



THE BOEING COMPANY

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WRUBLE**



Introduction

- We will examine the Boeing Company following the roll-out of new 787 Dreamliner.
- Airbus is proving to be the major commercial airliner competitor.
- Whose strategy will be proven by the markets to be correct, and should one make an investment?



History of Boeing

- William Boeing founded in 1917.
- By 1934, was considered major aviation company until anti-trust legislation split the company.
- B-17, B-29, B-52 bombers
- 707- 1st worldwide successful jet airliner.
- 737- Most ordered airliner in history.
- Apollo program manager, satellites.
- 1970's- survived recession with IT.
- Today- ISS, Space Shuttle, F/A-18 E/F Super Hornet, KC-767, F/A-22A Raptor, 767, 777, 787.



Overview of Competitors

- For each product line, there are a few competitors; contraction in market.
- For airliners, Airbus S.A.S. is the major competitor.
- Airbus matches Boeing head-to-head.
 - Design, performance, economy.
- Deviation is the form of the Airbus A380, and the Boeing 787 Dreamliner.



Overview of Competitors

- Fundamental difference: how much will the volume of air travelers increase in the next 20 years?
- Airbus: volume will treble, airlines will need economy per seat, meaning very large airliners.
- Boeing: volume will increase, perhaps not treble, and economy will be met with airliners capable of point-to-point service, with rapid turnaround, and low fuel and maintenance costs.



Overview of Competitors

- Airbus A380
 - Super-jumbo design for 550-600 seats
 - Double deck, twin aisle layout
 - Amenities: shopping, lounges, exercise
 - Relatively conventional construction
 - Major airports only
 - \$296-\$315 million to buy, per seat economy (bulk)
- Boeing 787 Dreamliner
 - Mid-size, long-range, 200-300 seats
 - Single deck, multiple layouts possible
 - Focus on passenger comfort, including humidity, lighting, shapes of the cabin and utilization of the space within
 - Advanced composite construction 50% of airliner
 - Can fly into most anywhere airliners now go
 - \$146-\$200 million, lesser fuel, maintenance costs



Overview of Competitors

- Boeing's counterpunch:
 - Increased capacity 747
 - Airlines benefit by economy of scale
 - Ready now
- Airbus response:
 - A350 that is very similar to the 787, and again a head-to-head product
 - Expected to be ready by 2013



Comments on Senior Management

- Boeing's corporate structure begins with its CEO, President and Chairman: W. James McNerney, Jr. McNerney
 - Experience:
 - McNerney held positions that required global insight and high levels of leadership in various departments at GE.
 - CEO position at 3M before becoming a part of Boeing in 2001
 - At the age of 57, McNerney provides the stability that a company like Boeing requires to effectively dominate the world air cargo industry. McNerney earned his B.A. from Yale in 1971 and an MBA from Harvard in 1975. Survivor's Option to sell at par value.



Comments on Senior Management continued

- Other layers of management at the Senior Vice President level include the following departments:
- Communications
- Finance
- Human Resources and Administration
- Internal Governance
- International
- Law Department
- Public Policy



Comments on Senior Management continued



Jim McNerney
Chairman, President and
Chief Executive Officer

Executive Council*



Jim Albaugh
Executive Vice President,
President and CEO,
Integrated Defense Systems



James Hill
Executive Vice President
and Chief Financial Officer



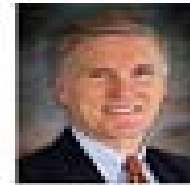
Scott Carson
Executive Vice President,
President and CEO,
Commercial Airplanes



Wanda Benson-Law
Senior Vice President,
Internal Governance



Tom Downey
Senior Vice President,
Commercial Air



Shep Hill
Senior Vice President,
Business Development
and Strategy



Ted Hulin
Senior Vice President,
Public Policy



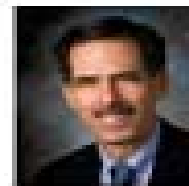
Laurette Koolman
President, Boeing
International



Michael Luffig
Senior Vice President,
General Counsel



Rick Stephens
Senior Vice President,
Human Resources and
Administration



John Tracy
Senior Vice President,
Engineering, Operations
& Technology

Industry Forecast

- World GDP will greatly be affected by the diversification of airline travel. “Developing regions and new business sectors are bringing more balance to the world economy—and a stable long-term GDP growth rate of 3.1 percent is expected.” (Boeing, 2007, Investor Relations).



Industry Forecast continued

- Government regulations that were previously strict will begin to change. Evidence: New “Open Skies Agreement”
- Low-fare market competition
- “28,600 new airplanes will be delivered over the next 20 years”
- Overall Boeing’s forecast illustrates a picture that air travel will be better for passengers as a result of all the improves to the newly developed airplane/aircrafts.



Bonds

- Boeing offers Corporate Bonds through Incapital LLC with Partner Banc of America Securities LLC
 - Benefits:
 - Allow Ordinary Investor Access (\$1000 incr.)
 - No Transaction Fees.
 - Monthly Interest Option available.
 - Survivor's Option to sell at par value.
 - Risks:
 - Bond value fluctuates with interest rates.
 - Company's future - - ??



Bonds

- Example of Initial Bond Offered

- Coupon Rate 6%

- Fixed Income of \$60 per year per \$1000 increment bond until maturity in 2009 issued in 2002.

- Offered to improve credit rating after 9/11/01.



Stocks

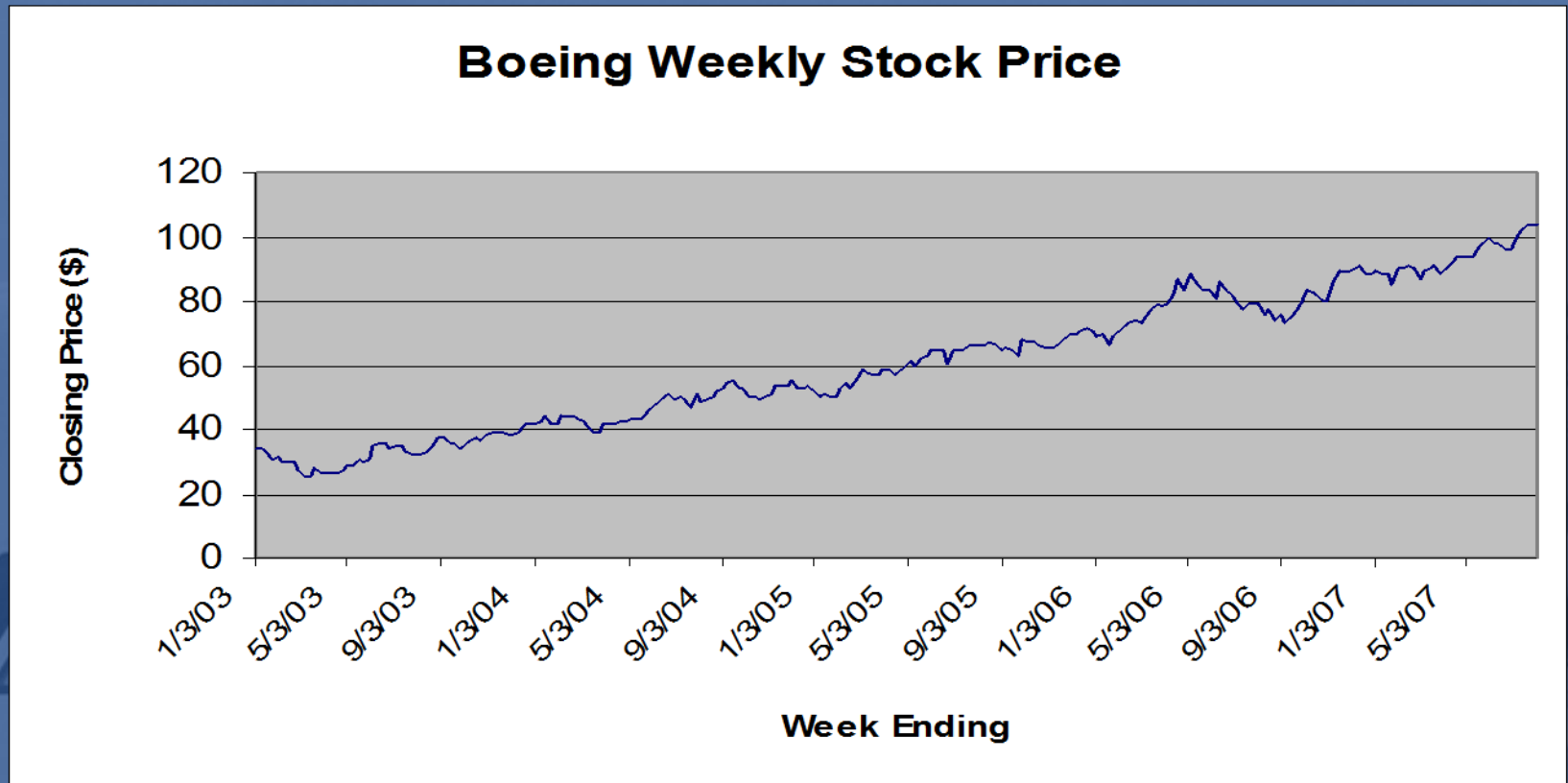
➤ Boeing:

- Listed on NYSE under symbol BA
- No Preferred Stock offered
- Last Stock split in 1997 (2 for 1) – None in past 4 years



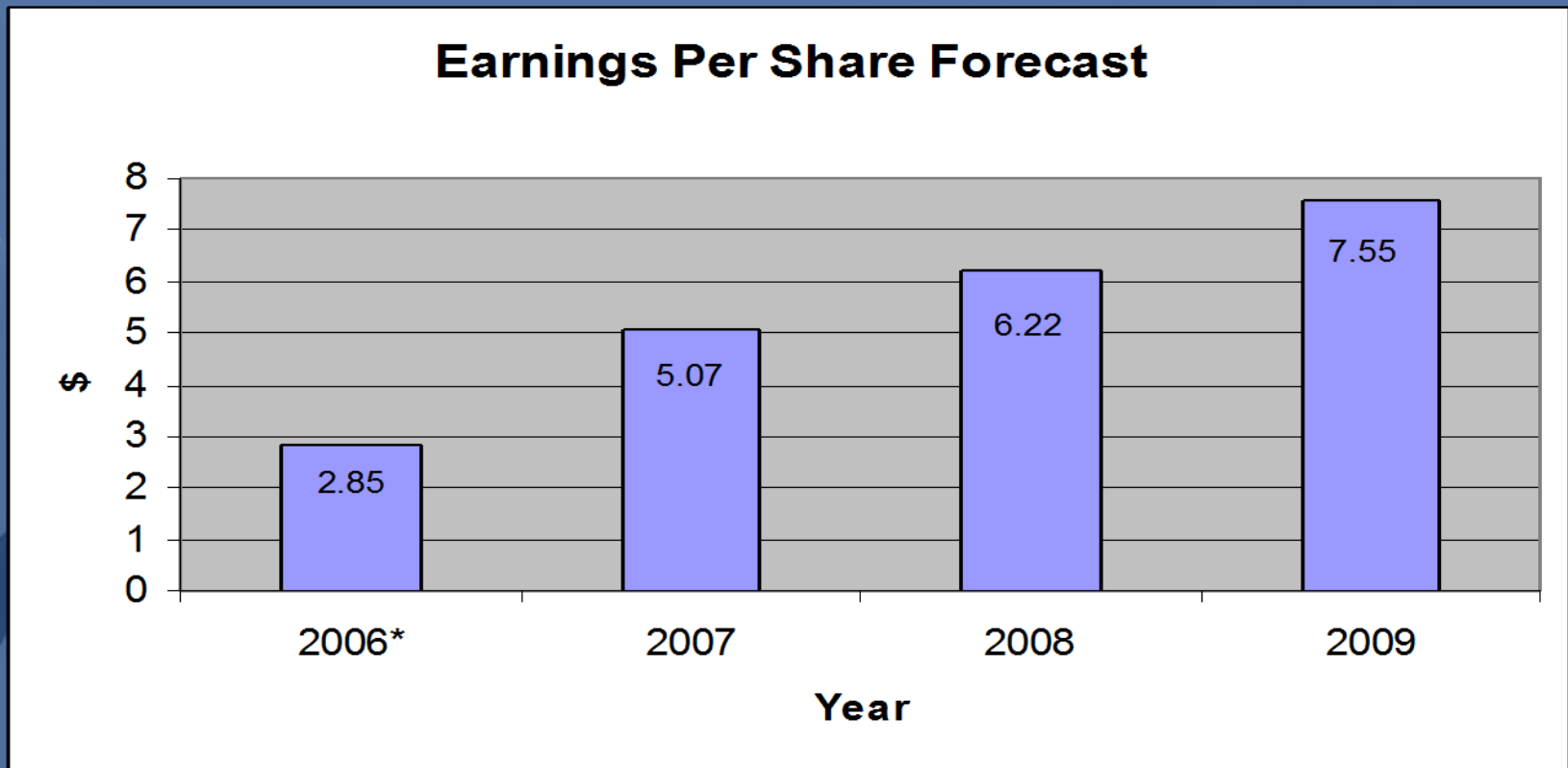
Boeing Stock Performance

- From 2003 to 2007 Boeing Stock has jumped over 250% from \$35 to \$104 per share



Boeing Stock Performance

- Boeing's earnings per share or net income divided by the shares outstanding indicates how much profit was generated and if the company is growing:



Boeing Stock Performance

- Another way to look at the earnings is Boeing's earnings per share growth rates. FY0 is 2007.

EPS Growth Rates	
Period	Growth Rate
5 Yr Historical Growth Rate	18.102
FYR0 to FYR1	77.474
FYR0 to FYR2	118.351
FYR0 to FYR3	164.912

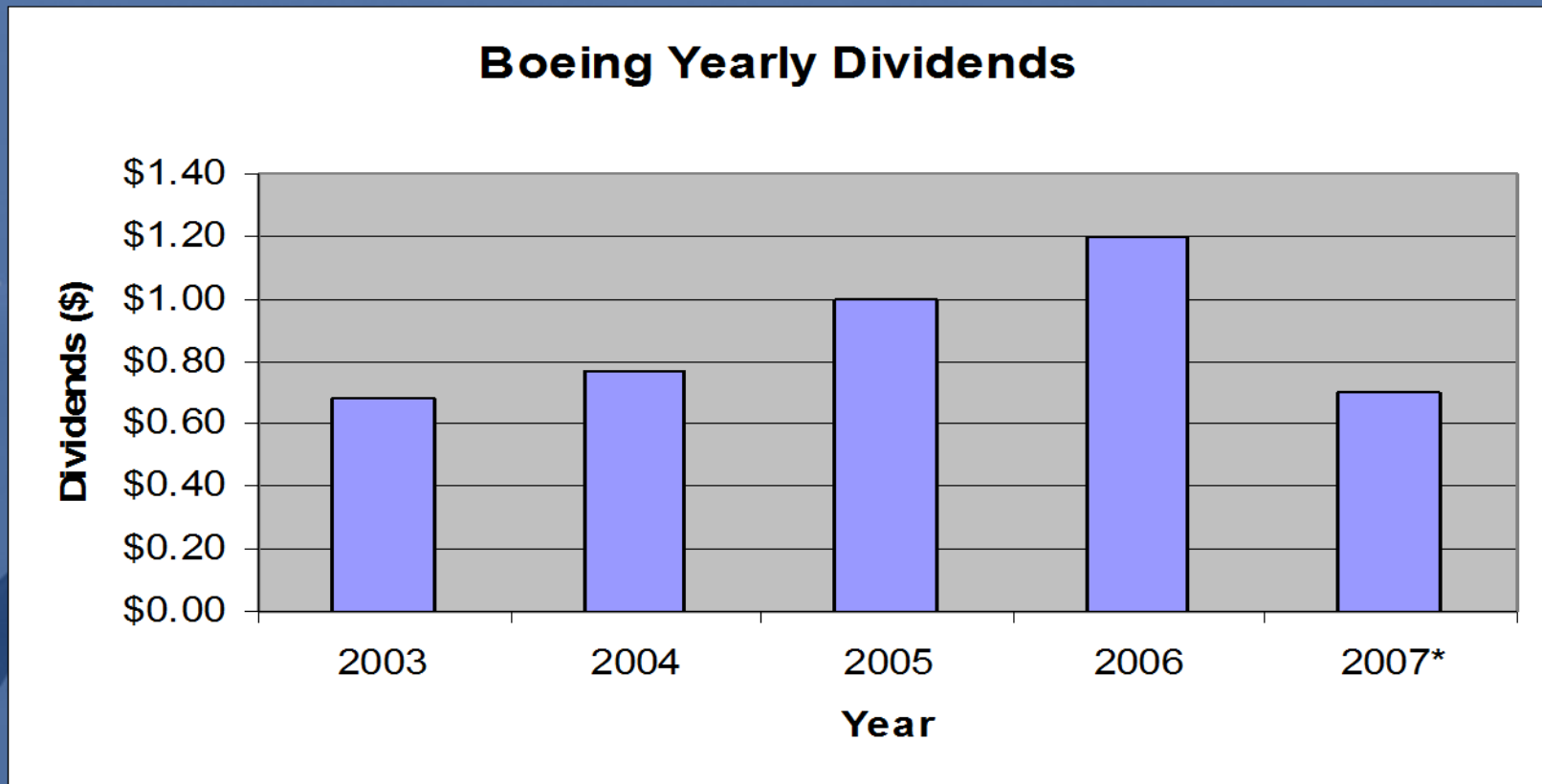
Boeing Stock Performance

- Boeing's price to earnings ratios is a reflection of the investors interest to pay per dollar of earnings. Calculated as price per share over earnings per share.

PE Ratios	
Period	P/E Ratio
Actual	36.611
FYR1	20.629
FYR2	16.767
FYR3	13.82
FYR4	11.437

Boeing Stock Performance

➤ Boeing's dividends in 2007 expected to be up 17% from 2006.



Stock Analyst Reviews:

➤ Lloyd Sabazaki –

- Considered a Momentum Play Stock

- Growth

- New orders of new Commercial Plane – the Dreamliner.

- High Manufacturing efficiencies

➤ Jeffrey Lin -

- Aerospace and Defense markets thriving

- Positive on Boeing stock through 2008 and 2009 up to full manufacturing of the Dreamliner rate of 3 days per plane.



Stock Analyst Reviews:

➤ James Rosenberg –

- Aerospace average return rate of 25% versus 22% in telecoms and 20% in finance
- Earnings per share growth pattern is positive
- \$680 Billion in Defense spending in 2008
- Air travel picking up and Airlines purchasing new planes.

➤ Hickey and Walters of the Bespoke Investment Group –

- Compare Boeing to other DJIA companies. Top 3 in stock performance.

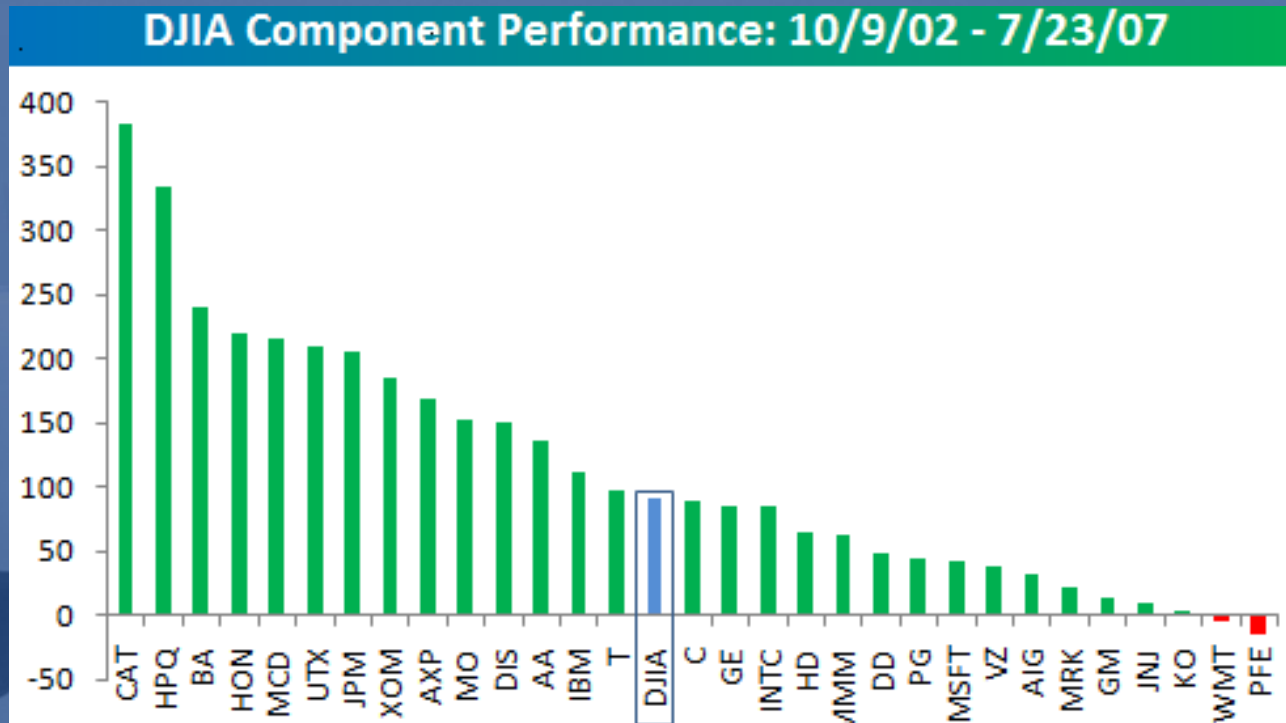
➤ Birinyi's Ticker Sense –

- Looks at P/E ratio of less than two times long term growth as a good buy:
 - Boeing is right at two times.



Conclusion / Recommendation:

- Boeing's stock has performed in the top 3 of the DJIA over the past several years.



Conclusion / Recommendation:

- Boeing's stock has a good growth trend pending the Dreamliner success. Recommendation to buy, but monitor the plane's debut and manufacturing progress.

RECOMMENDATION TRENDS				
	Current Month	Last Month	Two Months Ago	Three Months Ago
Strong Buy	7	7	8	8
Buy	4	4	5	5
Hold	9	9	8	9
Sell	1	1	1	1
Strong Sell	1	1	1	1



Weighted Average Cost of Capital

- The weighted average cost of capital is the after-tax weighted average required return on all types of securities issued by a firm,
- in which the weights equal the percentage of each type of financing in a firm's overall financial structure



WACC – Capital Funding

- Capital funding consists of two components
 - Debt
 - Equity
- Lenders and equity holders each expects a certain return on the funds or capital they have provided.
- Cost of capital is the expected return to equity owners and debt holders



Capital Asset Pricing Model

- In order to calculate the weighted average cost of capital, investors need to determine the company's cost of equity and debt
- The (CAPM) is the method used for calculating the cost of equity
- The formula is $Re = Rf + \text{Beta} (Rm - Rf)$



$Re = Rf + \text{Beta} (Rm - Rf)$

- Risk-free rate (Rf) is the amount obtained from investing in securities which are considered free from credit risk
- Beta (β_i) measures how much a company's share price reacts against the market as a whole
- The equity market risk premium ($Rm - Rf$) represents the returns investors expect to be compensated for taking the extra risk by investing in the stock market over and above the risk-free rate



(CAPM)– The Boeing Company

➤ Beta = 0.81

➤ Risk-free rate = 4.452%

➤ Equity market risk premium = 11%



The Boeing Company (CAPM) Calculation

- Formula $E(R_i) = R_f + \beta_i (R_m - R_f)$
- Calculation for Boeing Company
- $E(R_i) = 4.452\% + 0.81(11\% - 4.452)$
 - $= 4.452\% + 0.81 (6.548)$
 - $= 4.452\% + 5.30388$
 - $= 9.75588\%$
 - $= 10\%$
- The cost of equity capital is 10%



WACC – Director of Investor's Relations

- Debt = 10.3 B
 - Rate of return for debt = $657\text{M} / 10,300\text{ M} = 6.4\%$
- Equity = 74.7 B
 - Amount of Equity = $783,711,511 * \$95.30 = 74.7\text{B}$
 - Outstanding shares * Price of stock
- Rate of return for equity = 15% (given)
- Debt + Equity = 85.0 B
- Tax Rate = 35%



Boeing Company WACC Calculation

- $WACC = \left(\frac{D}{D + E} \right) (1 - T_c) r_d + \left(\frac{E}{D + E} \right) r_e$
-
- $WACC = \left(\frac{10.3B}{85.0B} \right) (0.65) (0.064) + \left(\frac{74.7B}{85.0B} \right) (0.15)$
-
- $= (0.12118 * 0.65) (.064) + (0.87882) (0.15)$
-
- $= 0.07877 * 0.64 + 0.13182$
-
- $= 0.00504 + 0.13182$
- $= 0.131686$
- $= 14\%$



The Boeing Company WACC Analyst's

- The WACC for Boeing is 14%
- Good rate of return
- Investor's are pleased
- 1st quarter net earnings ↑ 27 %
\$877M
- Revenue grew 8% to \$15.4B



Key Financial Ratios

Boeing's Competitors

- Boeing's competitors
 - Lockheed Martin Corporation
 - Number one defense contractor, Boeing ranked second
 - Northrop Grumman Corporation
 - World's number one shipbuilder and third defense contractor
 - Airbus S.A.S. is a privately held business.
 - Number one commercial aircraft maker
- Boeing is the world's largest aerospace company.
 - Boeing is ranked as the number two maker of large commercial jets



Direct Competitor Comparison

	BA	LMT	NOC	Industry
Market Capital	77.15B	36.68B	26.87B	24.08B
Qtly Rev Growth	13.60%	6.90%	4.30%	12.20%
Revenue	64.67B	40.37B	30.73B	21.01B
Net Income	3.60B	2.83B	1.61B	2.37B
PEG (5 yr expected)	1.3	1.21	1.16	1.30



Boeing's comparison between Industry and S&P 500

Growth Rates %	Company	Industry	S&P 500
Sales (QTR vs year ago qtr)	13.60	11.30	14.60
Net Income (YTD vs YTD)	261.30	96.00	21.40
Sales (5-year Annual Avg.)	1.12	8.11	13.20
Net Income (5-year Annual Avg.)	-4.83	56.52	22.96
Dividends (5-year Annual Avg.)	12.03	11.25	9.50



Price Ratios

Price Ratios	Company	Industry	S&P 500
Current P/E Ratio	22.5	19.9	21.9
P/E Ratio 5-Year High	65.3	89.5	60.4
P/E Ratio 5-Year Low	9.0	21.0	14.9
Price/Sales Ratio	1.26	1.24	2.58
Price/Book Value	13.97	6.96	4.06



Profit Margin%

Profit Margin %	Company	Industry	S&P 500
Gross Margin	19.3	14.6	37.4
Pre-Tax Margin	8.0	7.7	19.2
Net Profit Margin	5.6	5.1	13.6
5Yr Gross Margin (5-yr Avg.)	15.3	14.6	36.2
5Yr Net Profit Margin (5-yr Avg.)	3.5	3.9	11.8



Financial Condition / Investments Returns %

Financial Condition	Company	Industry	S&P 500
Debt/Equity Ratio	1.48	0.76	1.51
Current Ratio	0.8	1.2	1.2
Investment Returns %	Company	Industry	S&P 500
Return on Equity	44.3	28.9	26.9
Return on Equity (5yr Avg.)	20.8	16.5	20.0



Overview of Boeing's Key Financial Ratios

- Boeing's overall key financial ratios are in good standing
- Share price is estimated to gain the most compared to Lockheed Martin and Northrop Grumman Corporations
- The Boeing Company's sales and income grew higher than both the Lockheed Martin and Northrop Grumman Corporations

Forecasting

- Forecasts for Boeing are promising as it has already over 350 orders for its 787 Dreamliner as of April 2006
- The company reported in 2007 that it has another record year for orders. (Their second in a row)
- With 1,044 commercial orders for 2006 and 1,002 orders in 2005 sales are promising



Forecasting

- The president and CEO of Boeing, Scott Carson, provided a very positive forecast for the company's future in a press release on January 4, 2007
- "We're bringing the right products and services to the market at the right time, and we remain intensely focused on our customers, on delivering on our promises and on addressing the needs of the marketplace."



International Markets

- Boeing exports its aerospace products to over 90 countries.
- Throughout the world, Boeing has approximately 12,000 aircraft in service.
- This amounts to around three quarters of the world fleet



Evaluation Of Capital Budgeting

- Boeing has developed its own method to evaluate investment and capital budgeting opportunities.
- The patented method is named the DM Method after Scott Matthews and Vinny Datar
- Their state-of-the-art approach uses the standard discounted cash flow analysis and incorporates managerial flexibility



Evaluation of Capital Budgeting

- Boeing's state-of-the-art real options method allows for adjustments to be made along the way.
- With the DM method, as a project grows toward its launch, certain scenarios will emerge dominant and play out over others. The DM method grants managers the ability to; for example, increase the projects value if one scenario happens versus another.



Evaluation of Capital Budgeting

- The Datar-Matthews real options method differs from NPV where DM entertains the possibility of more than one most likely scenario .
- The DM approach allows managers to discuss the *multiple* scenarios reflecting the various market conditions that are likely to occur at the launch of a product. NPV analysis attempts to reduce all possibilities to a single most likely scenario.



Conclusions

➤ Threats

- Airbus A350, but will be late to party
- Terrorists, but this affects whole industry

➤ Opportunities

- If 787 fails, technology goes to other products
- 737 will need to be replaced at some point
- Fuel and maintenance saving very attractive

➤ Weaknesses

- Strength of Airbus in the market
- Post 9-11 security concerns slows airports, so an airliner like the A380 moving many people at once could be considered preferable by airlines



Conclusions


➤ Strengths

- Despite post 9-11 concerns, people are still flying and volumes are increasing
- More airliners will need to not only handle the increase, but replace those reaching the end of useful lives
- Efficient airliners will be valuable to airlines and passengers to keep costs down
- Boeing is an efficient and well-run company
- Financial indicators are very positive for short-term (2-3 years) growth, needs to be reevaluated at that time
- Final recommendation: Boeing is a company worth investing in.





 **BOEING**

 **BOEING**

Business Class