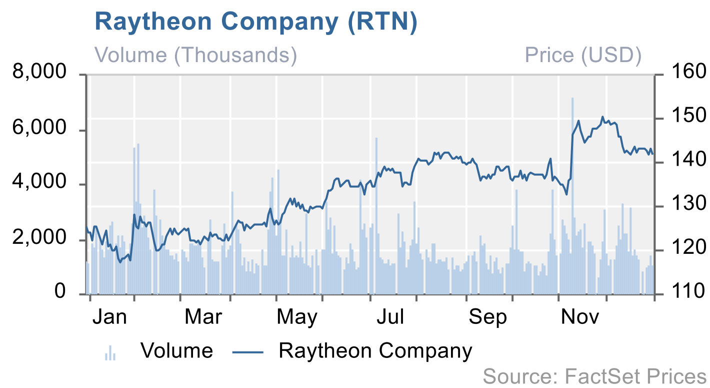
Analyst: Justin Brant

Recommendation	BUY
Target (today's value)	$162.00
Current Price	$144.81
52 week range	$119.38 - $152.58

Aerospace & Defense

Raytheon Company



Share Data	
Ticker:	RTN
Market Cap. (Billion):	$42.52
Inside Ownership	0.2%
Institutional Ownership	78.1%
Beta	0.80
Dividend Yield	2.02%
Payout Ratio	38.7%
Consensus Long-Term Growth Rate	8.6%

	2014	2015	2016E	2017E	2018E
Sales (billions)					
Year	$22.8.3	$23.2.5	$24.4.4	$25.97	$27.57
Gr %	-2.9%	1.8%	5.1%	6.2%	6.2%
Cons	-	-	$24.42	$11.48	$12.50
EPS					
Year	$7.19	$6.80	$7.67	$7.69	$8.69
Gr %	16.5%	-5.4%	12.8%	0.3%	13.0%
Cons	-	-	$7.46	$7.46	$7.41

Ratio	2014	2015	2016E	2017E	2018E
ROE (%)	21.2%	21.0%	21.0%	21.4%	20.8%
Industry	37.8%	49.5%	49.5%	61.3%	116.4%
NPM (%)	9.5%	8.9%	8.9%	9.1%	8.4%
Industry	7.6%	7.6%	7.6%	7.6%	7.5%
A. T/O	0.85	0.81	0.81	0.82	0.83
ROA (%)	8.1%	7.2%	7.2%	7.4%	7.0%
Industry	7.1%	7.0%	7.0%	7.1%	7.3%
A/E	2.85	2.83	2.73	2.65	2.55

Valuation	2015	2016E	2017E	2018E
P/E	16.3	30.3	22.7	20.3
Industry	20.0	42.0	23.9	22.0
P/S	2.34	4.45	3.70	3.40
P/B	5.2	7.7	5.6	5.6
P/CF	9.9	13.5	12.6	11.4
EV/EBIT	13.5	15.2	18.5	15.4

Performance	Stock	Industry
1 Month	-3.1%	-0.2%
3 Month	5.9%	10.8%
YTD	2.3%	1.3%
52-week	16.6%	27.0%
3-year	63.5%	21.5%

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Summary:
I recommend a buy rating with a target of $162. Continued expansions within international markets in addition to increased defense spending will fuel Raytheon's growth in the coming years. Raytheon possesses a global growth business model that is hard to imitate. The election of Donald trump and geopolitical drivers will be sure to see renewed government defense spending across the planet. The stock is undervalued based on DCF analysis. My price target of $162 includes the current dividend yield (2.02%) and implies a 11.55% upside.

Key Drivers:

- International aerospace & defense sales will increase due to growing geopolitical instability.
- Increased Department of Defense spending will have a positive impact on Raytheon's Revenue.
- U.S. Presidential Election Results will drive growth opportunities for Raytheon.

Valuation:

Raytheon was valued using multiples and a 3-stage discounted cash flow model. Based on earnings multiples, the stock is expensive relative to other firms and is worth $125. Relative valuation shows Raytheon to be slightly overvalued based on its fundamentals versus those of its peers in the aerospace and defense industry. Price to sales valuation yielded a price of $134. A detailed DCF analysis values Raytheon slightly higher, at $166.71; I give this value a bit more weight because it incorporates assumptions that reflect Raytheon's long term growth. Finally, a scenario analysis yields a price of $161. As a result of these valuations, I value the stock at $162.00.

Risks:

Threats to the firm include cuts in defense spending, global currency fluctuations, production delays, Forcepoint integration setbacks, and higher oil prices affecting international sales.

Company Overview

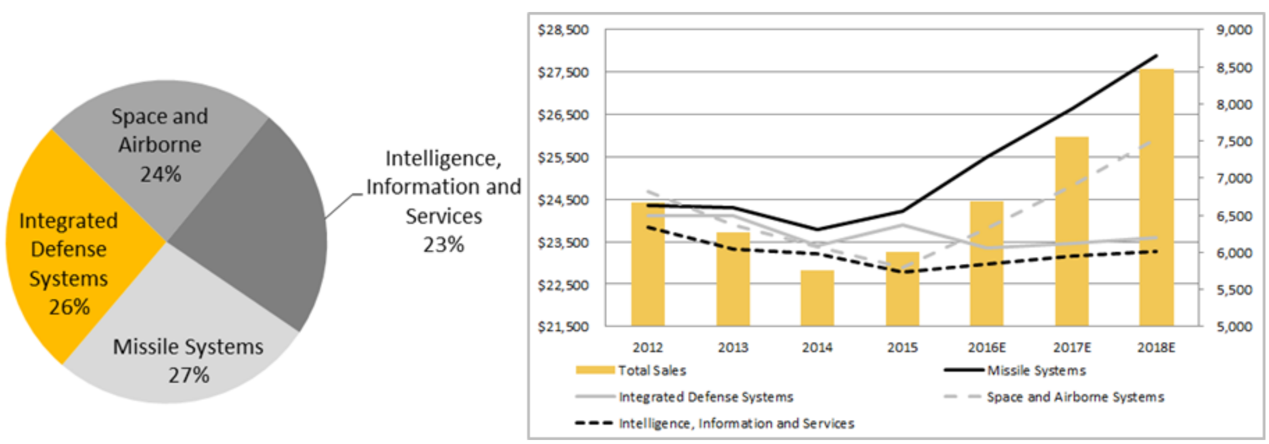
Raytheon Company (RTN) is a technology and innovation leader specializing in defense, civil government, and cybersecurity solutions. Founded in 1922, Raytheon is headquartered in Waltham, Massachusetts and employs approximately 61,000 people worldwide. From its founding, Raytheon has been at the forefront of developing and implementing defense and radar systems. In addition to these systems, Raytheon is the world's leading missile supplier. Furthermore, Raytheon provides a wide range of mission support services. This company is one of the world's top-five defense contractors and is the world's leading producer of guided missiles.

For the first half of 2016, Raytheon generated approximately 68% of its revenue from the U.S. government and 32% of its revenue internationally. Raytheon operates its company through five main segments:

CAGR for Raytheon's sales since 2001 is 2.32%

- Missile Systems; develops and supports a broad range of advanced weapon systems. This includes missiles, smart munitions, close-in weapon systems, projectiles, kinetic kill vehicles, directed energy effectors, and advanced combat sensor solutions. This segment's net sales grew by nearly 4% from 2014 to 2015 and is expected to finish 2016 with 11% growth.
- Integrated Defense Systems: comprises of air and missile defense, radar solutions, and a variety of other systems. Sales in this segment grew in 2015 by nearly 5% and decreased 5% in 2016.
- Space and Airborne: designs and develops integrated sensor and communication systems for advanced missions in addition to precision guidance systems along with electronic warfare systems. Net sales in this segment decreased by 4.5% in 2015 and will increase nearly 9% in 2016.
- Forcepoint: a newly reorganized segment, combines Raytheon's cybersecurity technologies and Websense's TRITON platform. This provides defense-grade cybersecurity solutions to domestic and international customers. Raytheon reported net sales of $328 million in this segment for 2015 and expects this number to grow as more systems come online.
- Intelligence, Information, and Services: provides a full range of technical and professional services to the U.S. federal government, in addition to intelligence, defense, and commercial customers worldwide. The net sales in this segment decreased by nearly 4% in 2015 and is expected to increase by 2% in 2016.

Figures 1 and 2: Revenue sources for RTN, EOY 2015 (left) and Revenue history since 2011 with 5 year CAGR (right)



Source: Company 10K

Business/Industry Drivers

Raytheon's future success is dependent on several contributing factors from both a company-specific and economic viewpoint; the following are the most important business drivers:

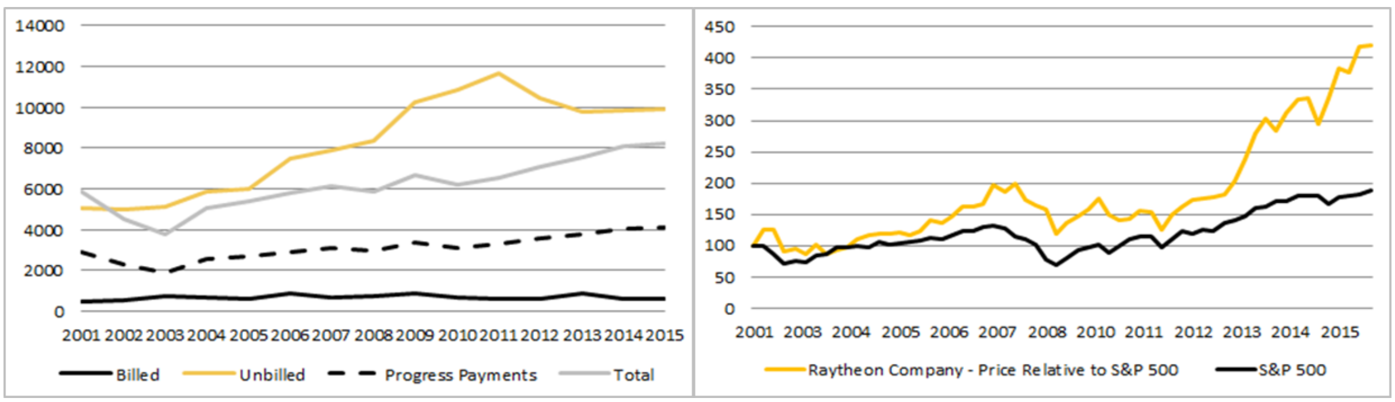
1) U.S. Department of Defense (DoD) spending
2) International growth
3) Forcepoint
4) United States presidential election
5) Competition

<u>U.S. Department of Defense (DoD) Spending</u>

DoD Spending is projected to continue to increase for FY17

Raytheon is highly reliant on U.S. government and the Department of Defense, which contribute to 68% of net sales. The United States has been engaged in the longest period of continuous warfare in its history. This began after the events of 9/11, and the Department of Defense saw a drastic increase in its budget during the early stages of Operation Iraqi Freedom and Operation Enduring Freedom. However, the drawdowns in Afghanistan and Iraq starting in 2010 caused Congress to reduce military spending.

Figures 3 and 4: Number of DoD contracts (left) and RTN relative to S&P500 since 2001 (right)



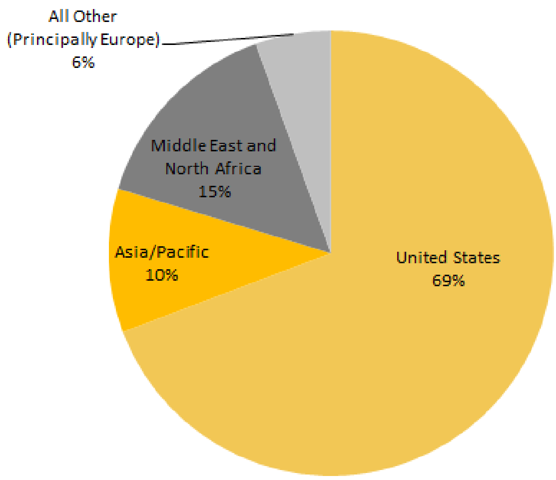
Source: company 10K, FactSet

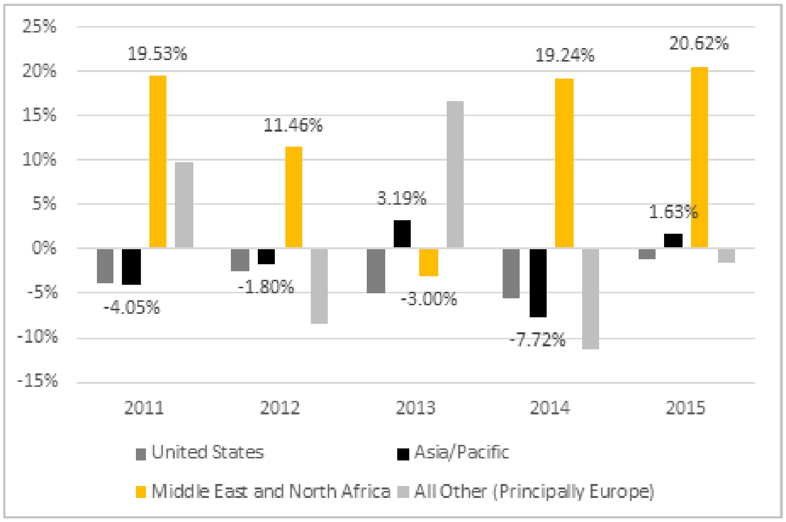
Since 2004, the increase in defense spending caused Raytheon to outperform the S&P 500. Despite the government budget cuts in 2014, the stock has continued to outperform. Systems such as missile defense, space and airborne systems, which Raytheon sells, have not fallen. Furthermore, Congress voted to increase defense spending in FY16 in response to geopolitical issues, which the American people see as threats. These issues include the Russian incursion into Ukraine, the growing threat of the Islamic State, and increasing belligerency with North Korea, which continues its atomic testing program.

The U.S. military's shift to the Asia/Pacific region will increase growth

The U.S. government is also shifting its focus to the Asia/Pacific region for military training and operations. This change in focus led to defense upgrades to the pre-existing U.S. Naval fleet and the U.S. Air Force. Upgrades to these forces will increase Raytheon's integrated defense system segment revenue opportunities. The integrated defense system segment makes many of the radar and defensive elements for U.S. Navy ships. Raytheon's missile systems segment also benefits from this shift through opportunities with the U.S. Air Force. There are improved prospects for the Small Diameter Bomb II, Stinger missile product line, and the AIM120AMRAAM air-to-air missile products.

Figures 5 and 6: 2015 revenue by % total (left) and YOY sales growth by region (right)





Source: Company reports

Geopolitical tensions create opportunities for increased revenue for Raytheon.

<u>International Growth</u>

Like many of its competitors, Raytheon has a large sales exposure in the United States, which leaves it vulnerable to cuts in U.S. defense spending. However, Raytheon has been following its international model, which looks at countries as markets. This approach appears to be paying off for the time being. International revenue was up 3% in 2015 and continues to increase in 2016. Boeing and Bae Systems have more international revenue exposure revenue than Raytheon. Despite this, Raytheon still has more international exposure than most of its competition.

More countries want missile defenses to protect themselves from rogue states. This rise in international growth can also be attributed to rising geopolitical tensions across the globe. This can be explained by a variety of examples; one of which is increasing business opportunities with the Polish government due to the rise in Russian aggression towards its neighbors over the past several years. Although government-to-government negotiations are still ongoing, Raytheon anticipates a multi-billion dollar opportunity in 2017 with Poland's largest defense contractor, PNC, in 2017. Product lines related to this opportunity are Raytheon's highly successful Patriot Missile System and their NASAMS short-range air defense system. This being said, European markets are experiencing a slowdown in demand as GDP growth and high operating costs are an issue for the continent.

Shifting focus towards the Middle East, Qatar, and Saudi Arabia have presented lucrative opportunities for Raytheon. The company has secured contracts to provide both nations with missile defense systems, including the Patriot line of missile systems. Sales growth increased by 2% in 2015 in the Middle East and North African markets. This sales growth is substantial considering oil output in the region has slowed.

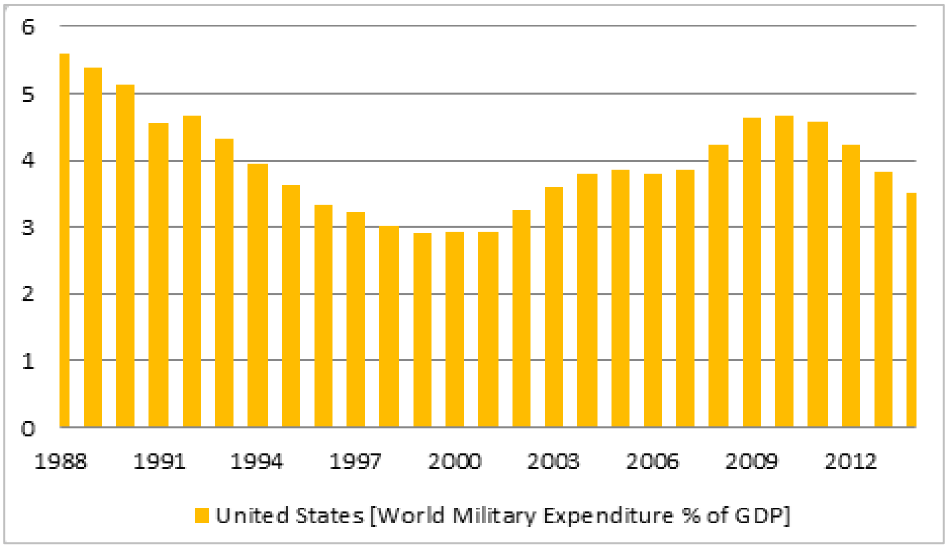
Last, sales in the Asia/Pacific region increased almost 2% in 2015. This number is an indicator of countries' increased reliance in Raytheon's ability to provide defense systems capable of protecting them. This is due to the aggressive Chinese foreign policy in the region. However a threat to this, like in Europe, could be slow economic growth.

Past presidential elections have had an impact on the defense budget.

Forcepoint

A newly formed segment, Forcepoint was integrated in 2015 and is experiencing its first full year as a part of Raytheon. Forcepoint provides information technology security products and related services designed to protect commercial and government organizations along with their customers and other users from external and internal threats.

Figure 7: U.S. defense spending as a % of GDP during election years



Source: FactSet

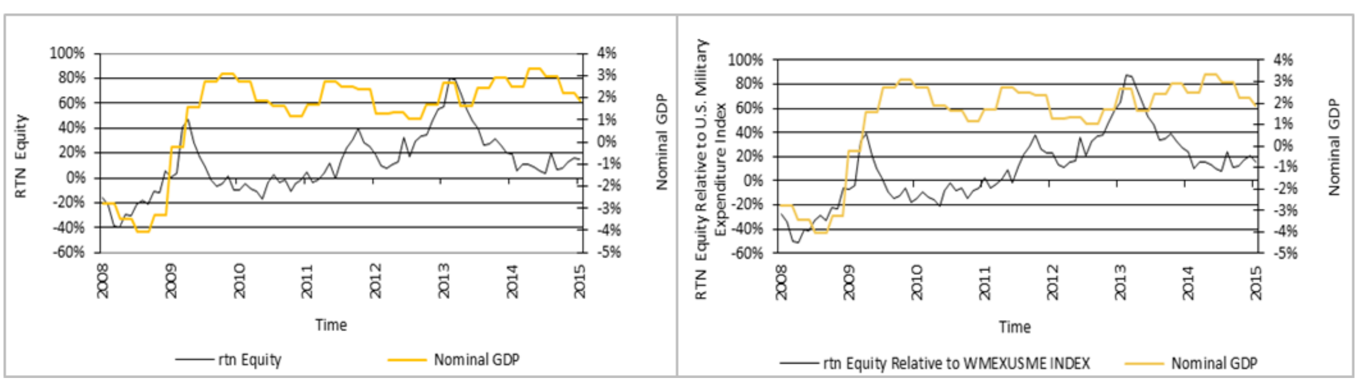
Raytheon appears to outperform the S&P500 as U.S. GDP rises.

U.S. Presidential Election

This year's United States presidential election impacted Raytheon as well as its competitors by setting the stage for defense budgets for FY18 and beyond. Historically, defense spending has increased with Republican presidents, and has decreased under Democratic presidents. This is not always the case, as noted by the increase in defense spending shortly after the 2008 election.

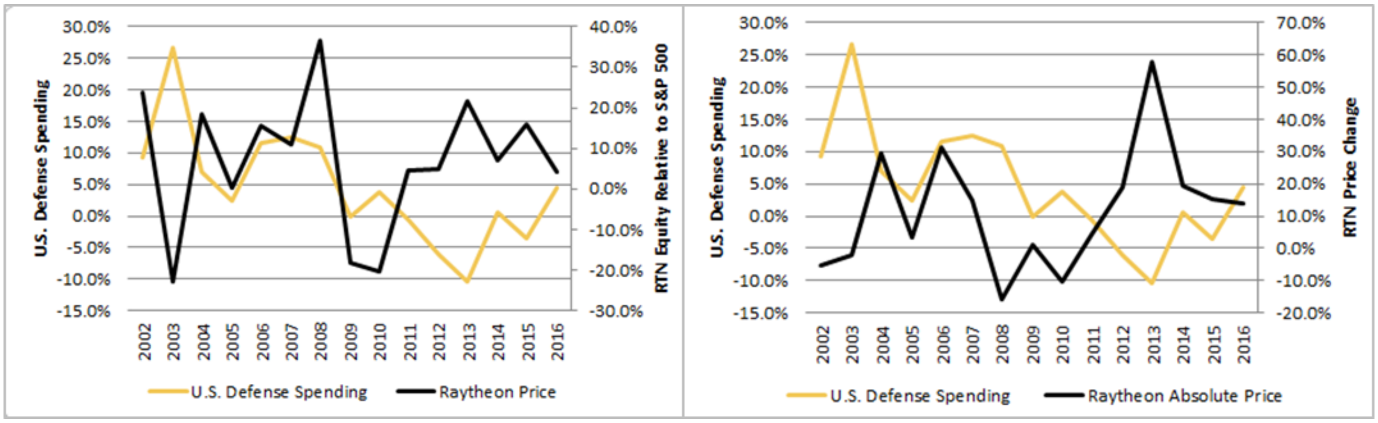
The defense budget for FY17 is projected to be larger than 2016, and I believe it is likely to stay this way. Revenues beyond FY17 will be affected by election of Donald Trump. Future defense spending will likely see a boost as Trump has been adamant about increasing the U.S. military size and budget. His focus will be on upgrading systems that have been neglected due to the insurgent warfare the United States has been facing for the past decade and a half.

Figure 8 and 9: Raytheon correlation to nominal GDP (right) and to U.S. defense spending (left)



Source: Bloomberg

Figure 10 and 11: Raytheon correlation to U.S. defense spending compared by relative (left) and absolute (right) price.

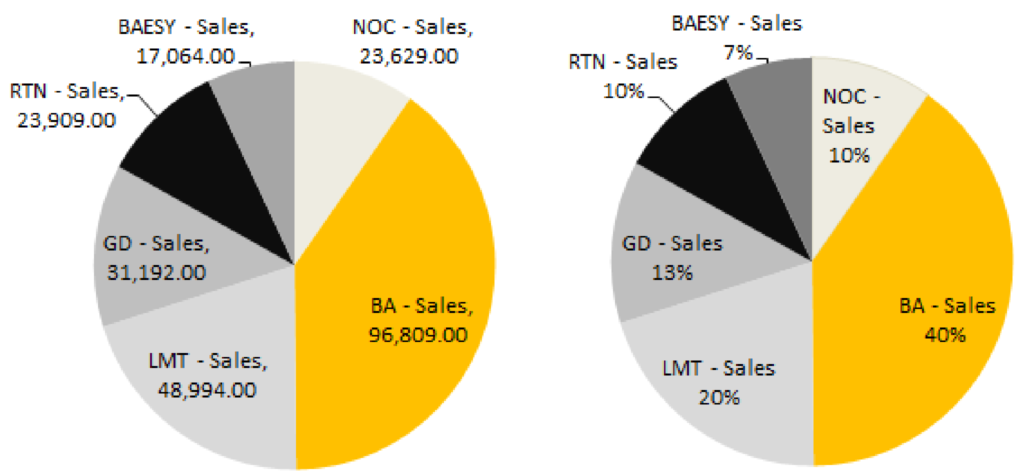


Source: FactSet, U.S. Department of Defense

<u>Competition</u>

As with most stocks in the Aerospace and Defense industry, Raytheon shares the competitive advantage that the industry has many barriers to new competition. Because of these barriers, Raytheon's competitors seldom change: Boeing (BA), Lockheed Martin (LMT), General Dynamics (GD), Bae Systems (BAESY), and Northrop Grumman (NOC).

Figure 12 and 13: Comparison of Raytheon competitors based on net sales (left) and based on market value (right)



Source: FactSet

Additionally, Raytheon benefits by producing missile and missile defense systems, and components in competitors' missile defense systems. Lockheed Martin works with Raytheon on the Javelin, a lightweight shoulder-fired missile launcher.

Figure 14: Raytheon and competitors revenue streams and growth

	Raytheon	Boeing	Lockheed Martin	General Dynamics	Bae Systems	Northrop Grumman
Ticker	RTN	BA	LMT	GD	BAESY	NOC
Percent of Sales, Defense	98.9%	23.6%	80.2%	65.6%	82.0%	99.1%
U.S. Sales	70.0%	40.9%	79.0%	73.9%	35.6%	85.8%
International Sales	30.0%	59.1%	21.0%	26.1%	64.4%	14.2%
5 Year Sales CAGR	-1.6%	8.4%	0.1%	-0.6%	-4.5%	-7.5%
5 Year Avg Net Margin	8.4%	5.5%	6.8%	6.6%	4.9%	8.1%

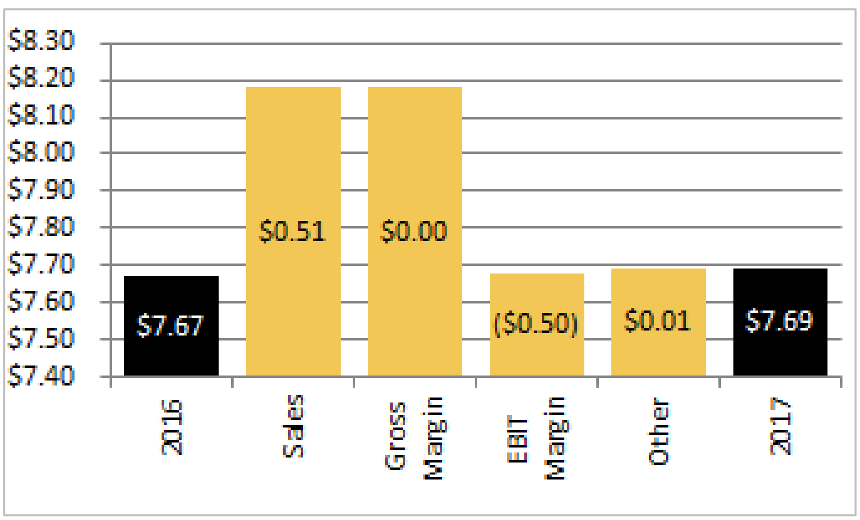
Source: FactSet

With the election of Donald Trump, the likelihood of the defense spending being cut has decreased. However if defense spending were to be cut, companies which rely more on defense sales will suffer the most. This can be seen by the 5 year sales CAGR shown above. Raytheon's larger exposure to international sales can help it perform better if the U.S. defense budget were cut. Furthermore, the companies with a higher exposure to defense sales have a notably better 5 year average margin.

Financial Analysis

I anticipate EPS to grow $0.02 in FY 2017. Rising sales will boost EPS by $0.51; however, rising research and development expenses will lead to increases in selling and administrative expenses. This will likely result in falling EBIT margins that will reduce EPS by $0.50. Raytheon is willing to take the hit because, with government contracts, the lowest bidder is typically the winner and to be more competitive.

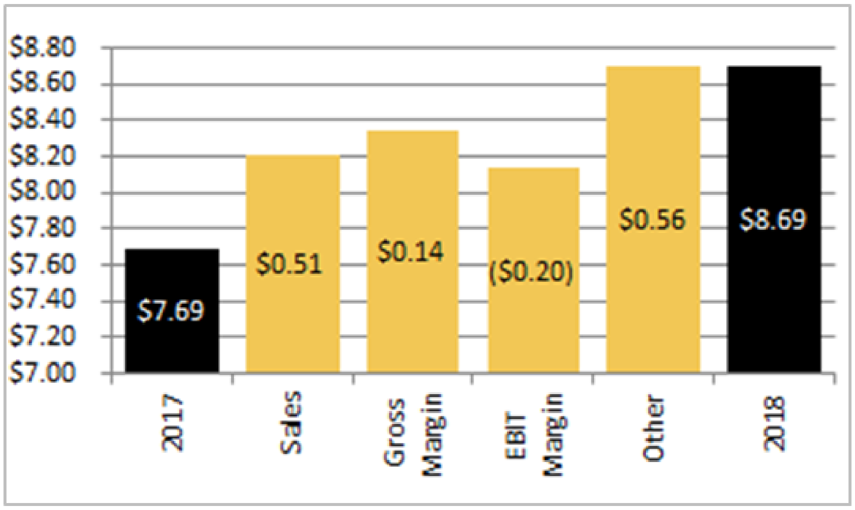
Figure 15: Quantification of 2017 EPS drivers



Source: Company Reports, IMCP

I expect 2018 EPS to increase from $7.69 to $8.66 for a gain of $0.97 per share. Raytheon's sales will increase by 6.2% stemming from a demand for missile systems and integrated defense systems. While gross margin will grow $0.14, EBIT margin will fall $0.20 as SG&A and R&D continue to rise as a percent of sales. Other will increase EPS by $0.56 due to the repurchase of 5.9 million shares.

Figure 16: Quantification of 2018 EPS drivers



Source: Company Reports, IMCP

I am slightly more optimistic than consensus estimates for 2017 and 2018, particularly in 2018. I believe Raytheon will be able to outperform other companies in the Aerospace and Defense segment due to increasing orders of the Patriot missile defense system as more countries are looking to protect their sovereignty. Still, I believe that international sales will drop by 0.5% of overall sales in 2017 and 2018 due to increased sales to the U.S. government as a result of President Trump's proposal to modernize America's nuclear weapons and deterrence systems.

Figure 17: EPS and YoY growth estimates in $Millions

	2017E	2018E
Revenue Estimate	$25,971	$27,525
YoY Growth	6.20%	6.20%
Sales-Consenus	$25,204	$26,268
Eps-Estimate	$7.69	$8.69
YoY Growth	0.25%	13.0%
Eps- Consensus	$7.35	$8.38
YoY Growth	-1.5%	14.00%

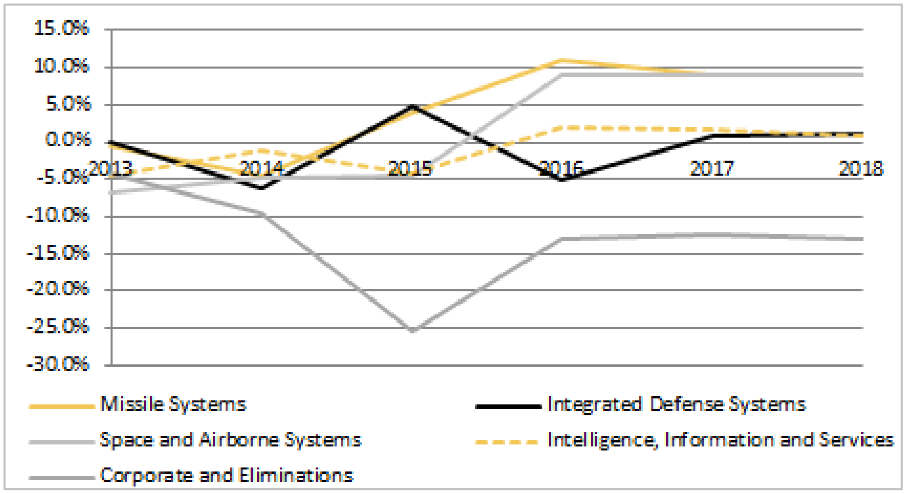
Source: FactSet, IMCP

Revenues

Raytheon's revenue is closely tied to U.S. defense spending. This is shown through the decline in revenue since 2010 as defense spending fell. However, revenue has risen in 2015 due to increased international sales. I believe the greatest revenue sources will come from Raytheon's Missile Systems and Integrated Defense Systems segment.

The Missile systems segment will see an increased demand for land-to-air missiles such as the Patriot system, as well as air-to-air missiles such as the AIM-120 AMRAAM missile. Furthermore, the Integrated Defense Systems segment also benefits from increased missile defense system orders. Also, the Space and Airborne Systems segment will see an increase in revenue as U.S. and foreign governments' defense spending increases. The reason for this growth in the United States is upgrading and outfitting the U.S. Navy and Air Force with new radars and other sensors.

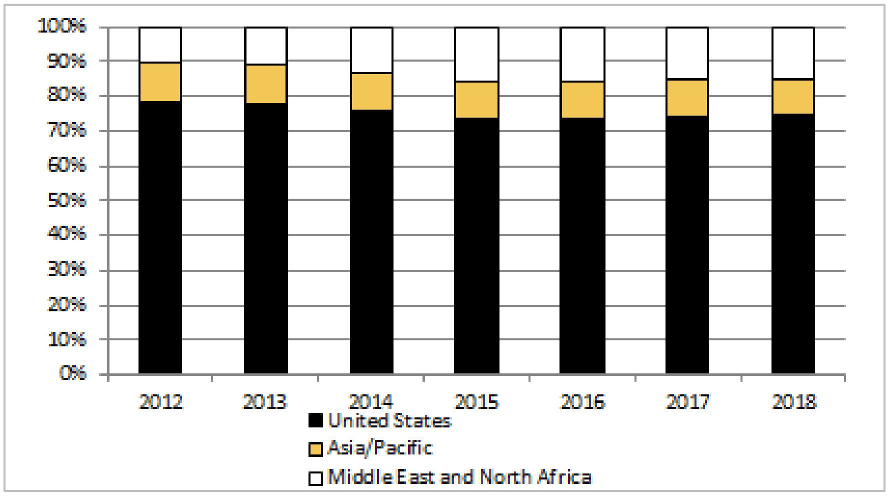
Figure 18: Raytheon segment revenues, 2013-2018E



Source: Company Reports, IMCP

International growth will be another main driver in revenue growth over the next two years. The rise in geopolitical tensions and concern about security will influence foreign governments to spend more on defense initiatives. The two segments that will benefit from this increase will be Raytheon's Missile Systems and Integrated Defense Segments for the reasons listed above.

Figure 19: Revenue Growth by Geography, 2012-2018E



Source: Company Reports, IMCP

Forcepoint was integrated in May 2015 and has an operating margin of 9.1% for that year.

Operating Income and Margins

Raytheon records its operating expenses under cost of sales-products, cost of sales-services, and general and administrative expenses. Thus far, operating margins have fluctuated due to changes in contracts with the government and other performance such as Estimate at Completion. Additionally, the company had incurred increased R&D costs associated with its Forcepoint segment. As this segment is increasingly integrated, these costs will start to decrease. However, in 2017 I am projecting nearly double digit growth in SG&A.

Figure 20: Operating income with SG&A growth

	2013	2014	2015	2016E	2017E	2018E
Sales	$23,706	$22,826	$23,247	$24,444	$25,971	$27,575
Direct Costs	18,532	17,295	17,574	18,235	19,375	20,516
Gross Income	$5,174	$5,531	$5,673	$6,209	$6,596	$7,059
Gross Margin	21.83%	24.23%	24.40%	25.40%	25.40%	25.60%
Operating Expenses						
SG&A	2,236	2,352	2,660	2,835	3,220	3,502
Growth	-4.2%	5.2%	13.1%	6.6%	13.6%	8.7%

Source: Company Reports, IMCP

Shown below are the individual segment margins for Raytheon. Not included is the Forcepoint segment because of its recent creation. Intersegment contracts have decreased material and subcontractor costs; however, segments such as the Missile systems segment have lost revenue due to a decreased defense budget.

Figure 21: Segment operating margins

	2013	2014	2015
Integrated Defense	17.2%	16.0%	17.2%
Intelligence, Information, Services	8.5%	8.4%	10.4%
Missile Systems	12.6%	12.7%	13.2%
Space and Airborne Systems	14.4%	13.9%	13.7%

Source: Company Reports, IMCP

<u>Return on Equity</u>

Raytheon has a below average ROE of 20.7% when compared to the industry average of 49.5% however, it has an above average ROA. This is due to Raytheon being less leveraged than its peers. I believe ROE looking forward two years will increase to 21.1% as the company increases its asset efficiency offsetting falling margins. However, I expect ROA to decrease in 2017 due to a lower EBIT margin projected in that year. With the increase in net income, Raytheon's ROE will increase to 21.1%. Additionally, Raytheon has the option to increase its borrowing in order to fund some of its contracts. If that were to happen, this additional debt will raise the leverage ratio and increase ROE. Currently, I project leverage to decline.

Figure 22: ROE breakdown, 2013-2018E

5-stage DuPont	2013	2014	2015	2016E	2017E	2018E
EBIT / sales	12.4%	13.9%	13.0%	13.8%	13.0%	12.9%
Sales / avg assets	0.9	0.85	0.82	0.83	0.86	0.90
EBT / EBIT	93.8%	93.8%	92.5%	92.8%	92.3%	92.7%
Net income /EBT	72.4%	75.2%	74.4%	73.3%	72.3%	75.5%
ROA	7.6%	8.4%	7.3%	7.7%	7.5%	8.1%
Avg assets / avg equity	2.72	2.57	2.84	2.78	2.69	2.60
ROE	20.6%	21.5%	20.7%	21.5%	20.1%	21.1%

Source: Company Reports

Figure 23: Free cash flows without cash and debt 2012 – 2018E

Free Cash Flow	2012	2013	2014	2015	2016E	2017E	2018E
NOPAT	$2,045	$2,077	$2,337	$2,221	$2,429	$2,431	$2,650
Growth		*1.6%*	*12.5%*	*-5.0%*	*9.4%*	*0.1%*	*9.0%*
NWC*	-700	-185	-192	486	489	519	551
Net fixed assets	17,440	16,151	17,437	19,469	19,555	19,527	19,149
Total net operating capital*	$16,740	$15,966	$17,245	$19,955	$20,044	$20,047	$19,701
Growth		*-4.60%*	*8.00%*	*15.70%*	*0.40%*	*0.00%*	*-1.70%*
- Change in NWC*		515	(7)	678	3	31	32
- Change in NFA		(1,289)	1,286	2,032	86	(28)	(378)
FCFF*		$2,851	$1,058	($489)	2,340	$2,428	$2,996
Growth			*-62.9%*	*-146.3%*	*-578.1%*	*3.8%*	*23.4%*
- After-tax interest expense	144	128	144	167	174	187	194
FCFE**		$2,723	$914	($656)	$2,166	$2,241	$2,803
Growth			*-66.4%*	*-171.8%*	*-430.2%*	*3.5%*	*25.1%*
FCFF per share		$8.82	$3.39	$ (1.61)	$7.83	$8.29	$10.46
Growth			*-61.50%*	*-147.30%*	*-587.50%*	*5.90%*	*26.20%*
FCFE per share		$8.42	$2.93	$ (2.15)	$7.25	$7.65	$9.79
Growth			*-65.20%*	*-173.50%*	*-436.70%*	*5.60%*	*27.90%*

Source: Company Reports, IMCP

Raytheon's free cash flow has been rather consistent over the last several years. This firm is committed to using free cash flow to purchase back shares and increase the dividend to shareholders. The firm paid repurchased 6.2 million shares over the past year, which is roughly 2% of the shares outstanding. I believe that share buybacks and dividend increases will continue over the next two years. I forecast that NOPAT will grow at a much faster pace than total net operating capital over the next two years, and Raytheon's revolving credit facility gives it the ability to meet any funding shortfalls that may arise.

This free cash flow model is modeled without cash and debt. I expect both FCFF and FCFE to decline in 2015 and 2016 as the result of purchasing Forcepoint. This decreased marketable securities and cash, which was used to purchase the company in 2015. However, this should rebound significantly in 2017 as capital activity is projected to decline once again.

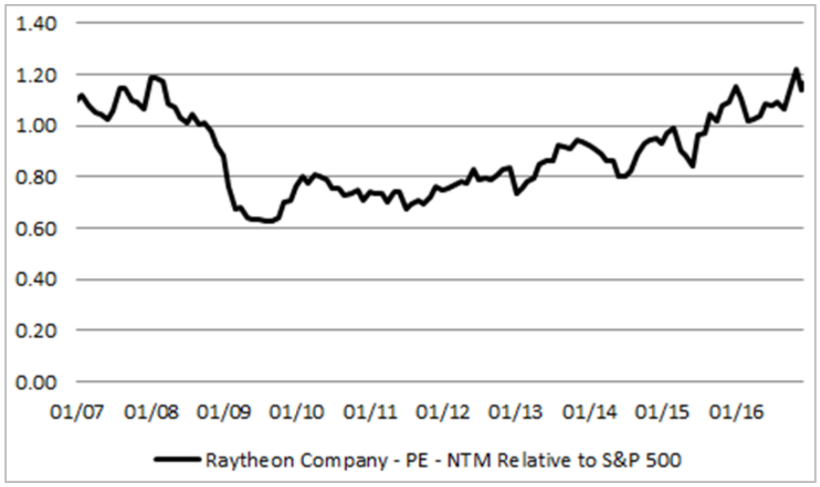
Valuation

Raytheon was valued using multiples and a 3-stage discounting cash flow model. Based on earnings multiples, the stock is expensive relative to other firms and is worth $125. However, due to the volatility of Raytheon's earnings the past few years, as well as the effect of recent nonrecurring expenses, this metric may be unreliable. Relative valuation shows Raytheon to be slightly overvalued based on its fundamentals versus those of its peers in the aerospace and defense industry. Price to sales valuation yielded a price of $134. A detailed DCF analysis values Raytheon slightly higher, at $166.71; I give this value a bit more weight because it incorporates assumptions that reflect Raytheon's long term growth. Finally, a scenario analysis yields a price of $161. As a result of these valuations, I value the stock at $162.00.

Trading History

Raytheon is currently trading near its five-year high relative P/E to the S&P 500. Most analysts believe that earnings growth will increase in the future. Raytheon's current NTM P/E is at 17 compared to its five year average of 15.5. While I expect some regression towards that number in the future, I do not think that is likely to be the case in the near term.

Figure 24: RTN NTM P/E relative to S&P 500



Source: FactSet

Assuming the firm maintains a 17 NTM P/E at the end of 2016, it should trade at $131 by today.

- Price = P/E x EPS = 17 x $7.69 = $131

Discounting $131 back to today at an 8.8% cost of equity (explained in Discounted Cash Flow section) yields a price of $120. Given Raytheon's potential for earnings growth and continued profitability, this seems to be an unusually low valuation. However, this could make sense because Raytheon has not reached its earnings growth potential yet.

Relative Valuation

Raytheon is currently trading at a P/E slightly lower than its peers, with a P/E TTM of 19.2 compared to an average of 20. Raytheon's P/B ratio is significantly lower than those of its peers; however, it's NPM is on par with or better than its peers. The reason for the lower P/B is that the firm has less leverage resulting in a lower ROE. The firm has better downside protection and more potential for growth through its larger international presence and product lines.

Figure 25: Raytheon comparable companies

Ticker	Name	Current Price	Market Value	Price Change 1 day	1 Mo	3 Mo	6 Mo	52 Wk	YTD	Earnings Growth LTG	NTM	2015	2016	2017	2018	Pst 5yr	Beta	LT Debt/ Equity	S&P Rating	LTM Dividend Yield	Payout
RTN	RAYTHEON CO	$142.00	$41,698	(1.0)	(5.0)	4.3	4.5	12.9	14.0	8.6	-3.9%	-5.4%	12.8%	0.3%	13.0%	7.0%	0.59	51.0%	A	2.06%	38.7%
BA	BOEING CO	$155.68	$96,080	(0.0)	3.4	18.2	19.9	6.3	7.7	11.1	38.7%	0.8%	-1.1%	27.7%	9.9%	10.7%	1.13	470.3%	A-	2.80%	63.7%
BAESY	BAE SYSTEMS PLC	$29.24	$23,213	0.5	(2.6)	7.4	4.3	(2.5)	(0.7)	6.3		0.0%	-18.2%	7.8%	6.3%	-0.2%	0.68			3.79%	
GD	GENERAL DYNAMICS CORP	$172.66	$52,578	(0.3)	(1.5)	11.3	24.0	24.0	25.7	7.3	5.6%	22.4%	4.7%	5.5%	7.5%	5.9%	0.81	34.3%	A	1.76%	31.7%
LMT	LOCKHEED MARTIN CORP	$249.94	$73,227	(0.3)	(5.8)	4.3	0.7	13.7	15.1	8.6	-7.3%	2.2%	49.0%	-25.5%	14.5%	9.0%	0.53	615.8%	A+	2.71%	50.5%
NOC	NORTHROP GRUMMAN CORP	$232.58	$40,995	(0.0)	(6.8)	8.7	4.6	22.4	23.2	8.3	-1.2%	6.6%	12.7%	3.4%	11.2%	8.8%	0.57	110.8%	A	1.50%	29.0%
Average			$54,632	(0.2)	(3.1)	9.0	9.7	12.8	14.2	8.4	6.4%	4.4%	10.0%	3.2%	10.4%	6.9%	0.72	256.4%		2.44%	42.7%
Median			$47,138	(0.1)	(3.8)	8.0	4.5	13.3	14.6	8.4	-1.2%	1.5%	8.7%	4.4%	10.6%	7.9%	0.63	110.8%		2.39%	38.7%
SPX	S&P 500 INDEX	$2,239		(0.5)	1.8	3.3	6.7	8.5	9.5			8.7%	0.2%	3.4%	6.6%						

Ticker	Website	2016 ROE	P/B	P/E 2014	2015	2016	TTM	NTM	2017	2017E	2016 NPM	2016 P/S	OM	ROIC	EV/ EBIT	P/CF Current	P/CF 5-yr	Sales Growth NTM	STM	Pst 5yr	Book Equity
RTN	http://www.raytheon.com	21.5%	3.98	19.7	20.9	18.5	19.2	19.9	18.5	16.3	9.2%	1.71	12.6%	13.6%	14.2			4.3%	5.1%	-1.6%	$35.65
BA	http://www.boeing.com	218.1%	46.13	21.1	20.9	21.2	23.7	17.1	16.6	15.1	4.8%	1.02	4.8%	32.5%	13.7	15.1	11.7	-2.6%	2.6%	8.4%	$3.38
BAESY	http://www.baesystems.com	44.8%	6.78	12.4	12.4	15.1			14.1	13.2	6.6%	1.00		16.2%	12.8	14.0	10.3			-4.7%	$4.31
GD	http://www.generaldynamics.com	25.6%	4.65	23.3	19.0	18.2	18.4	17.4	17.2	16.0	9.2%	1.67	13.7%	20.5%	10.9	14.0	11.0	2.7%	2.3%	-0.6%	$37.16
LMT	http://www.lockheedmartin.com	215.3%	31.52	22.3	21.8	14.6	19.1	20.6	19.6	17.2	10.8%	1.57	11.2%	26.7%	15.2	15.4	10.7	5.3%	4.5%	0.1%	$7.93
NOC	http://www.northropgrumman.com	35.9%	7.13	23.9	22.4	19.9	19.8	20.1	19.2	17.3	8.6%	1.71	12.8%	15.9%	13.1	13.8	9.3	3.9%	6.5%	-7.5%	$32.62
Average		93.5%	16.70	20.4	19.6	17.9	20.0	19.0	17.5	15.8	8.2%	1.45	11.0%	20.9%	13.3	14.4	10.6	2.7%	4.2%	-1.0%	
Median		40.3%	6.96	21.7	20.9	18.3	19.2	19.9	17.8	16.2	8.9%	1.62	12.6%	18.4%	13.4	14.0	10.7	3.9%	4.5%	-1.1%	

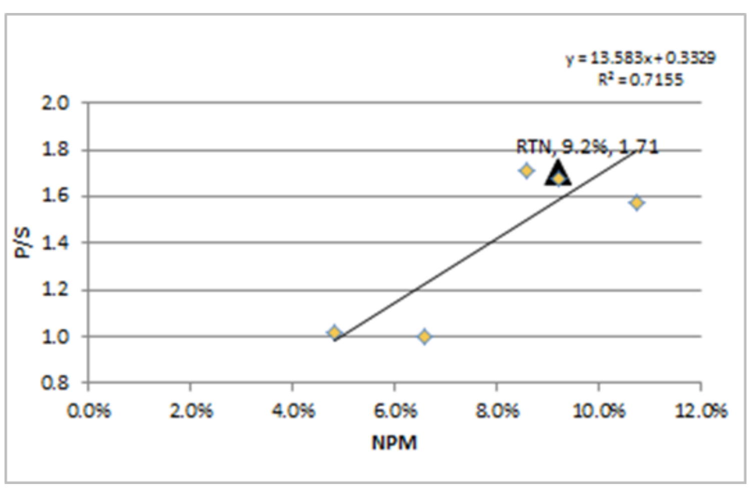
Source: FactSet

A more thorough analysis of P/S and net profit margin is shown in figure 26. The calculated R-squared of the regression indicates that over 80% of a sampled firm's P/S is explained by its net profit margins. Raytheon has a higher P/S margin than all but one of its peers and its net profit margin is higher than the average of its peers. While operating margins are expected to decline, net margins are roughly stable from 2015-2018. Synergies with the new Forcepoint segment could result in upside surprise, and I do expect gross margins to increase modestly. .

- Estimated P/S = Estimated 2017 NPM (8.7%) x 13.583 + 0.3329 = 1.51
- Target Price = Estimated P/S (1.51) x 2017E Sales per share (88.66) = $134.29

Discounting back to the present at a 8.8% cost of equity leads to a target price of $123 using this metric.

Figure 26: P/S vs Net Profit Margin



Source: FactSet

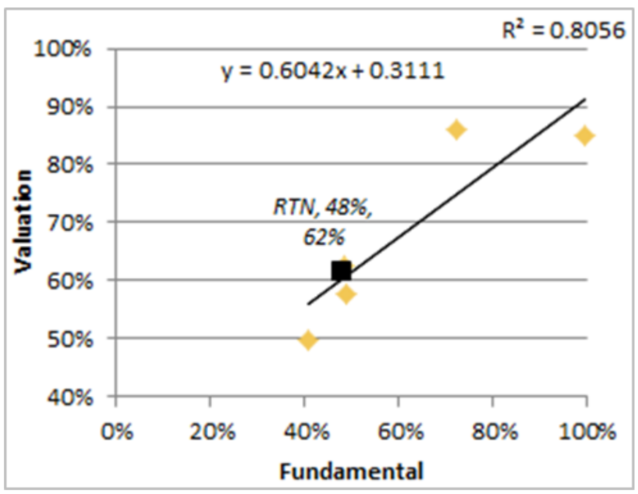
For a final comparison, I created a composite ranking of several valuation and fundamental metrics. Since the variables have different scales, each was converted to a percentile before calculating the composite score. An equal weighting of 2016 ROE and 2016 NPM was compared to a composite utilizing 40% P/B, 30% P/S, 15% P/CF, and 15% EV/EBT. The regression line had an R-squared of .69. One can see that Raytheon is above the line, so it is expensive based on its fundamentals.

Figure 27: Composite valuation, % of range

		Fundamentals		Valuation					
	Weight	50.0%	50.0%	40.0%	30.0%	15.0%	15.0%		
Ticker	Name	2016 ROE	2016 NPM	P/B	P/S	P/CF	EV/EBT	Fund	Value
RTN	RAYTHEON CO	10%	86%	9%	100%	95%	93%	48%	62%
BA	BOEING CO	100%	45%	100%	60%	98%	90%	72%	86%
BAESY	BAE SYSTEMS PLC	21%	61%	15%	58%	90%	84%	41%	50%
GD	GENERAL DYNAMICS CORP	12%	86%	10%	98%	90%	72%	49%	58%
LMT	LOCKHEED MARTIN CORP	99%	100%	68%	92%	100%	100%	99%	85%
NOC	NORTHROP GRUMMAN CORP	16%	80%	15%	100%	90%	86%	48%	63%

Source: IMCP

Figure 28: Composite relative valuation



Source: IMCP

<u>Discounted Cash Flow Analysis (see appendix 6)</u>

A three stage discounted cash flow model was also used to value Raytheon.

For the purpose of this analysis, the company's cost of equity was calculated to be 8.8% using the Capital Asset Pricing Model. The underlying assumptions used in calculating this rate are as follows:

- The risk free rate, as represented by the ten year Treasury bond yield, is 2.45%.
- A ten year beta of 1.05 was utilized since the company has higher risk than the market.
- A long term market rate of return of 8.5% was assumed, since historically, the market has generated an annual return of about 8.5%.

Given the above assumptions, the cost of equity is 8.8% (2.45 + 1.05 (8.5 – 2.45)).

Stage One - The model's first stage simply discounts fiscal years 2017 and 2018 free cash flow to equity (FCFE). These per share cash flows are forecasted to be $7.65 and $9.79, respectively. Discounting these cash flows, using the cost of equity calculated above, results in a value of $15.30 per share. Thus, stage one of this discounted cash flow analysis contributes $15.30 to value.

Stage Two - Stage two of the model focuses on fiscal years 2019 to 2023. During this period, FCFE is calculated based on revenue growth, NOPAT margin and capital growth assumptions. The resulting cash flows are then discounted using the company's 8.8% cost of equity. I assume 6.4% sales growth in 2017, rising 0.4% a year until 2021, and then leveling back to 6.2% in 2023. The ratio of sales to NWC and NFA turnover will remain at 2019 levels. Also, the NOPAT margin is expected to rise 10% in 2023 from 9.4% in 2017. Finally, after-tax interest is expected to rise 6.8% in 2020 and 6.0% in 2021 as the result of borrowing for operations.

Figure 29: FCFE and discounted FCFE, 2015 – 2021

	2017	2018	2019	2020	2021	2022	2023
FCFE	$7.65	$9.79	$4.96	$5.21	$5.51	$6.52	$7.81
Discounted FCFE	$7.03	$8.27	$3.85	$3.72	$3.61	$3.93	$4.33

Added together, these discounted cash flows total $19.44.

Stage Three – Net income for the years 2019 – 2023 is calculated based upon the same margin and growth assumptions used to determine FCFE in stage two. EPS is expected to grow from $7.69 in 2017 to $14.01 in 2023.

Figure 30: EPS estimates for 2015 – 2021

	2017	2018	2019	2020	2021	2022	2023
EPS	$7.69	$8.69	$9.46	$10.42	$11.52	$12.75	$14.01

Stage three of the model requires an assumption regarding the company's terminal price-to-earnings ratio. For the purpose of this analysis, it is generally assumed that as a company grows larger and matures, its P/E ratio will converge near to the historical average of the S&P 500 from 2015-2017. Therefore, a P/E ratio of 17 is assumed at the end of Raytheon's terminal year. With the election of Donald Trump, the trend is positive and Raytheon will command a higher P/E ratio compared to the market. One competitive advantage Raytheon has is its ability to capitalize on this increase in spending through a broad range of products in all of its segments.

Given the assumed terminal earnings per share of $14.01 and a price to earnings ratio of 17, a terminal value of $238.21 per share is calculated. Using the 8.8% cost of equity, this number is discounted back to a present value of $131.97.

Total Present Value – given the above assumptions and utilizing a three stage discounted cash flow model, an intrinsic value of $166.71 is calculated (15.30 + 19.44 + 131.97). Given Raytheon's current price of $145.22, this model indicates that the stock is slightly undervalued.

<u>Scenario Analysis</u>

Raytheon is a relatively stable company that is not that hard to value. Since its revenue stream comes from defense spending, sales will not fluctuate as much as other stocks in the industrial sector. I valued Raytheon under two scenarios by changing five key factors and running the scenarios through the DCF model to produce two different discounted values for the beginning of 2017.

Bull Case – Raytheon would experience an increased sales growth as well as a lowered beta while its gross margin and EBIT margin rise in the new environment. This could be the case if there is increased demand for products, such as the Patriot System, while material prices and subcontracting costs decrease. This scenario could occur if geopolitical instability rises at an increasing rate.

Figure 31: Bull case assumptions

Expectations	2017	2018	2019	2020	2021	2022	2023
Beta	0.90						
Sales Growth	6.20%	6.20%	6.80%	7.20%	7.60%	8.00%	8.00%
Gross margin	26%	26.20%					
EBIT Margin	13.60%	13.80%					
P/E	19						

Bear Case – Raytheon would experience decreased sales growth as well as a beta of 1.00 while its gross margin and EBIT margin decrease. This decrease could be due to rising costs of materials with falling global demand as countries cut their defense budgets. However, this case is highly unlikely due to the rise in geopolitical tensions and the election of Donald Trump as President of the United States.

Figure 32: Bear case assumptions

Expectations	2017	2018	2019	2020	2021	2022	2023
Beta	1.00						
Sales Growth	6.20%	6.20%	5.00%	5.00%	5.00%	5.00%	5.00%
Gross margin	24.90%	25.10%					
EBIT Margin	12.40%	12.00%					
P/E	15						

Figure 33: Scenario analysis

Bull Case	
Vale (P/E) beginning 2017	$ 199.42
Base Case	
Vale (P/E) beginning 2017	$ 166.71
Bear Case	
Vale (P/E) beginning 2017	$ 117.46

A valuation of Raytheon stock was reached using the same discounted cash flow method outlined in the previous section. The average of these three scenarios reveals a target price of $161.

One can see from this analysis that Raytheon is sensitive to changes in gross margin and its EBIT margin. It is more likely to see increased revenue growth as opposed to a decrease due to the current political climate both in the United States and abroad. My estimates are optimistic for the bull case and very optimistic for the base case. Raytheon could increase sales through M&A; however, this is highly unlikely due to its recent creation of Forcepoint after an acquisition in 2015. Sales will be likely to continue to grow at the same pace as defense spending.

Business Risks

Although I have many reasons to be optimistic about Raytheon, there are several good reasons to be cautious.

Cuts to U.S. defense spending:

Nearly 70% of Raytheon's sales are from the U.S. government and about 64% of those are to the Department of Defense. Raytheon's financial results are largely dependent on its ability to perform on U.S. government contracts. These contracts are subject to uncertain levels of funding and timing, as well as termination. If the U.S. government or the Department of Defense were to cut their budgets, it would have a significant impact on Raytheon's revenue.

Future success depends on innovation:

In order to be successful in the future, Raytheon needs to continue to invest significant financial resources to develop new offerings and technologies or modify existing ones. Failure of this technology to gain market acceptance could significantly reduce revenues and harm business. Additionally, competitors could develop new technology or offerings that might cause Raytheon's existing technology and offerings to become obsolete.

Geopolitical and economic factors:

Approximately 30% of Raytheon's revenue comes from international sources which are subject to geopolitical and economic risks. Furthermore, Raytheon's international sales are subject to U.S. laws, regulations, and policies. Failure to abide by these laws, regulations, and policies could be detrimental to contracts. Additionally, U.S. and other nations' foreign policies, which are ever-changing, could inhibit business.

Low oil prices could slow international sales:

International sales are a crucial part of Raytheon's growth plan. A significant portion of these foreign governments are from the Middle East and are heavily reliant on oil sales. If the price of oil goes down any further, this could have an impact on their spending, which could affect how much they can allocate to defense.

Appendix 1: Income Statement (in millions)

Income Statement							
Items	**2012**	**2013**	**2014**	**2015**	**2016E**	**2017E**	**2018E**
Sales	$24,414	$23,706	$22,826	$23,247	$24,444	$25,971	$27,575
Direct costs	19,092	18,532	17,295	17,574	18,235	19,375	20,516
Gross Margin	5,322	5,174	5,531	5,673	6,209	6,597	7,059
SG&A, R&D, and other	2,333	2,236	2,352	2,660	2,835	3,220	3,502
EBIT	2,989	2,938	3,179	3,013	3,373	3,376	3,557
Interest	210	181	196	226	242	260	260
EBT	2,779	2,757	2,983	2,787	3,132	3,116	3,297
Taxes	878	808	790	733	877	873	841
Income	1,901	1,949	2,193	2,054	2,255	2,244	2,456
Other	1	(47)	(51)	(20)	(39)	(10)	(33)
Net income	1,900	1,996	2,244	2,074	2,294	2,254	2,490
Basic Shares	333	323	312	305	299	293	286
EPS	$5.70	$6.17	$7.19	$6.80	$7.67	$7.69	$8.69
DPS	$1.98	$2.18	$2.39	$2.67	$2.83	$3.00	$3.17

Appendix 2: Balance Sheet (in millions)

Balance Sheet							
Items	**2012**	**2013**	**2014**	**2015**	**2016E**	**2017E**	**2018E**
Cash	3,188	3,296	3,222	2,328	2,962	3,483	4,484
Operating assets ex cash	5,202	5,519	5,560	6,612	6,551	6,571	6,508
Operating assets	8,390	8,815	8,782	8,940	9,513	10,054	10,991
Operating liabilities	5,902	5,704	5,752	6,126	6,062	6,051	5,956
NOWC	2,488	3,111	3,030	2,814	3,451	4,003	5,035
NOWC ex cash (NWC)	-700	-185	-192	486	489	519	551
NFA	17,440	16,151	17,437	19,469	19,555	19,527	19,149
Invested capital	$19,928	$19,262	$20,467	$22,283	$23,006	$23,530	$24,184
Marketable securities	856	1,001	1,497	872	872	872	872
Total assets	$26,686	$25,967	$27,716	$29,281	$29,940	$30,453	$31,012
Short-term and long-term debt	$4,734	$4,731	$5,325	$5,330	$5,529	$5,529	$5,529
Other liabilities	7,860	4,335	6,918	7,495	7,373	7,373	7,373
Debt/equity-like securities	-	-	-	-	-	-	-
Equity	8,190	11,197	9,721	10,330	10,976	11,500	12,154
Total supplied capital	$20,784	$20,263	$21,964	$23,155	$23,878	$24,402	$25,056
Total liabilities and equity	$26,686	$25,967	$27,716	$29,281	$29,940	$30,453	$31,012

Appendix 3: Sales Forecast

Sales							
Items	2012	2013	2014	2015	2016E	2017E	2018E
Sales	$24,414	$23,706	$22,826	$23,247	24,444	25,971	27,575
Growth		-2.90%	-3.70%	1.80%	5.10%	6.20%	6.20%
Missile Systems	6,639	6,599	6,309	6,556	7,277	7,932	8,646
Growth		-0.60%	-4.40%	3.90%	11.00%	9.00%	9.00%
% of sales	27.20%	27.80%	27.60%	28.20%	29.80%	30.50%	31.40%
Integrated Defense Systems	6,492	6,489	6,085	6,375	6,056	6,117	6,193
Growth		0.00%	-6.20%	4.80%	-5.00%	1.00%	1.30%
% of sales	26.60%	27.40%	26.70%	27.40%	24.80%	23.60%	22.50%
Space and Airborne Systems	6,823	6,371	6,072	5,796	6,318	6,893	7,527
Growth		-6.60%	-4.70%	-4.50%	9.00%	9.10%	9.20%
% of sales	27.90%	26.90%	26.60%	24.90%	25.80%	26.50%	27.30%
Intelligence, Information and Services	6,335	6,045	5,984	5,733	5,848	5,953	6,012
Growth		-4.60%	-1.00%	-4.20%	2.00%	1.80%	1.00%
% of sales	25.90%	25.50%	26.20%	24.70%	23.90%	22.90%	21.80%
Corporate and Eliminations	-1,875	-1,798	-1,624	-1,213	-1,055	-923	-804
Growth		-4.10%	-9.70%	-25.30%	-13.00%	-12.50%	-12.90%
% of sales	-7.70%	-7.60%	-7.10%	-5.20%	-4.30%	-3.60%	-2.90%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
United States	18,182	17,260	16,285	16,097	17,111	18,310	19,578
Growth		-5.10%	-5.60%	-1.20%	6.30%	7.00%	6.90%
% of sales	74.50%	72.80%	71.30%	69.20%	70.00%	70.50%	71.00%
Asia/Pacific	2,510	2,590	2,390	2,429	2,444	2,708	2,757
Growth		3.20%	-7.70%	1.60%	0.60%	10.80%	1.80%
% of sales	10.30%	10.90%	10.50%	10.40%	10.00%	10.40%	10.00%
Middle East and North Africa	2,470	2,396	2,857	3,446	3,667	3,714	3,943
Growth		-3.00%	19.20%	20.60%	6.40%	1.30%	6.20%
% of sales	10.10%	10.10%	12.50%	14.80%	15.00%	14.30%	14.30%
All Other (Principally Europe)	1,252	1,460	1,294	1,275	1,222	1,247	1,296
Growth		16.60%	-11.40%	-1.50%	-4.10%	2.00%	4.00%
% of sales	5.10%	6.20%	5.70%	5.50%	5.00%	4.80%	4.70%

Appendix 4: Ratios

Ratos							
Items	**2012**	**2013**	**2014**	**2015**	**2016E**	**2017E**	**2018E**
Profitability							
Gross margin	21.80%	21.80%	24.20%	24.40%	25.40%	25.40%	25.60%
Operating (EBIT) margin	12.20%	12.40%	13.90%	13.00%	13.80%	13.00%	12.90%
Net profit margin	7.80%	8.40%	9.80%	8.90%	9.40%	8.70%	9.00%
Activity							
NFA (gross) turnover		1.41	1.36	1.26	1.25	1.33	1.43
Total asset turnover		0.9	0.85	0.82	0.83	0.86	0.9
Liquidity							
Op asset / op liab	1.42	1.55	1.53	1.46	1.57	1.66	1.85
NOWC Percent of sales		11.80%	13.50%	12.60%	12.80%	14.30%	16.40%
Solvency							
Debt to assets	17.70%	18.20%	19.20%	18.20%	18.50%	18.20%	17.80%
Debt to equity	57.80%	42.30%	54.80%	51.60%	50.40%	48.10%	45.50%
Other liab to assets	29.50%	16.70%	25.00%	25.60%	24.60%	24.20%	23.80%
Total debt to assets	47.20%	34.90%	44.20%	43.80%	43.10%	42.40%	41.60%
Total liabilities to assets	69.30%	56.90%	64.90%	64.70%	63.30%	62.20%	60.80%
Debt to EBIT	1.58	1.61	1.68	1.77	1.64	1.64	1.55
EBIT/interest	14.23	16.23	16.22	13.33	13.96	12.99	13.69
Debt to total net op capital	23.80%	24.60%	26.00%	23.90%	24.00%	23.50%	22.90%
ROIC							
NOPAT to sales		8.80%	10.20%	9.60%	9.90%	9.40%	9.60%
Sales to IC		1.21	1.15	1.09	1.08	1.12	1.16
Total		10.60%	11.80%	10.40%	10.70%	10.40%	11.10%
Total using EOY IC	10.30%	10.80%	11.40%	10.00%	10.60%	10.30%	11.00%
ROE							
5-stage							
EBIT / sales		12.40%	13.90%	13.00%	13.80%	13.00%	12.90%
Sales / avg assets		0.9	0.85	0.82	0.83	0.86	0.9
EBT / EBIT		93.80%	93.80%	92.50%	92.80%	92.30%	92.70%
Net income /EBT		72.40%	75.20%	74.40%	73.30%	72.30%	75.50%
ROA		7.60%	8.40%	7.30%	7.70%	7.50%	8.10%
Avg assets / avg equity		2.72	2.57	2.84	2.78	2.69	2.6
ROE		20.60%	21.50%	20.70%	21.50%	20.10%	21.10%
3-stage							
Net income / sales		8.40%	9.80%	8.90%	9.40%	8.70%	9.00%
Sales / avg assets		0.9	0.85	0.82	0.83	0.86	0.9
ROA		7.60%	8.40%	7.30%	7.70%	7.50%	8.10%
Avg assets / avg equity		2.72	2.57	2.84	2.78	2.69	2.6
ROE		20.60%	21.50%	20.70%	21.50%	20.10%	21.10%
Payout Ratio		35.40%	33.20%	39.20%	36.90%	39.00%	36.50%
Retention Ratio		64.60%	66.80%	60.80%	63.10%	61.00%	63.50%
Sustainable Growth Rate		13.30%	14.30%	12.60%	13.60%	12.20%	13.40%

Appendix 5: 3-stage DCF Model

3 Stage Discounted Cash Flow							
	Year						
	1	2	3	4	5	6	7
	First Stage		Second Stage				
Cash flows	2017	2018	2019	2020	2021	2022	2023
Sales Growth	*6.2%*	*6.2%*	*6.4%*	*6.8%*	*7.2%*	*6.8%*	*6.2%*
NOPAT / S	*9.4%*	*9.6%*	*9.7%*	*9.8%*	*9.8%*	*9.9%*	*10.0%*
S / NWC	*50.00*	*50.00*	*50.00*	*50.00*	*50.00*	*50.00*	*50.00*
S / NFA (EOY)	*1.33*	*1.44*	*1.44*	*1.44*	*1.44*	*1.44*	*1.44*
S / IC (EOY)	*1.30*	*1.40*	*1.40*	*1.40*	*1.40*	*1.40*	*1.40*
ROIC (EOY)	*12.1%*	*13.5%*	*13.6%*	*13.7%*	*13.8%*	*13.9%*	*14.0%*
ROIC (BOY)		*13.2%*	*14.4%*	*14.6%*	*14.8%*	*14.8%*	*14.9%*
Share Growth		*-2.2%*	*-2.2%*	*-2.2%*	*-2.2%*	*-2.2%*	*-2.2%*
Sales	$25,971	$27,575	$29,339	$31,334	$33,591	$35,875	$38,099
NOPAT	$2,431	$2,650	$2,843	$3,060	$3,307	$3,560	$3,810
Growth		*9.0%*	*7.3%*	*7.7%*	*8.1%*	*7.6%*	*7.0%*
- Change in NWC	31	32	35	40	45	46	44
NWC EOY	*519*	*551*	*587*	*627*	*672*	*717*	*762*
Growth NWC		*6.2%*	*6.4%*	*6.8%*	*7.2%*	*6.8%*	*6.2%*
- Chg NFA	-28	-378	1226	1385	1567	1586	1545
NFA EOY	*19,527*	*19,149*	*20,375*	*21,760*	*23,327*	*24,913*	*26,458*
Growth NFA		*-1.9%*	*6.4%*	*6.8%*	*7.2%*	*6.8%*	*6.2%*
Total inv in op cap	3	-346	1261	1425	1612	1632	1589
Total net op cap	20047	19701	20961	22387	23999	25630	27220
FCFF	$2,428	$2,996	$1,582	$1,635	$1,695	$1,928	$2,221
% of sales	*9.3%*	*10.9%*	*5.4%*	*5.2%*	*5.0%*	*5.4%*	*5.8%*
Growth		*23.4%*	*-47.2%*	*3.4%*	*3.7%*	*13.7%*	*15.2%*
- Interest (1-tax rate)	187	194	194	207	219	219	219
Growth		*3.5%*	*0.0%*	*6.8%*	*6.0%*	*0.0%*	*0.0%*
FCFE w or w/o debt	$2,241	$2,803	$1,388	$1,428	$1,476	$1,708	$2,002
% of sales	*8.6%*	*10.2%*	*4.7%*	*4.6%*	*4.4%*	*4.8%*	*5.3%*
Growth		*25.1%*	*-50.5%*	*2.9%*	*3.3%*	*15.8%*	*17.2%*
/ No Shares	292.9	286.4	280.1	273.9	267.9	262.0	256.3
FCFE	$7.65	$9.79	$4.96	$5.21	$5.51	$6.52	$7.81
Growth		*27.9%*	*-49.4%*	*5.2%*	*5.7%*	*18.4%*	*19.8%*
* Discount factor	0.92	0.84	0.78	0.71	0.66	0.60	0.55
Discounted FCFE	$7.03	$8.27	$3.85	$3.72	$3.61	$3.93	$4.33
Third Stage							
Terminal value P/E							
Net income	$2,254	$2,490	$2,649	$2,853	$3,088	$3,340	$3,591
% of sales	*8.7%*	*9.0%*	*9.0%*	*9.1%*	*9.2%*	*9.3%*	*9.4%*
EPS	$7.69	$8.69	$9.46	$10.42	$11.52	$12.75	$14.01
Growth		*13.0%*	*8.8%*	*10.1%*	*10.6%*	*10.6%*	*9.9%*
Terminal P/E							17.00
* Terminal EPS							$14.01
Terminal value							$238.21
* Discount factor							0.55
Discounted terminal value							$131.97

Summary		
First stage	$15.30	Present value of first 2 year cash flow
Second stage	$19.44	Present value of year 3-7 cash flow
Third stage	$131.97	Present value of terminal value P/E
Value (P/E)	**$166.71**	= value at beg of fiscal yr 2017

Appendix 6: Comparable Companies

		Current	Market	Price Change						Earnings Growth								LT Debt/	S&P	LTM Dividend	
Ticker	**Name**	**Price**	**Value**	**1 day**	**1 Mo**	**3 Mo**	**6 Mo**	**52 Wk**	**YTD**	**LTG**	**NTM**	**2014**	**2015**	**2016**	**2017**	**Pst 5yr**	**Beta**	**Equity**	**Rating**	**Yield**	**Payout**
RTN	RAYTHEON CO	$145.22	$42,643	2.3	(3.1)	5.9	7.7	16.6	2.3	8.6	-3.9%	16.5%	-5.4%	3.1%	10.3%	7.0%	0.59	51.0%	A	2.06%	38.7%
BA	BOEING CO	$156.97	$96,877	0.8	3.1	18.6	21.0	8.6	0.8	11.1	38.7%	23.6%	0.8%	-1.2%	28.6%	10.7%	1.13	470.3%	A-	2.80%	63.7%
BAESY	BAE SYSTEMS PLC	$28.94	$22,977	(1.0)	(3.8)	6.0	2.9	(1.8)	(1.0)	6.0		363.6%	15.0%	9.7%	7.8%	-0.2%	0.68			3.79%	
GD	GENERAL DYNAMICS CORP	$175.45	$53,428	1.6	(1.8)	13.4	24.1	27.7	1.6	7.3	5.9%	11.2%	22.4%	4.7%	5.5%	5.9%	0.81	34.3%	A	1.76%	31.7%
LMT	LOCKHEED MARTIN CORP	$253.31	$74,214	1.3	(5.3)	5.3	1.6	16.7	1.3	8.6	-7.3%	22.8%	2.2%	49.0%	-26.0%	9.0%	0.53	615.8%	A+	2.71%	50.5%
NOC	NORTHROP GRUMMAN CORP	$234.89	$41,402	1.0	(6.4)	9.2	5.9	24.4	1.0	8.3	-1.2%	16.8%	6.6%	12.7%	3.0%	8.8%	0.57	110.8%	A	1.50%	29.0%
Average			$55,257	1.0	(2.9)	9.7	10.5	15.4	1.0	8.3	6.4%	75.8%	6.9%	13.0%	4.9%	6.9%	0.72	256.4%		2.44%	42.7%
Median			$48,036	1.2	(3.5)	7.6	6.8	16.6	1.2	8.4	-1.2%	19.8%	4.4%	7.2%	6.6%	7.9%	0.63	110.8%		2.39%	38.7%
SPX	S&P 500 INDEX	$2,258		0.8	3.0	4.5	7.4	10.5	0.8			8.7%	0.2%	3.4%	6.6%						

		2015		P/E							2015	2015			EV/	P/CF	P/CF	Sales Growth			Book
Ticker	**Website**	**ROE**	**P/B**	**2013**	**2014**	**2015**	**TTM**	**NTM**	**2016**	**2017E**	**NPM**	**P/S**	**OM**	**ROIC**	**EBIT**	**Current**	**5-yr**	**NTM**	**STM**	**Pst 5yr**	**Equity**
RTN	http://www.raytheon.com	19.1%	4.07	23.5	20.2	21.4	19.6	20.4	20.7	18.8	8.6%	1.83	12.6%	13.6%	14.2			4.5%	5.1%	-1.6%	$35.65
BA	http://www.boeing.com	220.4%	46.51	26.3	21.3	21.1	23.9	17.3	21.4	16.6	4.8%	1.01	4.8%	32.5%	13.7	15.1	11.7	-2.6%	2.6%	8.4%	$3.38
BAESY	http://www.baesystems.com	40.8%	6.71	87.7	18.9	16.4			15.0	13.9	10.6%	1.74		16.2%	12.8	14.0	10.3			-4.7%	$4.31
GD	http://www.generaldynamics.com	24.4%	4.72	26.3	23.6	19.3	18.7	17.7	18.4	17.5	8.8%	1.70	13.7%	20.5%	10.9	14.0	11.0	2.4%	2.8%	-0.6%	$37.16
LMT	http://www.lockheedmartin.com	144.5%	31.95	27.7	22.6	22.1	19.4	20.9	14.8	20.0	7.3%	1.61	11.2%	26.7%	15.2	15.4	10.7	5.3%	4.5%	0.1%	$7.93
NOC	http://www.northropgrumman.com	31.9%	7.20	28.1	24.1	22.6	20.0	20.3	20.1	19.5	7.8%	1.76	12.8%	15.9%	13.1	13.8	9.3	3.8%	6.7%	-7.5%	$32.62
Average		80.2%	16.86	36.6	21.8	20.5	20.3	19.3	18.4	17.7	8.0%	1.61	11.0%	20.9%	13.3	14.4	10.6	2.7%	4.3%	-1.0%	
Median		36.3%	6.96	27.0	21.9	21.2	19.6	20.3	19.3	18.1	8.2%	1.72	12.6%	18.4%	13.4	14.0	10.7	3.8%	4.5%	-1.1%	
spx	S&P 500 INDEX			20.7	19.1	19.0			18.4	17.3											

Appendix 7: Porter's 5 Forces

Threat of New Entrants – Very Low

The aerospace and defense sector is very sensitive industry that makes it extremely difficult and in some situations impossible for new entrants to emerge. This industry is heavily regulated by the United States government, which for national security reasons does not do business with certain countries. Raytheon has a long history and good relationship with the United States government and many of its allied governments that would be difficult to integrate into for a fresh competitor.

Threat of Substitutes – Very Low

Raytheon is at the cutting edge of aerospace and defense contracting, spending large portions of revenue in R&D to make sure it stays competitive. While substitutes exist, they are generally made up of components that Raytheon has been subcontracted to make or they are developed in cooperation with Raytheon.

Supplier Power - Moderate

Raytheon is a specialized manufacturer and receives many of its components from outside suppliers. Purchasing these components can sometimes cost more because they are so specialized which impacts margins.

Buyer Power – Moderate

Most of Raytheon's customers are the United States government and foreign governments with less than 2% of sales coming from commercial customers. Despite Raytheon having few competitors that make the same products, there is still risk; government contracts options are unpredictable and can usually be revoked at any time by the government.

Intensity of Competition –High

Raytheon has the luxury of being an aerospace and defense contractor, which means there is low competition. With that being said, competition for contracts I very intense and contract awards can be unpredictable at times. This is evident through contract disputes that arise after a company wins a contract. These disputes will lead to court in some cases, unless the disputing company can work out a secondary deal on the contract.

Appendix 8: SWOT Analysis

Strengths	**Weakness**
Government Relationships Advanced Products Offensive and Defensive Products	Production Delays Material Costs Rely on U.S. government
Opportunities	**Threats**
Geopolitical Tensions International Sales Increase in Defense Spending	Peace Defense Cuts Contract Competition