

Lockheed Martin: Dealing with Dependence on a Single Customer

June 2012

Written by Timothy Kyle Benusa, Sam Gottwald, Jeffrey S. Harrison and John Reed at the Robins School of Business, University of Richmond. Copyright © Jeffrey S. Harrison. This case was written for the purpose of classroom discussion. It may be duplicated or cited for educational purposes without obtaining permission from the authors.

In the Fall of 2011, the failure of the infamous 'super-committee' to reach an agreement regarding deficit reduction triggered automatic spending cuts which are projected to reduce U.S. military spending by a total of around \$1 trillion over the next ten years.¹ Even if Congress chooses to eliminate the automatic cuts, the Pentagon had previously agreed to a reduction in military spending of approximately \$450 billion. The landscape for military and defense contractors in the United States will be drastically influenced by these reductions in overall military spending. In light of this shifting landscape, Lockheed Martin must re-evaluate its strategic direction in an effort to shield itself from the adverse consequences of this shift.

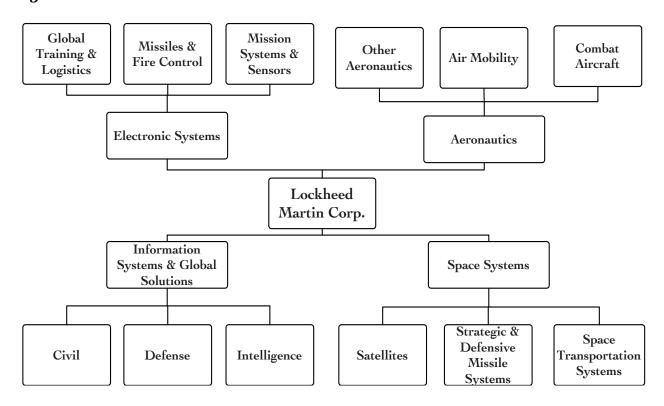
COMPANY OVERVIEW

The Lockheed Martin of today is the result of over 100 years of defense contracting acquisitions, divestitures, and corporate mergers. This acquisitive nature became especially prominent since the early 1980s. Since 1981, Lockheed Martin has performed 61 acquisitions, 54 divestitures, and 15 minority-interest purchases². Although both Lockheed and Martin Marietta (which merged in 1995 to form the core of modern Lockheed Martin) were founded in the early 20th century as civilian aircraft manufacturers, the companies, divisions, and business units of modern-day Lockheed Martin possess a long history of defense contracting, beginning with production of US military planes at the outset of World War II. As a 100-year old company, Lockheed Martin has been involved in nearly every US war, conflict, and peace-keeping mission since 1941.

Following the last major merger between Lockheed and Martin Marietta in 1995, Lockheed Martin continued its tradition of acquisition and divestiture in order to refocus the company. In 1996, Lockheed Martin sold both its Defense Systems and Armament Systems units to General Dynamics. In the same year, the company acquired the defense electronics and systems integration businesses of Loral. The following year it spun off ten non-core technology units which formed the basis for the present L-3 Communications Holdings. In 1998, Lockheed Martin attempted to further consolidate the aerospace and defense industry with an attempted \$11.6 billion merger with Northrup Grumman. The merger however was abandoned due to government opposition that the merger threatened US national defense by limiting competition.³

Today, Lockheed Martin is principally engaged in the research, design, development, manufacture, integration, and sustainability (service) of advanced technology systems, products and solutions in three core markets: defense and intelligence, homeland security, and systems and information technology.⁴ Lockheed Martin is organized based on a product/market structure, with four operating segments producing distinct products or services. The four operating segments are: Aeronautics; Electronic Systems; Space Systems; and Information Systems & Global Services (see *Figure 1*).

Figure 1



Each business segment serves different end-markets defined by different products and customers. Today Lockheed Martin boasts a well-diversified revenue stream for each of these segments, with each segment generating a significant portion of total revenue. In 2011, none of the four segments represented more than 32% of total revenue (see *Figure 2*).

Figure 2

2011 Sales By Business Segment							
		<u>\$ mil.</u>	% of Total				
Aeronautics	\$	14,362	31%				
Electronics System	\$	14,622	31%				
IS&GS	\$	9,381	20%				
Space Systems	\$	8,134	17%				

2011 Sales						
		<u>\$ mil.</u> % of Total				
Products	\$	36,925	79%			
Services	\$	9,574	21%			
Total	\$	46,499				

Aeronautics

Aeronautics is engaged in the research, design, development, manufacture, integration, sustainment, support, and upgrade of advanced military aircraft and air mobility aircraft, unmanned air vehicles, and related technologies.⁵ Today, Lockheed Martin is the undisputed leader in next-generation fighter aircraft development. In 2001, the U.S. Department of Defense named Lockheed Martin the lead contractor for the F-35 Lightning II Program. The goal is to have the U.S. use a common platform across all the armed forces to improve interoperability and reduce maintenance costs.⁶ The program includes the development, production, and maintenance of the main fighter aircraft for the U.S. and its allies in the coming decades. This standardization, resulting in three variants of the F-35, one each for the Air Force, Navy, and Marines, will provide the backbone of future aircraft sales to the US, which is expected to reach 2,457 aircraft through 2035.7 As a result of the breadth and length of the program, it is estimated to be worth approximately \$200 billion for Lockheed Martin. Revenues from contracts associated with the F-35 program represented 42% of Aeronautics' net sales, equivalent to 13% of consolidated company sales in 2011, making the F-35 Program the largest and most important program for the entire corporation.

Despite its current focus on advanced military aircraft, the company also has a history of having produced aircraft for the private non-military sector. An early venture was the Lockheed Vega, a four-passenger wooden monoplane built in the early 20^{th} century. The Vega was the first airplane to perform a nonstop transcontinental flight⁸. The company's most recent venture into commercial aircraft was the production of over two hundred L-1011 wide body jet liners during the 1970s and 1980s.

As the U.S. government reduces defense budget allocations, Lockheed Martin may find it necessary to refocus innovation and production on commercial aircraft again. The small business jet market, for instance, provides an interesting opportunity. The market is showing positive growth, which is, in part, fueled by emerging market demand for business jets. ⁹ As Boeing and Airbus concentrate on competing with one another, small regional jet makers have taken the opportunity to edge-in on the duopoly's product lines. Both Cessna and Bombardier, producers of smaller, shorter-range planes and jets, have recently introduced larger and longer-range models that are expected to compete with Boeing and Airbus¹⁰. Additionally, the growing demand for smaller, regional jets is expected to continue.

Electronic Systems

After WWII, Martin Marietta began to manufacture rockets, missiles and other modern weapons for the US Government and shortly thereafter, in the 1950s, Lockheed launched its own Missile Systems division to support this new area of defense growth.¹¹ Today the combined Lockheed Martin supports a variety of defense needs through its three business segments of the Electronic Systems business unit: mission systems and sensors, missiles and fire control, and global training & logistics. The U.S. Government generates 73% of electronic Systems revenues, while another 26% come from international customers, and only 1% from commercial customers.

Lockheed Martin's mission systems and sensors business line provides ship system integration, surface ship and submarine combat systems, and sea-based missile defense systems, representing 44% of the total revenue of the Electronic Systems segment. Lockheed Martin's two major programs in this segment include the Littoral Combat Ship, a combat vessel designed to provide agility and flexibility in the shallow waters close to the shore, as well as the Aegis Weapons System, a fleet defense missile system for the US Navy, which allows vessels to use complex computers and radar to track and destroy enemy targets. To date, Lockheed Martin has completed construction of two fully functioning Littoral Combat Ships, the *Freedom* and the *Fort Worth*, and has started construction on its third vessel, the *Milwaukee*. 13

The missiles and fire control business line makes land and air-based missile defense systems and other precision-guided weapons and fire control systems and represents 36% of the total revenue of the Electronic Systems segment. Most of its larger programs are focused on mobile, land-based missile defense systems, designed to intercept enemy missiles in flight, before they reach their intended targets. Its Terminal High Altitude Area Defense (THAAD) missile system is designed to engage targets both within and outside of the Earth's atmosphere. The United Arab Emirates have just selected the THAAD system as its missile defense system of choice, representing the first international sale of this device for Lockheed Martin. Similarly, the company manufactures the Patriot Advanced Capability-3 (PAC-3) missile system, which is an upgrade to the older Patriot missile systems, which are mobile surface-to-air systems, designed to intercept incoming airborne threats.¹⁴

The global training and logistics business line provides logistics, engineering and integration support for aircraft and provides simulation and training services, representing the remaining 20% revenues for the Electronic Systems segment. Its largest projects include the Special Operations Forces Contractor Logistics Support Services (SOF CLSS) program, which provides logistics services to the Special Operations forces of the U.S. Army. It also manufactures and maintains the fire control systems for the Apache helicopter for the U.S. Army and other international customers. Lockheed's experience in the global training and logistics line of business translates well into areas outside of defense-related activities. For instance, Lockheed Martin currently operates and manages the Sandia National Laboratories for the U.S. Department of Energy, focusing on the energy, climate and infrastructure security for the U.S., as well as other homeland security, defense and nuclear systems.¹⁵

Space Systems

For over thirty years, Lockheed Martin —in partnership with NASA—has played a major role in the Space Shuttle program, supplying components, payloads, and external fuel tanks that boosted the spacecraft into orbit. Today, Space Systems is engaged in the design, research and development, engineering, and production of satellites, strategic and defensive missile systems, and space transportation systems. The satellites business designs, develops, manufactures, and integrates advanced technology satellite systems for government and commercial applications. ¹⁶ The strategic and defensive missile systems

business includes missile defense technologies and systems, and fleet ballistic missiles.¹⁷ Lockheed has been the sole supplier of strategic ballistic missiles to the U.S. Navy since 1955.¹⁸ The space transportation systems business is NASA's prime contractor for the design, testing, building, integration, and operation capability of the Orion crew exploration vehicle, a contract it won over competitors Northrop and Boeing in 2006.¹⁹ The goal of the Orion project is to produce a partially reusable manned spacecraft to transport human explorers to and from the International Space Station, the Moon, and eventually Mars and beyond.²⁰

Lockheed Martin is involved with two joint ventures with the Boeing Company in this segment. In 1996, Boeing and Lockheed consolidated more than 30 heritage contracts that supported the Space Shuttle Program to form United Space Alliance. Operations are winding down following the completion of the last mission of the Space Shuttle Program in 2011. United Launch Alliance, formed in 2006, provides launch services for the U.S. Government.

Information Systems and Global Services

"Delivering the right outcomes starts with the ability to unify the right capabilities, whether it's delivering real-time data to warefighters, providing benefits to seniors, or managing the safe movement of cargo around the world, Information Systems & Global Services offers a broad range of capabilities to deliver solutions with speed and agility"

-Lockheed Martin Website

In 2007, Lockheed Martin combined its Information & Global Services and Integrated Systems and Solutions divisions into a single entity. Lockheed Martin's IS & GS business segment provides management services and information technology applications across a range of applications to various government agencies of the U.S. and allied countries around the world as well as commercial and other customers. The mission of IS&GS is to help its customers enhance security and improve business functions by delivering the tools and technology of tomorrow, today.

Civil capabilities include a wide array of information technology systems and services for customers across the government, helping modernize and streamline systems and processes. Support is provided in the areas of human capital, data protection and sharing, financial services, energy and environment, health, security, human exploration, and biometrics.²¹ For example, 60 percent of the world's commercial air traffic and 80 percent of the managed oceanic traffic is supported by Lockheed Martin traffic control systems. Other customers that use the company's IS&GS products include: the IRS, FTC, TSA, Department of Energy, and the Social Security Administration.

This segment's defense line of business provides net-enabled situation awareness, and delivers communications and command and control capabilities through complex mission solutions for defense applications. Lockheed Martin is helping its customers meet changing

security threats in the 21st century. The company provides technology that guards borders, integrates threat information and protects critical infrastructures. Lockheed Martin provides a range of cyber-security programs to help protect its customers' electronic systems that are susceptible to viruses, hacking, and identity and information theft.

The intelligence line of business designs and integrates the complex, global systems that help the company's customers gather, analyze, and securely distribute critical intelligence data to help them operate in a fluid and ever-changing environment.²² The segment's intelligence products and services work to deliver mission capabilities to the users that need them—instantly and globally.

INSIDE THE COMPANY

Lockheed Martin's vision and values are consistent with what the industry demands: high quality, innovation through R&D, and performance within regulated standards.

Vision

"Lockheed Martin is the leading global security and aerospace company, solving our customers' most difficult problems through our employees' innovation, performance and unmatched integrity."

Values

Do What's Right - We are committed to the highest standards of ethical conduct in all that we do. We believe that honesty and integrity engender trust, which is the cornerstone of our business. We abide by the laws of the United States and other countries in which we do business, we strive to be good citizens and we take responsibility for our actions.

Respect Others - We recognize that our success as an enterprise depends on the talent, skills and expertise of our people and our ability to function as a tightly integrated team. We appreciate our diversity and believe that respect - for our colleagues, customers, partners, and all those with whom we interact - is an essential element of all positive and productive business relationships.

Perform With Excellence - We understand the importance of our missions and the trust our customers place in us. With this in mind, we strive to excel in every aspect of our business and approach every challenge with a determination to succeed.²³

Human Resources

As of December 31, 2011, Lockheed Martin employed approximately 123,000 employees, 95% of whom were located in the U.S. Approximately 70,000 of Lockheed Martin's employees are engineers, scientists or information technologists. The acquisition and retention of qualified personnel is expected to continue as an important success factor for Lockheed Martin as demand for workers with security clearance with specialized skills in engineering, and information technology is expected to exceed supply.²⁴

Top Management

The current management team and board of directors are considered a key component contributing to the past success of Lockheed Martin. The combined industry experience has provided a considerable differentiating factor for the company. Key employees and the board of directors are detailed in Exhibit 2. Robert Stevens is the sole company representative on the 11-member board, which is otherwise made up of non-employee veterans with valuable experience in the industry.²⁵

Locations

As of December 31, 2011, Lockheed operates in 573 locations (including offices, manufacturing plants, warehouses, service centers, laboratories, and other facilities) worldwide. Despite its international presence, Lockheed Martin maintains most of its major operations in the U.S.²⁶ Most corporate support activities are performed at company headquarters in Bethesda, Maryland but the company's facility in Lakeland, Florida provides additional corporate support.²⁷

Financial Performance

Over the five-year period from 2007 until 2011, Lockheed Martin's revenue grew at a compound annual rate of 2.7%. This growth is a result of a nearly 9% increase in revenues from the Aeronautics segment and growth of nearly 2% in Electronic Systems. Over the same five-year period, IS&GS and Space Systems revenue actually contracted. Full financial statements are found in Exhibit 1 at the end of the case.

Quality Control

Given the nature of Lockheed Martin's products, which operate with a zero margin-forerror, product quality is paramount. Although the company is currently respected in the industry for its quality controls, this has not always been the case. In 1999, a series of launch failures destroyed nearly \$4 billion in rockets and payloads. The cause of the launch failures was ultimately determined to be the result of poor management oversight and lapses in quality control, issues which indirectly resulted in a 66% reduction in profits and initiated the sale of many non-core operations as part of a restructuring process.²⁸

INDUSTRY

Lockheed Martin competes in the Aerospace & Defense industry. By definition, this industry includes all revenues accrued from civil and military aerospace and defense procurements.²⁹ Although the industry experienced fairly consistent growth from 2006 onwards, reaching a total value of \$520.4 billion by 2010, it is expected to decrease by a total of 19.5% to \$410.7 billion by 2015³⁰. Although private enterprises contribute to this value, U.S. defense is by far the largest contributor of revenue, accounting for 84.1% of the total industry's revenue in 2010.³¹ In response to declining overall revenues, analysts expect to see a general trend towards consolidation, cost reduction, and increased global presence.

Lockheed Martin is the world's largest defense contractor, having generated over \$42 billion in sales from defense contracts in 2010, representing 10.2% of the \$418 million in global defense related revenues.³² In the United States specifically, Lockheed Martin operates as the largest of the "Big Five" defense contractors, who also include Northrop Grumman, Boeing, General Dynamics and Raytheon.³³ Out of these top five companies, only Boeing is significantly diversified outside of the defense industry (with about half of revenues coming from its commercial jets and aircraft engines business). The others, including Lockheed Martin, rely on government defense budgets for more than 80% of their total revenues.

Governments buy defense weapons and systems through high-value, long-term contracts. Furthermore, most governments tend to award these contracts to those companies who have proven experience in defense manufacturing and are trusted partners to protect the intellectual property of this highly confidential equipment. Therefore, it is difficult for new entrants to be awarded any significant contracts from the government – this has led to increased consolidation of the industry, and reinforced the intense competition among these firms when new contracts are up for bid.³⁴ Large defense companies bid on contracts, providing their detailed technical designs and cost estimates, and once they have been awarded the contract, they often subcontract out portions of the business. For example, Lockheed teamed up with rivals Northrop Grumman and Alliant Techsystems in 2008 and pooled their weapons technologies to develop multi-role weapons for its F-22 Raptor and F-35 Lightning II. In this way, it is not uncommon to see many of the largest defense contractors in the world working together on the same projects, in order to meet the stringent requirements placed on them by detailed government specifications.

Due to the contractual nature of the business, competition is intense in the industry and those who have established a strong reputation for successful delivery on contracts find future contracts easier to win. Because of budgetary constraints, the military will often prioritize its defense objectives, and if it chooses to upgrade its ground fleet, it may have to postpone an upgrade to its aviation fleet. If a defense contractor is too focused on one particular area of the defense budget, and does not win a major contract in that area, it could have to wait a significant period of time before the contract comes back up for bid again, so diversification within the defense industry is critical to maintain a steady amount of new business.

There are several significant difficulties to operating in the defense industry. Large-scale operations are required in order to meet aggressive deadlines and delivery requirements. These facilities are governed under stringent regulations and only those workers who have gained security clearances are allowed to work on classified projects, which can limit the supply of labor available to defense contractors. Research and development costs are extremely high for the industry, as governments are always looking for cutting edge technology to employ in their military operations. In an effort to save costs, the governments are starting to shift away from "cost plus" contracts to fixed price contracts, forcing manufacturers to put a greater emphasis on cost control at their facilities.

Regulation

Companies that operate in the Aerospace and Defense Industry are heavily regulated by the U.S. government and other foreign governments in which firms conduct business. Doing business with the U.S. Government is fundamentally different than transactions between commercial companies. Defense contractors must comply with laws and regulations relating to the formation, administration, and performance of U.S. government and other contracts.³⁵ These laws restrict the use and dissemination of classified information, require certification and disclosure of all cost and pricing data in connection with many contracts, and impose specific and unique cost accounting practices among other things. Defense contractors are subject to periodic audits to ensure that they are operating in accordance with all applicable regulations and rules.

Competitors

Northrop Corporation was founded in 1939 and became known as a leader in military aircraft technology, most notably for its development of the B-2 Stealth Bomber for the US Air Force, before acquiring the Grumman Corporation in 1994. In 1996, it acquired Westinghouse Electric (now the core of its Electronic Systems business segment), and in 1997, it attempted to merge with Lockheed Martin, but the US Government revoked this merger for fear of anti-competitive disadvantages.³⁶ Ninety-two percent of its nearly \$35 billion in sales in 2011 were generated by the US Government, focused in the following business segments: aerospace systems (aircraft and missiles), electronic systems (radar and communications), advanced information systems for defense and intelligence, and technical services.

Boeing, the world's largest aerospace company, was founded in the 1920's, but achieved its major successes during the Second World War, manufacturing a significant number of bombers for the U.S. war effort, including the B-29, B-17 and after the war, the B-52 Stratofortress bomber. Starting in the 1960s, Boeing began to produce its highly popular line of commercial jets, including the 727, 737 and 747. Today, one of its most important projects is an extension of that line, the 787 Dreamliner, which sell for approximately \$200 million.³⁷ Its 2011 revenues of over \$68 billion were split between its Commercial Airplanes (54%) and its Defense, Space and Security (46%) business segments.³⁸ Its Defense, Space and Security business segment is split into three different business lines, which derive 80% of their sales from governments: military aircraft, network and space systems, and global services and support.

Raytheon was established as the American Appliance Company in 1922 and made its first meaningful impact on the country just a few years later with its introduction of a gas tube that allowed for existing battery-operated radios to be converted into radios that could run on electrical power, rather than on expensive batteries, thus making news and entertainment accessible to millions of Americans.³⁹ Today, 88% of Raytheon's \$25 billion in revenues come from government contracts in its six different business segments: integrated defense systems (missile defense, undersea warfare and radar), intelligence and information systems, missile systems, network centric systems, space and airborne systems, and technical services. Approximately one quarter of Raytheon's sales are international. Some of its largest projects include the Patriot Missile Defense System,

AMRAAM Air-to-Air Missiles, Advanced Controls for GPS Systems, and several cutting-edge radar technologies.⁴⁰

Government Dependence

Performance of the Aerospace & Defense Industry is closely tied to U.S. Government spending, especially from the Department of Defense. Spending for defense is highly cyclical, with the last two business cycles leading to over a 50% decline in military spending between the peak and the valley. Defense contracts are negotiated and awarded through a tender process with price being a major factor. Budgetary pressures on the U.S. and many European governments will reduce defense related spending and cause them to pressure defense contractors to help trim budget deficits. Although Lockheed Martin possesses a broad portfolio of subsidiary companies that affords it some protection from budget volatility in Washington, the sheer size of recent and potential budgetary cuts will negatively impact operations for many years to come.

Lockheed Martin, like many of its competitors, boasts a well-balanced portfolio of products and services that afford it some protection from volatility in any particular market. However, it lacks diversity in customers. Lockheed Martin depends heavily on spending by the U.S. Government. In 2011, 82% of Lockheed's sales derived from the U.S. Government. The Department of Defense was responsible for 75% of U.S. Government sales, or 61% of total 2011 sales. Although many of Lockheed Martin's contracts with the Department of Defense extend over many years, many are conditioned upon the availability of congressional appropriations, which occur on an annual fiscal-year basis.

Suppliers

"The success of Lockheed Martin's programs relies on the success of our supply base," said Dan Pleshko, vice president, Global Supply Chain Operations for Lockheed Martin. 43 Considering the breadth of the company's operations, it is not surprising that Lockheed works with over 29,000 suppliers to meet the company's needs. 44 Suppliers are selected on the basis of a firm's ability to satisfy Lockheed Martin requirements, which include quality, price, delivery and continuity of supply, capacity and reliability. Lockheed Martin works with suppliers to ensure that all business interaction, products and services meet the highest standards of integrity, quality, affordability and sustainability. The company currently uses long-term agreements with key suppliers to manage the company's exposure to risks associated with procurement of aluminum, titanium, carbon fiber, and aluminum lithium, all of which are critical for many of the company's Aeronautics and Space Systems projects.

Community and Environment

Lockheed Martin believes that creating a better world starts at the local level and is committed to enhancing the quality of life in the communities in which it operates. Lockheed donates \$24 million annually to philanthropic initiates. Approximately 50% of the donated funds go towards its *Engineers in the Classroom* education outreach initiative, which is designed to identify, develop and inspire students toward entering careers that have their foundation in Science, Technology, Engineering, and Mathematics (STEM)

courses. Approximately 30% of the donated funds go towards "Customer and Constituent" support programs, which involves programs like *Lockheed Martin Employee Care*, a program that send care packages to U.S. military troops overseas, and "Uniting though Reading," a Family Literacy Foundation program that enables servicemen and women to read stories aloud on videotape to a child in their family. The remaining 20% of donations goes toward community outreach initiatives like homeless shelters, food drives, and health-related organizations.

The company encourages employees to be active participants in their communities. Lockheed Martin operates its own internal website, *Lockheed Martin Volunteers*, which helps employees match their volunteer interests with community needs and local opportunities. This program has been highly successful with employees logging 1.2 million volunteer hours in their communities in 2010 alone. In 2009, employees gave \$22.2 million in workplace giving programs, including \$18.5 million to the United Way and Charities of Choice campaigns, \$2.54 million to colleges and universities matched by \$2.54M from the Lockheed Martin Foundation, and \$1.09 million to the Lockheed Martin Employee Disaster Relief Fund.

Lockheed Martin is committed to environmental stewardship through the efficient use of resources and realizes that environmental stewardship begins with the selection of suppliers and continues through the product life cycle. In 2007, the company implemented its *Go Green* program, which strives to reduce the company's adverse impacts on the environment through activities such as improved energy efficiency and reduction in waste generation and water usage by 25% from a 2007 baseline by 2012. The company reviewed its entire supply chain and worked with its suppliers to look for opportunities to reduce its environmental footprint. As of 2011, the company has reduced its carbon footprint by 30%, waste reduction by 39%, and water usage by 23%.⁴⁷

OUTLOOK

Recognizing the constraints on the U.S. Government's resources, Lockheed is looking to develop and extend its portfolio in international and adjacent markets with a focus on foreign government customers in need of its Aeronautics and Electronic Systems products and services. Regulations, however, restrict the sale of many of Lockheed's products to other countries (even to allied nations), thus reducing growth potential.

Lockheed's broad portfolio of businesses that serve various end markets and its \$80.7 billion backlog will help limit the impact of budgetary cuts on Lockheed's revenue over the next five years. 48 Lockheed expects to convert \$31.0 billion, or 38%, of its total 2011 yearend backlog into sales in 2012. 49

The U.S. government's continuous focus on homeland security will boost opportunities for business in air traffic management, cargo security, and biohazard detection, among other security functions.⁵⁰ The company is proactively taking steps to mitigate the impact on margins in a tighter budget environment by reducing head count and consolidating facilities.⁵¹ The overall budget issues seem likely to restrict revenue potential over the medium term and could lead to program cancellations that are important to Lockheed.⁵²

EXHIBIT 1 Lockheed Martin Financial Information

5-Year Income Statement

Lockheed Martin Corporation	(LMT)) Income Statement
-----------------------------	-------	--------------------

USD in millions except per share data.	2007	2008	2009	2010	2011
Revenue	41,862	42,731	43,995	45,671	46,499
Cost of revenue	37,628	38,082	39,803	41,883	42,795
Gross profit	4,234	4,649	4,192	3,788	3,704
Interest Expense	352	341	308	345	354
Other income (expense)	486	394	346	335	281
Income before taxes	4,368	4,702	4,230	3,778	3,631
Provision for income taxes	1,335	1,485	1,231	1,164	964
Net income from continuing operations	3,033	3,217	2,999	2,614	2,667
Net income from discontinuing ops			25	264	(12)
Net income	3,033	3,217	3,024	2,878	2,655
Net income available to common shareholders	3,033	3,217	3,024	2,926	2,655

5-Year Cash Flow

Lockheed Mar	tin Corporation ((LMT) Statement o	f Cash Flow
--------------	-------------------	-------------------	-------------

USD in millions except per share data.	2007	2008	2009	2010	2011
ash Flows From Operating Activities					
Net income	3,033	3,217	3,024	2,926	2,655
Depreciation & amortization	819	845	854	841	1,008
Deferred income taxes	110	72	542	576	(2
Stock based compensation	149	155	154	168	157
Accounts receivable			(719)	(15)	
Inventory	(57)	(183)	(233)	(227)	(74
Accounts payable	(66)	(141)	(21)	(364)	609
Income taxes payable				60	304
Other working capital	377	(20)	482	(381)	(43:
Other non-cash items	(124)	476	(910)	(37)	3
Net cash provided by operating activities	4,241	4,421	3,173	3,547	4,25
ash Flows From Investing Activities					
Investments in property, plant, and equipment	(940)	(926)	(852)	(820)	(81-
Acquisitions, net	(311)	(233)	(435)	650	(64
Purchases of investments					
Sales/Maturities of investments		272			
Other investing activities	46	(20)	(231)	(149)	65
Net cash used for investing activities	(1,205)	(907)	(1,518)	(319)	(81
ash Flows From Financing Activities					
Debt issued		491	1,464		1,98
Debt repayment	(32)	(1,103)	(242)		(63
Common stock issued	350	250	40		
Common stock repurchased	(2,127)	(2,931)	(1,851)	(2,420)	(2,46
Excess tax benefit from stock based compensation	124	92	21		
Dividend paid	(615)	(737)	(908)	(969)	(1,09
Other financing activities				26	9
Net cash provided by (used for) financing activities	(2,300)	(3,938)	(1,476)	(3,363)	(2,11
Effect of exchange rate changes		(56)	44	5	
Net change in cash	736	(480)	223	(130)	1,32

5-Year Balance Sheet

-	Lockheed Martin Corporation (LMT) Balance Sheet					
USD in millions except per share data.	2007	2008	2009	2010	2011	
Assets						
Current assets						
Cash and cash equivalents	2,648	2,168	2,391	2,261	3,582	
Short-term investments	333	61	_,-,-,-	516	3	
Total cash	2,981	2,229	2,391	2,777	3,585	
Receivables	4,925	5,296	6,061	5,757	6,064	
Inventories	1,718	1,902	2,183	2,378	2,481	
Deferred income taxes	756	755	815	1,038	1,339	
Other current assets	560	501	1,027	901	625	
Total current assets	10,940	10,683	12,477	12,851	14,094	
Non-current assets	•	ŕ	•	•	ŕ	
Gross property, plant and equipment	10,305	10,899	11,405	11,958	12,470	
Accumulated Depreciation	(5,985)	(6,411)	(6,885)	(7,404)	(7,859)	
Net property, plant and equipment	4,320	4,488	4,520	4,554	4,611	
Goodwill	9,387	9,526	9,948	9.605	10,148	
Intangible assets	463	355	311	,,,,,,,	10,110	
Deferred income taxes	760	4,651	3,779	3,482	4,388	
Prepaid pension benefit	313	122	160	5,.02	.,500	
Other long-term assets	2,743	3,614	3,916	4,575	4,667	
Total non-current assets	17,986	22,756	22,634	22,216	23,814	
Total assets	28,926	33,439	35,111	35,067	37,908	
Liabilities						
Current liabilities						
Short-term debt	104	242				
Accounts payable	2,163	2,030	2,030	1,627	2,269	
Taxes payable						
Accrued liabilities	1,544	1,684	1,648	1,870	1,664	
Other current liabilities	6,060	6,586	7,025	7,660	8,197	
Total current liabilities	9,871	10,542	10,703	11,157	12,130	
Non-current liabilities						
Long-term debt	4,303	3,563	5,052	5,019	6,460	
Pensions and other benefits	2,120	13,390	12,131	11,820	14,776	
Other long-term liabilities	2,827	3,079	3,096	3,363	3,541	
Total non-current liabilities	9,250	20,032	20,279	20,202	24,777	
Total liabilities	19,121	30,574	30,982	31,359	36,907	
Stockholders' equity						
Retained earnings	11,247	11,621	12,351	12,372	11,937	
Accumulated other comprehensive income	(1,442)	(8,756)	(8,222)	(8,664)	(10,936)	
Total stockholders' equity	9,805	2,865	4,129	3,708	1,001	
Total liabilities and stockholders' equity	28,926	33,439	35,111	35,067	37,908	

EXHIBIT 2 Key Employees, Officers

Robert J. Stevens

Job Title: Chairman of the Board and Chief Executive Officer

Mr. Stevens has served as Chairman of the Board since April 2005 and Chief Executive Officer since August 2004, and previously served as President from October 2000 to December 2009.

Christopher Kubasik

Job Title: President and Chief Operating Officer

Mr. Kubasik has served as President and Chief Operating Officer since January 2010. He previously served as Executive Vice President – Electronic Systems from September 2007 to December 2009, and as Chief Financial Officer from February 2001 to August 2007.

Bruce Tanner

Job Title: Executive Vice President and Chief Financial Officer

Mr. Tanner has served as Executive Vice President and Chief Financial Officer since September 2007. He previously served as Vice President of Finance and Business Operations for Aeronautics from April 2006 to August 2007, and Vice President of Finance and Business Operations for Electronic Systems from May 2002 to March 2006.

Linda Gooden

Job Title: Executive Vice President Information Systems and Global Solutions

Ms. Gooden has served as Executive Vice President – Information Systems & Global Solutions since January 2007. She previously served as Deputy Executive Vice President – Information & Technology Services from October 2006 to December 2006, and President, Lockheed Martin Information Technology from September 1997 to December 2006.

Ralph Heath

Job Title: Executive Vice President Aeronautics

Mr. Heath has served as Executive Vice President – Aeronautics since January 2005. Effective April 1, 2012, Mr. Heath will step down as Executive Vice President – Aeronautics, but will remain an Executive Vice President of the Corporation through May 1, 2012 when he will retire. Larry A. Lawson, Vice President and General Manager, F-35 Program, will succeed Mr. Heath as the new Executive Vice President – Aeronautics effective April 1, 2012.

Marillyn Hewson

Job Title: Executive Vice President Electronics Systems

Ms. Hewson has served as Executive Vice President – Electronic Systems since January 2010. She previously served as President, Systems Integration – Owego from September 2008 to December 2009; Executive Vice President – Global Sustainment for Aeronautics from February 2007 to August 2008; President, Lockheed Martin Logistics Services Company from January 2007 to February 2007; and President and General Manager, Kelly Aviation Center, L.P. from August 2004 to December 2007.

Joanne Maguire

Job Title: Executive Vice President Space Systems Company

Ms. Maguire has served as Executive Vice President – Space Systems since July 2006. She previously served as Vice President and Deputy of Lockheed Martin Space Systems Company from July 2003 to June 2006.

Key Employees Continued

Maryanne Lavan

Job Title: Senior Vice President, General Counsel, and Corporate Secretary
Ms. Lavan has served as Senior Vice President and General Counsel since June 2010 and Corporate
Secretary since September 2010. She previously served as Vice President – Internal Audit from
February 2007 to June 2010, and Vice President – Ethics and Business Conduct from October 2003 to
February 2007.

Kenneth Possenriede

Job Title: Vice President and Treasurer

Mr. Possenriede has served as Vice President and Treasurer since July 2011. He previously served as Vice President of Finance and Business Operations for Electronic Systems from July 2008 to June 2011 and as Vice President of Finance and Business Operations for Space Systems from September 2007 to June 2008.

Christopher Gregoire

Job Title: Vice President and Controller

Mr. Gregoire has served as Vice President and Controller (Chief Accounting Officer) since March 2010. He previously was employed by Sprint Nextel Corporation from August 2006 to May 2009, most recently as Principal Accounting Officer and Assistant Controller, and was a partner at Deloitte & Touche LLP from September 2003 to July 2006.

Source: http://www.lockheedmartin.com (accessed March 29, 2012)

EXHIBIT 3: Competitor Financials

_	Boeing Corporation (BA) Income Statement				
USD in millions except per share data.	2007 2008 2009 Dec 66,387 60,909 68,7 Dec 53,402 50,352 56,5 Dec 196 202 Dec 196 202 Dec 198 244 Dec 198 3,995 1,7 Dec 20,060 1,341 Dec 20,060 1,341	2009	2010	2011	
Revenue	66,387	60,909	68,281	64,306	68,735
Cost of revenue	53,402	50,352	56,540	51,843	55,867
Gross profit	12,985	10,557	11,741	12,463	12,868
Interest Expense	196	202	339	516	498
Other income (expense)	484	247	(26)	52	47
Income before taxes	6,118	3,995	1,731	4,507	5,393
Provision for income taxes	2,060	1,341	396	1,196	1,382
Net income from continuing operations	4,058	2,654	1,335	3,311	4,011
Net income from discontinuing ops	16	18	(23)	(4)	7
Net income	4,074	2,672	1,312	3,307	4,018
Net income available to common shareholders	4,074	2,672	1,312	3,307	4,018

_	Raytheon Company (RTN) Income Statement				
USD in millions except per share data.	2007	2008	2009	2010	2011
Revenue	21,301	23,174	24,881	25,183	24,857
Cost of revenue	17,037	18,513	19,747	20,303	19,697
Gross profit	4,264	4,661	5,134	4,880	5,160
Interest Expense	196	129	123	126	172
Other income (expense)	93	31	11	(49)	5
Income before taxes	2,225	2,498	2,930	2,432	2,690
Provision for income taxes	532	824	953	589	793
Net income from continuing operations	1,693	1,674	1,977	1,843	1,897
Net income from discontinuing ops	885	(2)	(1)	36	(1)
Other			(41)	(39)	(30)
Net income	2,578	1,672	1,935	1,840	1,866
Net income available to common shareholders	2,578	1,672	1,935	1,840	1,866

_	Northro	p Grumman Co	rporation (NOC) Income Stater	ment
USD in millions except per share data.	2007	2008	2009	2010	2011
Revenue	32,018	33,887	33,755	34,757	26,412
Cost of revenue	25,804	27,698	28,130	28,609	20,786
Gross profit	6,214	6,189	5,625	6,148	5,626
Interest Expense	336	295	281	281	221
Other income (expense)	16	38	64	(194)	28
Income before taxes	2,686	(368)	2,266	2,595	3,083
Provision for income taxes	883	913	693	557	997
Net income from continuing operations	1,803	(1,281)	1,573	2,038	2,086
Net income from discontinuing ops	(13)	19	113	15	32
Net income	1,790	(1,262)	1,686	2,053	2,118
Net income available to common shareholders	1,790	(1,262)	1,686	2,053	2,118

_		Boeing Corpo	ration (BA) Bala	ance Sheet	
USD in millions except per share data.	2007	2008	2009	2010	2011
Assets					
Current assets					
Cash and cash equivalents	7,042	3,268	9,215	5,359	10,049
Short-term investments	2,266	11	2,008	5,158	1,223
Total cash	9,308	3,279	11,223	10,517	11,272
Receivables	5,740	5,602	5,785	5,422	5,793
Inventories	9,563	15,612	16,933	24,317	32,240
Deferred income taxes	2,341	1,046	966	31	29
Other current assets	328	425	368	285	476
Total current assets	27,280	25,964	35,275	40,572	49,810
Non-current assets					
Gross property, plant and equipment	20,180	21,042	21,579	22,253	23,306
Accumulated Depreciation	(11,915)	(12,280)	(12,795)	(13,322)	(13,993)
Net property, plant and equipment	8,265	8,762	8,784	8,931	9,313
	,	•	,	,	
Equity and other investments	4,111	1,328	1,030	1,111	1,043
Goodwill	3,081	3,647	4,319	4,937	4,945
Intangible assets Deferred income taxes	2,093	2,685	2,877	2,979	3,044
	197 5,924	4,114 16	3,062 16	4,031 6	5,892
Prepaid pension benefit Other long-term assets	8,035	7,263	6,690	5,998	5,939
Total non-current assets	31,706	27,815	26,778	27,993	30,176
Total assets	58,986	53,779	62,053	68,565	79,986
	30,300	33,773	02,033	00,303	73,300
Liabilities Current liabilities					
Short-term debt	762	560	707	948	2,353
Accounts payable	16,676	17,587	7,096	7,715	8,406
Taxes payable	253	41	182	607	2,780
Accrued liabilities			12,822	13,802	12,239
Other current liabilities	13,847	12,737	12,076	12,323	15,496
Total current liabilities	31,538	30,925	32,883	35,395	41,274
Non-current liabilities					
Long-term debt	7,455	6,952	12,217	11,473	10,018
Deferred taxes liabilities	2,311	5,552	827	418	
Accrued liabilities	8,162	15,705	13,364	17,825	24,057
Minority interest	,	,	97	96	93
Other long-term liabilities	516	1,491	537	592	1,029
Total non-current liabilities	18,444	24,148	27,042	30,404	35,197
Total liabilities	49,982	55,073	59,925	65,799	76,471
Stockholders' equity					
Common stock	5,061	5,061	5,061	5,061	5,061
Additional paid-in capital	4,757	3,456	3,724	3,866	4,033
Retained earnings	21,376	22,675	22,746	24,784	27,524
Treasury stock	(14,842)	(17,758)	(15 <i>,</i> 911)	(17,187)	(16,603)
Accumulated other comprehensive income	(7,348)	(14,728)	(13,492)	(13,758)	(16,500)
Total stockholders' equity	9,004	(1,294)	2,128	2,766	3,515
Total liabilities and stockholders' equity	58,986	53,779	62,053	68,565	79,986

_	Raytheon Company (RTN) Balance Sheet					
USD in millions except per share data.	2007	2008	2009	2010	2011	
Assets						
Current assets						
Cash and cash equivalents	2,655	2,259	2,642	3,638	4,000	
Short-term investments						
Total cash	2,655	2,259	2,642	3,638	4,000	
Receivables	3,947	3,898	4,493	4,414	4,526	
Inventories	386	325	344	363	336	
Deferred income taxes	432	395	273	266	221	
Prepaid Expenses	196	99	116	141	226	
Other current assets		441				
Total current assets	7,616	7,417	7,868	8,822	9,309	
Non-current assets						
Gross property, plant and equipment		5,517	5,655	5,844	5,968	
Accumulated Depreciation		(3,493)	(3,654)	(3,841)	(3,962	
Net property, plant and equipment	2,058	2,024	2,001	2,003	2,006	
Goodwill	11,627	11,662	11,922	12,045	12,544	
Deferred income taxes	11,027	735	436	106	657	
Other long-term assets	1,980	1,458	1,380	1,446	1,338	
Total non-current assets	15,665	15,879	15,739	15,600	16,545	
Total assets	23,281	23,296	23,607	24,422	25,854	
Liabilities		_5,_55		,	_5,55 .	
Current liabilities						
Accounts payable	1,141	1,201	1,397	1,538	1,507	
Accrued liabilities	1,802	1,978	1,902	2,221	2,081	
Other current liabilities	1,845	1,970	2,224	2,201	2,542	
Total current liabilities	4,788	5,149	5,523	5,960	6,130	
Non-current liabilities	.,. ==	-,	-,	-,	-,	
Long-term debt	2,268	2,309	2,329	3,610	4,605	
Deferred taxes liabilities	2,208 451	2,309	2,329	147	4,003	
Accrued liabilities	3,016	6,488	5,793	4,815		
Minority interest	216	263	5,795 112	4,815	6,774 159	
Total non-current liabilities	5,951	9,060	8,257	8,708	11,543	
Total liabilities	10,739	14,209	13,780	14,668		
	10,739	14,209	13,780	14,000	17,673	
Stockholders' equity						
Common stock	4	4	4	4	3	
Additional paid-in capital	10,544	10,873	10,991	11,406	11,676	
Retained earnings	6,452	7,646	9,102	10,390	11,656	
Treasury stock	(2,502)	(4,254)	(5,446)	(6,900)	(8,153	
Accumulated other comprehensive income	(1,956)	(5,182)	(4,824)	(5,146)	(7,001	
Total stockholders' equity	12,542	9,087	9,827	9,754	8,181	
Total liabilities and stockholders' equity	23,281	23,296	23,607	24,422	25,854	

— USD in millions except per share data.	Northrop Grumman Corporation (NOC) Balance Sheet				
	2007	2008	2009	2010	2011
Assets					
Current assets					
Cash and cash equivalents Short-term investments	963	1,504	3,275	3,701	3,002
Total cash	963	1,504	3,275	3,701	3,002
Receivables	3,813	3,904	3,394	4,057	2,964
Inventories	1,045	1,003	1,170	1,185	873
Deferred income taxes	542	549	524	710	496
Other current assets	409	229	272	251	411
Total current assets	6,772	7,189	8,635	9,904	7,746
Non-current assets	•	,	,	,	•
Gross property, plant and equipment	8,155	8,613	9,084	9,764	6,980
Accumulated Depreciation	(3,440)	(3,803)	(4,216)	(4,722)	(3,933
Net property, plant and equipment	4,715	4,810	4,868	5,042	3,047
Goodwill	17,672	947	13,517	13,517	12,374
Intangible assets	1,074	14,518	873	779	155
Deferred income taxes	1,074	14,518	1,010	612	900
Prepaid pension benefit			300	450	153
Other long-term assets	3,140	2,733	1,049	1,117	1,036
Total non-current assets	26,601	23,008	21,617	21,517	17,665
Total assets	33,373	30,197	30,252	31,421	25,411
	,	,	,	,	,
Liabilities Current liabilities					
Short-term debt	137	501	103	784	13
Accounts payable	1,901	1,943	1,921	1,846	1,481
Accounts payable Accrued liabilities	•				
Other current liabilities	1,180	1,284	1,281	1,349	1,196
Total current liabilities	3,214 6,432	3,696 7,424	3,680 6,985	4,407 8,386	3,445 6,135
Non-current liabilities	0,432	7,424	0,983	8,380	0,133
	2.010	2.442	4 101	4.045	2.025
Long-term debt	3,918	3,443	4,191	4,045	3,935
Pensions and other benefits	F 22C	7.410	4,874	4,116	4,079
Other long-term liabilities Total non-current liabilities	5,336 9,254	7,410 10,853	1,515	1,317 9,478	926 8,940
Total liabilities	15,686	18,277	17,565	1 7,864	15,075
	13,000	10,277	17,505	17,004	13,075
Stockholders' equity					
Common stock	338	327	307	291	254
Additional paid-in capital	10,661	9,645	8,657	7,778	3,873
Retained earnings	7,387	5,590	6,737	8,245	9,699
Accumulated other comprehensive income	(699)	(3,642)	(3,014)	(2,757)	(3,490
Total stockholders' equity	17,687	11,920	12,687	13,557	10,336
Total liabilities and stockholders' equity	33,373	30,197	30,252	31,421	25,411

REFERENCES

- ¹ Hodge, Nathan and Julian E. Barnes. "U.S. News: Fight is just beginning over cuts in defense." *Wall Street Journal* (Nov 22 2011), p. A.6.
- ² Alacra, Inc. *Lockheed Martin Corporation Mergers & Acquisitions*. http://www.alacrastore.com/mergers-acquisitions/Lockheed_Martin_Corporation-810 (accessed April 9, 2012).
- ³ Wayne, Leslie. "Lockheed Cancels Northrup Merger, Citing U.S. Stand." *The New York Times* (July 17, 1998), p. 1.
- ⁴ Danova, Antonio. *IBISWorld Industry Report 33641b: Space Vehicle & Missile Manufacturing in the US.* (February 2012), p. 27
- ⁵ Lockheed Martin Corporation. 2011 Annual Report. March 2012, p. 7
- ⁶ Dihora, Neal. Morningstar Report: Lockheed Martin Corporation Stock Analysis (January 27, 2012), p. 1.
- 7 Ibid.
- ⁸ Lockheed Martin. "Who-We-Are", Company History, http://www.lockheedmartin.com/us/who-we-are/history.html (accessed March 31, 2012).
- ⁹ Tortoriello, Richard. *Standard & Poor's Industry Surveys: Aerospace & Defense* (February 9, 2012), p. 2. ¹⁰ Ibid.
- ¹¹ Marketline, "Lockheed Martin Corporation," (August 19, 2011), p. 7.
- ¹² Tortoriello, R., "Lockheed Martin Stock Report," (February, 2012), Standard & Poors, p. 2.
- ¹³ Lockheed Martin Corporation. *2011 Annual Report.* March 2012.
- ¹⁴ *Ibid*, page 5.
- ¹⁵ Marketline, "Lockheed Martin Corporation," (August 19, 2011), p. 4.
- ¹⁶ Lockheed Martin, *2010 10k*, p. 7.
- 17 Ibid.
- 18 Ibid.
- ¹⁹ Ibid, p. 7-8
- ²⁰ Marketline, "Lockheed Martin Corporation," (August 19, 2011), p. 6.
- ²¹ Ibid, p. 5
- ²² Ibid.
- ²³ Lockheed Martin Corporation, "Who We Are," http://www.lockheedmartin.com/us/who-we-are.html (accessed June 25, 2012).
- ²⁴ Lockheed Martin Corporation. 2011 Annual Report (March, 2012), p. 8.
- ²⁵ Dihora, Neal. Morningstar Report: Lockheed Martin Corporation Stock Analysis (January 27, 2012), p. 2.
- ²⁶ Lockheed Martin Corporation. 2011 Annual Report (March, 2012), p. 16.
- ²⁷ Ibid.
- ²⁸ Hoover's Company Records. "Lockheed Martin Corporation." *Hoover's Online.* (April 1, 2012). http://search.proquest.com/docview/925638650?accountid=14731 (accessed April 4, 2012)
- ²⁹ Datamonitor, "Aerospace & defense in the United States," (November, 2011), p. 7.
- ³⁰ Ibid, p. 1.
- 31 Ibid.
- ³² Tortoriello, R. "Industry Surveys: Aerospace and Defense," (February, 2012), Standard & Poor's, p. 15.
- 33 See Competitor Financials in Exhibit 3
- ³⁴ IBISWorld, *Global Military Aircraft and Aerospace Manufacturing*, p. 17.
- 35 Lockheed Martin Corporation. 2011 Annual Report (March, 2012), p. 7
- ³⁶ MarketLine, *Northrop Grumman*, (August, 2011), p. 7.
- ³⁷ MarketLine, *Boeing Corporation*, p. 8.
- ³⁸ Boeing. *2011 Boeing Annual Report*, p. 19.
- ³⁹ "History," Raytheon Website, http://www.raytheon.com/ourcompany/history/early/index.html (Accessed on April 11, 2012).
- ⁴⁰ Raytheon, 2010 Raytheon Annual Report, pp. 1-7.
- ⁴¹ Danova, Antonio. *IBISWorld Industry Report 33641b: Space Vehicle & Missile Manufacturing in the US.* (February 2012), p. 23.
- ⁴² Standard & Poor's. *Lockheed Martin Corp.* (February 25, 2012), p. 1
- ⁴³ Lockheed Martin Corporation website, http://www.lockheedmartin.com (accessed March 29, 2012).
- 44 Lockheed Martin Corporation. 2011 Annual Report (March 2012)
- $^{\rm 45}$ Lockheed Martin Corporation, "Sustainability", http://www.lockheedmartin.com/us/who-we-are/sustainability.html (accessed March 30, 2012).

⁴⁶ Ibid.

⁴⁷ Ibid.

⁴⁸ Dihora, Neal. *Morningstar Report: Lockheed Martin Corporation Stock Analysis.* (January 27, 2012), p. 2

⁴⁹ Lockheed Martin Corporation. 2011 Annual Report. (March 2012), p. 8.

⁵⁰ Hoover's Company Records. "Lockheed Martin Corporation." *Hoover's Online.* April 1, 2012. http://search.proquest.com/docview/925638650?accountid=14731 (accessed April 4, 2012).

⁵¹ Dihora, Neal. Morningstar Report: Lockheed Martin Corporation Stock Analysis. January 27, 2012, 2

⁵² Ibid.