> Planes must be up to code and in working condition. Planes not in compliance raise awareness in issues with equipment and create barrier to efficiency.

Customer Perspective	
<i>Objective: Determine customer basis and create value and growth through those customers</i>	
Performance Measure	Description
Number of Customer Complaints	<i>Relationship:</i> Are customers satisfied with your service? This relates highly with customer retention rate
Number of Customers Utilizing Loyalty Program or App	<i>Service Attributes:</i> The service provides a loyalty program and an application that allows customers to gain incentives for flying Delta and makes travel easier this will correspond highly with increasing retention rate

Financial Perspective	
<i>Objective: Create shareholder value</i>	
Performance Measure	Description
Net Income	<i>Productivity Strategy:</i> Are revenues increasing while costs are falling? How can we gain larger revenues while keeping costs lower
Sales Growth	<i>Growth Strategy:</i> How can we increase our sales basis? What new customers can we reach to continue sales growth?

Delta Air Lines

RECOMMENDATION ONE

SOURCE: USATODAY "AIRLINES PAD FLIGHT SCHEDULES TO BOOST ON TIME RECORDS" BY: THOMAS FRANK

Airline corporations put a huge amount of weight on the balance scorecard item "Number of Flights on Time" under the Internal Processes Perspective. The problem with this is that in recent years airlines have put too much focus on this. In 2012, more flights arrived early than ever recorded in airline service history, but this reveals an even larger issue. Airline industry corporations tend to now "cushion" flight schedules by allowing extra time for flights so more flights arrive "early" due to the overage of time scheduled. According to USA Today, 95 percent of flights in 2012 were scheduled longer than in 1995. The biggest problem with cushioning schedules is this increases the amount of time planes remain idle between flights. This highlights the Internal Processes Perspective balanced scorecard key performance measure of "Time Between Flights." 2012 was the first time ever that early flights (1,213,842) was more than problem flights (1,106,539). On time flights satisfy customers, but idle time creates a loss of potential sales. According to the Federal Aviation Administration the non-value time costs airline companies 3.7 billion dollars in sales. My recommendation is to decrease idle time back to its levels in the late 1990's and therefore gaining 3.7 billion dollars in sales. The best way to decrease idle time is for the company to utilize their ERP system with flight lengths. Utilizing the actual length of flight, plus adequate time

Delta Air Lines

between flights without too much of a cushion will allow the airlines to complete more flights per day and therefore have an increase in sales.

RECOMMENDATION TWO

Source: NY Times "Lawmakers May End Tax Break on Jet Fuel, to Delta's Dismay"

Delta needs to further invest in their refinery segment. Recent reports have announced that the state tax benefit Delta receives on jet fuel purchases may be rescinded in coming years. The tax credit was put in place when Delta Air Lines had to file for bankruptcy in 2005 in the state of Georgia (Delta's headquarter state), but due to the continual growth and success of Delta since that time, Georgia is considering removing the credit. This means Delta Air Lines will no longer receive a tax credit when purchasing jet fuel. The issue with crude oil is volatility in price. When prices are low it benefits Delta to purchase already refined jet fuel, but when oil prices are high it benefits Delta to purchase crude oil and refine it on its own to avoid further price mark ups. Currently, Delta is refining some of its jet fuel and purchasing some as well. I recommend that Delta invest further into its refinery business because it is more cost effective to purchase raw materials earlier in the supply chain. Additionally, Delta has already paid for the bulk of its refinery infrastructure cost, leaving the only expense required to refine is the purchase of crude oil, direct labor and factory overhead. This will allow for further growth on income and customer base for the company because now they will be selling to both passengers and other airline companies.

Delta Air Lines

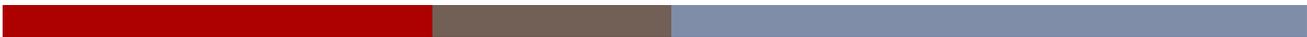
RECOMMENDATION THREE

Source: Heisler, Yoni. "Apple Pay: An In-depth Look at What's behind the Secure Payment System."

The company already has an online website and an application, Fly Delta, where consumers can buy tickets, check flight times, check-in to flights and complete various other functions. This data is shared through Delta's ERP system, which allows ticket purchases to automatically be updated into the ledger Fly Delta Application applies to the Customer Perspective "Number of Customers Utilizing Loyalty Program and App." In order to increase the number of people that utilizes Delta Air Lines application, the company must provide a secure network for payments and storing data. The problem with allowing purchasing on the application is that Delta Air Lines must regulate the payments through PCI Compliances to protect purchasers' secure data. On average, companies spend up to 355 million dollars a year on meeting PCI Compliances. Requirements for PCI include: encryption of credit card data, firewalls, secure passwords, anti-virus and security updates, restrict access to purchaser's personal data, and testing and monitoring the system.

A cost saving route that many companies take is outsourcing the credit card purchasing process to a third party. So although it may look or feel like the consumer is still using the Delta's applications to pay based on the interface, the company actually processes the payments through a third party company. This allows Delta Air Lines to

Delta Air Lines



forgo any PCI compliance costs it may incur. This will decrease overall company expenses and therefore allow the company to invest the money in other entities. I recommend using a system such as Apple Pay or Google Wallet for outsourcing. Apple Pay and Google Wallet are both great options because the installation costs of the systems are free. In other words, companies do not have to pay a fee to utilize the payment systems within their apps.

How the system works is that it ensures secure encryption of credit card information. First the customer must enter their credit card data into Apple Pay. Apple pay then takes the card information and creates a unique device account number that is unrelated to the credit card number. When a transaction occurs, Apple Pay sends the merchant the unique account number and the merchant verifies this number and sends it to a corresponding credit card company. The credit card company this has the authorization to link the unique account number to the Apple Pay account with the credit card data and then the transaction is complete. The key attribute of this system is that the merchant (Delta) would never actually withhold the consumer's personal data. This takes all need to meet PCI compliances out of the hands of Delta and into the responsibility of the third party handling the transaction and withholding the card data. Because Delta Air Lines has such a large amount of technology used in its operations and

Delta Air Lines

purchases, it should reduce some IT risk by outsourcing credit card payment risk to avoid costs associated with PCI Compliance

EFFECT OF RECOMMENDATIONS

The effect of all three of my recommendations would be changes in sales and in expenses. The IT recommendation would mostly affect expenses by reducing costs and therefore increasing net income. This may be somewhat canceled out due to recommendation two with the increase in purchases of crude oil. Reducing idle time would increase sales by 3.7 billion dollars. Investing more money in the refinery segment would create approximately a billion more in refinery sales each year. Both of these increases in sales would cause sales growth each year to increase from 3 percent to 10 percent. This was calculated by recalculating sales growth in terms of the recommendations from 2013 to predict for 2014. The change in sales growth would affect our ROPI. ROPI measures stock valuation and with the recommendations the company's stock value would rise even more, causing the company to be even more undervalued and a good buy for investor

Delta Air Lines

ROPI	2013	2014	2015	2016	2017	Terminal
Sales Growth		10%	10%	10%	10%	1%
Sales	37773	43,439	47783	52561	57817	58395
NOPM	0.40	0.4	0.4	0.4	0.4	0.4
NOPAT	15109	17376	19113	21024	23127	23358
NOAT	2.4	2.4	2.4	2.4	2.4	2.4
NOA	15739	18100	19910	21900	24091	24331
Residual Income Model		1	2	3	4	
Required Return		2358	2711	2982	3281	3609
ROPI		15018	16402	18042	19846	19749
Discount Factor		0.86972	0.75641	0.65786	0.57215	
PV of Horizon ROPI		13061	12406	11869	11355	
Cum. PV of Horizon ROPI	48692					
PV of Terminal ROPI	141269					
Total firm value	189961					
Less NNO	13000					
Firm Equity Value	176961					
Shares Outstand	896					
Stock Value per share	<u>197.50</u>					
Trading Price 12/31/13	<u>27.19</u>					

Delta Air Lines

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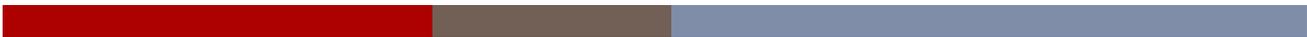
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