

FINANCIAL ANALYSIS OF SOUTHWEST AIRLINE, CO.



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I. Executive Summary

I have reviewed and analyzed the financial status, history, market space, and growth opportunities for Southwest Airline Co. of Dallas, Texas. Being the fourth largest airline companies provides Southwest an excellent perspective on the market and growth opportunities. It remains important to analyze all aspects of the firm's financial standing prior to authorizing any new, major projects such as the one being proposed at this time.

Southwest's strong financial position is hampered by a few variables that must be managed such as the volatility of fuel prices, navigating the highly competitive aviation and transport and logistics industry, overwhelming dependence on the US Market and stringent government regulations. For example, the company experienced a more than 30 percent increase in its economic jet fuel price per gallon in 2011. Southwest is positioned to grow over the next five years, continuing its history of profitability by putting in place strategies to drive more revenues while staying true to low fares and no hidden fees. New projects that support diversification will serve to strengthen the firm's position and profit.

The recommendation for Southwest's new \$277B project is an unequivocal yes to proceed based on financial standing of the firm, ratio analysis, cash flow analysis, and detailed capital budgeting analysis of the proposed project itself. The details of the project's cash flow and budgeting give support to the green light indicated. Specifically, a positive net present value, coupled with a MIRR of 11.67% versus WACC of 7.04% indicates a very profitable project.

Introduction

The intention of this paper is to examine the financial standing of Southwest Airlines Co. ("Southwest"), review its history, current financial position, outlook, and then conduct a capital budgeting analysis for a proposed project. As part of the analysis, the company's cost of debt, cost of preferred stock, cost of common equity, capital structure, and the weighted average cost of capital are determined.

The use of capital budgeting methods such as NPV, IRR, and MIRR, allows the firm to project the proposed project forward and, while reviewing cash flows and depreciation trends, formulate an analytical framework for the support or rejection of the project.

After a complete analysis and modeling, recommendation to accept or reject the proposed project will be outlined. The results of the capital budgeting analysis will directly impact the decision to move forward on the project. Hence, significant detail is needed to support the decision process.

Company Overview

Southwest Airlines Co. is a low-fare major domestic airline with 41 years of service. The company continues to differentiate itself from other low-fare carriers by offering a reliable product with exemplary Customer Service. Southwest was incorporated in Texas and commenced Customer Service on June 18, 1971 with three Boeing 737 aircraft serving three cities in Texas: Dallas, Houston, and San Antonio. (Anonymous, n.d.).

Today, Southwest is the nation's largest carrier in terms of originating domestic passengers boarded serving 97 destinations in 41 states, the District of Columbia, the Commonwealth of Puerto Rico, and six near-international countries, namely, Mexico, Jamaica, the Bahamas, Aruba, Dominican Republic, and Bermuda (Southwest, 2012). On May 2, 2011, Southwest completed the acquisition of AirTran Holdings, Inc., and further expanding its customer-base. The combined company operates more than 3,800 flights a day (Southwest, 2012). Southwest's successful business model involves flying multiple short, quick trips into the secondary (more efficient and less costly) airports of major markets, using only one aircraft type, the Boeing 737 and providing excellent customer service. Southwest currently has 46,000 employees. (Southwest, 2012b)

"Southwest Airlines follows a low-cost structure to charge low fares to its customers. Adjusted for stage length, Southwest and AirTran have lower unit costs, on average, than most major carriers" (GlobalData, 2012). In addition to consistently offering the lowest and simplest fares, the company has one of the best overall Customer Service records. The company is traded on the NYSE under the LUV stock exchange symbol, selected to represent its home at Dallas Love Field, as well as the theme of Employee and Customer relationships (Southwest, 2012b).

In December, the company unveiled fleet modernization plans, which include an agreement with Boeing to serve as the launch customer of the 737 MAX aircraft, and improved operation, with the company's highest December on-time performance in 15 years. Moreover, the company had its 39th consecutive annual profit in a year that endured a \$1.7 billion year-over-year increase in combined economic fuel costs and an annual load factor of 80.9 percent. Southwest's financial position remains strong. (Global Data, 2012).

In 2011, revenues grew through revenue management and route network optimization, while the company continuing its focus on value-add products such as Business Select and EarlyBird Check-In™.

Southwest continues to focus on key strategic initiatives: AirTran integration, All-New Rapid Rewards frequent flyer program, the addition of the Boeing 737-800, fleet modernization, and replacement of its reservation system. These transformative initiatives will drive more revenue, reduce unit costs, and enable Southwest to close the gap between its current and targeted financial performance. (GlobalData, 2012).

I. Financial Ratio Analysis

The financial analysis of Southwest is necessary to understanding both the outlook and feasibility of the proposed project for better decision making. To ensure that the analysis provides useful and reliable information, it is necessary to conduct extensive analyses informed by solid research. The thorough and complete financial ratio analysis allows one to understand the company's performance in regards to liquidity, asset management, debt management, profitability, and market value. Reviewing the overall key ratios below provides a snapshot of the firm's strength while the detailed look that follows highlights any trends of note.

Table 1 - FINANCIAL RATIO OVERVIEW

Years Ended December 31,	2007	2008	2009	2010	2011	Average	Industry	Trend	Industry
Liquidity Ratios									
Quick Ratio	0.63	0.72	1.03	1.13	0.76	0.85	0.80	Positive	Below
Current Ratio	0.92	1.03	1.25	1.29	0.96	1.09	1.01	Positive	Below
Net Current Assets % TA	-2.36	0.61	4.78	6.3	-1.04	1.66	-4.4	Positive	Above
Cash Flow per Share	3.76	-2.06	1.33	2.09	1.79	2.24		Negative	
Asset Management									
Total Asset Turnover	0.65	0.71	0.72	0.81	0.93	0.76	1.00	Positive	Below
PPE Turnover	0.94	1.00	0.96	1.14	1.38	1.08	2.70	Positive	Below
Receivables Turnover	37.93	45.05	54.76	66.51	63.39	53.53	36.39	Positive	Above
Inventory Turnover	17.58	22.73	22.01	23.09	24.43	21.97	53.01	Positive	Below
Debt Management									
LT Debt to Equity	0.30	0.71	0.61	0.46	0.45	0.51	6.38	Negative	Above
Total Debt to Equity	0.30	0.74	0.64	0.54	0.55	0.55	7.50	Negative	Above
Interest Coverage	31.64	5.68	1.72	7.21	4.03	10.06	2.87	Negative	Above
Profitability									
ROA % (Net)	4.27	1.14	0.69	3.09	1.06	2.05	1.97	Negative	Below
ROE % (Net)	9.63	2.98	1.9	7.84	2.71	5.01	8.45	Negative	Below
ROI % (Operating)	9.21	5.08	2.98	10.62	6.85	6.95	5.80	Negative	Above
EBITDA Margin %	16.47	8.56	8.89	12.36	7.64	10.78	10.16	Negative	Below
Revenue per Employee	286,840	309,667	298,048	346,810	344,951	317,263	345,817	Positive	Below
Market Value									
Price/Earnings Ratio	14.52	35.92	87.92	21.28	37.22	39.37	15.51	Positive	Above
Market to Book Ratio	1.29	1.29	1.55	1.56	0.96	1.33	8.36	Negative	Below
Price/ Cash Flow per Share	3.24	-4.18	8.59	6.21	4.78	3.73	6.03	Positive	Below
Dividend Yield (%)	0.15	0.21	0.16	0.14	0.21	0.17	0.33	Positive	Below
Dividend Payout Rate	0.02	0.08	0.14	0.03	0.08	0.07	1.29	Positive	Below
Earnings Per Share	0.84	0.24	0.13	0.61	0.23	0.41		Negative	

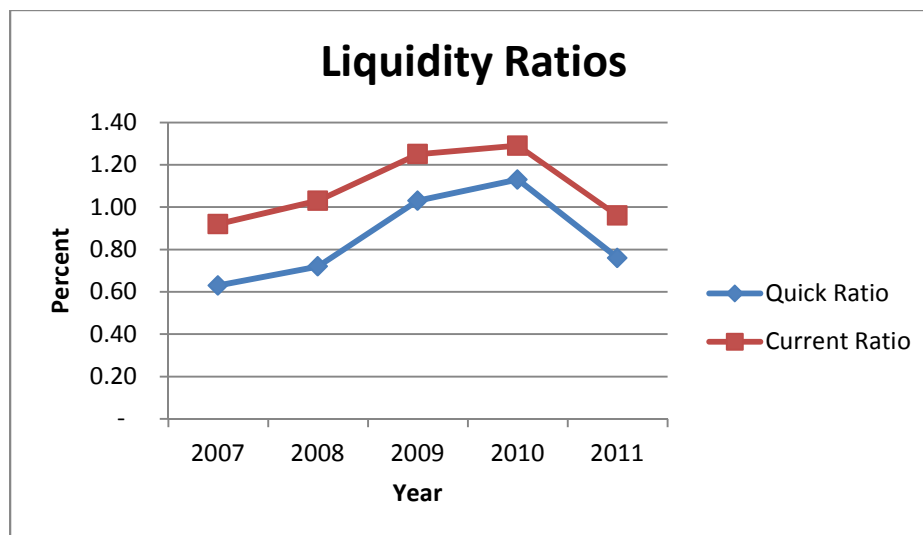
The table above compares Southwest's ratios to Industry industry NAICS 481111 (Scheduled Passenger Air Transportation). Company trends are either declining (Negative), Improving (Positive) or static, while comparison with industry are either below, above or at par of industry standards. Southwest finds itself mostly below industry average in most of the ratios, except in a few cases.

Trend analysis

- Liquidity ratios

Years Ended December 31,	2007	2008	2009	2010	2011	Average	Industry	Trend	Industry
Liquidity Ratios									
Quick Ratio	0.63	0.72	1.03	1.13	0.76	0.85	0.80	Positive	Below
Current Ratio	0.92	1.03	1.25	1.29	0.96	1.09	1.01	Positive	Below
Net Current Assets % TA	-2.36	0.61	4.78	6.3	-1.04	1.66	-4.4	Positive	Above
Cash Flow per Share	3.76	-2.06	1.33	2.09	1.79	2.24		Negative	

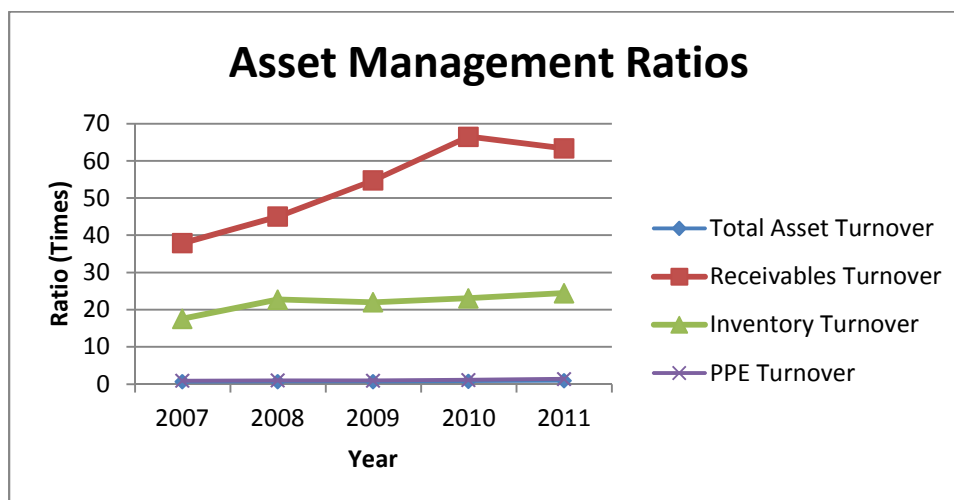
The company's liquidity has improved in the past 5 years, as evidenced by a 0.13% and 0.04% higher Quick and Current ratios. The company also has a 1.32% increase in Net Current Assets to Total assets, despite the \$1.97 lower cash flow per share over the period. Hence, while the company is less liquid than industry standards, it has improved its liquidity standing over t A visual representation of the Current and Quick ratios are provided below:



- Asset management ratios

Years Ended December 31,	2007	2008	2009	2010	2011	Average	Industry	Trend	Industry
Asset Management									
Total Asset Turnover	0.65	0.71	0.72	0.81	0.93	0.76	1.00	Positive	Below
PPE Turnover	0.94	1.00	0.96	1.14	1.38	1.08	2.70	Positive	Below
Receivables Turnover	37.93	45.05	54.76	66.51	63.39	53.53	36.39	Positive	Above
Inventory Turnover	17.58	22.73	22.01	23.09	24.43	21.97	53.01	Positive	Below

The company has made improvements in its turnover ratios related to its use of Total Assets (0.28 times), Receivables (25.46 times), Inventory (6.85 times) and Fixed Assets (0.44 times). This indicates that company management has improved efficiency in its use of assets in acquiring sales. Most encouraging is the company's increase in inventory turnover which is usually due to a further streamlined supply chain. The overall trend for asset management is positive. A visual representation of the asset management ratios is presented below:

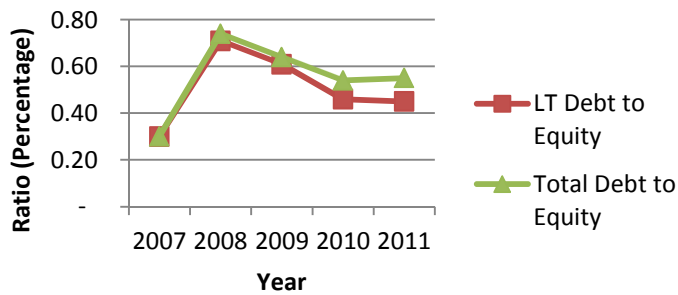


- Debt management ratios

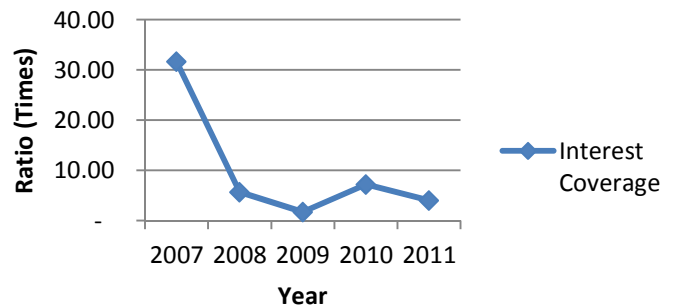
Years Ended December 31,	2007	2008	2009	2010	2011	Average	Industry	Trend	Industry
Debt Management									
LT Debt to Equity	0.30	0.71	0.61	0.46	0.45	0.51	6.38	Negative	Above
Total Debt to Equity	0.30	0.74	0.64	0.54	0.55	0.55	7.50	Negative	Above
Interest Coverage	31.64	5.68	1.72	7.21	4.03	10.06	2.87	Negative	Above

When considering debt management over time, we see indications of higher levels of Long Term and Total Debt to Equity by 0.15% and 0.25%, coupled with decrease in Interest coverage of 27.61%. The poor debt management results over time provide cause for concern when reviewing cost of debt. The overall trend for debt management is negative. Visual representations of the Debt Management ratios are presented below:

Debt Management Ratios



Interest Coverage Ratios

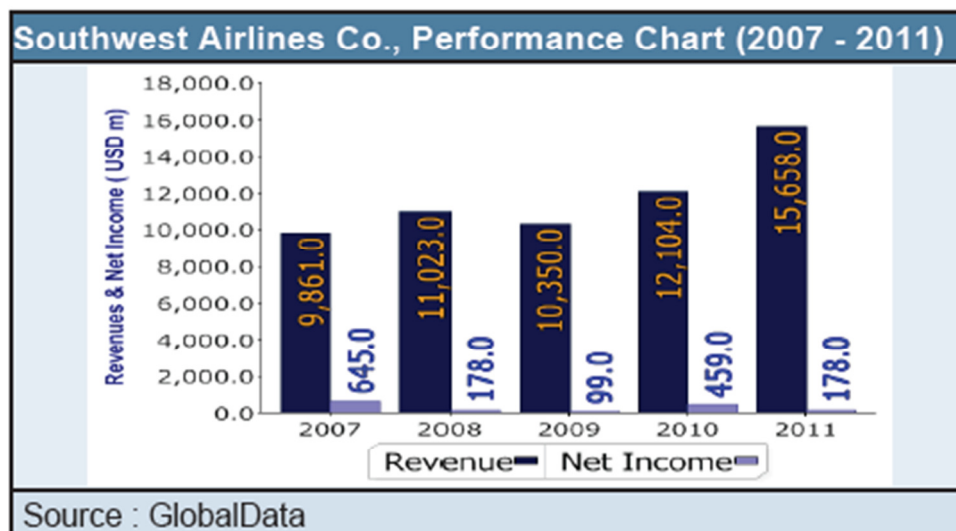


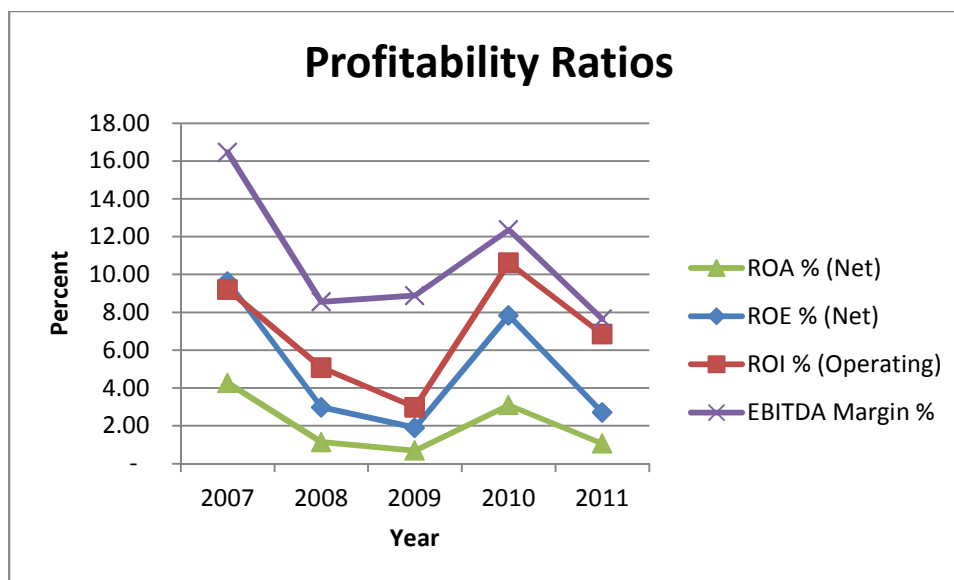
- Profitability ratios

Years Ended December 31,	2007	2008	2009	2010	2011	Average	Industry	Trend	Industry
Profitability									
ROA % (Net)	4.27	1.14	0.69	3.09	1.06	2.05	1.97	Negative	Below
ROE % (Net)	9.63	2.98	1.9	7.84	2.71	5.01	8.45	Negative	Below
ROI % (Operating)	9.21	5.08	2.98	10.62	6.85	6.95	5.80	Negative	Above
EBITDA Margin %	16.47	8.56	8.89	12.36	7.64	10.78	10.16	Negative	Below
Revenue per Employee	286,840	309,667	298,048	346,810	344,951	317,263	345,817	Positive	Below

Unfortunately, the company shows declining Returns on Assets, Equity and Investment by 3.21%, 6.92% and 2.36%. The company also shows a decline in its EBITDA Margin by 8.83%. These poor results in profitability are offset by \$58,111 higher revenue by employee in 2011 when compared to 2007, although this might be a result of technological advances or improvements. Below is a chart providing a visual representation of dollar Revenues and Net income results from 2007 to 2011, and key profitability ratios :

Performance Chart

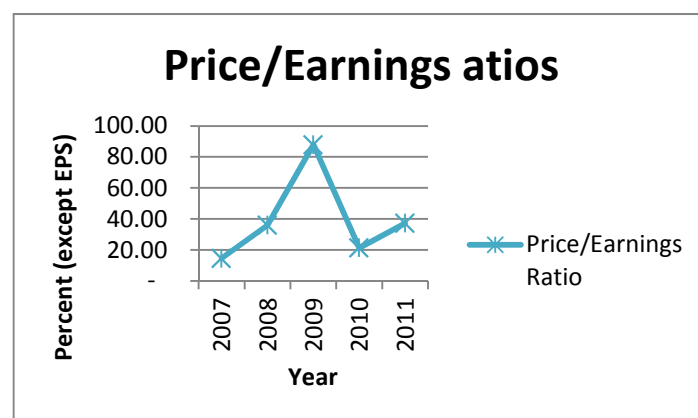
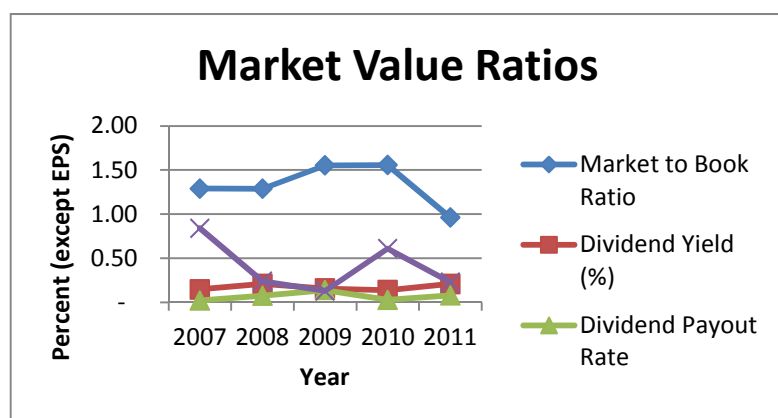




- Market value ratios

Years Ended December 31,	2007	2008	2009	2010	2011	Average	Industry	Trend	Industry
Market Value									
Price/Earnings Ratio	14.52	35.92	87.92	21.28	37.22	39.37	15.51	Positive	Above
Market to Book Ratio	1.29	1.29	1.55	1.56	0.96	1.33	8.36	Negative	Below
Dividend Yield (%)	0.15	0.21	0.16	0.14	0.21	0.17	0.33	Positive	Below
Dividend Payout Rate	0.02	0.08	0.14	0.03	0.08	0.07	1.29	Positive	Below
Earnings Per Share	0.84	0.24	0.13	0.61	0.23	0.41		Negative	

The company's earnings price per share has declined by \$0.61 in the past 5 years, along with the Market to Book Ratio, which decreased by 0.33% in the past 5 years. In contrast, the Price/Earnings ratio increased by 22.69%, with dividend yield and payout rate increasing by 0.06%, respectively. The overall trend for market value is positive. Below is a visual representation of the market value ratios discussed:

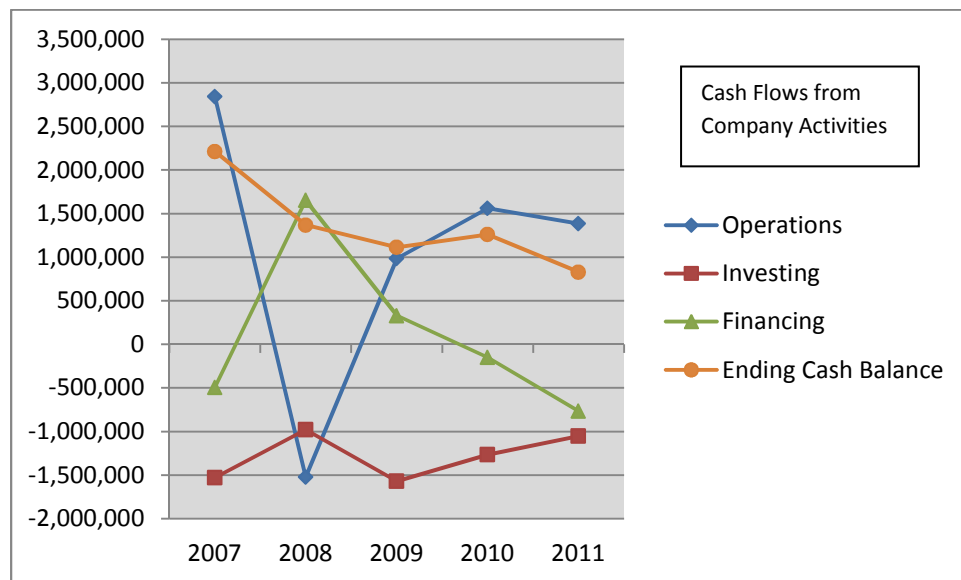


- Cash Flow Analysis

For Years Ended December 31,	2007	2008	2009	2010	2011
Net cash flows from operating activities	2,845	-1,521	985	1,561	1,385
Net cash flows from investing activities	-1,529	-978	-1,569	-1,265	-1,051
Net cash flows from financing activities	-493	1,654	330	-149	-766
Net change in cash & cash equivalents	823	-845	-254	147	-432
Cash & cash equivalents at beginning of period	1,390	2,213	1,368	1,114	1,261
Cash & cash equivalents at end of period	2,213	1,368	1,114	1,261	829

(Southwest, 2012a)

From *Mergent Online*, Southwest's cash flow statement in the table above reports results of operations from 2007-2011. As we review Southwest's cash from operations in 2011, we immediately see that this more than covers investing without the need to for financing for all years other than 2009. Southwest is in a positive cash flow position with \$1.4B positive at 2011. This is a slight decline from 2010, although that year is positive as well at \$1.6B. The visual representation of the trend for cash flow from Operation, Investing and Financing and ending cash balance in the chart below and clearly shows Southwest's decline in cash for fiscal 2011.



Industry comparison analysis of the key financial ratios

2011 Profitability, liquidity, asset management and market value results compare unfavorably with the industry, with a few exceptions.

Liquidity is below industry standards in all liquidity ratios, other than Net Current Assets to Total Assets which is 3.36% higher. The company's Quick and Current Ratios are 0.04% and 0.05% lower than industry.

When considering asset management, we note that the Total Asset and Total Inventory Turnovers are below industry average by 0.07 times and 28.58 times, in contrast to higher Receivables Turnover, which is 27.00 times higher than industry.

Debt Management on the other hand is above industry performance in all respects. LT Debt and Total to Equity are 5.93% and 6.95% lower than industry and the company's Interest Coverage is 1.16% higher. The better debt management than industry should have a positive effect on the perception of lenders, and therefore the cost of debt.

In regards to profitability, Return on Assets and Equity are below industry by 0.91% and 5.74% respectively. Consistent with subpar performance, EBITDA Margin % and Revenue per Employee are 2.52% and \$866.01 below average. In contrast, Return on Investment increased by 1.05 in the past 5 years. Overall, performance is below industry standards.

Finally, the company market value ratios are lower than industry averages in all respects other than the Price/Earnings Ratio. The Market to Book, Dividend Payout and Dividend Yield ratios are 7.40%, 1.21% and 0.12% lower than industry. In contrast the Price/Earnings ratio is 21.71% higher than industry. While the below par ratios are indicators of historical performance, the P/E ratio indicates that the market considers Southwest's shares to be riskier than the market and expects higher than average returns.

II. Capital Structure Estimation

Capital structure refers to the way a corporation finances its assets through some combination of equity, debt, or hybrid securities (Capital Structure, n.d.). The firm's use of debt, common stock, and preferred stock impacts the marketplace by altering investor perception and therefore, the firm's cost of capital. Even as we estimate the capital structure of Southwest, we note that the Modigliani–Miller (MM) theorem is pertinent. The MM theory states that a firm's value is unaffected by its capital structure in a competitive market, *ceteris paribus* (Brigham, 2011). As such based on the theory, the value of an unleveraged firm equals that of an unleveraged firm (i.e. $V_L = V_U$). However, the theory does not take into consideration the increased risk of future financial distress for firms that take on more and more debt, nor the final direct and agency costs associated with financial distress. Hence, we note that the market responds to the perceived risk of the firm based on its capital structure.

The following review of Southwest's capital structure takes into account the lack of preferred shares issued by LUV.

- Estimate the firm's weights of debt, preferred stock, and common stock (Market value).

Based on market value, the company has a capital structure of 68.1% debt and 31.9% equity in the form of common stock totaling a market capitalization of \$9.73B.

- Estimate the firm's weights of debt, preferred stock, and common stock (book value).

Using book value, the balance becomes 68.9% debt and 31.1% equity with a value of \$9.98B. Please see Table below for the summarized data

Market Value Method/Weights		Percentage
Debt	3,107,000	31.92%
Equity	6,625,440	68.08%
Total	\$9,732,440	100.00%

Book Value Method/Weights		Percentage
Debt	3,107,000	31.12%
Equity	6,877,000	68.88%
Total	\$9,984,000	100.00%

III. Computation of Weighted Average Cost of Capital (WACC)

Knowing the true cost of capital is crucial when considering any new project. Even before the analysis of the project itself, the capacity of the firm to finance the project and, under what terms, is essential knowledge. The Weighted Average Cost of Capital (WACC) is the calculated, average, cost of capital based on the proportional weight of all capital sources used by the firm (as found in the capital structure above). In the case of Southwest, we find both debt and common-stock equity to be used as capital sources.

We use three methods to estimate the firm's component cost of common equity: Capital Asset Pricing Modem (CAPM), Discounted Cash Flow (DCF), and bond-yield-plus-risk-premium (BYPRP). The WACC calculation will be based on the average of these three estimates. Additionally, the component cost of debt (after tax) is found by using the corporate tax rate and the cost of debt (K_d) based on Southwest's bond rating via $K_d(1-T)$.

Cost of Debt Estimate

Reviewing the Table below, we find the after-tax cost of debt for Southwest to be **2.68%**. The 10-year bond is BBB- and represents Southwest's rating based on the current market.

Cost of Debt (r_d) = $r_{rf} + \text{DRP}$		
4.536%		
After Tax Cost of Debt = $r_d(1-t)$		
Taxes (T) =	40.97%	3 Year Average
= $r_d(1-t)$ =	2.678%	

Cost of Preferred Stock Estimate

Southwest has not issued any Preferred Stock.

Cost of Common Stock Estimate

- CAPM Approach

CAPM is formally defined as “A mathematical model used to help price a security by determining the relationship between risk and expected return. CAPM is a key element in portfolio theory, in which the expected rate of return (E) on an investment is expressed in terms of the expected rate of return on the market portfolio (rm) and the Beta coefficient ((beta)), $E = R + (\text{beta})(r_m - R)$, where R is the risk-free rate of return.” (Morningstar, 2012).

As part of Southwest’s interest in the new project, the CAPM cost of equity calculation is dependable and is often close to the calculated average of the three common methods as described above.

Using CAPM, cost of equity (as calculated in the table below) is 7.71%.

Risk Free Rate (Rf)	1.62%	10 Year Treasury Note
Market Risk Premium (Rm-Rf)	5.60%	Accepted
Beta (b)	1.087	Average Analysts (One Source Information Services, MSN Money and Reuters)
CAPM Cost of Equity ($K_s = R_f + b(R_m - R_f)$)	7.71%	
Cost of Debt (Kd)	4.536%	BBB- 10 Year Bond
After Tax Cost of Debt	2.678%	$R_d(1-T)$

- Discounted Cash Flow (“DCF”) Approach

In calculating cost of equity using the DCF method, the Gordon Growth Model helps simplify the equation for the present purposes. Using:

$$r_s = D_1/P_0 + g$$

Where D_1 is the expected dividend, P_0 is the current price and g is the estimated stock growth rate

The growth rate can also be estimated in two ways. Firstly by taking the average of current analyst growth estimates for Southwest obtained from Yahoo, One Source and MSN, which provided a value of 20.2%. Secondly by calculating the sustainable growth rate, where $g = \text{ROE} \times 1 - \text{Payout Ratio}$. Using the average ROE for the past 10 years (9.8%) and the most recent annual payout ratio (7.8%), the sustainable growth rate is calculated to be 9.00%. We select the most conservative growth rates calculation methods. Therefore, $g = 9.00\%$.

D_1/P is the expected dividend yield and two techniques can be used for estimating its value. In the first technique, we take the average of the most recent future dividend yield obtained from financial analysis websites (0.41%). In the second technique, the expected dividend yield can be found by using the ____

formula ($D_0 \times (1+g)$), where current dividend D_0 is 0.018 multiplied by $1+g$ (109%). The result 0.01962 is then divided by Southwest's current stock price of \$8.56 (P_0), providing a dividend yield of 2.29%. We select the analyst estimates of 0.41% in our cost of equity calculation since they are based on future expectations, as opposed to historical results.

Using the DCF approach, we calculate the Cost of Equity as follows:

$$r_s = (D_1/P_0) + g = (0.41\% + 9.00\%) = 9.14\%$$

DCF cost of equity $r_s = 9.14\%$

- Bond-yield-plus-risk-premium Approaches

The bond yield plus risk premium (BYPRP) method is simple and works for publically traded companys like Southwest. The BYPRP cost of equity method simply adds the cost of debt from above (4.54%) to the estimated bond risk premium of 5.60%.

$$\text{BYPRP cost of equity} = 4.536 + 5.60 = 10.14\%$$

- WACC for Southwest

To calculate the useful WACC for the firm, we first average the costs of equity found in the above three methods: $(CAPM + DCF + BYPRP) / 3 = (7.71\% + 9.14\% + 10.14\%) / 3 = 9.08\%$

Average Cost of Equity = 9.08%

WACC Calculation using market-based Capital Weights

Based on the market weights and the Cost of Debt and Equity calculated previously, we can estimate the WACC as

	Weights		Cost	Weight x Cost
Weight of Common Stock (W_s)	68.1%	Cost of Common Equity (r_s)	9.080%	6.18%
Weight of Debt (W_d)	31.9%	After Tax Cost of Debt ($= r_d(1-t)$)	2.678%	0.85%
	100.0%			7.04%

Southwest's Weighted Average Cost of Capital is 7.04%

Project Cash Flow Estimation

Southwest is considering a new project and determining the feasibility of the project requires a full cash-flow estimation for the eight-year life of the proposed project. Estimating the annual cash flows and calculating the depreciation basis and annual depreciation will provide a guide on the viability of the project and provide needed data for capital budgeting as well.

The detailed analysis and calculations for the cash flow estimation and depreciation details are included in the attached spreadsheet. Selected highlights are provided here for reference as we make project recommendations. Note that the WACC calculated above is used as the discount rate for this project. The critical nature of an accurate WACC cannot be underestimated when analyzing a project of this magnitude.

The requirements are as follows for the 8 year proposed project's life:

INPUTS	Base Case
Equipment cost	\$618,000,000
Net WC/Sales	11.5%
First year sales (in units)	2,280,000
Sales price per unit	\$275.00
Variable cost per unit	\$205.00
Nonvariable costs	\$0
Market value of equipment at Year 8	\$17,000,000
Tax rate	40.97%
WACC	7.04%
Inflation	2.3%
Growth Rate (Sales Units)	8.5%

- Depreciation Basis and Annual Depreciation of the Project

The depreciation basis and annual depreciation are calculated under the assumption that Southwest will use the 7-year Modified Accelerated Cost Recovery System (MACRS) method. Using accelerated depreciation improves project profitability and is chosen for this reason. The details are as follows:

Year	0 (Initial Cost)	1	2	3	4	5	6	7	8
Depreciation Rate		14%	25%	17%	13%	9%	9%	9%	4%
Annual Depreciation (in thousands)	\$618,000	\$86,520	\$154,500	\$105,060	\$80,340	\$55,620	\$55,620	\$55,620	\$24,720

- Estimate Annual Cash Flows over Project Time Line.

Further, the annual cash flows estimate and the cash-flow timeline are instructive in evaluating the project:

Cash Flows and Performance Measures (Dollars in Thousands)

Years	0	1	2	3	4	5	6	7	8
Variables Used in the Cash Flow Forecast									
Units sold		2,280,000	2,473,800	2,684,073	2,912,219	3,159,758	3,428,337	3,719,746	4,035,924
Sales price		\$275.00	\$281.33	\$287.80	\$294.41	\$301.19	\$308.11	\$315.20	\$322.45
Variable costs		\$205.00	\$209.72	\$214.54	\$219.47	\$224.52	\$229.68	\$234.97	\$240.37
Investment Outlays at Time = 0									

Equipment	-\$618,000							
Initial Investment in Working Capital	-72,105							
Operating Cash Flows over the Project's Life:								
Sales revenue	\$627,000	\$695,942	\$772,464	\$857,400	\$951,676	\$1,056,317	\$1,172,465	\$1,301,383
Variable costs	467,400	518,793	575,837	639,153	709,431	787,437	874,019	970,122
Nonvariable operating costs	0	0	0	0	0	0	0	0
Depreciation (equipment)	86,520	154,500	105,060	24,720	0	0	0	0
Operating income before taxes (EBIT)	\$73,080	\$22,649	\$91,567	\$193,527	\$242,245	\$268,881	\$298,446	\$331,261
Taxes on operating income	29,942	9,280	37,517	79,291	99,252	110,165	122,278	135,723
After-tax operating income	\$43,138	\$13,369	\$54,051	\$114,236	\$142,993	\$158,716	\$176,167	\$195,538
Add back depreciation	86,520	154,500	105,060	24,720	0	0	0	0
Operating cash flow	\$129,658	\$167,869	\$159,111	\$138,956	\$142,993	\$158,716	\$176,167	\$195,538
Required investment in NWC	-7,928	-8,800	-9,768	-10,842	-12,034	-13,357	-14,826	\$149,659
Salvage Value								17,000
Tax on Salvage Value								-6,965
Project Net Cash Flow (Time line of cash flows)	-\$690,105	\$121,730	\$159,069	\$149,343	\$128,114	\$130,959	\$145,359	\$161,342
								\$355,232

IV. Capital Budgeting Analysis

- Techniques of analyzing the new project.

The several capital budgeting analysis methods are crucial for evaluating new projects. Based on the information from the cash flow estimation, we were able to analyze the value of the new project using six key techniques. Briefly, the methods used (and their description) are:

- NPV: Net Present Value, "The difference between the present value of cash inflows and the present value of cash outflows. NPV is used in capital budgeting to analyze the profitability of an investment or project." (Net Present Value, n.d.)
- IRR: Internal Rate of Return, "The discount rate often used in capital budgeting that makes the net present value of all cash flows from a particular project equal to zero." (Internal Rate of Return, n.d.)

MIRR: Modified Internal Rate of Return, "the modified IRR assumes that positive cash flows are reinvested at the firm's cost of capital, and the initial outlays are financed at the firm's financing cost. Therefore, MIRR more accurately reflects the cost and profitability of a project." (Modified Internal Rate of Return, n.d.)

- PI: Profitability Index – is the ratio of payoff to investment of a proposed project. It is a useful tool for ranking projects because it allows you to quantify the amount of value created per unit of investment. The PI is calculated as the present value of future cash flows divided by initial investment. A profitability index of 1 indicates breakeven, any value lower than 1 would indicate that the project's present value is less than the initial investment and vice versa. As the value of the profitability index increases, so does the financial attractiveness of the proposed project.

- Payback: “The length of time required to recover the cost of an investment.” (Payback Period, n.d.)
- Discounted Payback, “Future cash flows are considered are discounted to time "zero." This procedure is similar to a payback period; however, the payback period only measure how long it take for the initial cash outflow to be paid back, ignoring the time value of money.” (Discounted Payback Period, n.d.)

All of these methods have been used for the proposed project, based upon the project inputs provided. The budgeting analysis results are summarized as follows:

CAPITAL BUDGET ANALYSIS RESULTS	
Net Present Value (NPV) in thousands	\$277,999
Internal Rate of Return (IRR)	15.48%
Modified Internal Rate of Return (MIRR)	11.67%
Profitability Index	1.40
Payback Period (in years)	5.01
Discounted Payback Period (in years)	6.28

Sensitivity Analysis

The results of the sensitivity analysis on the NPV of the project was educational; four key variables were adjusted plus/minus 10% and 20% from the base starting point, allowing a superior *feel* for the outcomes of the project should the inputs vary. The variables adjusted for the base year (Year 1) were: Initial Cost of Equipment, Units Sold, Selling Price per Unit, Variable Cost per Unit, Corporate Tax Rate, and the Project WACC.

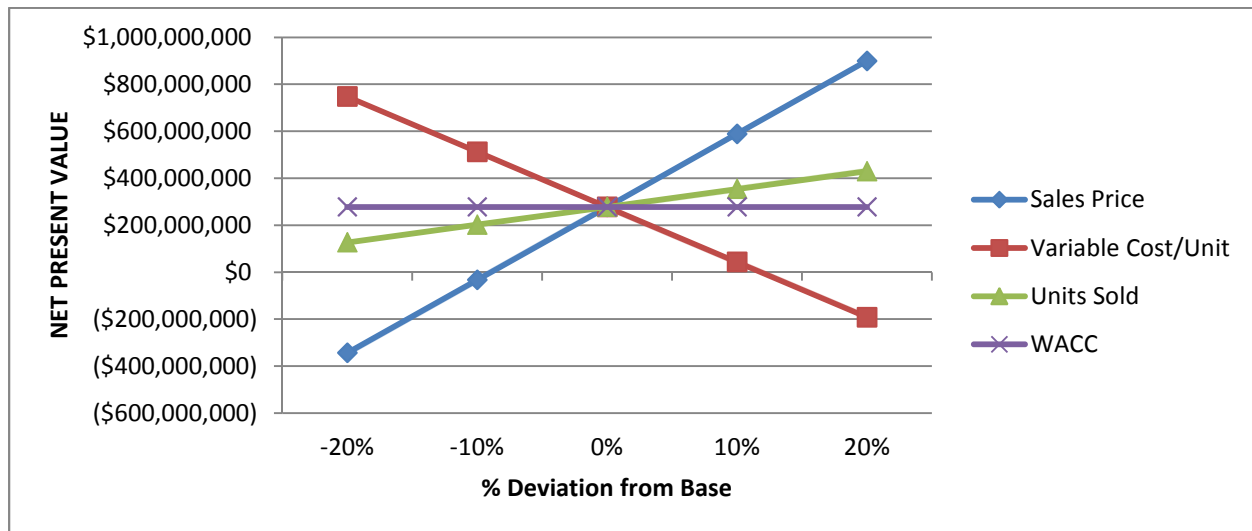
% Deviation from Base Case	1st YEAR UNIT SALES	
	Units Sold	NPV
		\$277,999
-20%	1,824,000	\$126,199
-10%	2,052,000	\$202,099
0%	2,280,000	\$277,999
10%	2,508,000	\$353,898
20%	2,736,000	\$429,798

% Deviation from Base Case	WACC	
	WACC	NPV
		\$277,999
-20%	5.63%	\$340,713
-10%	6.34%	\$308,404
0%	7.04%	\$277,999
10%	7.74%	\$248,953
20%	8.45%	\$220,806

% Deviation from Base Case	VARIABLE COST	
	Variable Costs	NPV
		\$277,999
-20%	164.00	\$747,872
-10%	184.50	\$512,935
0%	205.00	\$277,999
10%	225.50	\$43,062
20%	246.00	-\$191,874

% Deviation from Base Case	SALES PRICE	
	Sales Price	NPV
		\$277,999
-20%	220.00	-\$343,674
-10%	247.50	-\$32,838
0%	275.00	\$277,999
10%	302.50	\$588,835
20%	330.00	\$899,671

The details of the analysis follow along with the graphic representation of the same.



Scenario Analysis

As with a sensitivity analysis, a multi-variable change analysis is a useful tool to better understand the impact of incongruent changes in key variables. The changes to NPV are used to identify risk and potential pitfalls in varied input swings. The scenario analysis follows:

Scenario	Probability	Sales Price	Unit Sales	Variable Costs	NPV	Squared Deviation Times Probability
Best Case	25%	\$330.00	2,736,000	\$164.00	\$1,739,652	756597649210620
Base Case	50%	\$275.00	2,280,000	\$205.00	\$277,999	38641620514847
Worst Case	25%	\$200.00	1,824,000	\$255.00	-\$1,010,401	255227769193855
Expected NPV = sum, probability times NPV					\$321,312	
Standard Deviation = Square Root of column H sum					\$1,024,923	
Coefficient of Variation = Standard Deviation/ Expected NPV					3.19	

CONCLUSION

In conclusion, Southwest's expected future growth is limited by its geographic concentration in the US, the volatility in fuel prices and increasingly restrictive and stringent government regulations. Of particular note is the strong position in regards to liquidity, asset management and historical profitability. However, the analyst must take into consideration the declining profitability of the firm as

it battles increasing costs of operations, coupled with higher debt levels over time. The company's Stock price is overvalued and its credit rating from Morningstar of BBB- underlines the moderate financial strength of the firm, liquidity included. Southwest's high P/E indicates the high expected future growth in earnings, despite 2011's lower earnings.

Upon review of the capital budgeting analysis, all six indicators are positive to support acceptance of the project. Specifically, the IRR of 15.48% and the MIRR of 11.67% greatly exceed the WACC of the firm will be exposed to during this project. In addition, the NPV of \$277B is greater than zero indicating that this project, properly managed and controlled, will be profitable the firm. Based on the results of our analysis, the recommendation is an unqualified YES to proceed.

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