RESEARCH REPORT

November 4, 2019

Stock Rating	HOLD
Price Target	$405.79
Current Price	$379.17

Bear Case	Price Target	Bull Case
$365.21	$405.79	$426.08

Ticker	LMT
Market Cap (MM)	$106,950
P/E NTM	20.0x
EV/EBITDA NTM	12.5x

52 Week Performance

Industrials

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Lockheed Martin

Defending Alpha V2

Lockheed Martin (NYSE:LMT) is a global security and aerospace company engaged in the development of advanced technology systems in aeronautics, missiles and fire control (MFC), rotary and mission systems (RMS) and space.

The Industrials team took a look into Lockheed's four most prominent business segments to gain an understanding of the company. Afterwards, with the intention to use this report to finalize a defense name to enter in the immediate future.

(1) F-35 is the Quarterback of New Warfighting Strategy

(2) Lockheed Martin Displacing Raytheon as Hypersonics Leader

(3) Backlog Generates a Downturn Moat

While the Industrial team believes that Lockheed Martin has a very strong outlook, General Dynamics is less dependent on the United States government and more undervalued relative to Lockheed Martin. As a result, we intend to enter General Dynamics in the immediate future.

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Company Overview

Lockheed Martin (NYSE:LMT) is a global security and aerospace company engaged in the development of advanced technology systems in aeronautics, missiles and fire control (MFC), rotary and mission systems (RMS) and space. LMT's products have defense, civil and commercial applications. The company derives the majority of its business from the U.S. government. In 2018,, 70% of its $53.8B net sales figure came from the government, including 60% from the Department of Defense.

Aeronautics

LMT's aeronautics segment generated net sales of $21.2B in 2018, representing 40% of consolidated net sales. The segment is almost entirely composed of military application, with the U.S. Air Force and Navy making up 63% of sales. LMT's aerospace business includes programs such as the F-35 Lightning II Joint Strike Fighter, the C-130 Hercules, an international tactical airlifter, the F-16 Fighting Falcon, an international multi-role fighter, and the F-22 Raptor, an air dominance and multi-mission fifth generation stealth fighter. The F-35 program is a famed part of LMT, composing of 27% of total net sales in 2018.

Missiles and Fire Control (MFC)

MFC provides air and missile defense systems, tactical missiles, and air-to-ground precision strike weapon systems. The segment includes LMT's Patriot Advanced Capability-3 (PAC-3), an advanced defensive missile for the U.S. Army.

Rotary and Mission Systems (RMS)

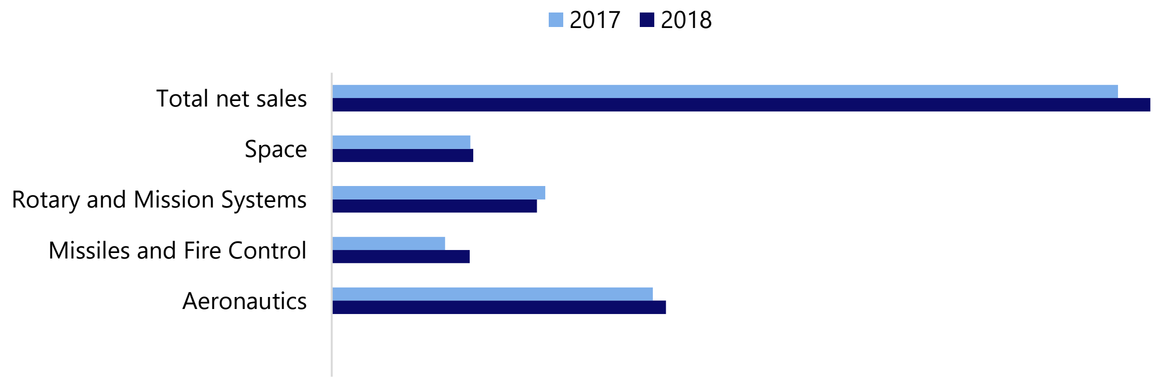
RMS provides design, manufacture, service and support for a variety of military and commercial helicopters, ship and submarine mission and combat systems. Major products include the Black Hawk and Seahawk helicopters manufactured for both U.S. and foreign governments.

Space

The space segment is engaged in the design of satellites, space transportation systems, and various classified systems and services in support of vital national security systems. It includes products such as the Trident II D5 Fleet Ballistic Missile (FBM), a program with the U.S. Navy for the only submarine-launched intercontinental ballistic missile currently in production in the U.S.

EXHIBIT I

Segmented Sales Trailing 2-Years



Source(s): 2018 Annual Report

Industry Outlook

A few years ago, the U.S. government began replacing worn out and obsolete assets used in the Cold War, Afghanistan and Iraq.

First, we watched President-elect Trump make defense spending a critical priority for the new administration. Then, we saw the Republican-led Congress accelerate military funding following a high operating tempo and sequestration as well as persisting threats throughout Eastern Europe, Asia and the Middle East.

Ultimately, we hold a positive view on Defense. Given the recent inflection point on defense budgets due to an elevated threat landscape and the administration's explicit disposition to rebuild the military, we believe the Defense space is poised for outsized earnings. But, what amount of this future upside is already priced in?

Although valuation levels remain above past averages, historical data shows that this does not inhibit defense outperformance when there exists an accommodative spending backdrop.

Some key things to note about the defense industry in the U.S. is that the major players are Raytheon, General Dynamics, Boeing, Lockheed Martin and Northrop Grumman. The bottom lines of contractors are heavily impacted by percentage-of-completion accounting, contracting rules and FAS / CAS pension standards.

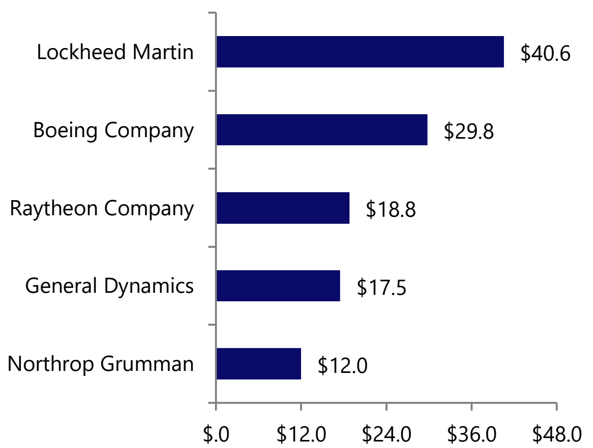
Defense spending is expected to grow considerably in Europe, Asia and the Middle East. In the U.S., while the upcoming presidential election will matter, empirical evidence shows that government fiscal health and geopolitics are also major drivers of military budgets.

Over the long-run, defense stocks are among the most reliable value creators due to high barriers to entry in a market growing more quickly than inflation with a low correlation to broad macro cycles and minimal capital requirements.

It is clear that the defense industry enjoys favourable moats and markets. Players consistently earn returns well above their costs of capital. What is less clear is whether there are any bargains left.

EXHIBIT II

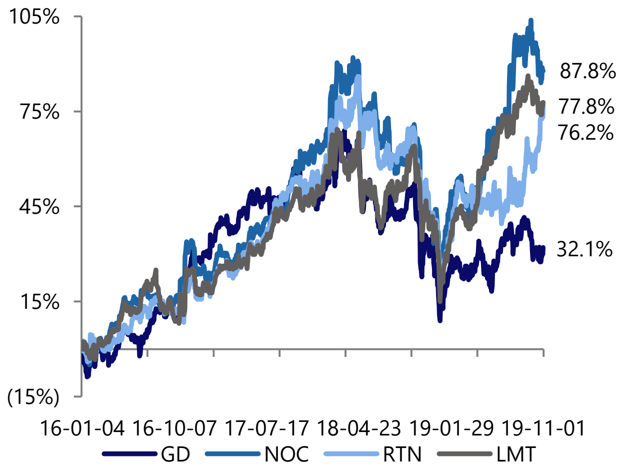
Deal Values of Government Contractors in FY18 (B)



Source(s): General Services Administration

EXHIBIT III

Relative Share Price Performance



Source(s): Capital IQ

Thesis I: F-35 is the Quarterback of New Warfighting Strategy

Over the course of the last three years, the company has grown revenues at ~9% and earnings per share at ~22%. At the core of this expansion and LMT's strong product portfolio is the F-35 Joint Strike Fighter.

The F-35 is the most expensive weapons program in Pentagon history and currently sits among the DoD's most important defense platforms. The multi-role F-35 is the top advanced air strike aircraft for the Air Force, Navy and Marines.

The Joint Strike Fighter program is expected to be in service until 2070 generating approximately $1 trillion in revenues for the company. In October of 2019, LMT announced the finalization of a $34 billion production agreement with the Pentagon.

In 2016, Donald Trump tweeted the following: "the F-35 program and its costs are out of control." In 2019, driving down costs continues to remain crucial to the success of the of the Joint Strike Fighter Program. As described by an LMT executive, Greg Ulmer, "with smart acquisition strategies, solid government-industry partnership, and a relentless focus on quality and cost reduction, the F-35 successfully reduced procurement costs of the 5th Generation to equal or less than the 4th Generation legacy aircraft."

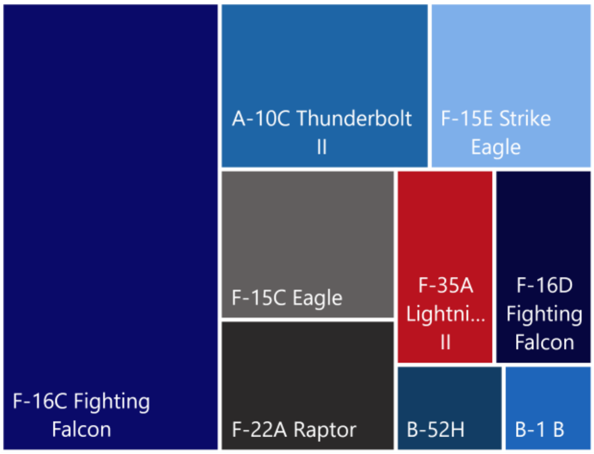
The defense contractor's significant progress made on this front should help alleviate some of the criticism from opponents of the F-35, who believe that defense budget funds would be better allocated towards less-expensive old generation weapons systems.

On top of a diminished expense base, the program continues to earn accolades and accomplishments for expectational performance in training exercises. As a result, the F-35 continues to earn a series of nods from senior Defense Department officials.

The DoD will not let the F-35 fail. The program is too vital to the military air defense plans of the U.S. and about a dozen of its allies in the decades to come. With unmatched revenue stability and cash flow visibility, the F-35 should remain a strong profit driver for both the company and its shareholders.

EXHIBIT IV

Proportionate Active Inventory of the U.S. Air Force



Source(s): Air Force Association

EXHIBIT V

The Evolution Of The F-35's Unit Cost (M)

Source(s): Statista

Thesis II: Lockheed Martin Displacing Raytheon as Hypersonics Leader

Hypersonics: An Arms Race in Speed

Since countries first went to war, speed has been a key factor in victory in combat. Now, speed will change the course of combat even more with the imminent deployment of hypersonic weapons.

Hypersonic weapons travel at five times the speed of sound or, over a mile per second. Unlike ballistic missiles, they fly in unpredictable paths, meaning that their targets are nearly defenseless. Tracking and intercepting a missile this fast is unprecedented. Hypersonics will allow commanders to close the window of time between identifying a target and striking. China and Russia are racing to create advanced hypersonic missiles, and are expected to field an operational hypersonic glide vehicle with armed nuclear warheads as early as next year. Hypersonics are set to play a more important role than ever before, with Undersecretary of Defense for Research and Engineering Dr. Michael Griffin stating "I'm sorry for everybody out there who champions some other high priority, some technical thing; it's not that I disagree with those. But there has to be a first [priority], and hypersonics is my first."

Spurred by Chinese and Russian military research, the DoD has accelerated its hypersonic weapons development efforts. There are several prototyping programs in place trying to field initial offensive weapons.

Lockheed Martin Winning Key Contracts

Raytheon would have been seen as the hypersonics weapons incumbent just as recently as a few years ago. However, achieving new capability for new programs is critical for the DoD, and thus, incumbency has become less important to contractor decisions.

EXHIBIT VI

Hypersonic Weapons Travel at *Five* Times the Speed of Sound

Source(s): Company Website

Thesis II: Lockheed Martin Displacing Raytheon as Hypersonics Leader

LMT has displaced RTN in several of its key incumbencies (AIM-260, SSDS, HDR-H, Space Fence Radar, and Sentinel); and it has won the majority of hypersonics announcements. By far, LMT has won the largest share of U.S. hypersonics contracts, expecting to book $600M of revenue on its prototype missiles. By the end of 2019, LMT will have over $3.5 billion in hypersonics contracts, dwarfing Raytheon's $300M.

In September 2019, LMT ousted RTN from the Sentinel A4 contract. The DoD chose LMT to replace every Sentinel A3 radar variant with upgraded A4s, beating out RTN for the $3B project. This marks a setback for RTN, who was the original Sentinel manufacturer. LMT is working to design a hypersonic weapon prototype for the Air Force under a $480M contract. The company's leadership in hypersonic technology was further solidified in April when it won a major contract worth $928M to develop a Hypersonic Conventional Strike Weapon. This weapon will be expected to travel at five times the speed of sound.

The hypersonics race is on. The DoD is being pushed by very public comments as well as Russia and China, and this pressure is not expected to lessen over time. Offensive hypersonics are likely to become the most revolutionary, destabilizing combat weapon in the world. The Air Force, Army, and Navy are all engaged in prototyping efforts that are expected to convert into procurement programs, if successful. LMT has strong positions on six offensive hypersonics programs and is the top choice to win production contracts. RTN has several important R&D efforts with the Defense Advanced Research Projects Agency (DARPA) and will be playing a role as subcontractor on some LMT projects. LMT has placed itself in a very good position in a growing defense segment. Hypersonics revenue may have lower margins in the short term given that it is still in early stages, but LMT offers low-risk margin driven growth from other programs, such as the F-35. This segment is still in its ramp up stage, and contributes to less than 2% of revenue, but could experience high growth in the near future.

EXHIBIT VII

Lockheed Martin has won the majority of recent new program contractor selections

Program	Acronym	Incumbent	Winner	Customer	Award Date
AIM 260	JATM	RTN	**LMT**	AF/Navy	2017
Ship Self-Defense System	SSDS	RTN	**LMT**	Navy	2019
Conventional Prompt Strike Missile	IRCPS	NA	**LMT**	Army	2019
Advanced Anti-Radiation Guided Missile	AARGM	RTN	NOC	Navy	2019
Homeland Defense Radar - Hawaii	HDR - H	RTN	**LMT**	MDA-HS	2018
Space Fence Radar		NA	**LMT**	Air Force	2014
Next Gen Jammer - Low Band	NGJ - LB	NA	NOC/LHX	Navy	2018
Short Range Ballistic Missile Target	SRBM	NA	NOC	MDA-HS	2019
Sentinel MPQ-64 Radar		RTN	**LMT**	USA	2019
Japan Aegis Ashore		NA	**LMT**	Japan	2018

Source(s): Cowen and Company

Thesis III: Backlog Generates a Downturn Moat

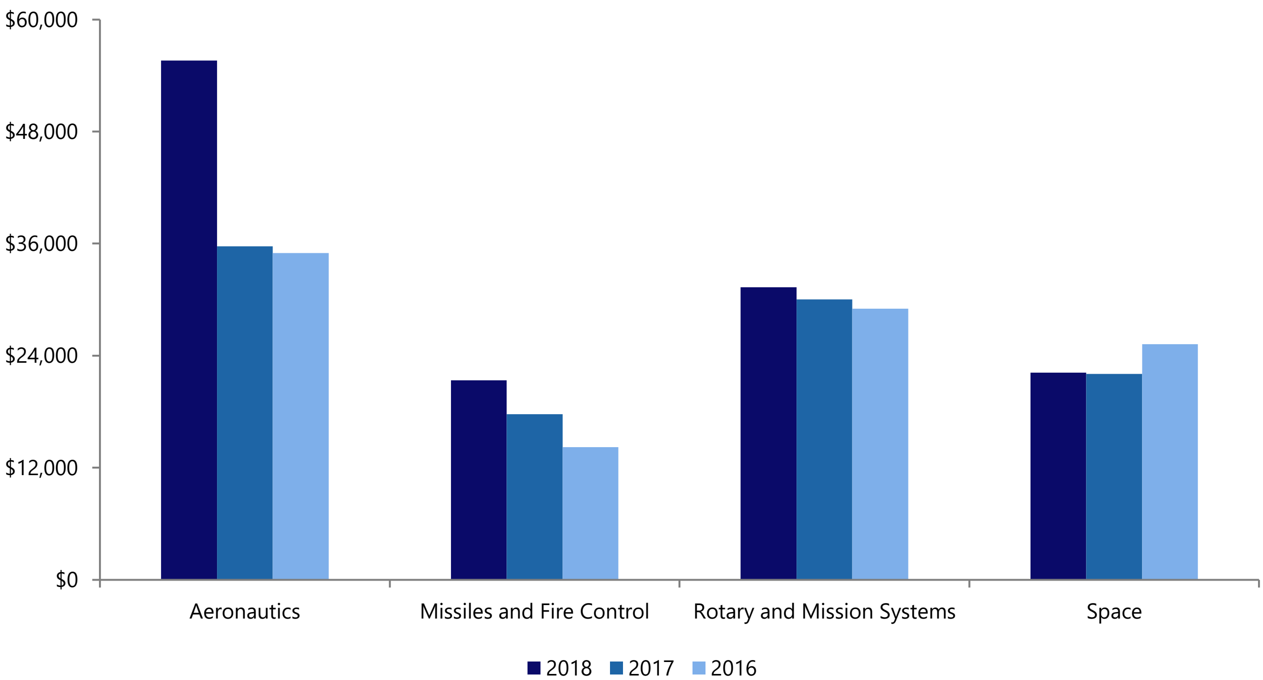
In a rising interest rate environment and amid fears of a downturn, it is essential that QUIC's Industrials portfolio hold businesses with economic moats built around downturn resilience. As of Q3 2019, Lockheed reported a record backlog of $137.4B and expects it to reach over $140B by Q1 2020. All of the consideration in the backlog is the base price of the contract does not include the upside Lockheed could receive from the contract award amount. Its Q3 2019 backlog represented 2.4x Q3 2019 LTM revenue, offering investors security against swings in defense spending. Lockheed's economic moat is rooted in downturn resilience stemming from a diversified backlog portfolio, efficient book-to-bill, and the moat inimitability.

Diversified Backlog Portfolio

Lockheed's backlog portfolio is unique amongst its peers due to its diversification across industries and geographies. First, as shown in Exhibit VIII, Lockheed has secured many contracts for all four of its segments, with 34% of the backlog set to be realized beyond the next 24-month period. Second, the company has also managed to diversify through geographies, with contracts across the United States (71.8%), Asia Pacific (10.0%), Europe (10.0%), Middle East (6.7%), and other key markets (1.5%).

EXHIBIT VIII

Three Year Segment Backlog



Source(s): Company Filings

Thesis III: Backlog Generates a Downturn Moat

Efficient Book-To-Bill

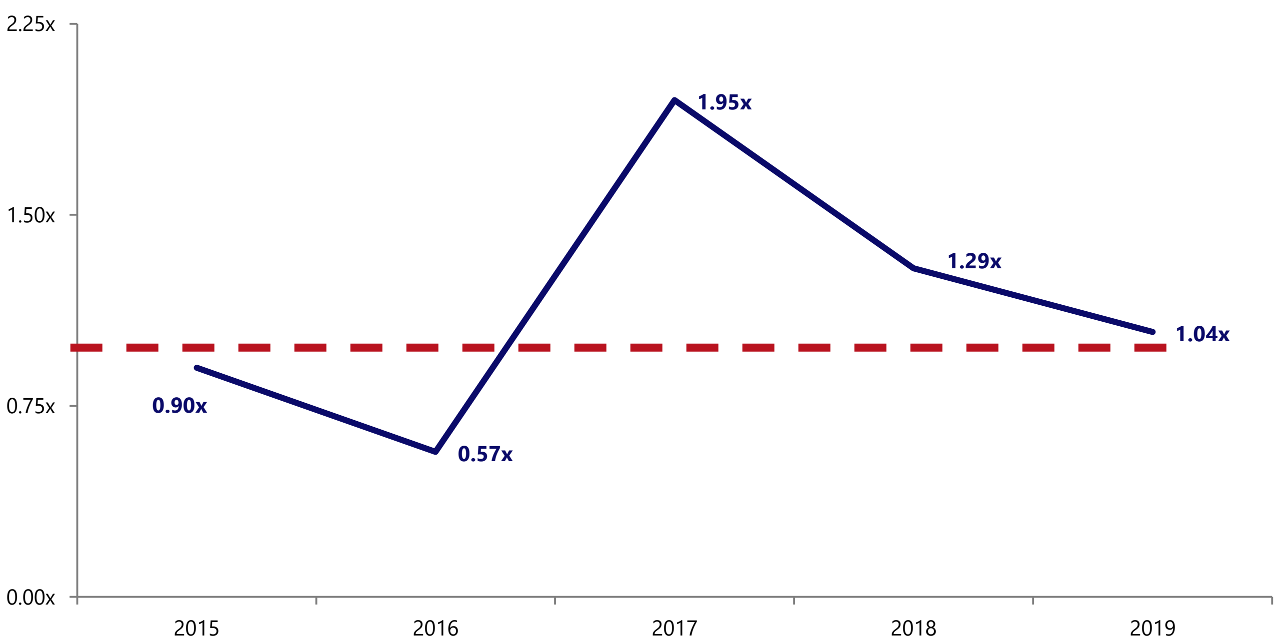
Without the ability to convert Lockheed's backlog to material revenue, the company's downturn resilience would become obsolete. A metric used to assess this ability is a company's book-to-bill ratio, which is expressed as the ratio of orders received divided by units billed in a given fiscal period. A ratio greater than 1.00x implies that a company is not able to convert its backlog into revenue or that demand for a company's products is higher than its current production capabilities. Lockheed, however, has a perfectly efficient book-to-bill ratio, as shown in Exhibit IX. From our perspective, this proves that we can depend on the backlog as an effective measure of future revenue, as Lockheed has the ability to materially realize forecasted revenue to its financial statements.

The Moat Replication Threat

As with all economic moats and competitive advantages, strength lies in inimitability – the ease with which a rival can replicate a moat. In the defense sector, projects can be awarded months or even years in advance of their commencement through strong customer relationships. It would take an unfeasible period of time for a rival to replicate the relationships Lockheed has established with Capitol Hill and other key stakeholders.

EXHIBIT IX

Historic Book-to-Bill Ratio



Source(s): Credit Suisse

Risks & Catalysts

Risks:

1. **Material Changes in Defense Spending:** Lockheed Martin derived 70% of its total net sales from the U.S government in 2018 and expects this trend to continue. As a result, if there is a change in U.S. policy towards defense spending, Lockheed could suffer.

1) **International Disruption:** Depending on what the defense product is, you can often sell these assets to any sort of foreign government. But if the U.S. concludes that another country is not an ally and does not want them equipped, then global sales can slide quickly.

1. **Pension Obligations:** Lockheed Martin is supporting its sector-high payout ratio and dividend yield with strong recent cash flows, which could inflect lower with increasing pension contributions.

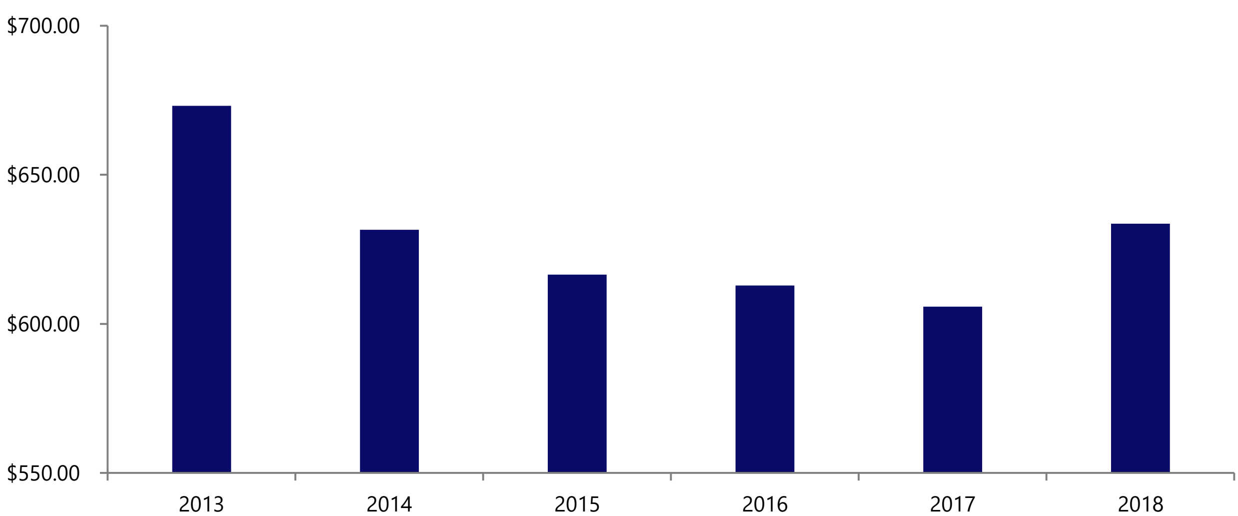
Catalysts:

1. **Sikorsky Acquisition:** In 2015, Lockheed purchased Sikorsky Aircraft from United Technologies. We believe there could be additional upside on the equity if LMT is able to continue improve the operational efficiency of the company.

2. **Military AI Arms Race:** Autonomous weapons are a controversial debate topic. AI tech is at the point where the deployment of systems that can select and engage targets without human intervention is feasible not within decades but in years. The third revolution in warfare would create an enormous opportunity for top-tier defense names.

EXHIBIT X

Historic United States Defense Spending



Source(s): Statista

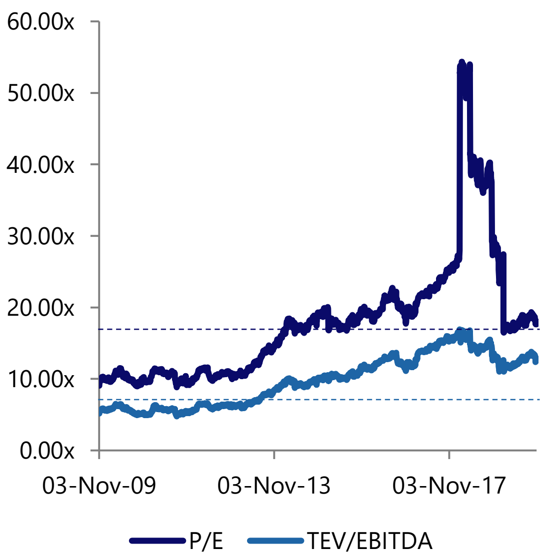
EXHIBIT XI

Comparable Companies Analysis

Trading Comparables												($ in millions)
				TEV / EBITDA		TEV / Adj. EBITDA		Price / Earnings		19E EBITDA	Dividend	
Ticker	Name	Market Cap	TEV	2019E	2020E	2019E	2020E	2019E	2020E	Margin	Yield	
LMT	**Lockheed Martin**	**$109,912**	**$122,050**	**12.7x**	**12.2x**	**10.9x**	**10.4x**	**17.9x**	**16.3x**	**16.2%**	**2.5%**	
BA	The Boeing Company	$195,546	$211,971	NM	11.5x	NM	10.2x	NM	15.5x	4.7%	2.4%	
RTN	Raytheon Company	$61,209	$64,642	12.2x	11.2x	10.2x	9.6x	18.4x	17.0x	18.1%	1.7%	
NOC	Northrop Grumman	$58,909	$73,616	15.5x	14.6x	12.4x	12.0x	17.1x	15.3x	14.0%	1.5%	
GD	General Dynamics	$52,317	$66,745	12.2x	11.6x	10.3x	9.9x	15.1x	14.1x	14.0%	2.3%	
Mean				**13.5x**	**12.4x**	**11.2x**	**10.6x**	**40.0x**	**16.0x**	**13.3%**	**2.0%**	
Median				**12.7x**	**11.9x**	**10.9x**	**10.3x**	**18.2x**	**15.9x**	**15.1%**	**2.1%**	

EXHIBIT XII

Historical Multiples Analysis



P/E 10-Year Average	17.88x
P/E 5-Year Average	19.81x
P/E 1-Year Average	20.00x
P/E at 03-11-19	**18.03x**
TEV/EBITDA 10-Year Average	9.77x
TEV/EBITDA 5-Year Average	10.82x
TEV/EBITDA 1-Year Average	12.49x
TEV/EBITDA at 03-11-19	**12.78x**
Blended Target Price	**$405.79**

Source(s): Company Filings

Final Thoughts on Lockheed Martin and General Dynamics

The Industrials team spent two reports diving into the defense space, looking to add names to our portfolio that were less cyclical. In doing so, we explored two of the largest defense companies: General Dynamics and Lockheed Martin. General Dynamics has very strong lines of business; we especially like their shipbuilding segment, in which GD operates in a duopoly with high barriers to entry. Lockheed Martin has similarly strong product offerings, with the F-35 jet being a strong driver of sales. Hypersonics also represents a lucrative opportunity for Lockheed to become a leader in a newly emerging segment. However, even though Lockheed Martin has solid offerings and a great outlook, these factors all seem to be priced in. General Dynamics on the other hand has been unfairly punished following the Canadian government's unlikely threat to withdraw from a $15B contract. Expectations for softer demand in the commercial jet business also leaves General Dynamics trading at a discount relative to peers. We believe that the main driver of slower demand was due to overproduction earlier in the decade; the company is poised to capture a large amount of value in the event of an uptick in business jet demand, due to the Gulfstream's dominant position. The Industrials team believes that both GD and LMT are strong companies, but that current market sentiment ultimately make GD a better name to add to our portfolio, with a greater probability for an asymmetrical upside.

References

1. Air Force Association
2. Cowen and Company
3. Credit Suisse
4. General Services Administration
5. Google Images
6. J.P. Morgan
7. Statista
8. Thomson Reuters