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Zhodnocení finanční situace společnosti Lockheed Martin Space Systems
Financial Situation Assessment of the Lockheed Martin Space Systems Company

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Declaration of Utilisation of Results from the Bachelor Thesis
List of Annexes
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The declaration

“Herewith I declare that I elaborated the entire thesis, including all annexes independently.”

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1.Introduction

The financial situation analysis is playing an very important role in financial market it can be used everywhere. The financial analysis is usually considered as an assessment of the viability, stability and profitability. The analysis of financial situation of a company can help the investor to determine their investment and help the operator to make right decision.

This thesis will focus on the financial situation assessment of the Lockheed Martin Space System Company and use the data from the annual report of the company to calculate and to analysis.

In general, we divide this these into six chapter.

The first chapter is the introduction of main goal of this thesis.

The chapter two will give a statement of the financial analysis methods of the Lockheed Martin Space System Company which used in this thesis. This chapter will list the methods and the formula and give briefly explanation about how to use this formula and what the meaning of its result.

The chapter three will introduce the history and present financial situation of the Lockheed Martin Space System Company and the condition of the company for example the main product of the company, which industry the company belongs to, the status of the Lockheed Martin Space System Company in this industry, etc.

In the chapter four we will use the financial analysis method to analyze the financial condition of the Lockheed Martin Space System Company in detail.

The chapter five, we get the result of the chapter four and then we use the result to get the prospects of the Lockheed Martin Space System Company in the next chapter.

The chapter six we get the conclusion of the financial situation of the Lockheed Martin Space System Company, this conclusion will help the investor determine whether they invest their money on this company's stock or bonds, also help the leadership of the

company find the problem of the company and to improve it. In this chapter, we will use the vertical common size analysis and the horizontal common size analysis to analysis the balance sheet, the income statement and the cash flow of the Lockheed Martin Space System Company from 2009 to 2014.

2. The statement of financial analysis methodology

This chapter will introduce the financial analysis methods which will be used in the chapter four. In this thesis we will use five different methods to analysis the financial situation of the Lockheed Martin Space System Company by analysis the balance sheet, the income statement and the cash flow. The references are: Grent (2005), Sagner (2011), Brealey (2013), Fridson (2011), Ross (2012), Brigham (2007), Copeland (2000), Jorion (2001).

2.1 The common-size analysis

The common-size analysis is a kind of method used to analyze financial statement data and the changes of the data at a given particular period. This method is usually distributed into two parts, the horizontal common-size analysis and vertical common-size analysis.

Horizontal analysis, is reflected in Company reports of financial condition also known as the financial statements information compare with the previous history or financial situation of a given period, research on enterprise operating results changes or financial condition development of the situation. The basic elements of the horizontal analysis is compare the same data item in different periods resource reports. The next is the vertical analysis. The vertical analysis is an analytical method that can be used for analysis of financial information. In a financial statement compare the single data in a table with the overall purpose, to get the location of this item in overall propose and the importance of this item. Through the vertical analysis we can find if there is any development of enterprises and the extent and the speed of development progress. There are three steps of the vertical common size analysis. The first step is to calculate the proportion of each item in the table, the second step is to determine the importance and the position of this item by the proportion of this item. The next step is to compare the ratios with the base period or the previous year's data and observe the growth trend of it. Therefor the vertical analysis must be combine with the horizontal analysis to get a full play to the positive role of financial analysis.

2.2 The profitability ratios analysis

The financial ratios analysis is the use of financial accounting and other information to assess a company's financial performance and financial condition. Specifically, financial ratios analysis use comparisons of financial data in the form of ratios to assess a company's financial health and profitability.

In this thesis we will use four kinds of ratios to analysis the financial statement of the Lockheed Martin Space System Company. The first kind of ratios are the profitability ratios measure the ability to generate profit from invested capital in the form of return during a period. Usually the higher the profitability ratios, the better competitive position of the company. The formulas below are the basic formulas of profitability ratios.

$$\text{Operating Profit Margin} = \frac{EBIT}{\text{Revenue}} \quad (2.1)$$

$$\text{Net Profit Margin} = \frac{EAT}{\text{Revenue}} \quad (2.2)$$

$$ROA = \frac{\text{Net income}}{\text{Total assets}} \quad (2.3)$$

$$ROE = \frac{\text{Net income}}{\text{Equity}} \quad (2.4)$$

Operating margin refers to the ratio of the operating profit and operating income. It is a measure of business efficiency indicators, reflecting the ability to obtain profits through business enterprise managers without considering the non-operating costs. The higher operating margin which indicating more operating profit enterprises merchandise sales offer, profitability is stronger; on the contrary, the lower this ratio the weaker corporate profitability of this company. Usually the sales volume, the average selling price per unit of product, the unit manufacturing costs, the cost control and management capability and the ability to control marketing costs will effect the operating profit margin.

Net profit margin is the net profit as a percentage of sales revenue. This index reflects every dollar of revenue brought about by how much net profit which represents earnings level of sales. The net profit margin is proportional to net profit and inverse relationship to sales. Company increase sales in the amount of revenue should be accompanied by a corresponding gain more profit, in order to make sales margin remained unchanged or improved. By analyzing the sales margin changes in the lift the enterprise should expand sales and pay attention to improve management, improve profitability in the same time. Generally speaking, the higher the profit margin can indicate corporate sales profitability is stronger. If a company is able to maintain a good net profit margin, its financial position is good, but it does not tell the the bigger absolute sales margin is better, we must also look at changes in the company's sales and net profit growth situation.

Return on assets is an index which measure of how much profit per unit of assets to create. The return on assets is one of the most widely used index which measure of profitability. The higher the index, the better the effect of the use of corporate assets, which indicate that enterprises have achieved good results in increased income and savings funds, otherwise the opposite.

Return on equity is the ratio of net profit after tax for the amount of the equity investment. This index is used to evaluate a company's ability of earn profit. However, the company's high return on equity does not mean a strong profitability. Since some industries do not require much assets investment, it usually has a higher return on equity, such as intermediary agency. But some industries need to invest a lot of basic construction in order to produce profit, such as defense constructor like the Lockheed Martin Space System Company. So it can not use return on equity alone to determine the company's profitability. In general, capital-intensive industries have high barriers to entry, and have less competitors, on the contrary the industries with high return on equity but low assets are easier to enter, but facing greater competition. So return on equity should be used to compare the same industry.

2.3 The liquidity ratios

In this thesis the liquidity ratios will be used to analyze the Lockheed Martin Space System company's liquid assets which in the form of cash or can be quickly converted in cash and short-term liabilities and obligations. The company needs appropriate liquidity to maintain the operation of company, not lack of currency to bankrupt and not hold too much currency to jeopardize the operation. The formulas below are the basic ratios of liquidity ratios.

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}} \quad (2.5)$$

$$\text{Quick ratio} = \frac{\text{Current assets} - \text{inventory}}{\text{Current liabilities}} \quad (2.6)$$

$$\text{Cash ratio} = \frac{\text{Cash} + \text{short-term marketable securities}}{\text{Current liabilities}} \quad (2.7)$$

The current ratio means the ratio of current assets to current liabilities. Current ratio and quick ratio are indicators that reflect short-term solvency. In general, the higher the current ratio and quick ratio shows high liquidity of corporate assets, the short-term liquidity is also stronger; otherwise means the liquidity is weak. But if the two ratios are too high it is not good. If the current ratio is too high, it means current assets relative to current liabilities is too much, it may be because of inventory backlog or the company holds too much cash, or both. The quick ratio is too high, means too much current assets relative to current liabilities which indicates the company holds too much cash. Enterprise inventory backlog, indicating poor business, there may be some problems of inventory; cash holdings too much, indicating poor corporate financial management, low efficiency of fund utilization.

The cash ratio means the ratio of cash to current liabilities, reflecting immediate liquidity. This ratio may display the ability of companies to repay the debt mature immediately. Cash ratio is generally believed that should be more than 20%, but if this ratio is too high, it means that the enterprise has not been rational use of current liabilities and the cash assets have a low profitability.

2.4 Solvency ratios

The Solvency ratios used in this thesis used to measure the Lockheed Martin Space System company's ability to meet its long-term obligations. It reflects whether a company has enough cash flow to pay its liability. Size of the solvency ratios reflects the level of risk in operation of company. Such ratios are mainly debt ratio, debt-to-equity ratio and interest coverage and etc. The formulas below are the main basic ratios of solvency ratios.

$$\text{Debt ratio} = \frac{\text{Total debt (liabilities)}}{\text{Total assets}} \quad (2.8)$$

$$\text{Debt - to - equity ratio} = \frac{\text{Total debt}}{\text{Equity}} \quad (2.9)$$

$$\text{Interest coverage} = \frac{\text{Earning before interest and taxes}}{\text{Interest payments}} \quad (2.10)$$

Debt rate is the ratio of liabilities and assets of the enterprise, reflects the business capital and debt proportion. The lower the rate of contingent liabilities operating, the larger the enterprise invested capital is, thus the stability of the financial situation is better so the stronger of the company's long-term solvency. On the contrary, the higher the proportion of long-term debt, the corporate has greater the pressure on repayment. In the case of the enterprise funds rate of return lower than the interest rate of long-term debt, the ability that company to repay interest and principle is less. But in the case that enterprise funds rate higher than interest rates of long-term debt, it will enhance the long-term solvency of enterprises. Thus, it is necessary to according to the specific circumstances of business and by the aid of contingent liability operating indicators to determine the rate size of long-term solvency of the enterprise. In some companies with high debt ratios, if the economic efficiency of enterprises is relatively good, the debt management business is risky, but did not lose solvency, in normal operation it will increase the solvency of enterprises.

2.5 The activity ratios

The activities ratios reflect the turnover rate and the efficiency of asset utilization, which can be used to evaluate a company's operating efficiency of its assets. The main basic ratios of activity ratios are average collection period, accounts receivable turnover and total assets turnover. The formula of these ratios are shown below.

$$\text{Average Collection Period} = \frac{\text{Account Receivable}}{\text{Revenue}} * 360 \quad (2.11)$$

$$\text{Receivable turnover} = \frac{\text{Revenue}}{\text{Average receivables}} \quad (2.12)$$

$$\text{Total assets turnover} = \frac{\text{Revenue}}{\text{Average total assets}} \quad (2.13)$$

Average collection period is reflected in current assets receivables return rate, it is a supplementary indicators receivables turnover. The average receivables collection period is shorter, indicating stronger liquidity of the receivables. If the actual payback period exceeds a predetermined enterprise repayment period, showing that the funds operational efficiency is not high.

Accounts receivable turnover ratio is the average number of times in a given period (usually a year) accounts receivable converted to cash. Also known as accounts receivable ratio is a measure of the degree of flow indicators enterprise accounts receivable, it is the business credit and accounts receivable average balance of the net in a given period of ratio. In general, the higher the accounts receivable turnover, the shorter the average collection period, indicating recovery of accounts receivable is faster. Otherwise, the company's working capital will be too sluggish in accounts receivable, affecting the normal capital turnover.

2.6 The Du Pont analysis

By using the DuPont analysis, we need to decompose the return on equity:

$$ROE = \frac{Net\ income}{Revenue} * \frac{Revenue}{Total\ assets} * \frac{Total\ assets}{Equity} \quad (2.14)$$

Which can be computer like this:

$$ROE = Net\ profit\ margin * Asset\ turnover * Leverage \quad (2.15)$$

We can still continue to decompose the net profit margin to more details, the return on equity can be computed as:

$$ROE = \frac{Net\ income}{EBT} * \frac{EBT}{EBIT} * \frac{EBIT}{Revenue} * \frac{Revenue}{Total\ assets} * \frac{Total\ assets}{Equity} \quad (2.16)$$

Where $\frac{Net\ income}{EBT}$ is the tax burden, $\frac{EBT}{EBIT}$ is the interest burden, $\frac{EBIT}{Rev}$ is the operating profit margin, $\frac{Rev}{A}$ is the assets turnover and $\frac{A}{E}$ is the financial leverage.

There are some methods to analyze the influence on each item of return on equity, now we describe four methods here.

1. The gradual changes method

It is a method enables to quantify the changes in the basic ratio caused by the changes in the component ratio. In the case of decomposition with 3 component ratios:

$$\Delta X_{a1} = \Delta a_1 * a_{2,0} * a_{3,0} \quad (2.17)$$

$$\Delta X_{a2} = a_{1,1} * \Delta a_2 * a_{3,0} \quad (2.18)$$

$$\Delta X_{a3} = a_{1,1} * a_{2,1} * \Delta a_3 \quad (2.19)$$

X means the basic ratio and ΔX is the absolute change in the basic ratio. a presents the component ratio and Δa is the absolute change in the component ratio. This method is used to analyze the influence of each item in return on equity.

2.The logarithmic method

In this method we need just one formula for the impact quantification regardless of how many component ratios we have, it is also a advantage of this function. The formula is:

$$\Delta X_{ai} = \frac{\ln I_{ai}}{\ln I_x} * \Delta x \quad (2.20)$$

where X means basic ratio and ΔX is absolute change in the basic ratio. I_x presents the index of change in basic ratio and I_{ai} is the index of change in component ratio.

3.The functional decomposition method

The functional decomposition method works with the relative changes in basic and component ratios. The functions are:

$$\Delta X_{a1} = \frac{1}{R_x} * R_{a1} * (1 + \frac{1}{2} * R_{a2} + \frac{1}{2} * R_{a3} + \frac{1}{3} * R_{a2} * R_{a3}) * \Delta X \quad (2.21)$$

$$\Delta X_{a2} = \frac{1}{R_x} * R_{a2} * (1 + \frac{1}{2} * R_{a1} + \frac{1}{2} * R_{a3} + \frac{1}{3} * R_{a1} * R_{a3}) * \Delta X \quad (2.22)$$

$$\Delta X_{a3} = \frac{1}{R_x} * R_{a3} * (1 + \frac{1}{2} * R_{a1} + \frac{1}{2} * R_{a2} + \frac{1}{3} * R_{a1} * R_{a2}) * \Delta X \quad (2.23)$$

4.The integral method

The integral method helps to analysis functional decomposition in basic and component ratios. The function is:

$$\Delta X_{a_j} = \frac{R_{a_j}}{R_x} * \Delta Y_x \quad (2.24)$$

2.7 The sensitivity analysis

The sensitivity analysis is a financial analysis method which used to determine the different value of an item's change will impact other items under a given set of assumptions and identify important investment projects' economics indicators' sensitivity factors from many uncertain factor. Then analysis, estimates of its impact on the project and the degree

of sensitivity of indicators, and determine the ability of the project to bear a risk and uncertainty.

The sensitivities analysis helps to determine which risks have the greatest potential impact on the project. It keeps all the other uncertainties at the reference value, each element of uncertainty to inspect the project to have how much impact on the target level.

The goals of the sensitivity analysis are: identify the impact of changes in the economic benefits of the project sensitivity factor, analysis the reasons for the changes in sensitivity factor and provide the basis for further uncertainty analysis; analysis the change of the uncertainties such as the changes in the scope or limit the value of the economic benefits of the project to determine the project's ability to bear risk; compare the size of sensitivity of different projects so that to choose insensitive investment program from economic value in similar circumstances.

3. The history and present financial situation of the Lockheed Martin Space System Company

In this chapter we will introduce the Lockheed Martin Space System Company and its financial situation.

3.1 The introduction of the Lockheed Martin Space System Company

Lockheed Martin (NYSE: LMT) is an American global aerospace, defense, security and advanced technologies company with worldwide interests. It was formed by the merger of Lockheed Corporation with Martin Marietta in March 1995. It is headquartered in Bethesda, Maryland, in the Washington, DC, area. Lockheed Martin employs approximately 126,000 people worldwide. The company is now leading by Marillyn A. Hewson the current president and chief executive officer.

Lockheed Martin is one of the largest companies in the aerospace, defense, security, and technologies industry; it is the world's largest defense contractor based on revenue for fiscal year 2014. In 2013, 78% of Lockheed Martin's revenues came from military sales; it topped the list of US federal government contractors and received nearly 10% of the funds paid out by the Pentagon. In 2009 US government contracts accounted for \$ 38.4 billion (85%), foreign government contracts \$ 5.8 billion (13%), and commercial and other contracts for \$ 900 million (2%).

Lockheed Martin operates in five business segments: Aeronautics, Information Systems & Global Solutions, Missiles and Fire Control, Mission Systems and Training, and Space Systems. The company received the Collier Trophy six times, including in 2001 for being part of developing the X-35 / F-35B Lift Fan Propulsion System, and most recently in 2006 for leading the team that developed the F-22 Raptor fighter jet. Lockheed Martin is currently developing the F-35 Lightning II and leads the international supply chain, leads the team for the development and implementation of technology solutions for the new USAF Space Fence (AFSSS replacement), and is the primary contractor for the development of the Orion Spacecraft command module. The company also invests in

healthcare systems, renewable energy systems, intelligent energy distribution and compact nuclear fusion. (information from the website of the Lockheed Martin Space System Company)

3.2 The financial situation of the Lockheed Martin Space System Company

The Lockheed Martin Space System Company is the world largest defense contractors and one of the largest high technology company, the financial situation of this company keep growing these years even suffered the financial crisis.

In 2015, the aeronautics department of the Lockheed Martin Space System Company has approximately \$ 15.5 billion in sales, the sales are including the aircraft used both for the military and the civil use and aeronautical research and development lines of business. The information systems & global solutions department (IS&GS), with about \$ 5.6 billion in 2015 sales that includes C4I, federal services, government and commercial IT solutions. Missiles and fire control department, with approximately \$6.8 billion in 2015 sales that includes the Terminal High Altitude Area Defense System and PAC-3 missiles as some of its high-profile programs. Mission Systems and Training with approximately \$9.1 billion in 2015 sales, which includes Sikorsky military and commercial helicopters, naval systems, platform integration, simulation and training and energy programs lines of business. Space Systems, with approximately \$9.1 billion in 2015 sales which includes space launch, commercial satellites, government satellites and strategic missiles lines of business.

From these sales information of each department of the Lockheed Martin Space System Company, we can find the aeronautics department and the space system department occupy the high proportion of the total sale. Also with high speed development of technology of the world, the Lockheed Martin Space System Company also focus on the data sharing system and the centralized control system for both military and civil use like the C4I system and the commercial IT innovation. This we can indicated from the \$ 5.6 billion sales of the information systems & global solutions department in 2015. Meanwhile as the biggest defense contractor, we can find the terminal high altitude area defense system and the PAC

missiles are some of the company's high profile programs with about \$ 6.8 billion sales in 2015. Also as the largest high technology defense contractor the Lockheed Martin Space System Company was responsible for the develop and manufacture of the newest aircraft F-22, F-35 for the United State Air Force.

In all the financial situation of the Lockheed Martin Space System Company is keep Growth in recent years especially after the 11th Sep 2001, the whole world is in the war on terror. Its got a huge development because the allies lead by the United State start a war against the terrorism for example the war in Afghanistan and the second Gulf War.

4. Financial Analysis of the Lockheed Martin Space Systems Company

This chapter use five methods to analysis the financial situations of the Lockheed Martin Space Systems Company. These methods are common-size analysis, financial ratio analysis, pyramidal decompositions, influence quantification and sensitivity analysis. All of these methods of analysis are shown in chapter 2.

4.1 Common-size analysis

It is a kind of method used to analyze financial statement data and the changes of the data at a given particular period. This method is usually distributed into two parts, the horizontal common-size analysis and vertical common-size analysis.

The horizontal common-size analysis is used to analyze the variation of financial statement data according to the change of time or the date changes with respect to a given period as a benchmark data. This method will help to predict the company's future development and the industry economic situation by compare the fluctuation of each item in a particular period.

The vertical common-size analysis refers to analysis of the changes in the proportions of selected benchmarks. The vertical common-size analysis will indicate the company's finance proportion on each item. It can show the health conditions like the company's profitability and debt-paying ability to the investors to help them decide whether it could be profitable to invest in this company.

4.1.1 Common-size analysis of balance sheet

To analyze the balance sheet by using common-size analysis method we need to analyze the variation trend of current assets, non-current assets, current liabilities, non-current liabilities and stockholders' equity by horizontal common-size analysis at the same time we use the proportion of current assets, non-current assets, current liabilities, non-current liabilities and stockholders' equity to analyze the structure of each part by vertical

common-size analysis. The particular period of Lockheed Martin Space Systems Company to analysis is from 2009-2014.

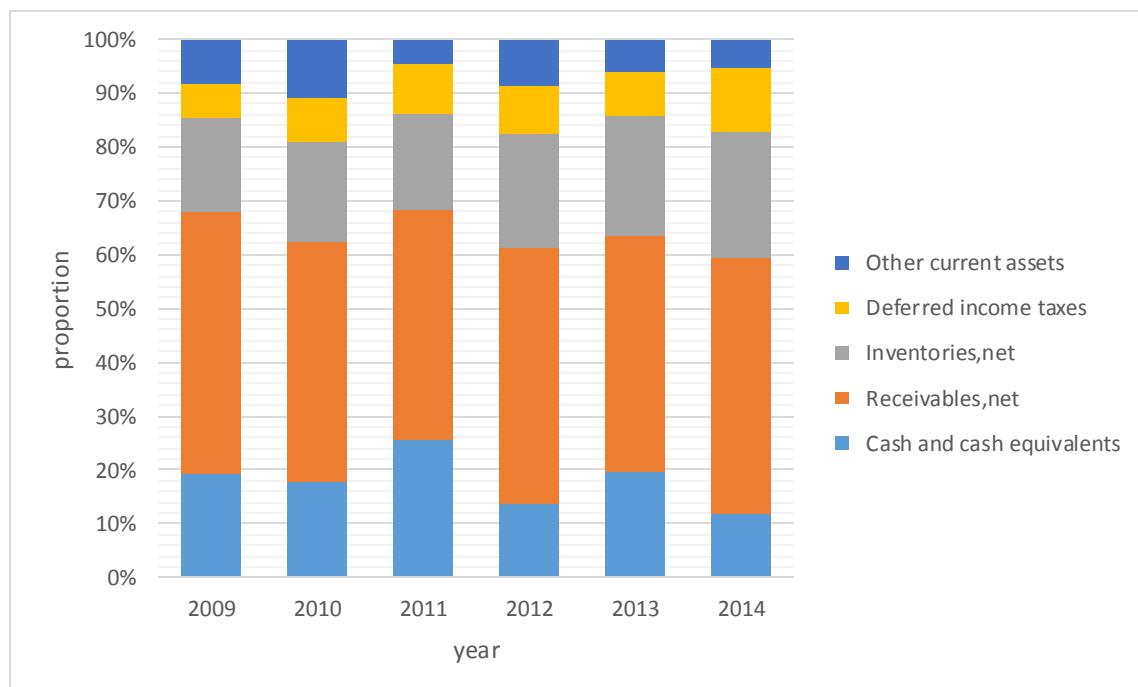
4.1.1.1 Vertical common-size analysis

From the graph below.

Tab 4.1.1 The proportion of current assets from 2009 to 2014 (%)

Current Assets	2009	2010	2011	2012	2013	2014
Cash and cash equivalents	19.16	17.59	25.42	13.70	19.63	11.73
Receivables, net	48.58	44.80	43.03	47.37	43.77	47.72
Inventories, net	17.50	18.50	17.60	21.20	22.33	23.38
Deferred income taxes	6.53	8.08	9.50	9.16	8.16	11.77
Other current assets	8.23	11.03	4.46	8.57	6.10	5.40

Chart 4.1.1 The proportion of current assets from 2009 to 2014

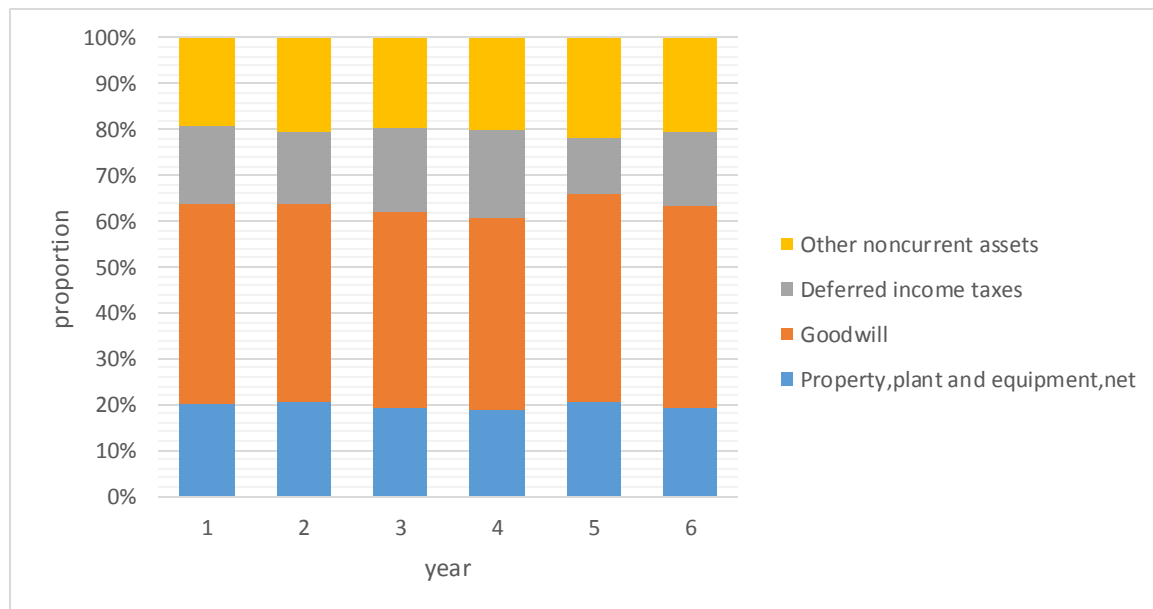


From the analyze (show in Tap 4.1.1 and Chat 4.1.1) we can find the net receivable take up nearly one half of current assets. It occupies a very high percentage of all current assets. This condition is due to the Lockheed Martin Space Systems Company's most order forms are from US government and military, the defense budget is fixed in each year. Many equipment purchasing can not be paid until the next fiscal year. Also the cash and cash equivalents with the addition of net inventories occupy about another 40% of current asset in proportion.

Tab 4.1.2 The proportion of non-current assets from 2009 to 2014 (%)

Non current assets	2009	2010	2011	2012	2013	2014
Property, plant and equipment, net	19.97	20.50	19.36	18.85	20.59	19.22
Goodwill	43.95	43.23	42.61	41.81	45.27	43.90
Deferred income taxes	16.70	15.67	18.43	19.39	12.47	16.22
Other noncurrent assets	19.38	20.59	19.60	19.95	21.68	20.67

Chart 4.1.2 The proportion of non-current assets from 2009 to 2014

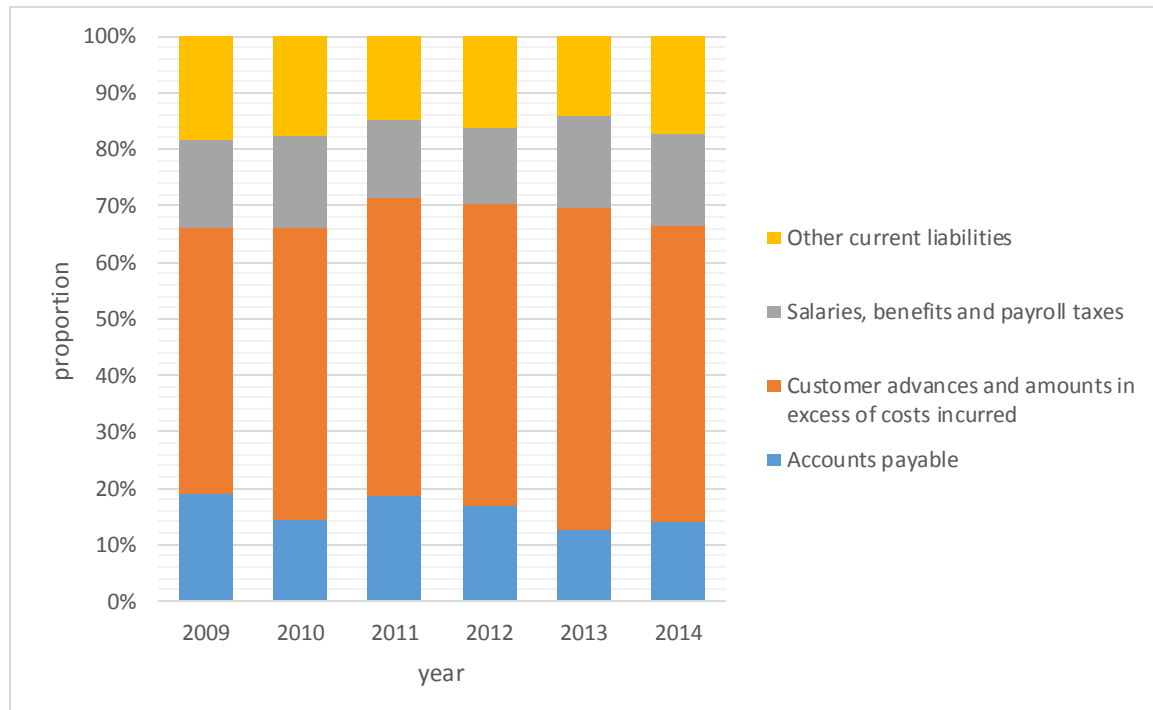


According to the Tap 4.1.2 and Chart 4.1.2 it is not difficult to find the whole proportion of Property, plant and equipment, Deferred taxes and other noncurrent assets is only about 58% in average. However, the Goodwill itself takes about 42% of non-current assets in average. So the goodwill takes a very high proportion of non-current assets. Usually the high proportion of goodwill in high-tech industrial enterprises however the Lockheed Martin Space Systems Company can be seen it grasps the core of science and technology so it is not strange this company has a high goodwill.

Tab 4.1.3 The proportion of current liabilities from 2009 to 2014 (%)

Current liabilities	2009	2010	2011	2012	2013	2014
Accounts payable	18.97	14.27	18.71	16.77	12.56	14.13
Customer advances and amounts in excess of costs incurred	47.17	51.66	52.75	53.50	57.10	52.11
Salaries, benefits and payroll taxes	15.40	16.40	13.72	13.57	16.27	16.43
Other current liabilities	18.46	17.67	14.82	16.17	14.07	17.33

Chart 4.1.3 The proportion of current liabilities from 2009 to 2014

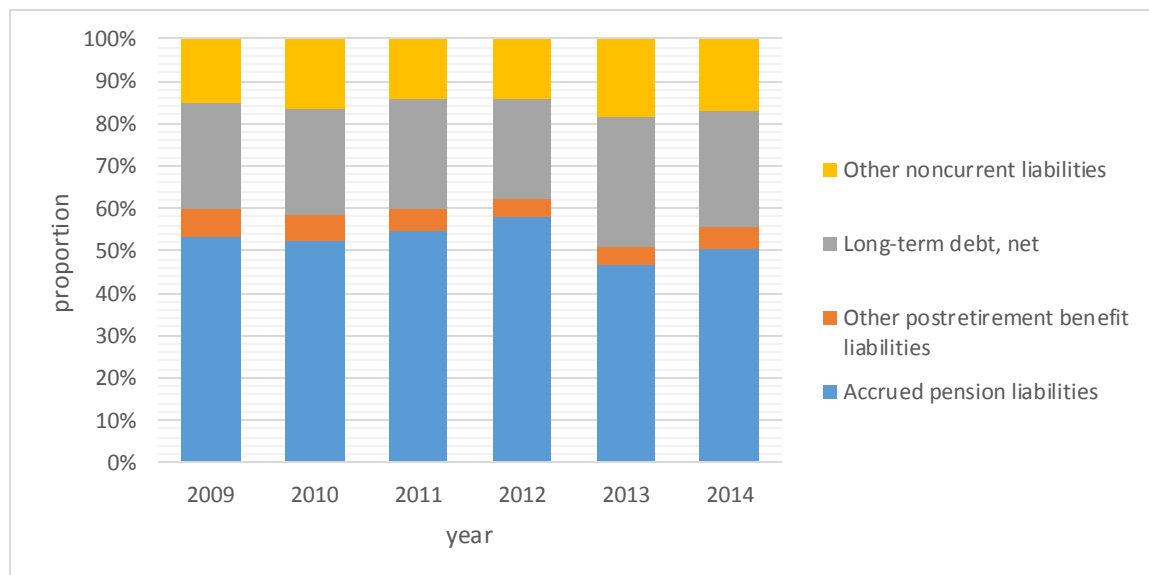


From the Tap 4.1.3 and Chat 4.1.3, we can find the the Customer advances and amounts in excess of costs incurred takes up approximately 51% of all current liabilities in proportion each year. The Accounts payable and the Salaries, benefits and payroll taxes only take up about 31% of current liabilities in total. The Customer advances and amounts in excess of costs incurred takes up such a high proportion of current liabilities is probably because of the sales on credit of company's products (We inform in previous page: the costumes sometimes need to pay until the next fiscal year.) also the company need to finish the research and development mission from the DOD (Department of Defense) and itself, so the the high proportion of this item is very common.

Tab 4.1.4 The proportion of non-current liabilities from 2009 to 2014 (%)

Non-current liabilities	2009	2010	2011	2012	2013	2014
Accrued pension liabilities	53.37	52.47	54.49	57.73	46.46	50.59
Other post-retirement benefit liabilities	6.45	6.00	5.14	4.61	4.48	4.88
Long-term debt, net	24.91	24.83	26.07	23.27	30.53	27.34
Other noncurrent liabilities	15.27	16.70	14.29	14.39	18.54	17.18

Chart 4.1.4 The proportion of non-current liabilities from 2009 to 2014.

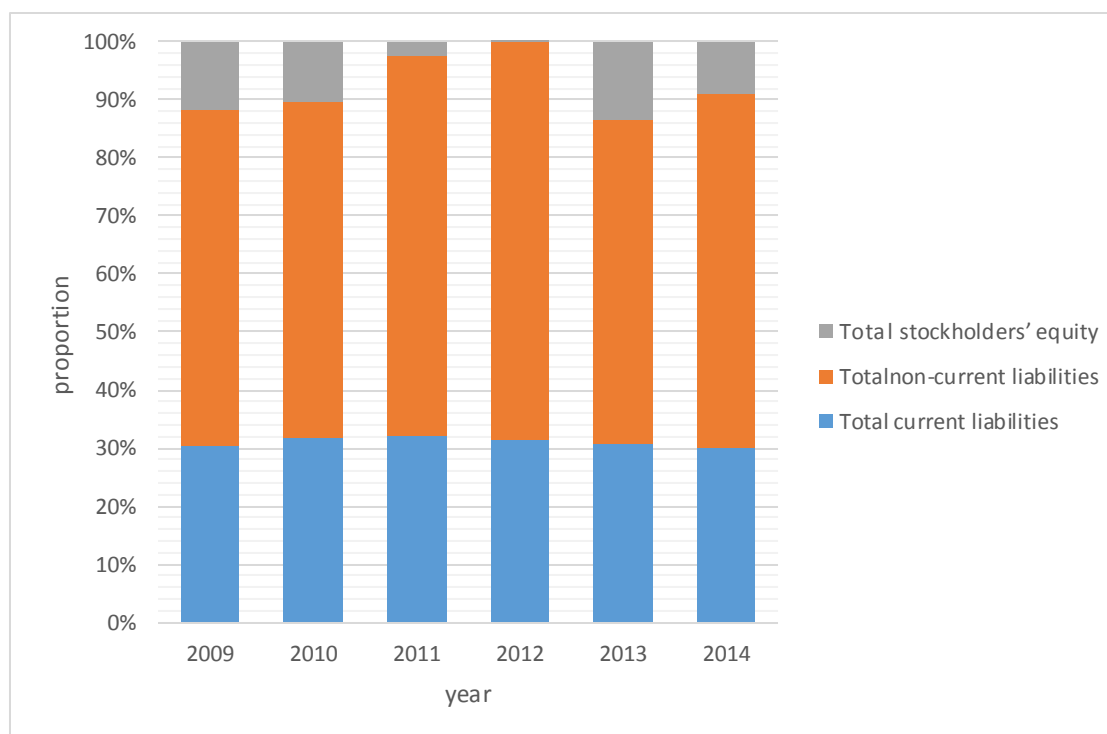


The Tap 4.1.4 and Chat 4.1.4 report the situation of the non-current abilities of the company. They show the retirement benefit hold a very large proportion, the Accrued pension liabilities and the Other post-retirement benefit liabilities take almost 60% of the whole non-current liabilities. But it is not strange that the biggest defense contractor of the world with more than one hundred years' history have a large quantity of retirement benefit.

Tab 4.1.5 The proportion of Liabilities and Stockholders' equity from 2009 to 2014 (%)

	2009	2010	2011	2012	2013	2014
Total current liabilities	30.48	31.82	32.00	31.44	30.73	29.97
Total non-current liabilities	57.76	57.61	65.36	68.46	55.68	60.86
Total stockholders' equity	11.76	10.57	2.64	0.10	13.59	9.17

Chart 4.1.5 The proportion of Liabilities and Stockholders' equity from 2009 to 2014



Report from Tab 4.1.5 and Chart 4.1.5, over 2009 to 2014, the proportion of current liabilities and non-current liabilities was changing steady in section 88%-91%, expect 2012 (due to the annual re-measurement of the funded status of our postretirement benefit plans)

so the data is regular in that time's financial environment and company nature. Also because of the total non-current liabilities is much more than the total current liabilities, nearly twice as much as, so the company has low pressure on repayment and have more money on production and operation.

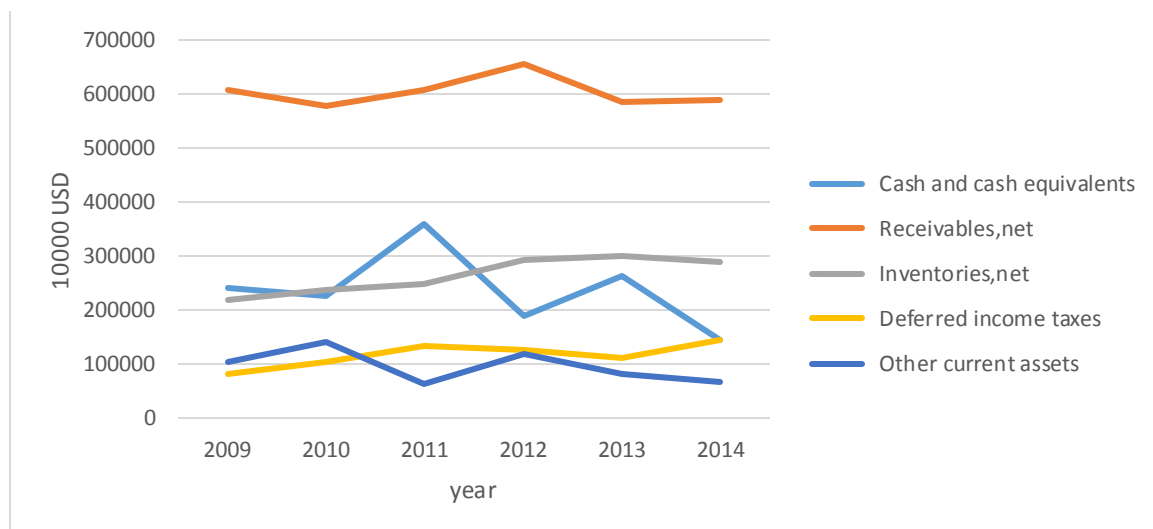
4.1.1.2 Horizontal common-size analysis

From the graph below.

Tab 4.1.6 The Current Assets from 2009 to 2014 (In \$ 10000)

Current Assets	2009	2010	2011	2012	2013	2014
Cash and cash equivalents	239100	226100	358200	189800	261700	144600
Receivables, net	606100	575700	606400	656300	583400	588400
Inventories, net	218300	237800	293700	293700	297700	288200
Deferred income taxes	81500	103800	133900	126900	108800	145100
Other current assets	102700	141700	62800	118800	81300	66600
Total current assets	1247700	1285100	1409400	1385500	1332900	1232900

Chart 4.1.6 The Current Assets from 2009 to 2014. (In \$ 10000)

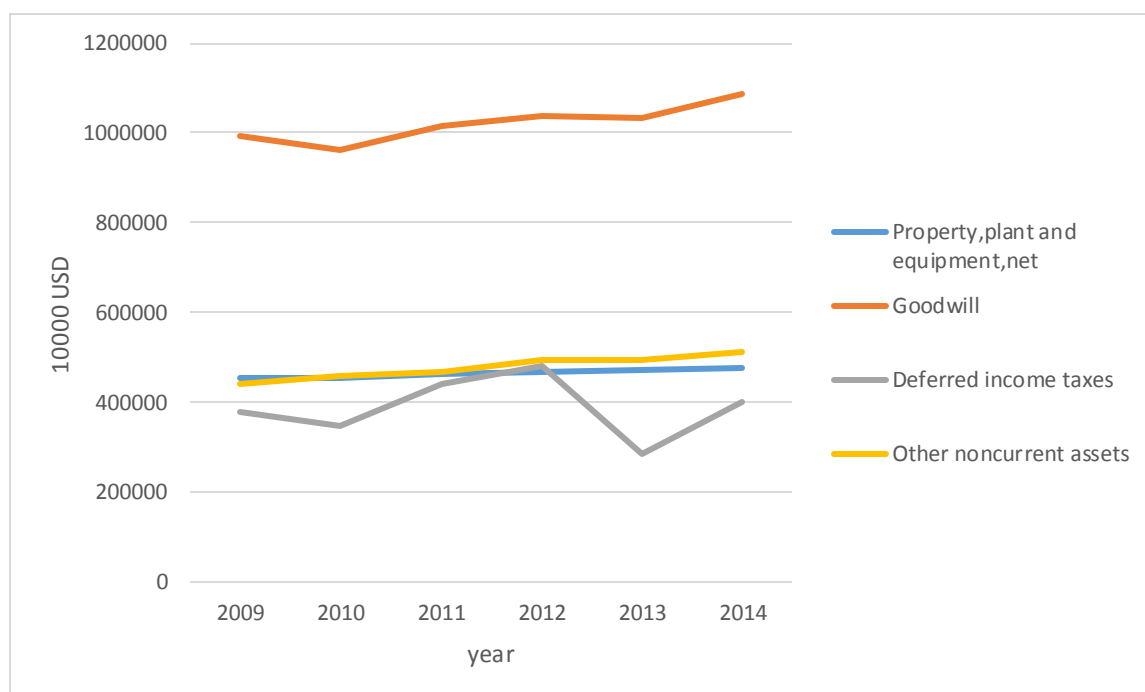


The data of current assets is shown in Tap 4.1.6 and Chart 4.1.6. These two graphs report that cash and cash equivalents fluctuate a lot from 2009-2010, especially between 2011 and 2012 the amount rapidly decrease to \$ 1,898 million from \$ 3,582 million also between 2013 and 2014 the amount from \$2,617 million to \$1,446 million. The other items are keep steady increase and decrease during these six years.

Tab 4.1.7 The Non-Current Assets from 2009 to 2014 (In \$ 10000)

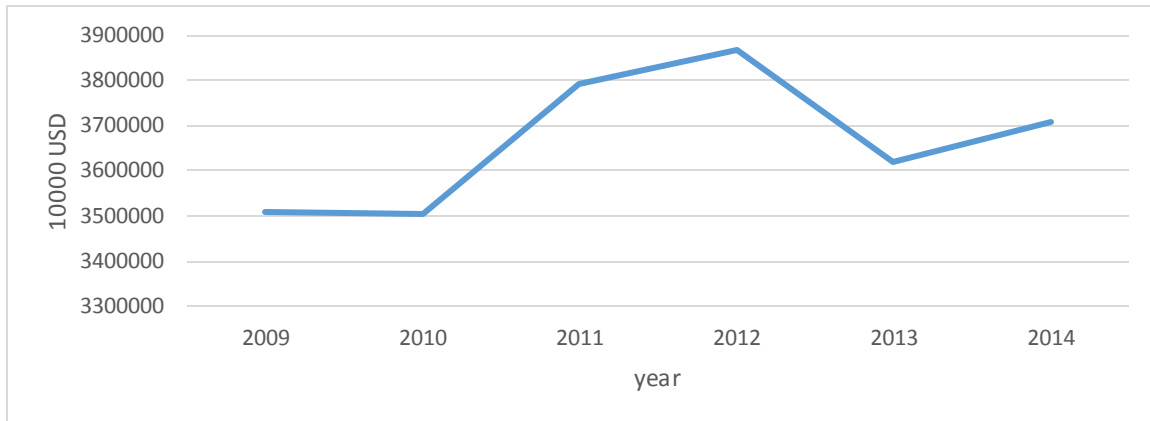
Non current assets	2009	2010	2011	2012	2013	2014
Property, plant and equipment, net	452000	455400	461100	467500	470600	475500
Goodwill	994800	960500	1014800	1037000	1034800	1086200
Deferred income taxes	377900	348200	438800	480900	285000	401300
Other noncurrent assets	438700	457500	466700	494800	495500	511400
Total Non current assets	2263400	2221600	2381400	2480200	2285900	2474400

Chart 4.1.7 The Non-Current Assets from 2009 to 2014 (In \$ 10000)



The Tap 4.1.7 and Chart 4.1.7 show the non-current assets items were keep growing in a moody environment from 2009 to 2014.

Chart 4.1.8 The Total Assets from 2009 to 2014 (In \$ 10000)

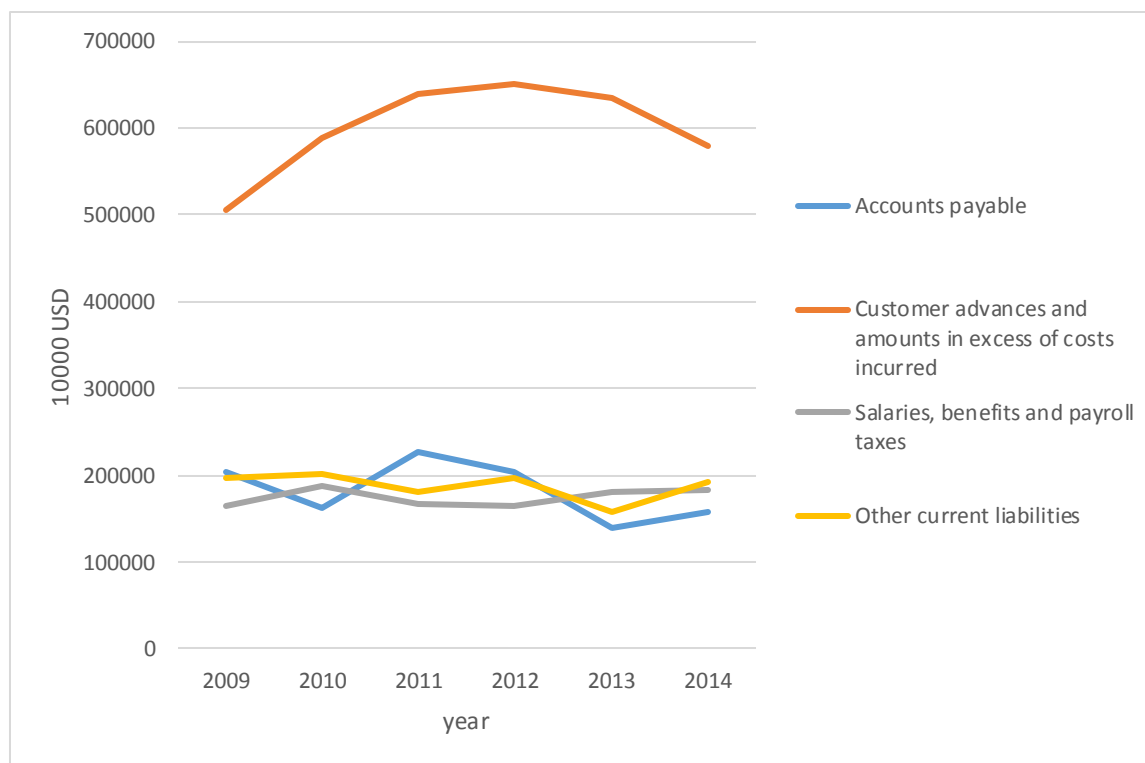


The Chart 4.1.7 represent the company's total assets. From 2010 to 2012 the total asset grew rapidly, there are nearly \$ 400 million increase in these two years. It conformed to that times international situations. From the 12th 2010 the Arab spring sweep the north Africa and middle east Asia, because the reasons of national security the demand of aircraft and other high technology weapon increased. The Lockheed Martin Space Systems Company make a large number of profit not only from the US government but also some other countries' government. Shortly after to the 2013 the competitor from China and Russia went into the market and the international market became saturated that cause the decrease.

Tab 4.1.8 Details of non-current liabilities from 2009 to 2014 (In \$ 10000)

Current liabilities	2009	2010	2011	2012	2013	2014
Accounts payable	203000	162700	226900	203800	139700	157000
Customer advances and amounts in excess of costs incurred	504900	589000	639900	650300	634900	579000
Salaries, benefits and payroll taxes	164800	187000	166400	164900	180900	182600
Other current liabilities	197600	201400	179800	179800	156500	192600
Total current liabilities	1070300	1140100	1213000	1215500	1112000	1111200

Chart 4.1.9 Details of current liabilities from 2009 to 2014 (In \$ 10000)



Tab 4.1.9 Details of non-current liabilities from 2009 to 2014 (In \$ 10000)

noncurrent liabilities	2009	2010	2011	2012	2013	2014
Accrued pension liabilities	1082300	1060700	1350200	1527800	936100	1141300
Other postretirement benefit liabilities	130800	121300	127400	122000	90200	110200
Long-term debt, net	505200	501900	646000	615800	615200	616900
Other noncurrent liabilities	309600	336300	354100	380700	373500	387700
Total non current liabilities	2027900	2020200	2477700	2646300	2015000	2256100

Chart 4.1.10 Details of non-current liabilities from 2009 to 2014 (In \$ 10000)

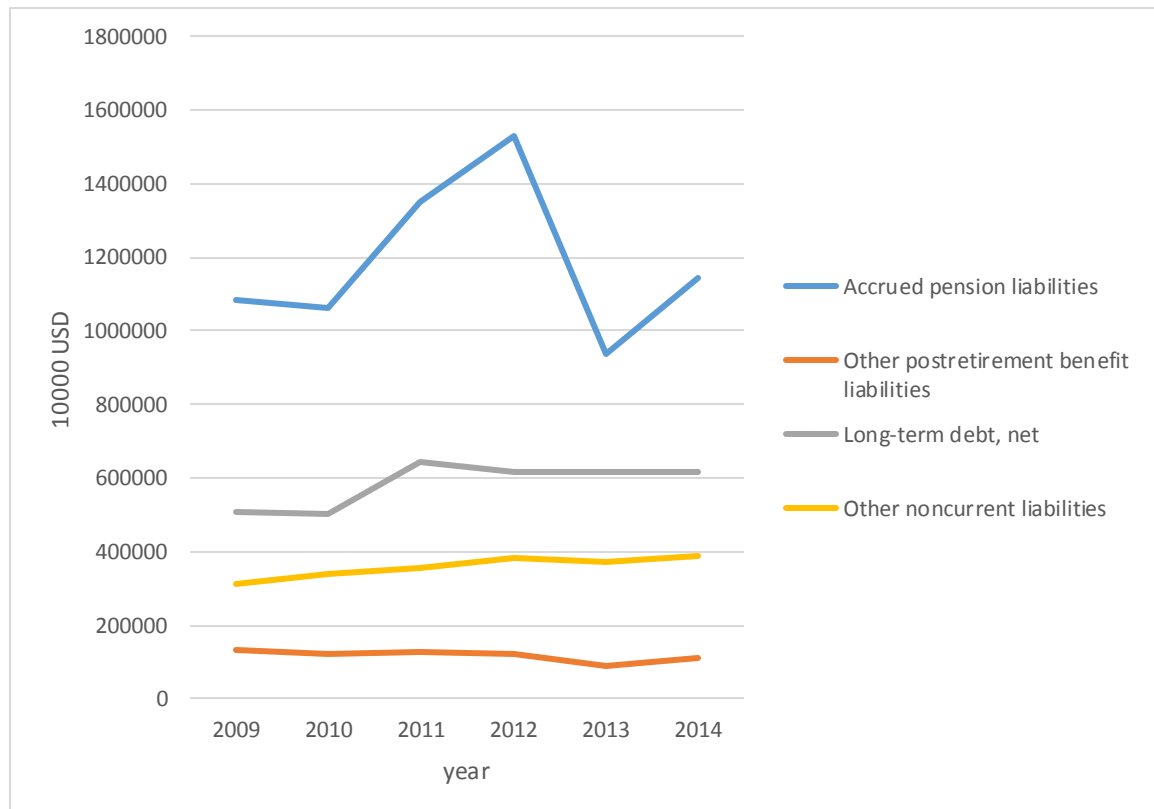
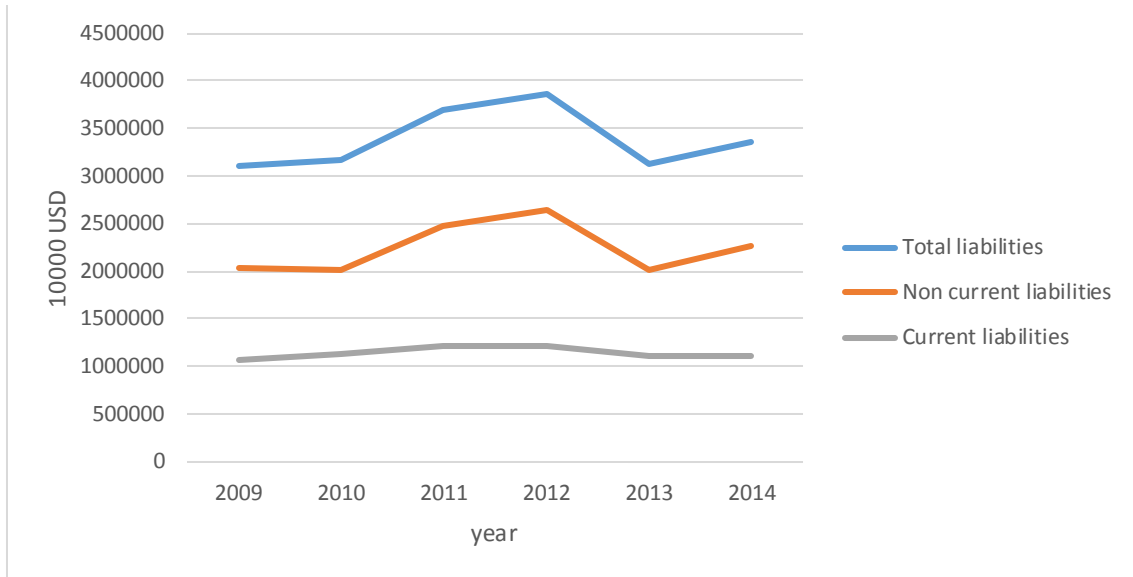


Chart 4.1.11 Details of total liabilities from 2009 to 2014 (In \$ 10000)



The Tab 4.1.8, Tap 4.1.9 and Chart 4.1.9, Chart 4.1.10, Chart 4.1.11 represent the particulars of the liabilities of the Lockheed Martin Space Systems Company. They show that the current liabilities change very stable during these six years, and compare with the non-current liabilities the level of current liabilities is very low, because the current liabilities have more risk than non-current liabilities due to its short maturity, if the company do not have enough money to repay the liabilities on the expiry date the company will bankrupt. So the Lockheed Martin Space Systems Company's liabilities are healthy and have low risk of default. The total liabilities increase speed slow down from 2011 and even negative growth in 2012, this is probably because the Standard & Poor's lowered the credit ranking of United States from AAA to AA+ that cause a new financial crisis in 2011 which accelerated the financial recession. During this time the whole world financial situation was grim. So the decrease is march the situation at that time.

Tab 4.1.10 Details of shareholders' equity from 2009 to 2014 (In \$ 10000)

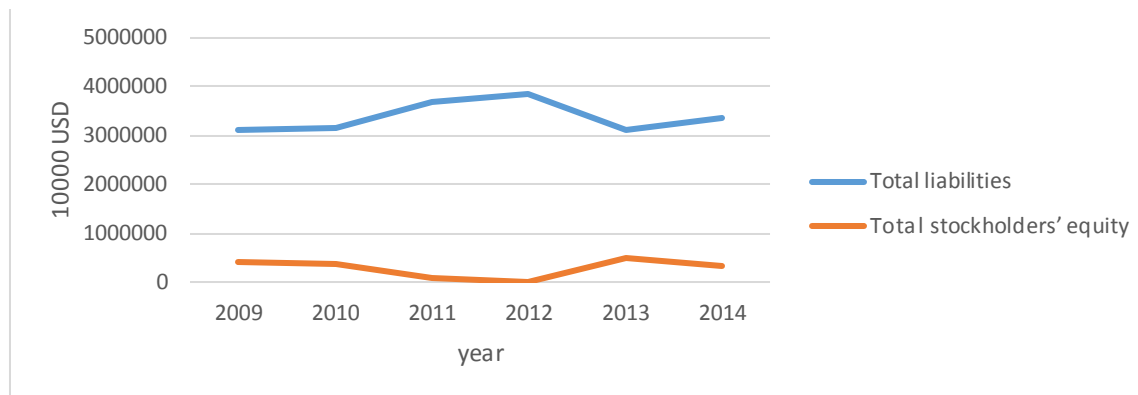
Stockholders' equity	2009	2010	2011	2012	2013	2014
Common stock, \$1 par value per share	37300	34600	32100	32100	31900	31400
Retained earnings	1235100	1237200	1193700	1321100	1420000	1495600
Accumulated other comprehensive loss	-859500	-901000	-1125700	-1349300	-960100	-1187000
Total stockholders' equity	412900	370800	100100	3900	491800	340000

The total stockholders' equity showed in Tap 4.1.10 seems a little strange, here is a huge change in 2012 from \$ 1001 million in 2011 to \$ 39 million in 2012. Explanation given by the Lockheed Martin Space Systems Company says this situation was due to the annual re-measurement of the funded status of our postretirement benefit plans at December 31, 2012 and 2011.

Tap 4.1.11 Details of liabilities and shareholders' equity from 2009 to 2014 (In \$ 10000)

	2009	2010	2011	2012	2013	2014
Total liabilities	3098200	3160300	3690700	3861800	3127000	3367300
Total stockholders' equity	412900	370800	100100	3900	491800	340000

Chart 4.1.12 Details of liabilities and shareholders' equity from 2009 to 2014 (In \$ 10000)



In Tap 4.1.11 and Chart 4.1.12 the development tendency of total liabilities was increase in general from 2009 to 2014, from \$ 30982 million in 2009 to \$ 33673 million in 2014, and the stockholders' equity mainly decrease in five years, from \$ 4129 million in 2009 to \$ 3400 million in 2014. From a general view the operation situation of the Lockheed Martin Space Systems Company is getting better, even suffering the economic recession since 2008. The reason cause this result is mainly because the worldwide security situation is on the rise, even suffering the financial crisis most countries government still not cut but raise the defense budget. For examples from the data of Stockholm International Peace Research Institute the defense budget of the United State, the biggest customer of the Lockheed Martin Space Systems Company, keep a growth trend of 5% increase from 2005 in average, some years like 2008, 2009 the budget increase more than 10% than last year. The operation situation of the Lockheed Martin Space Systems Company getting better is not only because of the external environment that the continual increase of defense budget of its customers but also the internal environment the company itself. As one of the defense contractors in United State the Lockheed Martin Space Systems Company has exist more than 100 years, even purchased Sikorsky Aircraft Corporation one of the world largest helicopter manufacture corporation, all of these is due to the company strategy that is focus on the technology and get cooperate relation with others. Few people know, the code number that Lockheed Martin edit each year is even more than the Microsoft. For this reason, Microsoft and Lockheed Martin established strategic partnership, cooperation in some US government defense projects, such as the next generation US Navy nuclear aircraft carrier software and Department of Defense information security systems. This

strategy make the company keep healthy and keep the monopoly on some core technologies which make the company become better and more competitiveness in the international market.

4.1.2 Common-size analysis of cash flow

The common-size analysis of cash flow can be divided into two parts. The vertical common-size analysis use proportion of operation activities, financial activities and investment activities to analysis the structure of cash flow and the horizontal common-size analysis use development tendency of operation activities, financial activities and investment activities to analysis the change and the trend of cash flow from 2009 to 2014.

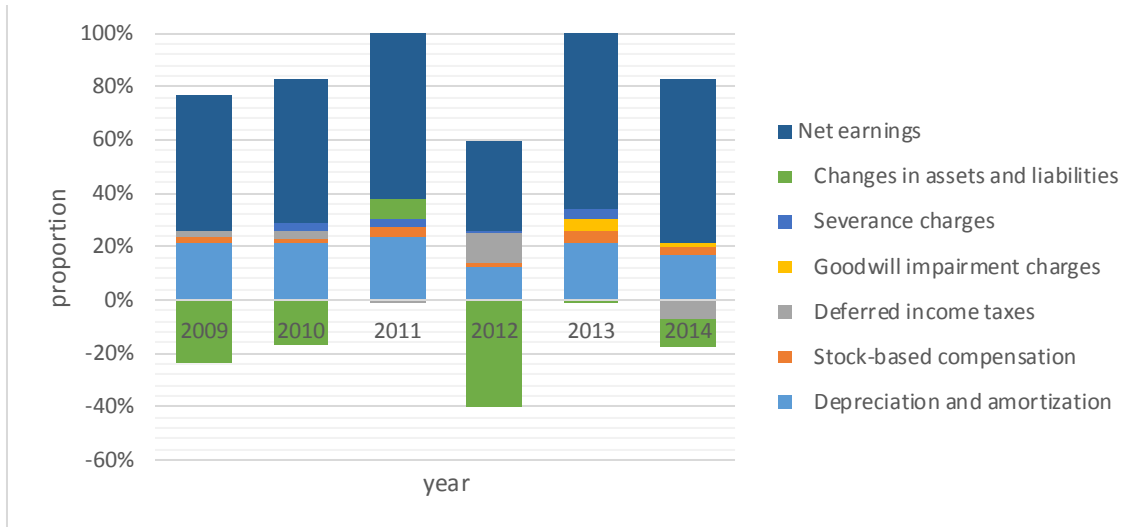
4.1.2.1 Vertical common-size analysis

From the graph below.

Tab 4.2.1 The proportion of operation activities from 2009 to 2014 (%)

	2009	2010	2011	2012	2013	2014
Net earnings	95.30	82.49	62.43	175.85	65.57	93.48
Depreciation and amortization	40.72	32.17	23.70	63.29	21.78	25.71
Stock-based compensation	3.28	2.59	3.69	10.70	4.16	4.24
Deferred income taxes	4.85	4.74	-0.05	59.58	-0.11	-10.37
Goodwill impairment charges	--	--	--	--	4.29	3.08
Severance charges	--	4.14	3.20	3.07	4.42	0.00
Changes in assets and liabilities	-44.15	-26.13	7.03	-212.49	-0.11	-16.14

Chart 4.2.1 The proportion of operation activities from 2009 to 2014

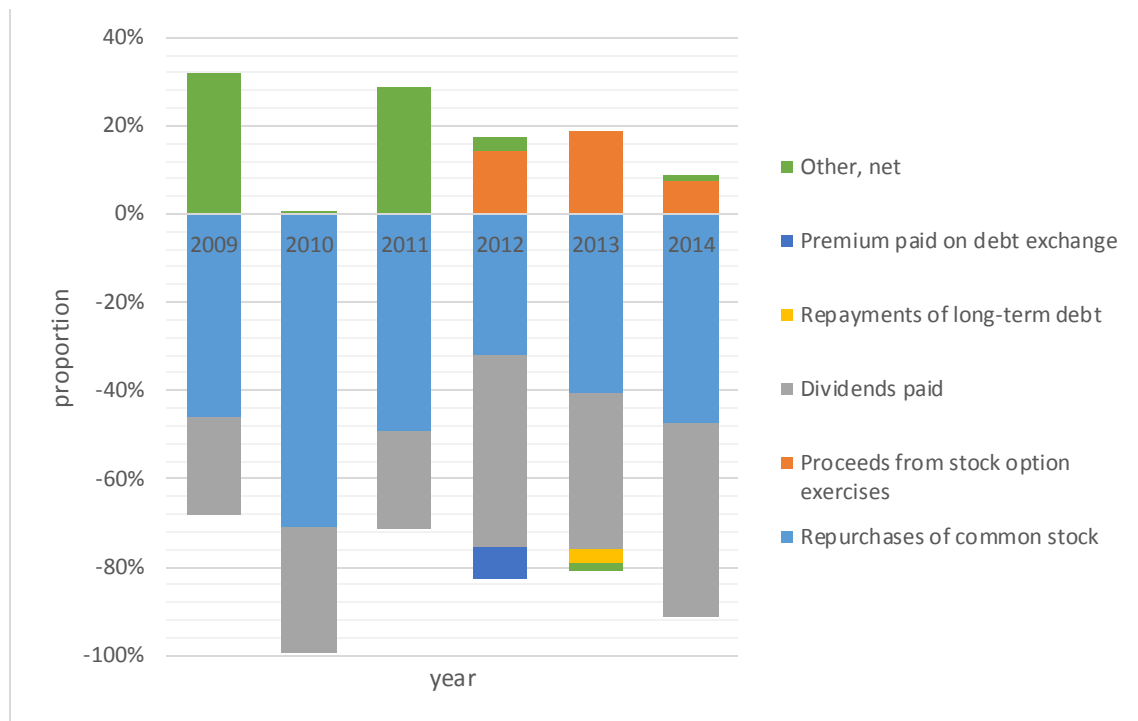


The Tab 4.2.1 and the Chart 4.2.1 represent the proportion of operation activities in cash flow. In total cash flow of operation activities, the net earning takes up the largest share almost over 80% in each year, especially in 2012, the proportion of the net earning even over 100% because the big changes in assets and liabilities. Another big occupation is from the Depreciation and amortization the proportion in average is more than 45%.

Tab 4.2.2 The proportion of financial activities from 2009 to 2014 (%)

	2009	2010	2011	2012	2013	2014
Repurchases of common stock	125.41	71.96	116.33	48.94	65.11	57.33
Proceeds from stock option exercises	--	--	--	-21.75	-30.56	-9.29
Dividends paid	61.52	28.81	51.68	66.83	56.91	53.11
Repayments of long-term debt	--	--	--	--	5.54	--
Premium paid on debt exchange	--	--	--	11.12	--	--
Other, net	-86.92	-0.77	-68.00	-5.14	2.99	-1.15

Chart 4.2.2 The proportion of financial activities from 2009 to 2014

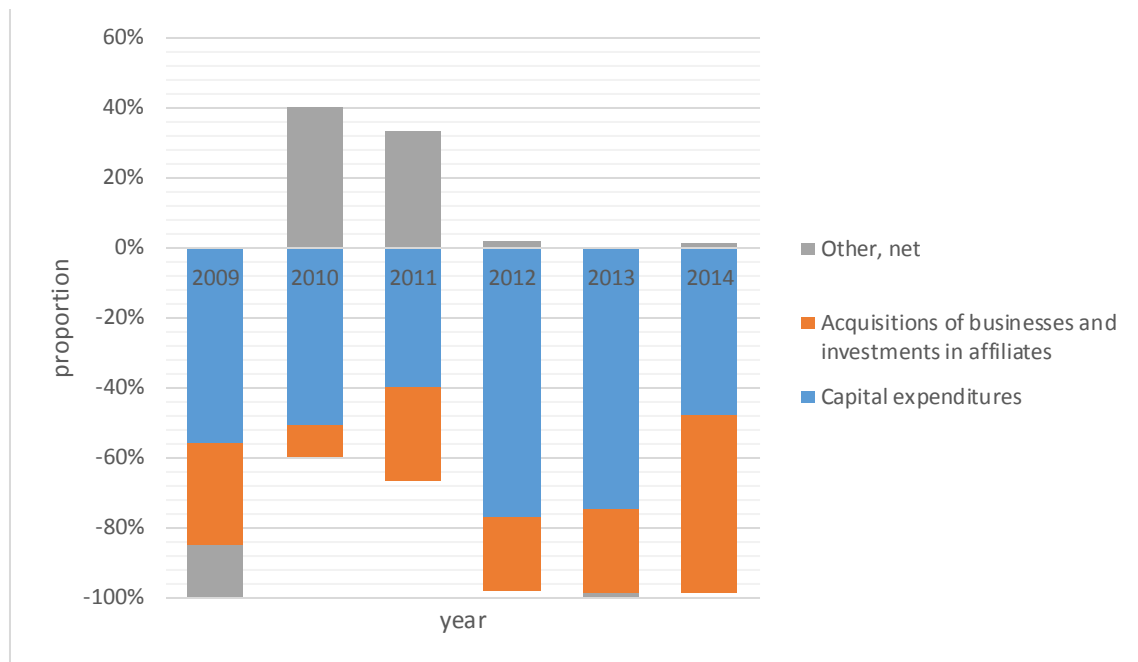


The data of cash flow in financial activities is not complete, some items like Premium paid on debt exchange and Repayments of long-term debt only have one year's date from the company's annual report. But the chart 4.2.2 and tab 4.2.2 can still report that the repurchase of common stock and the dividends paid hold the largest proportion. These two items can indirect report the operation condition of the Lockheed Martin Space Systems Company was good and the whole market was stable.

Tab 4.2.3 The proportion of investment activities from 2009 to 2014 (%)

	2009	2010	2011	2012	2013	2014
Capital expenditures	56.13	257.05	121.40	80.03	74.58	49.04
Acquisitions of businesses and investments in affiliates	28.66	46.39	79.83	22.01	24.00	52.12
Other, net	15.22	-203.45	-101.23	-2.04	1.43	-1.16

Chart 4.2.3 The proportion of investment activities from 2009 to 2014

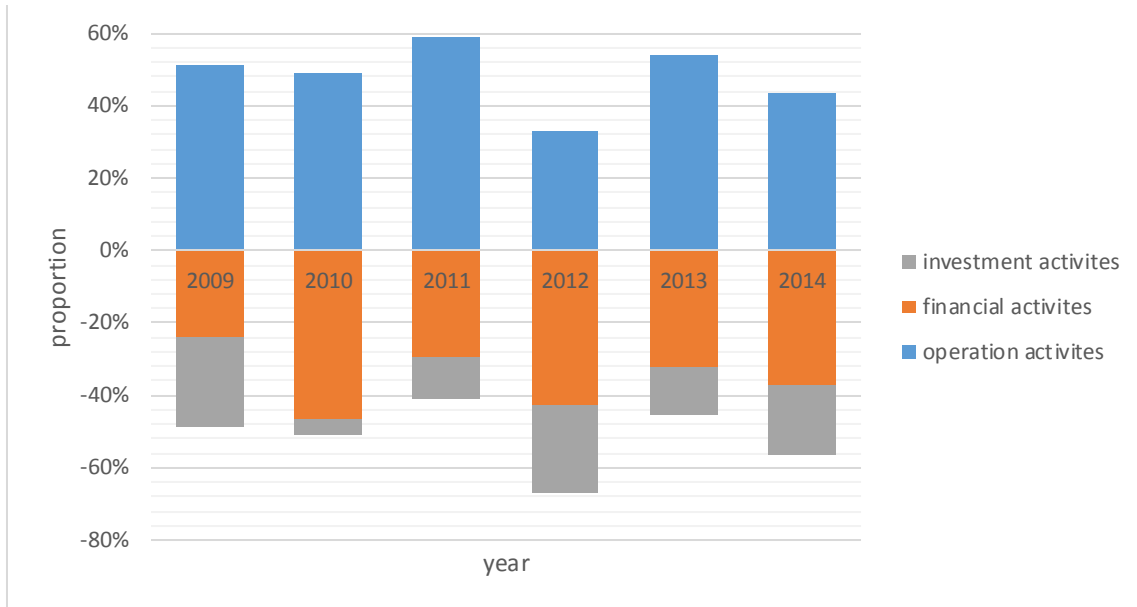


From tab 4.2.3 and the chart 4.2.3, the capital expenditures occupies a very high percentage of all current assets. This condition is due to the Lockheed Martin Space Systems Company purchase a large amount of equipment and other products to build new lines of production and because of the fast development of technology the company needs to continuous renew their equipment to make sure their products are on the highest level of technology and master the core skill.

Tab 4.2.4 The proportion of three activities in cash flow from 2009 to 2014 (%)

Cash flow	2009	2010	2011	2012	2013	2014
operation activities	1772.63	-2627.41	321.95	-95.24	632.27	-330.15
financial activities	-824.58	2491.11	-160.41	123.43	-376.36	283.01
investment activities	-848.04	236.30	-61.54	71.81	-155.91	147.14

Chart 4.2.4 The proportion of three activities in cash flow from 2009 to 2014



In the chart 4.2.4 and the Tab 4.2.4, the operation activities and the financial activities take up the most proportion of cash flow but the financial activities are negative. So the proportion of operation activities are higher than both the financial and the investment activities.

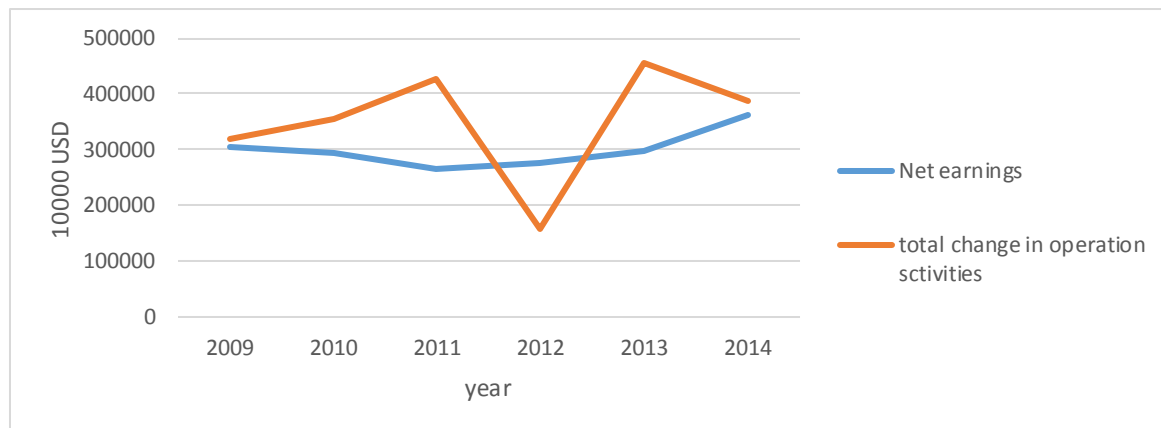
4.1.2.2 Horizontal common-size analysis

From the graph next.

Tab 4.2.5 The detail of operation activities from 2009 to 2014 (In \$ 10000)

Operation activities	2009	2010	2011	2012	2013	2014
Depreciation and amortization	129200	114100	100800	98800	274500	99400
Stock-based compensation	10400	9200	15700	16700	18900	16400
Deferred income taxes	15400	16800	-200	93000	-500	-40100
Goodwill impairment charges	--	--	--	--	19500	11900
Severance charges	--	14700	13600	4800	20100	
Changes in assets and liabilities	-140100	-92700	29900	-331700	-500	-62400
Net earnings	302400	292600	265500	274500	298100	361400

Chart 4.2.5 The detail of net earnings from 2009 to 2014 (In \$ 10000)



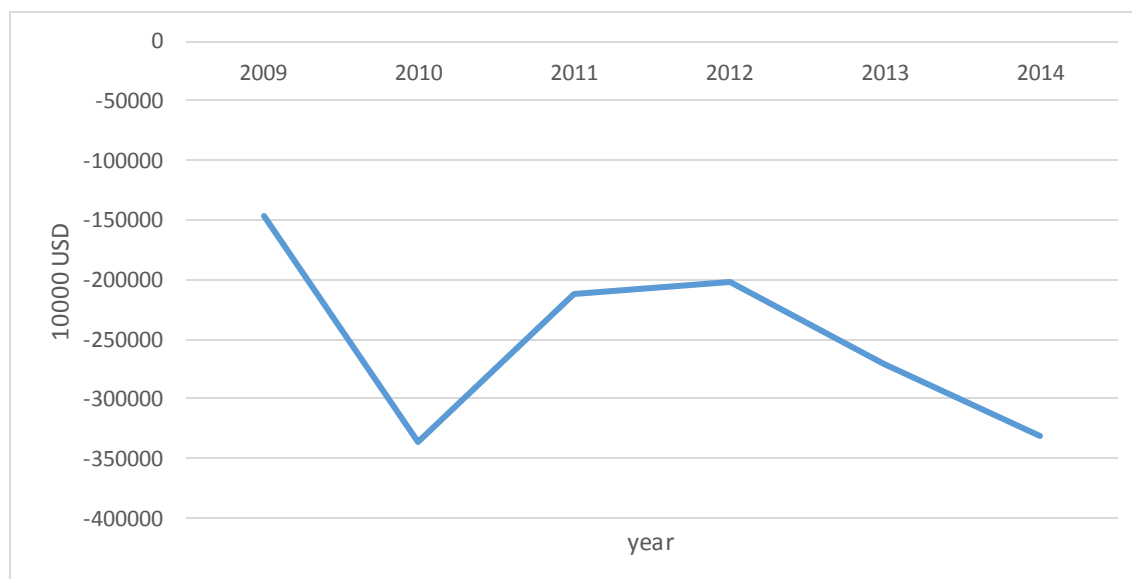
From Chart 4.2.5 and Tab 4.2.5 we can find the net earnings wave up and down in some years but the whole variation trend of net earnings is slowly grow, however the total change

in operation activities fluctuate widely, from \$ 4253 million in 2011 sharply decrease to \$1561 million in 2012 and then grow fast to \$ 4546 million in 2013. The cause of the big fluctuation is the big change in assets and liabilities which shows in the tab 4.2.5.

Tab 4.2.6 The detail of financial activities from 2009 to 2014 (In \$ 10000)

	2009	2010	2011	2012	2013	2014
Repurchases of common stock	-185100	-242000	-246500	-99000	-176200	-190000
Proceeds from stock option exercises	--	--	--	44000	82700	30800
Dividends paid	-90800	-96900	-109500	-135200	-154000	-176000
Repayments of long-term debt	--	--	--	--	-15000	--
Premium paid on debt exchange	--	--	--	-22500	--	--
Other, net	128300	2600	144100	10400	-8100	3800

Chart 4.2.6 The detail of financial activities from 2009 to 2014 (In \$ 10000)

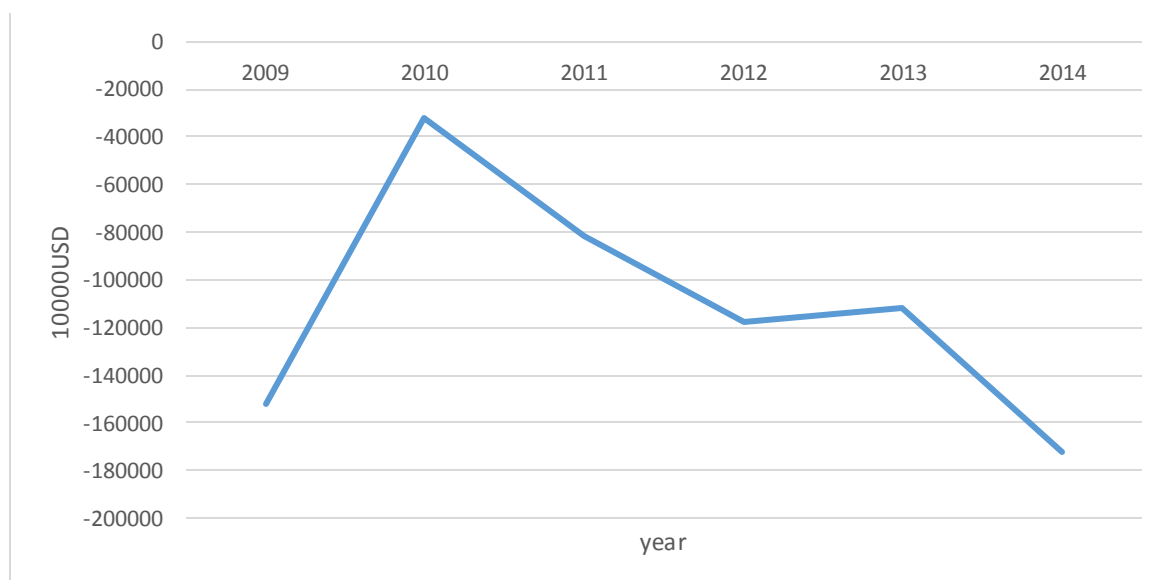


The chart 4.2.6 and the tab 4.2.6 show the details of financial activities from 2009 to 2014. In these six years the cash flow of financial activities moved up and down sharply from the \$ 1476 million in 2009 increase to \$ 3363 million in 2010 then decrease to nearly \$ 2000 million and keep stable in 2011 and 2012 at last turn back to \$ 3300 million level slowly in two years.

Tab 4.2.7 The detail of investment activities from 2009 to 2014 (In \$ 10000)

Investment activities	2009	2010	2011	2012	2013	2014
Capital expenditures	-85200	-82000	-98700	-94200	-83600	-84500
Acquisitions of businesses and investments in affiliates	-43500	-14800	-64900	-25900	-26900	-89800
Other, net	-23100	64900	82300	2400	-1600	-89800

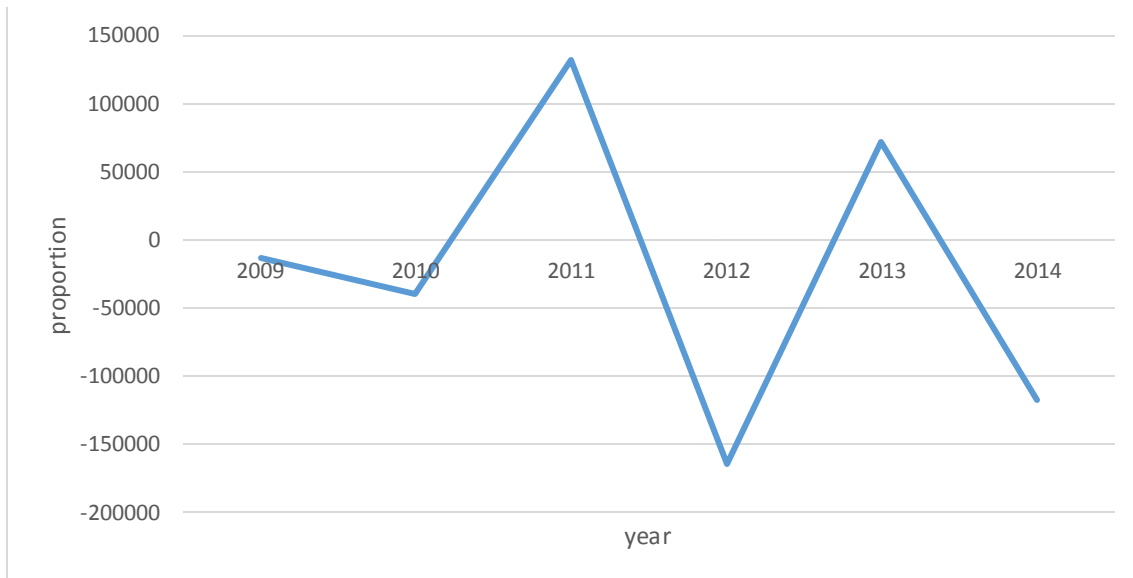
Chart 4.2.7 The detail of investment activities from 2009 to 2014 (In \$ 10000)



The cash flow of investment activities is represented by the tab 4.2.7 and the chart 4.2.7. The growth trend of the investment activities is quite same as the financial activities in

strong fluctuation also keep growth in general, this can represent that the financial situation is getting better even it was still in the economic recession period.

Chart 4.2.8 The detail of Net change in cash and cash equivalents from 2009 to 2014 (In \$ 10000)



The chart 4.2.8 shows the net change in cash and cash equipment also means the net cash flow. Due to the wave of operation, financial and investment activities the net cash flow wave as well. From the \$ -135 million in 2009 to \$ -389 million in 2010 then to \$ 1321 million in 2010 also as the peak point in six years shortly fall sharply to the rocks bottom in \$ -1639 million in 2012, in the next two years the data also keep raise and down. The control of cash flow of the the Lockheed Martin Space Systems Company is very fantastic it always keeps a dynamic equilibrium: the company always have enough cash or cash equipment to make sure it can operate on the rails, not so leak of money as to bankrupt, but at the same time the amount of cash and cash equipment is not too much to hamper expansion of the company. The control of the company makes sure the company can operation on a healthy condition make the company development better in the whole market.

4.1.3 Common-size analysis of income statement

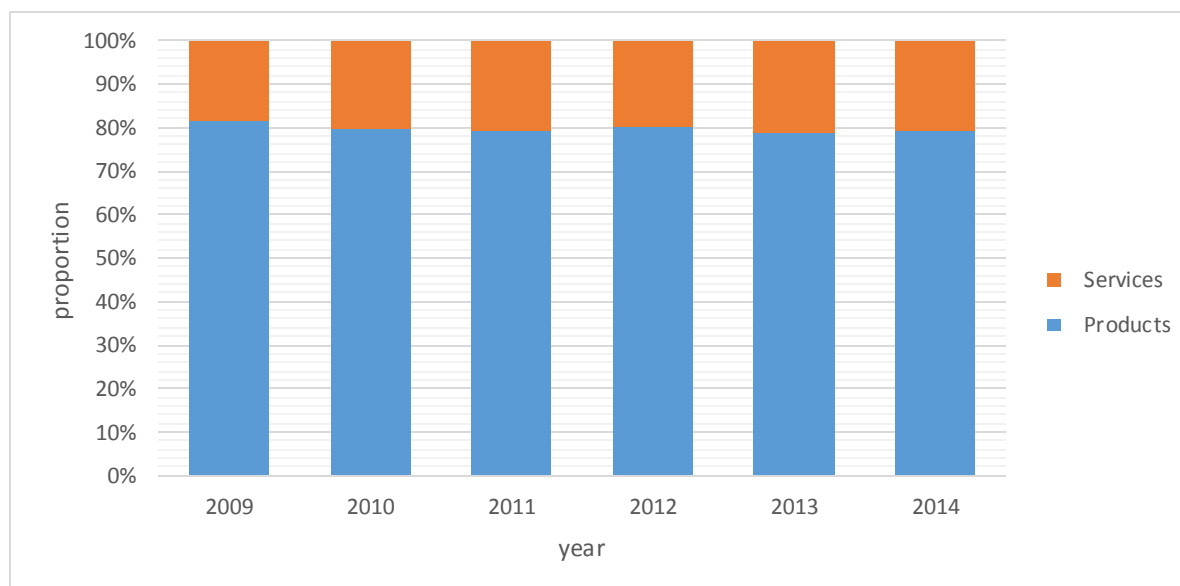
There are two part of the common-size analysis of income statement. The vertical common-size analysis use proportion of net sale, cost of sale and earnings (loss) Per Common Share to analysis the structure of Income statement and the horizontal common-size analysis use development tendency of net sale, cost of sale and operation profit to analysis the change and the trend of income statement from 2009 to 2014.

4.1.3.1 Vertical common-size analysis

Tab 4.3.1 The proportion of net sales from 2009 to 2014 (%)

Net sales	2009	2010	2011	2012	2013	2014
Products	81.29	79.58	79.41	80.15	78.69	79.15
Services	18.71	20.42	20.59	19.85	21.31	20.85

Chart 4.3.1 The proportion of net sales from 2009 to 2014



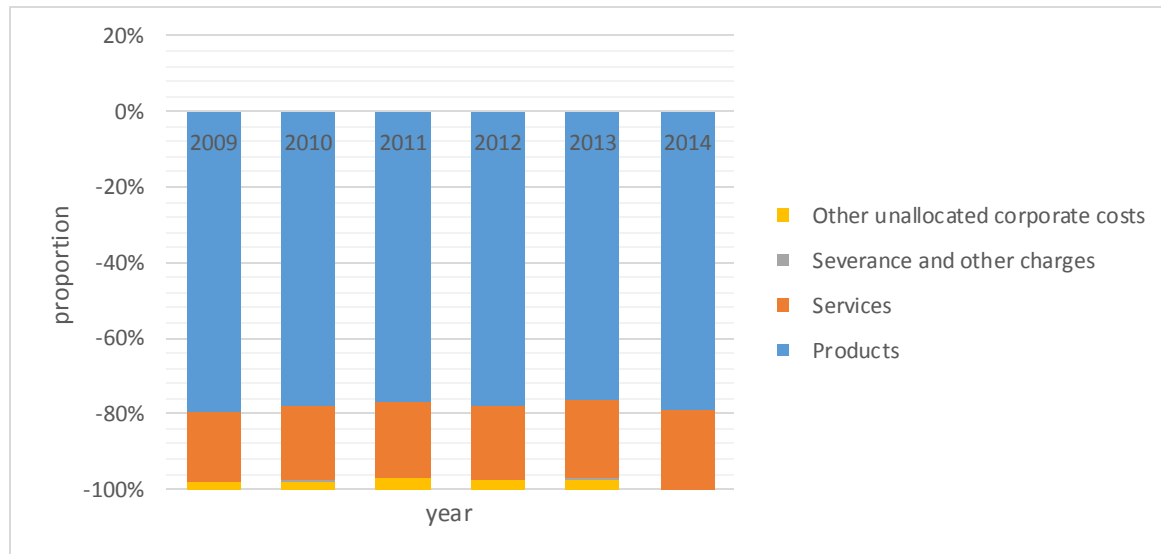
The tab 4.3.1 and the chart 4.3.1 indicate the structure of net sales. From the two form, the products occupy about 80% in average of the whole net sales and the services hold about

20% in proportion of the net sale. This condition is due to the the Lockheed Martin Space Systems Company not only sells its product but also need to help the customer maintain and repair the products they made because the customer usually do not have the abilities to maintain or to manufacture the component to repair the product when the products broke down.

Tab 4.3.2 The proportion of cost of sales from 2009 to 2014 (%)

Cost of sales	2009	2010	2011	2012	2013	2014
Products	79.78	77.81	77.04	77.92	76.14	79.23
Services	18.53	19.90	19.89	19.50	20.86	20.80
Severance and other charges	0.00	0.52	0.32	0.11	0.49	0.00
Other unallocated corporate costs	1.69	1.77	2.75	2.47	2.52	-0.03

Chart 4.3.2 The proportion of cost of sales from 2009 to 2014



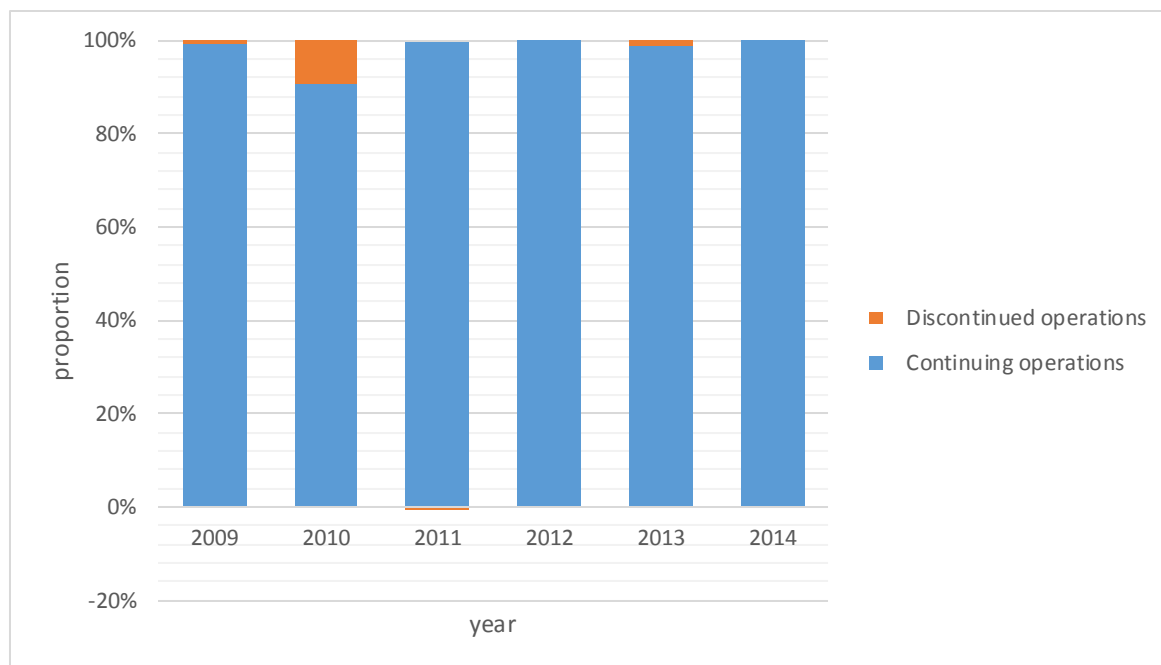
In the tab 4.3.2 and the chart 4.3.2 above, the products and services take up almost 99% of cost of sales in proportion, and like the ratios of products and services in net sales, the products cost of sales take about 80% in proportion of the total cost of total cost of sale and the services cost of sales occupy nearly 20% of the total cost of sales. Because of the

Lockheed Martin Space Systems Company is a high technology manufacture company, the high proportion of cost on product and services of total cost of sale is not strange.

Tab 4.3.3 The proportion of earnings (loss) Per Common Share from 2009 to 2014 (%)

Basic Earnings (Loss) Per Common Share	2009	2010	2011	2012	2013	2014
Continuing operations	99.11	90.41	100.51	100.00	98.92	100.00
Discontinued operations	0.89	9.59	-0.51	0.00	1.08	0.00

Chart 4.3.3 The proportion of earnings (loss) Per Common Share from 2009 to 2014



According to the chart 4.3.3 and the table 4.3.3, it is not difficult to find that the continuing operations occupy the highest proportion of basic earnings (loss) per common share, more than 95% in average and in some years like 2011, 2013, 2014 the proportion is even equal or more than 100%. The high proportion of continuing operations is good for the development of the company because the higher the proportion of continuing operations

the lower risk the company will bankrupt. So the high proportion of continuing operations of basic earnings (loss) per common share indicate that the Lockheed Martin Space Systems Company is operation healthy, almost have no risk of bankrupt.

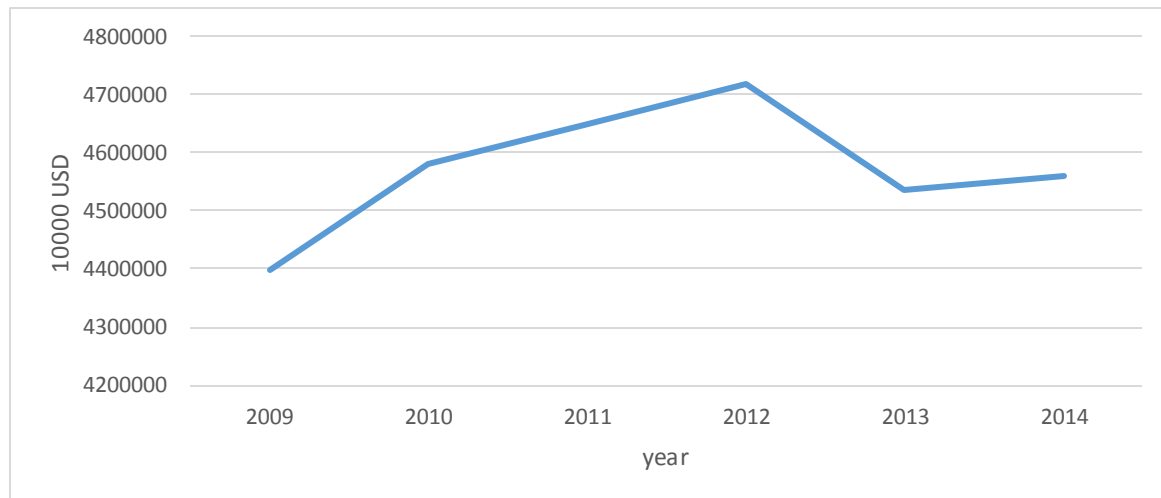
4.1.3.2 Horizontal common-size analysis

From the graph next

Tab 4.3.4 The Detail of net sales from 2009 to 2014 (In \$ 10000)

Net sale	2009	2010	2011	2012	2013	2014
Products	3576300	3644800	3692500	3781700	3569100	3609300
Services	823200	935500	957400	936500	936500	950700

Chart 4.3.4 The Detail of net sales from 2009 to 2014 (In \$ 10000)

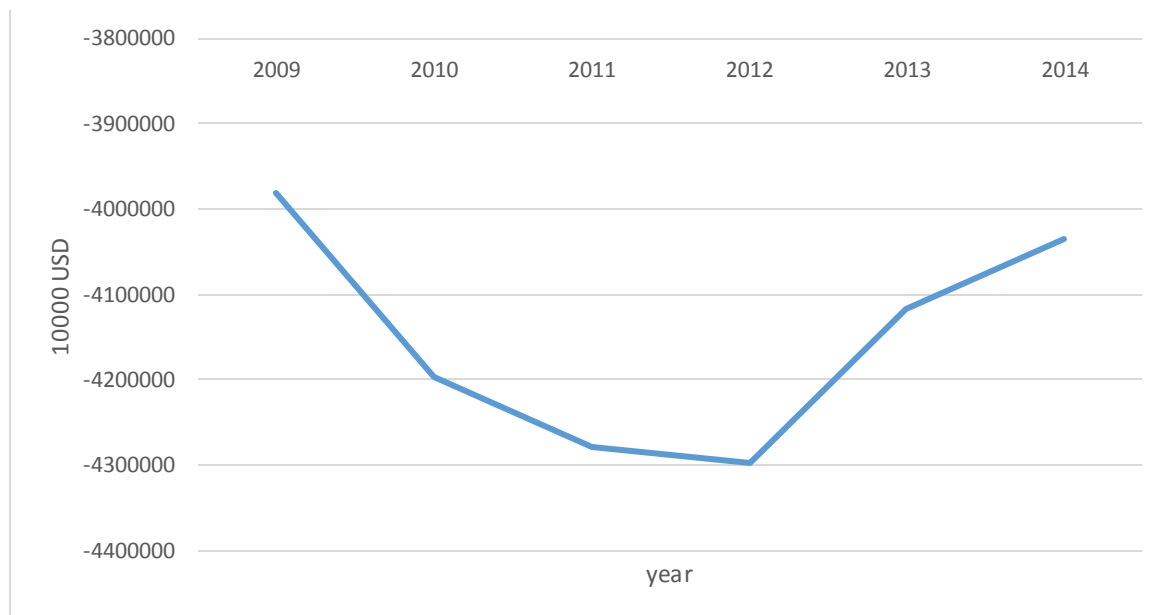


From the tab 4.3.4 and the chart 4.3.4, the variation trend of the total net sale is growing slowly and wave slowly during the six years, from the rock button of \$ 43995 million in 2009 then grow to top point of \$ 47182 million in 2013 and slowly went back to \$ 45358 million in 2013, at last improve slowly in 2014 and maybe will keep the growth trend in the future. This condition quite much the international security and financial situations.

Tab 4.3.5 The Detail of cost of sales from 2009 to 2014 (In \$ 10000)

Cost of sale	2009	2010	2011	2012	2013	2014
Products	-3175600	-3265500	-3296800	-3349500	-3134600	-3196500
Services	-737600	-835000	-851400	-838300	-858800	-839300
Severance and other charges	0	-22000	-13600	-4800	-20100	0
Other unallocated corporate costs	-67100	-74200	-117700	-106000	-103600	1300

Chart 4.3.5 The Detail of cost of sales from 2009 to 2014 (In \$ 10000)



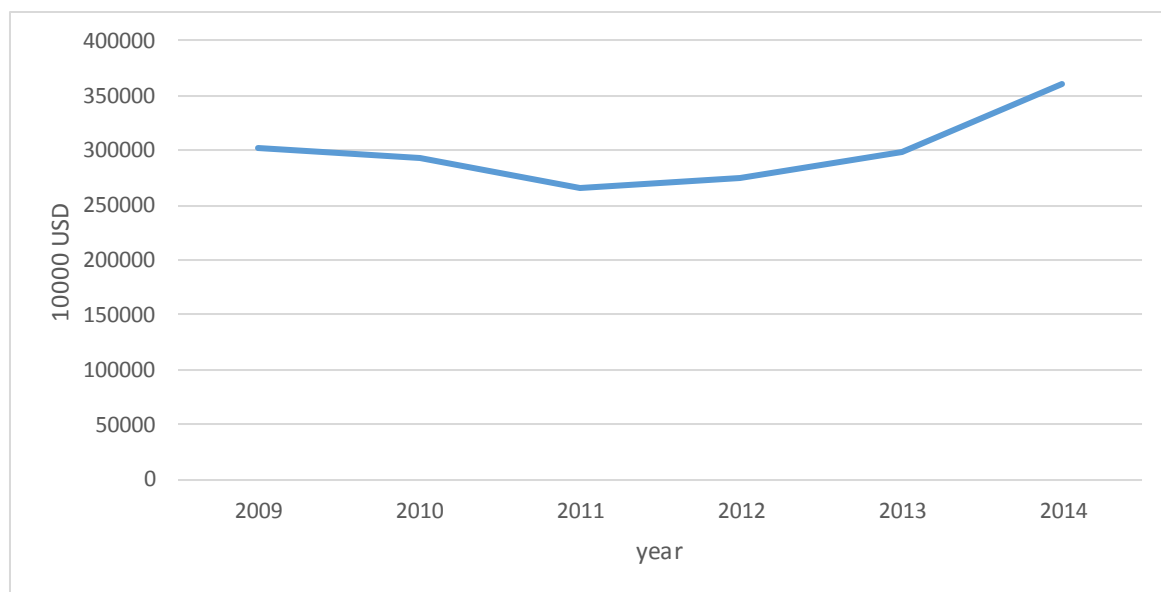
The tab 4.3.5 and the chart 4.3.5 indicate the trend of total cost of sales from 2009 to 2014. From these two graph, the total cost of sales wave stable in these six years, from \$ 39803 million in 2009 to \$ 42986 million in 2012 and then fall back to \$ 40345 million in 2014, the first period is probably because of the high inflation rate caused by the quantitative easing policy from the federal reserve and since 2013 the federal reserve cut down the

amount of quantitative easing so that the inflation rate went down which cause the decrease of the total cost of sales.

Tab 4.3.6 The Detail of net earnings from 2009 to 2014 (In \$ 10000)

	2009	2010	2011	2012	2013	2014
Net earnings	302400	292600	265500	274500	298100	361400

Chart 4.3.7 The Detail of net earnings from 2009 to 2014 (In \$ 10000)

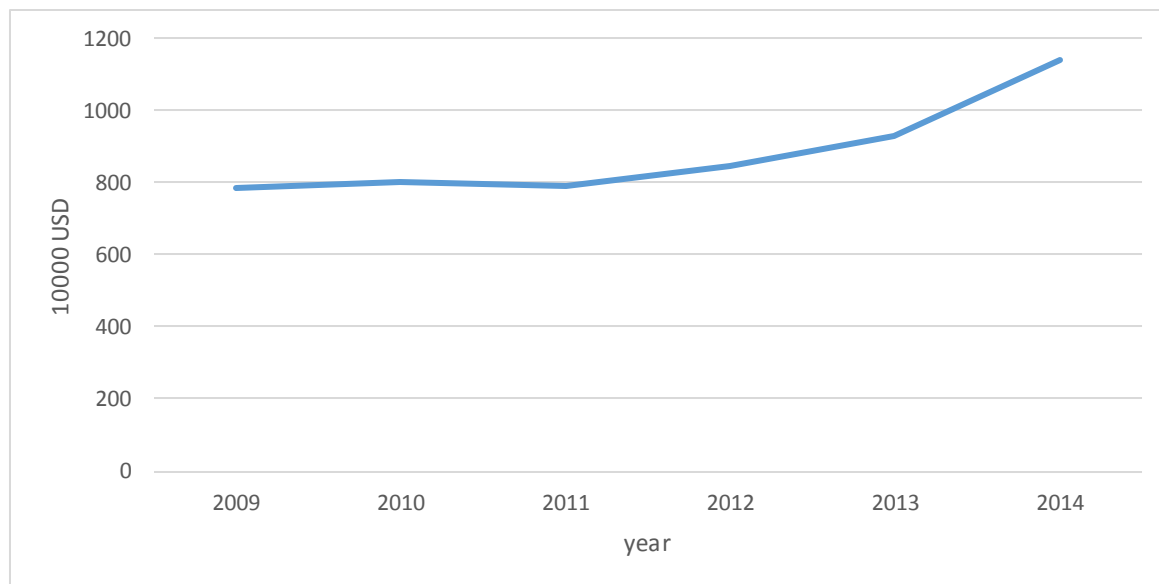


The net earnings also known as earning after tax. From the chart 4.3.7, the net earning growth first decrease from 2009 to 2011 then start to increase from 2011 to 2014 and the growth rate increase a lot since 2013. In the tab 4.3.7 the net earning first drop to the rock button till \$ 2655 million in 2011 and then increase to the top place in the tab, \$ 3614 million. The situation indicated in chart 4.3.7 and tab 4.3.7 match the economic condition of the world at that time.

Tab 4.3.8 The Detail of earnings (loss) Per Common Share from 2009 to 2014 (In \$ 10000)

	2009	2010	2011	2012	2013	2014
Continuing operations	779	726	794	848	919	1141
Discontinued operations	7	77	-4	0	10	0
Sum	786	803	790	848	929	1141

Chart 4.3.8 The Detail of earnings (loss) Per Common Share from 2009 to 2014 (In \$ 10000)



The basic earning per common share represent the profitability of company. From the chart 4.3.8, the amount of basic earning per common share keep increasing from 2009 to 2014 and the growth rate keep increase too. From the tab 4.3.8, it shows the most growth of the basic earnings per common share is from the continuing operations and the amount of discontinued operations which item can increase the risk of bankrupt of the company wave sharply, from the top point of \$ 0.77 million in 2010 to \$ 0 in 2014, but the amount is too small that can not effect the whole situation.

4.2 Financial ratios analysis

The financial ratios analysis is the use of financial accounting and other information to assess a company's financial performance and financial condition. Specifically, financial ratios analysis use comparisons of financial data in the form of ratios to assess a company's financial health and profitability.

In this part, there are five kinds of ratios will be used, they are: the profitability ratios which analyze the the company's ability to generate profit from invested capital, the liquidity ratios which measure company's ability to meets its immediate and short-term obligations, solvency ratios which measure company's ability to meets its long-term obligations, asset management ratios which measure the efficiency of assets usage and the market ratios which evaluate the economic status of your company in the wider marketplace.

4.2.1 The profitability ratios

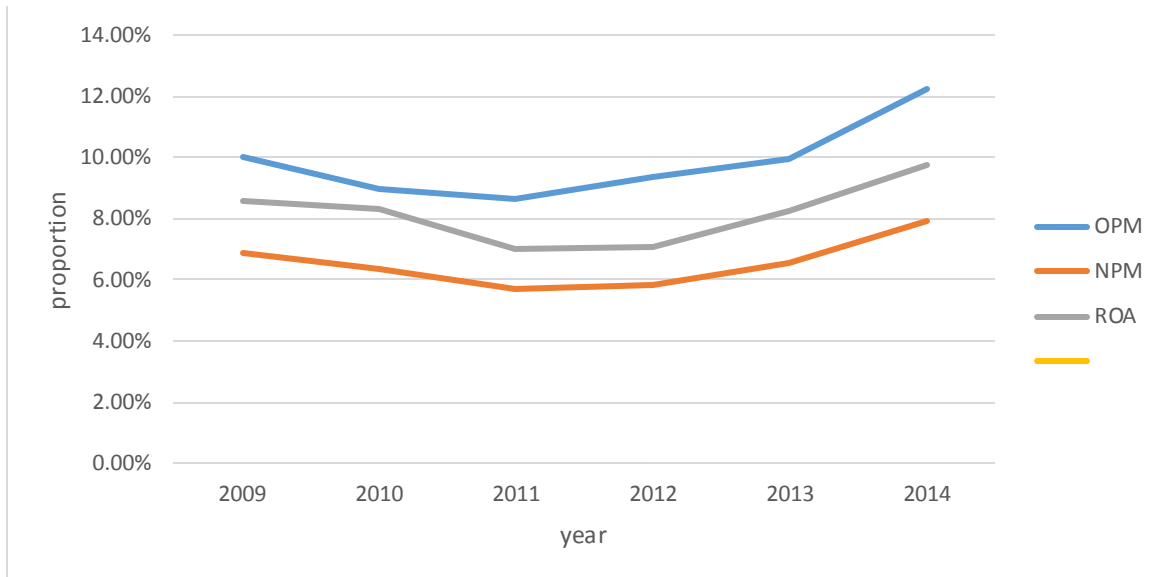
The profitability ratios measure the ability to generate profit from invested capital in the form of return during a period. Usually the higher the profitability ratios, the better competitive position of the company. The formulas below are the basic formulas of profitability ratios.

The profitability ratios are calculated according to (2.1), (2.2), (2.3) and (2.4).

Tab 4.4.1 The profitability ratios from 2009 to 2014 (%)

	2009	2010	2011	2012	2013	2014
OPM	10.04	8.94	8.65	9.40	9.93	12.26
NPM	6.87	6.39	5.71	5.82	6.57	7.93
ROA	8.61	8.34	7.00	7.10	8.24	9.75
ROE	73.24	78.91	265.23	7038.46	60.61	106.29

Chart 4.4.1 The tendency of the profitability ratios from 2009 to 2014



From the tab 4.4.1, we can find the operating profit margin is about 10% in average, it is a common point, compare with 8% of the Boeing Company and 13% of the General Dynamic Company. The net profit margin of the Lockheed Martin Space Systems Company is probably 6.5% in average, also it is still a very common point because the main competitors the Boeing Company and the General Dynamic Company still have the similar ratios. Next is the return on asset, the return on asset of the Lockheed Martin Space Systems Company is probably 8.3% in average and as usual there is not too much different with the return on assets of it's competitors the Boeing Company and the General Dynamic Company. However, the return on equity is quite different the return on equity of the Lockheed Martin Space Systems Company usually is more than 100%, also some special year like 2012 the return on equity is 7038.46% because the total shareholder' equity is only \$39 million that year due to the annual re-measurement of the funded status of our postretirement benefit plans. Compare with other competitors the return on equity is really much higher than others, the Boeing Company about 65%-70% in average and the General Dynamic Company only about 20% in average.

From the chart 4.4.1, this graph indicates the tendency of three ratios, the three ratios are all in a stable growth trend with a little wave. Relatively the main competitors' profitability

ratios are also in a growth trend. The growth trend not only indicate the economy recovery and the tense situation of international security but also tell investors the high profitability of the Lockheed Martin Space Systems Company.

4.2.2 The liquidity ratios

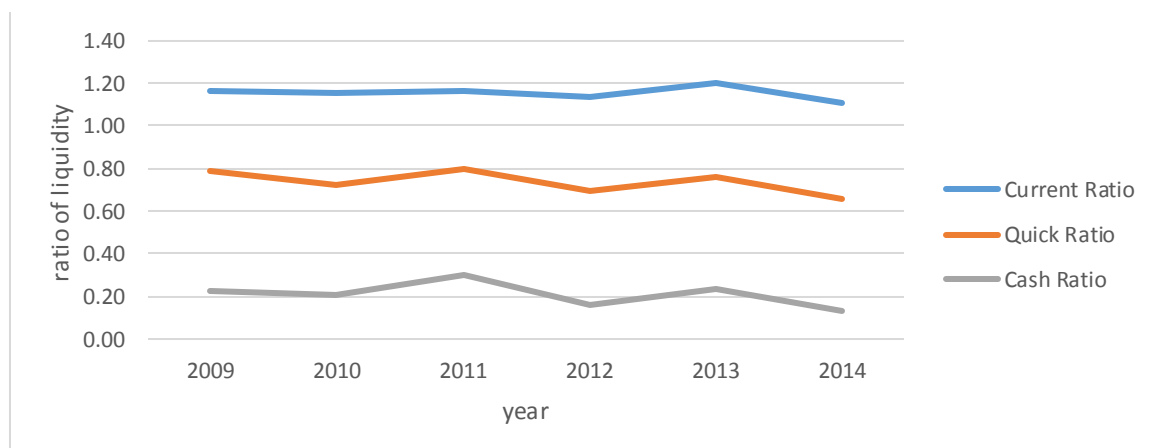
The liquidity ratios analyze company's liquid assets which in the form of cash or can be quickly converted in cash and short-term liabilities and obligations. The company needs appropriate liquidity to maintain the operation of company, not lack of currency to bankrupt and not hold too much currency to jeopardize the operation. The formulas below are the basic ratios of liquidity ratios.

The liquidity ratios are calculated according to (2.5), (2.6) and (2.7).

Tab 4.4.2 The Liquidity ratios from 2009 to 2014

	2009	2010	2011	2012	2013	2014
Current Ratio	1.17	1.15	1.16	1.14	1.20	1.11
Quick Ratio	0.79	0.72	0.80	0.70	0.76	0.66
Cash Ratio	0.22	0.20	0.30	0.16	0.24	0.13

Chart 4.4.2 The tendency of liquidity ratios from 2009 to 2014



The chart 4.2.2 represent three different types ratios which indicate the liquidity of the Lockheed Martin Space Systems Company. The current ratio of the company smoothly waves around the 1.2, this amount of current ratio is not high, usually the current ratio of one company is over 2, but compare with the main competitor like the Boeing Company, the General Dynamic Company and the United Technologies Corporation we can find this industry, the defense contractor, are all have a current ratio around 1.2, overall the current ratio of the Lockheed Martin Space Systems Company is not so bad in this industry. The next ratio is the quick ratio, usually the common quick ratio of a company is over 1, but like the current ratio, the quick ratio of the Lockheed Martin Space Systems Company is only about 0.7 and its main competitors' quick ratios are even lower than 0.5 in average. The last ratio is the cash ratio, in the chart 4.2.2 the cash ratio of the Lockheed Martin Space Systems Company is about 0.2 in average still lower than the common amount with its competitor. The low liquidity ratios are really industry characteristic. This condition is probably caused by three reasons: first these kind of companies are all high technology companies, the need a large quantity of currency invest in research and development. Second the main customers of these kind of companies are the governments, usually they use the sales on account and the government need to use the part of budget which spread in many years to pay the bill, so that the non-current asset of company is very high which indirectly caused the low amount of current assets, then cause the low liquidity ratios. The last reason is these kind of companies are too big to fail, even they have the low liquidity ratios and even they have a bad management the government still will not allow them to bankrupt instead the government will still purchase a lot in these companies and give them bailout because they hold the core technology and if they bankrupt it will caused a lot of serious problems like the divulgence of secret, the huge increase of unemployment rate and the threat of national security.

The tab 4.4.2 indicate that the growth trend of three liquidity ratios. From the tab 4.4.2 we can find that all three ratios are very smooth, nearly no big change during six years. So the operators of the Lockheed Martin Space Systems Company are quite good at control the liquidity of company.

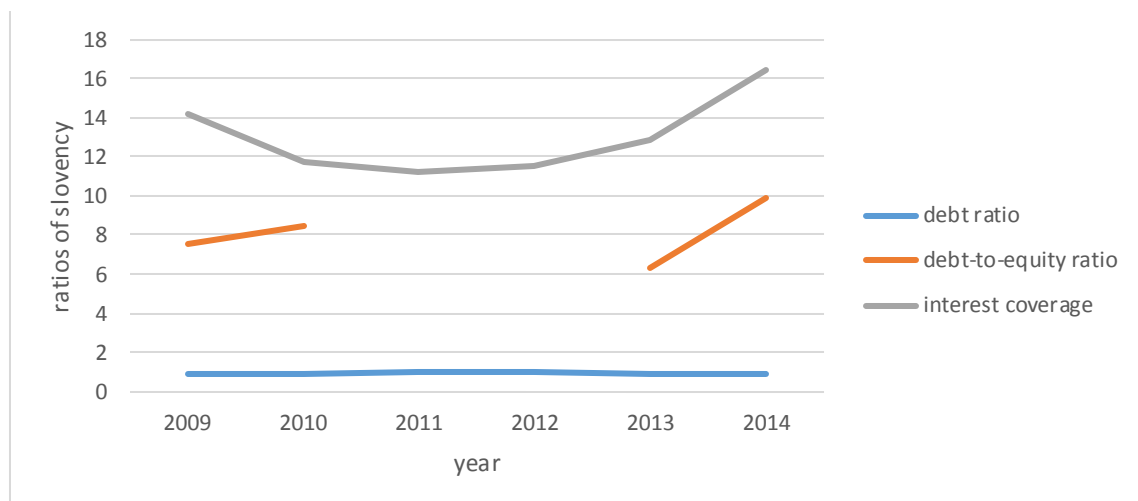
4.2.3 Solvency ratios

The Solvency ratios measure company's ability to meet its long-term obligations. It reflects whether a company has enough cash flow to pay its liability. Size of the solvency ratios reflects the level of risk in operation of company. Such ratios are mainly debt ratio, debt-to-equity ratio and interest coverage and etc. The formulas below are the main basic ratios of solvency ratios. The solvency ratios can calculate by the formula (2.9), (2.10) and (2.11)

Tab 4.4.3 The Solvency ratios from 2009 to 2014

	2009	2010	2011	2012	2013	2014
Debt ratio	0.88	0.89	0.97	1.00	0.86	0.91
Debt-to-equity Ratio	7.50	8.46	36.87	990.21	6.36	9.90
Interest Coverage Ratio	14.18	11.74	11.24	11.58	12.87	16.45

Chart 4.4.3 The tendency of the Solvency ratios from 2009 to 2014



From the chart 4.4.3, it indicates that the debt ratio of the Lockheed Martin Space Systems Company is around 0.9 in average, it is a little higher than other companies in the same industry for example the 0.6 of the Boeing Company and the 0.25 of the General Dynamic Company. So the Lockheed Martin Space Systems has a higher risk in operation than other its competitors because the debt ratio shows how many assets the company needs to sell to pay off its liability so the lower debt ratio the less asset the company use to pay its obligation. Also the high debt ratio means high risk to the investors and debt holders, because the company may have not assets to pay its liability that will cause the Lockheed Martin Space Systems Company become harder to raise capital in the financial market than other competitors, it will increase the cost of financial. The next ratio is the debt-to-equity ratio which shows the relationship between debt and equity. The debt-to-equity ratio of the Lockheed Martin Space Systems Company is shown in the tab 4.4.3, this tab indicates that the Lockheed Martin Space Systems Company has a debt-to-equity ratio even more than 7 in average. It is unimaginable because usually the debt-to-equity ratio of company is 0.5 even less like the 0.5 of the Boeing Company and the 0.3 of the General Dynamic Company. In general, the higher the debt to equity ratio indicates that the company's debt capital is higher in total capital, therefore the level of protection for the debt capital is weaker; the lower the debt-equity ratio, the company's own financial strength is strong, and thus the level of protection for debt capital is higher. So the high debt-to-equity ratio of the the Lockheed Martin Space Systems Company maybe will jeopardize the operation of the company. The last main basic solvency ratio is the interest coverage ratio which tells the extend to which the company's operating profit is able to meet current interest payments. In the tab 4.4.3 we can find the interest coverage ratio of the Lockheed Martin Space Systems Company is 12 in average. It is a very low amount because a higher interest coverage ratio indicates stronger solvency, offering greater assurance that the company can service its debt from operation earning and the lower interest coverage ratio indicate the company have some problem about service its debt from operation earning or the operation earning can not afford the debt, usually if the company's interest coverage ratio is lower than 2.5, this company has already had serious problem on financial leverage which should be noticed by the investors. Even though the interest coverage ratio of the Lockheed Martin Space Systems Company is much higher than 2.5 but compare with its main competitors

for example the 20 in average of the Boeing Company and the 35 in average of the General Dynamic Company it is quite low. But from the chart 4.4.3 the interest coverage ratio is on a growth trend which indicate the operators of the Lockheed Martin Space Systems Company are trying to increase this ratio to avoid the company get in trouble.

4.2.3 The Activity Ratios

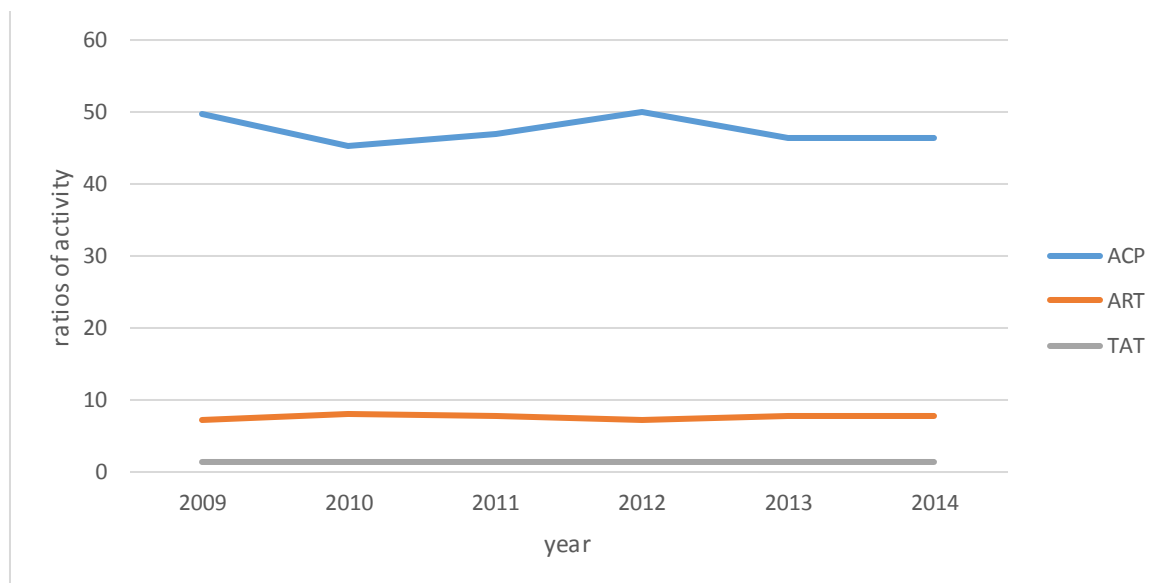
The activities ratios reflect the turnover rate and the efficiency of asset utilization, which can be used to evaluate a company's operating efficiency of its assets. The main basic ratios of activity ratios are average collection period, accounts receivable turnover and total assets turnover.

The activity ratios are calculated according to (2.12), (2.13) and (2.14).

Tab 4.4.4 The Activity ratios from 2009 to 2014

	2009	2010	2011	2012	2013	2014
ACP	49.74	45.38	46.95	50.08	46.30	46.45
ART	7.24	7.93	7.67	7.19	7.77	7.75
TAT	1.25	1.30	1.23	1.22	1.25	1.23

Chart 4.4.4 The tendency of Activity ratios from 2009 to 2014



From the tab 4.4.4 and the chart 4.4.4, we can see the average collection period of the Lockheed Martin Space Systems Company is around 50 days in average. If the average collection period is shorter, that indicating the company's accounts receivable has higher liquidity. The evaluation standard of this index is based on the business credit conditions specified in the repayment period of accounts and corporate credit policy as the basis, if the actual payback period exceeds a predetermined enterprise repayment period, showing that the funds operational efficiency is not high. Compare with its main competitors, the average collection period of the Lockheed Martin Space Systems Company is lower than the General Dynamic Company and the United Technology Corporation but a little higher than the Boeing Company. This condition is strange but good, because the main customer of the Boeing Company are not only the governments but also the business airlines and most of the airline companies will repayment on time but the governments sometimes not, however the main customers of the defense contractors are the government so it is not strange the Lockheed Martin Space Systems Company has a longer average collection period than other common companies but in the same industry it has a short average collection period which is good. The next ratio is the total assets turnover this ratio is a measure of the efficiency of enterprise asset management. In general, if the total assets turnover is high, it shows total assets turnover is fast and the sales ability is strong also the high the efficiency of asset utilization. The average value of total assets turnover of the the Lockheed Martin Space Systems Company from 2009 to 2014 is about 1.2 much higher than its competitors which indicate the company has a stronger sale ability and the efficiency of asset utilization is higher than its competitors.

4.3 The Du Pont Analysis

DuPont analysis used to evaluate a company's profitability and return on shareholders' equity level, a classical evaluation method enterprise performance from a financial point of view. The basic idea is to corporate ROE financial ratios progressively broken down into a number of product, which helps in-depth analysis and comparison of business performance.

The Du Pont analysis can be divided into four kinds of methods which are indicate below. And calculate by the formula (2.15)

We use DuPont analysis step by step, we need to decompose ROE, so we can calculate by the formula (2.16).

1. The gradual changes method

It is a method enables to quantify the changes in the basic ratio caused by the changes in the component ratio. In the case of decomposition with 3 component ratios, calculate by the formula (2.17), (2.18) and (2.19).

X means the basic ratio and ΔX is the absolute change in the basic ratio. a presents the component ratio and Δa is the absolute change in the component ratio. This method is used to analyze the influence of each item in ROE.

Tab 4.4.5 The Detail of gradual changes method from 2009 to 2011

	2009-2010		Order	2010-2011		Order
	Δa	Δx_{ai}		Δa	Δx_{ai}	
EAT/Revenue	-0.005	-5.17%	3	-0.007	-8.58%	2
Revenue/Asset	0.053	2.89%	2	-0.076	-4.09%	3
Asset/Equity	0.954	7.96%	1	28.413	199.00%	1

Tab 4.4.6 The Detail of gradual changes method from 2011 to 2013

	2011-2012		Order	2012-2013		Order
	Δa	Δx_{ai}		Δa	Δx_{ai}	
EAT/Revenue	0.001	5.02%	2	0.008	912.50%	1
Revenue/Asset	-0.007	-1.47%	3	0.033	217.93%	2
Asset/Equity	953.797	6769.67%	1	-984.308	-8108.28%	3

Tab 4.4.7 The Detail of gradual changes method from 2013 to 2014

	2013-2014		Order
	Δa	Δx_{ai}	
EAT/Revenue	0.0135	12.48%	2
Revenue/Asset	-0.0234	-1.36%	3
Asset/Equity	3.5455	34.56%	1

From the tab 4.4.5, tab 4.4.6, tab 4.4.7, the influence of each item in ROE is different in different years, however some items like the the return on assets ratios always have the similar influence level and the asset-to-equity ratio always has the biggest influence of the whole ROE.

2. The logarithmic method

In this method we need just one formula for the impact quantification regardless of how many component ratios we have, it is also an advantage of this function. Calculate by the formula (2.20).

where X means basic ratio and ΔX is absolute change in the basic ratio. l_x presents the index of change in basic ratio and l_{ai} is the index of change in component ratio.

Tab 4.4.8 The Detail of logarithmic method from 2009 to 2012

	2009-2010		2010-2011		2011-2012	
	Δx_{ai}	Order	Δx_{ai}	Order	Δx_{ai}	Order
EAT/Revenue	-5.57%	3	-17.70%	3	38.75%	2
Revenue/Asset	3.16%	2	-9.21%	2	-11.26%	3
Asset/Equity	8.08%	1	213.24%	1	6745.74%	1

Tab 4.4.9 The Detail of logarithmic method from 2012 to 2014

	2012-2013		2013-2014	
	Δx_{ai}	Order	Δx_{ai}	Order
EAT/Revenue	178.91%	1	15.23%	2
Revenue/Asset	39.68%	2	-1.53%	3
Asset/Equity	-7196.44%	3	31.98%	1

From the tab 4.4.8 and tab 4.4.9, we can find the asset-to-equity ratio has the biggest influence in all three component ratios in general and the net profit margin influence least in sometimes.

3. The functional decomposition method

The functional decomposition method works with the relative changes in basic and component ratios. Calculate by the formula (2.21), (2.22) and (2.23)

Tab 4.4.10 The Detail of functional decomposition method from 2009 to 2012

	2009-2010		2010-2011		2011-2012	
	Δx_{ai}	Order	Δx_{ai}	Order	Δx_{ai}	Order
EAT/Revenue	-5.58%	3	-20.73%	3	68.01%	2
Revenue/Asset	3.16%	2	-10.74%	2	-19.84%	3
Asset/Equity	8.09%	1	217.79%	1	6725.05%	1

Tab 4.4.11 The Detail of functional decomposition method from 20012 to 2014

	2012-2013		2013-2014	
	Δx_{ai}	Order	Δx_{ai}	Order
EAT/Revenue	463.87%	1	15.33%	2
Revenue/Asset	101.40%	2	-1.56%	3
Asset/Equity	-7543.12%	3	31.90%	1

From the tab 4.4.10 and the tab 4.4.11, the functional decomposition method indicate that the asset-to-equity have the biggest influence of the ROE and the net profit margin with the asset turnover have a small influence of the ROE.

4. The integral method

The integral method helps to analysis functional decomposition in basic and component ratios. The function can be calculated by formula (2.24)

Tab 4.4.12 The Detail of integral method from 2009 to 2012

	2009-2010		2010-2011		2011-2012	
	Δx_{aj}	Order	Δx_{aj}	Order	Δx_{aj}	Order
EAT/Revenue	-4.77%	3	-7.14%	3	5.09%	2
Revenue/Asset	2.87%	2	-3.82%	2	-1.46%	3
Asset/Equity	7.58%	1	197.29%	1	6769.60%	1

Tab 4.4.13 The Detail of integral method from 2012 to 2014

	2012-2013		2013-2014	
	Δx_{aj}	Order	Δx_{aj}	Order
EAT/Revenue	1082.73%	1	14.06%	2
Revenue/Asset	228.90%	2	-1.27%	3
Asset/Equity	-8289.48%	3	32.90%	1

From the tab 4.4.12 and the tab 4.4.13, we can find the asset-to-equity still has the strongest influence of the whole ROE and the net profit margin has the least influence.

From the four methods of the Du Pont Analysis we can find that the asset-to-equity ratio have the strongest influence of the ROE in general and the net profit margin have the least influence of the ROE in general. The total asset turnover is a little lower than its competitors which result in low rates of return on total assets and equity compensation.

However, from the perspective of performance evaluation, DuPont analysis only includes financial information, not fully reflect the strength of enterprises, so it has many limitations. For example, too much emphasis on short-term financial results, it may encourage short-term behavior of the company's management but long-term value creation of enterprises is ignored.

4.4 The sensitivity analysis

Sensitivity analysis means to identify impact on investment projects economic indicators from a number of sensitive factors of uncertainty factors, and analysis, which estimates the impact of the project and the degree of sensitivity of economic indicators, and then judge the project uncertain risk affordability.

Tab 4.5.1 The sensitivity analysis of EBIT change in gradual change method

EBIT Change	value	EAT/REV	REV/ASSET	ASSET/EQUITY	ROE
20%	5472000	0.30%	10.82%	34.56%	45.68%
10%	5016000	5.84%	5.28%	34.56%	45.68%
0%	4560000	12.48%	-1.36%	34.56%	45.68%
-10%	4104000	20.60%	-9.49%	34.56%	45.68%
-20%	3648000	30.75%	-19.64%	34.56%	45.68%

Tab 4.5.2 The sensitivity analysis of EBIT change in logarithmic method

EBIT Change	value	EAT/REV	REV/ASSET	ASSET/EQUITY	ROE
20%	5472000	0.40%	13.30%	31.98%	45.68%
10%	5016000	7.48%	6.22%	31.98%	45.68%
0%	4560000	15.23%	-1.53%	31.98%	45.68%
-10%	4104000	23.80%	-10.10%	31.98%	45.68%
-20%	3648000	33.37%	-19.68%	31.98%	45.68%

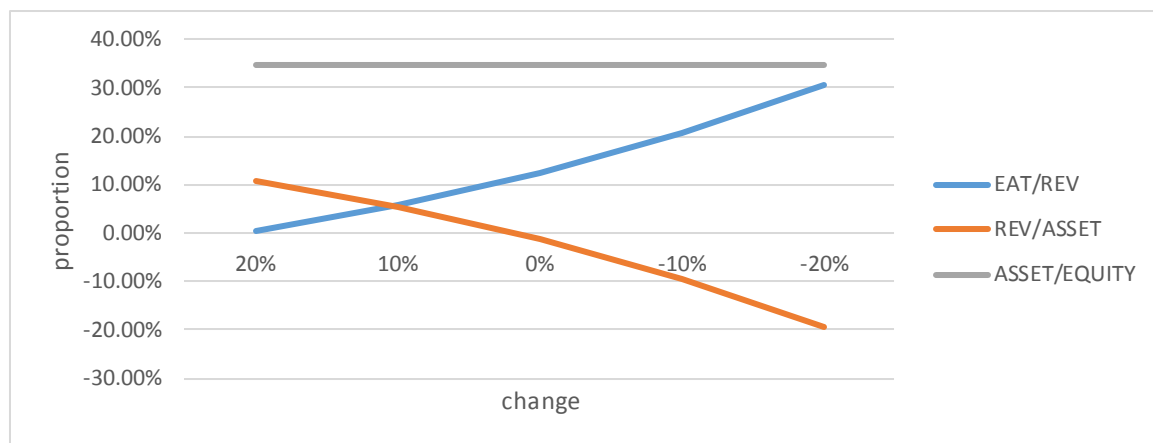
Tab 4.5.3 The sensitivity analysis of EBIT change in functional decomposition method

EBIT Change	value	EAT/REV	REV/ASSET	ASSET/EQUITY	ROE
20%	5472000	0.41%	13.39%	31.90%	45.68%
10%	5016000	7.55%	6.28%	31.90%	45.68%
0%	4560000	15.33%	-1.56%	31.90%	45.68%
-10%	4104000	23.98%	-10.37%	31.90%	45.68%
-20%	3648000	33.80%	-20.53%	31.90%	45.68%

Tab 4.5.4 The sensitivity analysis of EBIT change in integral method

EBIT Change	value	EAT/REV	REV/ASSET	ASSET/EQUITY	ROE
20%	5472000	0.34%	12.21%	33.13%	45.68%
10%	5016000	6.69%	5.52%	33.47%	45.68%
0%	4560000	14.06%	-1.27%	32.90%	45.68%
-10%	4104000	22.03%	-7.57%	31.22%	45.68%
-20%	3648000	29.93%	-12.68%	28.43%	45.68%

Chart 4.5.1 The sensitivity analysis of EBIT change



From the tab 4.5.1 to 4.5.4 and the chart 4.5.1, when use the sensitivity analysis of EBIT change, the ROE will not change because of the formula (4.2.15) also the influence of asset to equity ratio will not change. The influence of net profit margin will increase with the decrease of the EBIT because of the decrease of net profit margin. At the same time the influence of asset turnover share the same trend of the change of the EBIT change, it means if the EBIT increase the influence of asset turnover will increase and vice versa.

Tab 4.5.5 The sensitivity analysis of EAT change in gradual change method

EAT Change	value	EAT/REV	REV/ASSET	ASSET/EQUITY	ROE
20%	433680	27.10%	-1.64%	41.48%	66.94%
10%	397540	19.79%	-1.50%	38.02%	56.31%
0%	361400	12.48%	-1.36%	34.56%	45.68%
-10%	325260	5.17%	-1.23%	31.11%	35.05%
-20%	289120	-2.14%	-1.09%	27.65%	24.42%

Tab 4.5.6 The sensitivity analysis of EAT change in logarithmic method

EAT Change	value	EAT/REV	REV/ASSET	ASSET/EQUITY	ROE
20%	433680	33.25%	-1.70%	35.38%	66.94%
10%	397540	24.22%	-1.61%	33.71%	56.31%
0%	361400	15.23%	-1.53%	31.98%	45.68%
-10%	325260	6.29%	-1.45%	30.21%	35.05%
-20%	289120	-2.95%	-1.36%	28.37%	24.42%

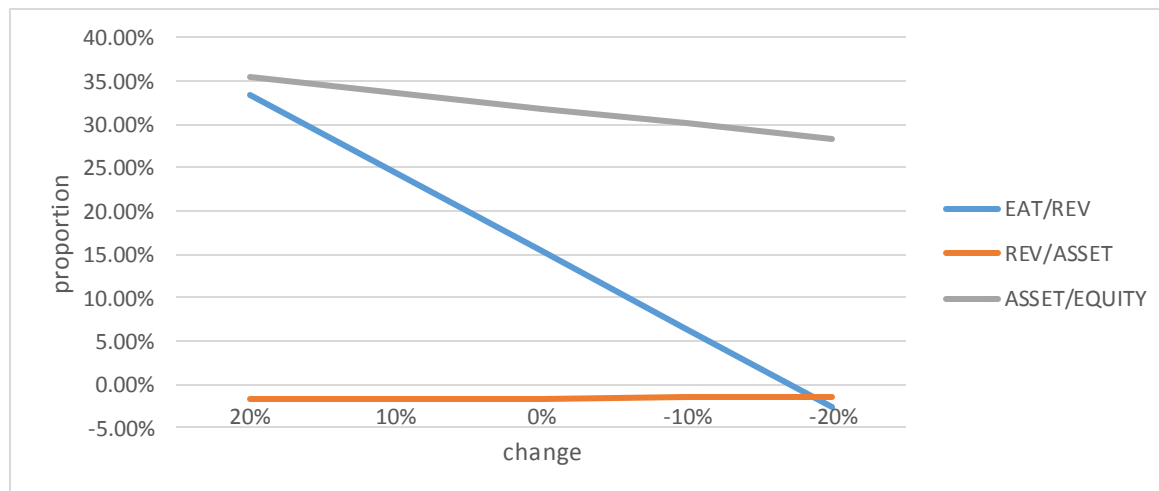
Tab 4.5.7 The sensitivity analysis of EAT change in functional decomposition method

EAT Change	value	EAT/REV	REV/ASSET	ASSET/EQUITY	ROE
20%	433680	33.30%	-1.74%	35.38%	66.94%
10%	397540	24.31%	-1.65%	33.64%	56.31%
0%	361400	15.33%	-1.56%	31.90%	45.68%
-10%	325260	6.35%	-1.47%	30.16%	35.05%
-20%	289120	-2.63%	-1.38%	28.43%	24.42%

Tab 4.5.8 The sensitivity analysis of EAT change in functional decomposition method

EAT Change	value	EAT/REV	REV/ASSET	ASSET/EQUITY	ROE
20%	433680	32.88%	-1.37%	35.43%	66.94%
10%	397540	23.28%	-1.33%	34.36%	56.31%
0%	361400	14.06%	-1.27%	32.90%	45.68%
-10%	325260	5.45%	-1.19%	30.79%	35.05%
-20%	289120	-2.01%	-1.07%	27.50%	24.42%

Tab 4.5.2 The sensitivity analysis of EAT change



From the tab 4.5.5 to tab 4.5.8 and the chart 4.5.2, we can find that with the decrease of the EAT the influence of both net profit margin and asset to equity ratio decrease but the slope of influence change of net profit margin is much higher than the asset to equity ratio does, actually the change of the asset to equity ratio is very small. But with the change of EAT there is no change of the influence of the asset turnover. Also because of the formula (4.2.15) the ROE decrease with the decrease of EAT.

Tab 4.5.9 The sensitivity analysis of equity changes in gradual change method

Equity Change	value	EAT/REV	REV/ASSET	ASSET/EQUITY	ROE
20%	408000	12.48%	-1.36%	16.85%	27.96%
10%	374000	12.48%	-1.36%	24.90%	36.02%
0%	340000	12.48%	-1.36%	34.56%	45.68%
-10%	306000	12.48%	-1.36%	46.37%	57.49%
-20%	272000	12.48%	-1.36%	61.14%	72.25%

Tab 4.5.10 The sensitivity analysis of equity changes in functional decomposition method

Equity Change	value	EAT/REV	REV/ASSET	ASSET/EQUITY	ROE
20%	408000	13.80%	-1.40%	15.55%	27.96%
10%	374000	14.46%	-1.47%	22.98%	36.02%
0%	340000	15.23%	-1.56%	31.90%	45.68%
-10%	306000	16.14%	-1.66%	42.81%	57.49%
-20%	272000	17.24%	-1.80%	56.43%	72.25%

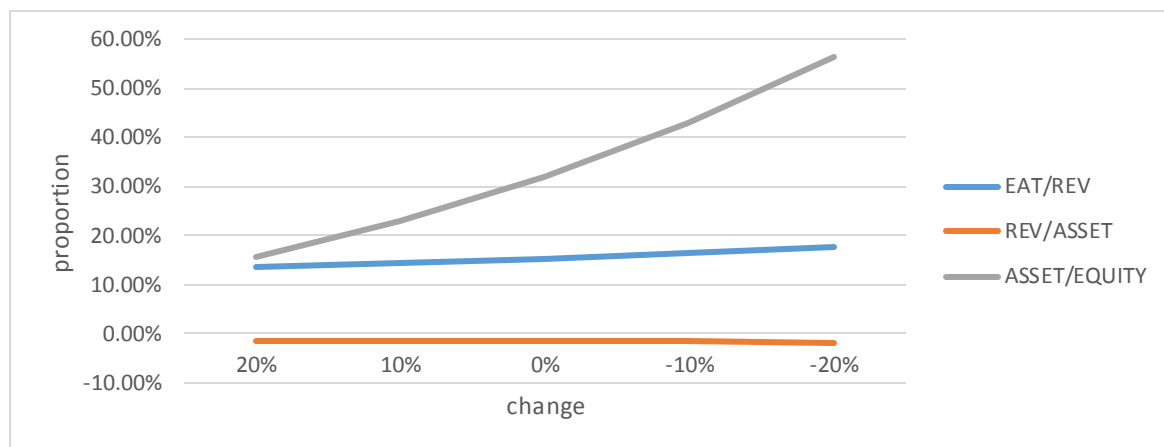
Tab 4.5.11 The sensitivity analysis of equity changes in logarithmic method

Equity Change	value	EAT/REV	REV/ASSET	ASSET/EQUITY	ROE
20%	408000	13.80%	-1.39%	15.55%	27.96%
10%	374000	14.46%	-1.45%	23.01%	36.02%
0%	340000	15.23%	-1.53%	31.98%	45.68%
-10%	306000	16.14%	-1.62%	42.98%	57.49%
-20%	272000	17.24%	-1.73%	56.75%	72.25%

Tab 4.5.12 The sensitivity analysis of equity changes in functional decomposition method

Equity Change	value	EAT/REV	REV/ASSET	ASSET/EQUITY	ROE
20%	408000	13.64%	-1.24%	15.56%	27.96%
10%	374000	13.88%	-1.26%	23.40%	36.02%
0%	340000	14.06%	-1.27%	32.90%	45.68%
-10%	306000	14.20%	-1.29%	44.58%	57.49%
-20%	272000	14.31%	-1.30%	59.24%	72.25%

Chart 4.5.3 The sensitivity analysis of equity changes



The tab 4.5.8 to tab 4.5.12 and the chart 4.5.3 reflect that with the decrease of equity the influence of asset to equity will increase. The influence of asset turnover almost no change like the net profit margin. Also the ROE will increase with the decrease of the equity.

Tab 4.5.13 The sensitivity analysis of assets changes in gradual change method

Assets change	value	EAT/REV	REV/ASSET	ASSET/EQUITY	ROE
20%	4448760	12.48%	-13.32%	46.52%	45.68%
10%	4078030	12.48%	-7.89%	41.08%	45.68%
0%	3707300	12.48%	-1.36%	34.56%	45.68%
-10%	3336570	12.48%	6.61%	26.59%	45.68%
-20%	2965840	12.48%	16.57%	16.63%	45.68%

Tab 4.5.14 The sensitivity analysis of assets changes in logarithmic method

Assets change	value	EAT/REV	REV/ASSET	ASSET/EQUITY	ROE
20%	4448760	15.23%	-16.36%	46.81%	45.68%
10%	4078030	15.23%	-9.28%	39.74%	45.68%
0%	3707300	15.23%	-1.53%	31.98%	45.68%
-10%	3336570	15.23%	7.04%	23.42%	45.68%
-20%	2965840	15.23%	16.62%	13.84%	45.68%

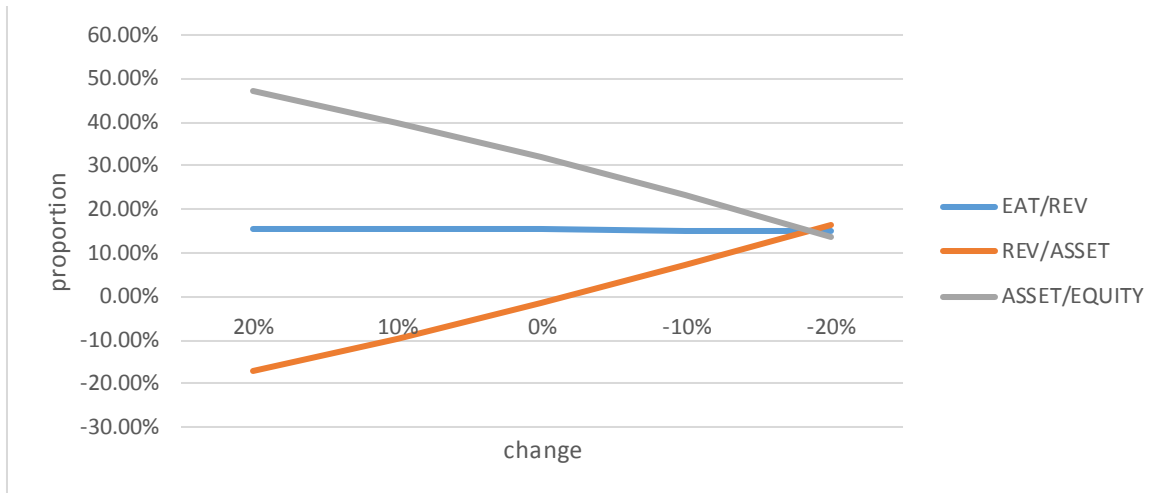
Tab 4.5.15 The sensitivity analysis of assets changes in functional decomposition method

Assets change	value	EAT/REV	REV/ASSET	ASSET/EQUITY	ROE
20%	4448760	15.61%	-17.07%	47.14%	45.68%
10%	4078030	15.46%	-9.55%	39.78%	45.68%
0%	3707300	15.33%	-1.56%	31.90%	45.68%
-10%	3336570	15.25%	7.08%	23.35%	45.68%
-20%	2965840	15.23%	16.60%	13.85%	45.68%

Tab 4.5.12 The sensitivity analysis of equity changes in functional decomposition method

Assets change	value	EAT/REV	REV/ASSET	ASSET/EQUITY	ROE
20%	4448760	11.73%	-10.38%	44.33%	45.68%
10%	4078030	12.92%	-6.77%	39.53%	45.68%
0%	3707300	14.06%	-1.27%	32.90%	45.68%
-10%	3336570	14.93%	6.55%	24.20%	45.68%
-20%	2965840	15.22%	16.75%	13.71%	45.68%

Tab 4.5.4 The sensitivity analysis of assets changes



In the chart 4.5.4 and tab 4.5.12 to 4.5.16, the tendency of the influence of net profit margin and asset to equity ratio is opposite, with the decrease of the asset the influence of net profit margin is increase but the influence of asset to equity ratio is decrease. And the ROE and the influence of asset turnover will not change with the change of the asset.

5. Results and The prospects of the Lockheed Martin Space System Company

From the analysis in chapter 4 we can get some result.

First from the common-size analysis of the balance sheet operation situation of the Lockheed Martin Space Systems Company is getting better, even suffering the economic recession since 2008. The company keep a stable positive development during these years. The analysis of the income statement indicates the company' net sale and the operating profit keep growing in the past six years and the control of cost of sales is good and the total cost of sales is in a slowly decrease trend. In the analysis of the cash flow of the Lockheed Martin Space System Company we can find that the company seems still keep in stable in its financial situations.

From the analysis of financial ratios, we use four different types of ratios. In the analysis of profitability ratios, we find the ratio keep at a high level and keep growth compare with other same industry company the growth trend not only indicate the economy recovery and the tense situation of international security but also tell investors the high profitability of this company. The liquidity ratios analysis indicate all three ratios are very smooth, nearly no big change during these six years means the operators of the Lockheed Martin Space Systems Company are quite good at control the liquidity of company. The solvency ratios analysis indicate that the company seems has some problem in its equity because the debt-to-equity ratio is too high even compare with the company in the same industry. The leadership of the company need to take action to operate the company and make it healthy. In the activity ratio analysis, the result indicate the company has a stronger sale ability and the efficiency of asset utilization is higher than other companies in the same industry. Which means the Lockheed Martin Space System Company has more competitiveness than its competitors.

As the biggest cooperator of the Department of Defense and NASA (National Aeronautics and Space Administration) of United State, the Lockheed Martin Space System Company even occupy a quite large proportion of the defense budget of the United State government

once for a time. In the coming foreseeable future the Lockheed Martin Space System Company will keep a growth trend in its operation and to decrease the cost and increase the competitiveness the company maybe purchase some small defense contracts or the part of other big high technology company, for example the Lockheed Martin Space System Company purchased the Sikorsky Aircraft Corporation (once belong to the United Technologies Corporation) in the price of \$ 9 billion. And the Lockheed Martin Space System Company can also merge with some big high technology company to increase its competitiveness for example the Lockheed Martin Space System Company wants to merge with the Northrop Grumman but this project was reject by the United State Congress, in the reason of prevent monopoly and corruption.

In the future the Lockheed Martin Space System Company maybe be will establish partnership with the Space X (Space Exploration Technology) or even purchase it to get its technology on rocket reuse. And the Lockheed Martin Space System Company can purchase the aviation department of the General Electric Company to strength its research and development on aircraft and reduce the cost, because the Lockheed Martin Space System Company has a very weak ability on the development of jet engine and the jet engine is one of the most important and most expensive part of the modern jet aircraft.

The leadership of the Lockheed Martin Space System Company will keep concentrate on the relationship with the Department of Defense and the United State government and try to maintain its image because in 2000 due to the Lockheed Martin Space System Company provide secret messages to the AsiaSat which holding by the Chinese government, it was fined \$ 13 million by the US government this is the biggest taint of this company.

In general, the Lockheed Martin Space System will keep stable growth in the future unless the world war break the operating of the company will not get huge change. And the Lockheed Martin Space System Company has a trend to become too big to fail.

6. Conclusion

From the financial analysis of common-size analysis, financial ratios analysis, Du Pont analysis and the sensitivity analysis, we can inform that the Lockheed Martin Space System Company has a good and stable financial situation. Because the Lockheed Martin Space System Company is the largest defense contractor in the world and master the core technic, its products like PAC-3 missile and F-35 Flashlight aircraft still have no one could compere with them so far. The operator of the company work cautious and conscientious and the profitability of the company is good which attract a lot of investor.

This thesis is divided into six part to analysis the Lockheed Martin Space System Company: the introduction, the conclusion, the financial analysis methodology statement, the history and the present financial situation of the Lockheed Martin Space System Company, the financial analysis of the Lockheed Martin Space System Company and the result and prospect of this company. In this thesis we choose the data of financial condition from the company's annual report from 2009 to 2014 to analysis the financial situation of the Lockheed Martin Space System Company.

In the part of the history and the present financial situation of the company we can find that the company develops very stable and have a very good financial situation. In 2015, the Lockheed Martin Space System Company has approximately \$ 46.1 billion in total sales which not include other services. And the total assets of the company are \$ 491.28 billion. So that is not strange the Lockheed Martin Space System Company is the biggest and most powerful defense contractor in the world.

In the part of financial analyze we use the financial data to analyze the company. In 4.1 we use the vertical and horizontal common-size analysis to analysis the balance sheet, the income statement and the cash flow of the Lockheed Martin Space System Company. From the analysis, the result shows the company's total asset was increasing during 2009 to 2014 but the liabilities keep stable nearly with no change during these six years. The profitable of the company was increase in six years and are all positive which indicate the company keep earning money and the financial situation is well. In 4.2 we use four kinds of financial

ratios to analysis the company. The profitable ratios analysis in 4.2.1 indicate the Lockheed Martin Space System Company's profitability is better than other company in the same industry like the Boeing Company and the General Dynamic. The same situation in liquidity ratios analysis and the activity analysis but in the solvency ratios analysis the debt to equity ratios is much higher than other company in the same industry because the Lockheed Martin Space System Company had some problem in equity control. But in general the financial situation of Lockheed Martin Space System Company is healthy and this company is safety in invest.

The part of Du Pond analysis also known as pyramid decomposition. From this analysis we can find in general the asset-to-equity ratio have the strongest influence of the ROE in general and the net profit margin have the least influence of the ROE. The total asset turnover is a little lower than its competitors which result in low rates of return on total assets and equity compensation.

The next part is the sensitivity analysis. From the analysis in this part, we can indicate when the EBIT change the influence of net profit margin will increase with the decrease of the EBIT because of the decrease of net profit margin, when the EAT change, both net profit margin and asset to equity ratio decrease but the slop of influence change of net profit margin is much higher than the asset to equity ratio does and if the equity change the influence of asset turnover almost no change like the net profit margin. Also the ROE will increase with the decrease of the equity and if the asset change influence of net profit margin and asset to equity ratio is opposite, with the decrease of the asset the influence of net profit margin is increase but the influence of asset to equity ratio is decrease.

The result and the prospect part indicate the Lockheed Martin Space System will keep stable growth in the future unless the world war break the operating of the company will not get huge change. And the Lockheed Martin Space System Company has a trend to become too big to fail. So may be in few years later the US government will take some action to avoid the too big to fail situation for example divided the whole big company into several small wholly-owned subsidiaries. This may be one of the risk to the investor but in the view of the company at present this risk is very low.

In all the the Lockheed Martin Space System Company is a good company to invest and it has a great future.

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List of abbreviations

ACP---Average collection period

DoD---Department of defense

EBIT---Earn before interest and tax

EAT---Earn after tax

NPM---Net profit margin

OPM---Operating profit margin

ROA---Return on assets

ROE---Return on equity

TAT---Total assets turnover

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Ostrava dated: 03.05.2016

Jun Gao 高纯

Student's name and surname

List of Annexes

1. The balance sheet of the Lockheed Martin Space System Company.
2. The income statement of the Lockheed Martin Space System Company.
3. The cash flow of the Lockheed Martin Space System Company.

Annexes 1

Lockheed Martin Corporation
Consolidated Balance Sheets
(in millions, except par value)

	December 31,	
	2014	2013
Assets		
Current assets		
Cash and cash equivalents	\$ 1,446	\$ 2,617
Receivables, net	5,884	5,834
Inventories, net	2,882	2,977
Deferred income taxes	1,451	1,088
Other current assets	666	813
Total current assets	12,329	13,329
Property, plant and equipment, net	4,755	4,706
Goodwill	10,862	10,348
Deferred income taxes	4,013	2,850
Other noncurrent assets	5,114	4,955
Total assets	\$ 37,073	\$ 36,188
Liabilities and stockholders' equity		
Current liabilities		
Accounts payable	\$ 1,570	\$ 1,397
Customer advances and amounts in excess of costs incurred	5,790	6,349
Salaries, benefits and payroll taxes	1,826	1,809
Other current liabilities	1,926	1,565
Total current liabilities	11,112	11,120
Accrued pension liabilities	11,413	9,361
Other postretirement benefit liabilities	1,102	902
Long-term debt, net	6,169	6,152
Other noncurrent liabilities	3,877	3,735
Total liabilities	33,673	31,270
Stockholders' equity		
Common stock, \$1 par value per share	314	319
Additional paid-in capital	—	—
Retained earnings	14,956	14,200
Accumulated other comprehensive loss	(11,870)	(9,601)
Total stockholders' equity	3,400	4,918
Total liabilities and stockholders' equity	\$ 37,073	\$ 36,188

The accompanying notes are an integral part of these consolidated financial statements.

Lockheed Martin Corporation
Consolidated Balance Sheets
(in millions, except par value)

	December 31,	
	2012	2011
Assets		
Current assets		
Cash and cash equivalents	\$ 1,898	\$ 3,582
Receivables, net	6,563	6,064
Inventories, net	2,937	2,481
Deferred income taxes	1,269	1,339
Other current assets	1,188	628
Total current assets	13,855	14,094
Property, plant, and equipment, net	4,675	4,611
Goodwill	10,370	10,148
Deferred income taxes	4,809	4,388
Other noncurrent assets	4,948	4,667
Total assets	\$ 38,657	\$ 37,908
Liabilities and stockholders' equity		
Current liabilities		
Accounts payable	\$ 2,038	\$ 2,269
Customer advances and amounts in excess of costs incurred	6,503	6,399
Salaries, benefits, and payroll taxes	1,649	1,664
Current portion of long-term debt	150	—
Other current liabilities	1,815	1,798
Total current liabilities	12,155	12,130
Long-term debt, net	6,158	6,460
Accrued pension liabilities	15,278	13,502
Other postretirement benefit liabilities	1,220	1,274
Other noncurrent liabilities	3,807	3,541
Total liabilities	38,618	36,907
Stockholders' equity		
Common stock, \$1 par value per share	321	321
Additional paid-in capital	—	—
Retained earnings	13,211	11,937
Accumulated other comprehensive loss	(13,493)	(11,257)
Total stockholders' equity	39	1,001
Total liabilities and stockholders' equity	\$ 38,657	\$ 37,908

The accompanying notes are an integral part of these consolidated financial statements.

Lockheed Martin Corporation
Consolidated Balance Sheets

<i>(In millions, except per share data)</i>	<i>December 31,</i>	
	<i>2010</i>	<i>2009</i>
Assets		
Current Assets		
Cash and Cash Equivalents	\$ 2,261	\$ 2,391
Short-term Investments	516	346
Receivables	5,757	6,061
Inventories	2,378	2,183
Deferred Income Taxes	1,038	815
Assets of Discontinued Operation Held for Sale	399	—
Other Current Assets	502	681
Total Current Assets	12,851	12,477
Property, Plant, and Equipment, Net	4,554	4,520
Goodwill	9,605	9,948
Deferred Income Taxes	3,482	3,779
Other Assets	4,575	4,387
Total Assets	\$ 35,067	\$ 35,111
Liabilities and Stockholders' Equity		
Current Liabilities		
Accounts Payable	\$ 1,627	\$ 2,030
Customer Advances and Amounts in Excess of Costs Incurred	5,719	5,049
Salaries, Benefits and Payroll Taxes	1,870	1,648
Liabilities of Discontinued Operation Held for Sale	204	—
Other Current Liabilities	1,737	1,976
Total Current Liabilities	11,157	10,703
Long-term Debt, Net	5,019	5,052
Accrued Pension Liabilities	10,607	10,823
Other Postretirement Benefit Liabilities	1,213	1,308
Other Liabilities	3,363	3,096
Total Liabilities	31,359	30,982
Stockholders' Equity		
Common Stock, \$1 Par Value Per Share	346	373
Additional Paid-in Capital	—	—
Retained Earnings	12,372	12,351
Accumulated Other Comprehensive Loss	(9,010)	(8,595)
Total Stockholders' Equity	3,708	4,129
Total Liabilities and Stockholders' Equity	\$ 35,067	\$ 35,111

See accompanying Notes to Consolidated Financial Statements.

Annexes 2

Lockheed Martin Corporation
Consolidated Statements of Earnings
(in millions, except per share data)

	Years Ended December 31,		
	2014	2013	2012
Net sales			
Products	\$ 36,093	\$ 35,691	\$ 37,817
Services	9,507	9,667	9,365
Total net sales	45,600	45,358	47,182
Cost of sales			
Products	(31,965)	(31,346)	(33,495)
Services	(8,393)	(8,588)	(8,383)
Goodwill impairment charges	(119)	(195)	—
Severance charges	—	(201)	(48)
Other unallocated, net	132	(841)	(1,060)
Total cost of sales	(40,345)	(41,171)	(42,986)
Gross profit	5,255	4,187	4,196
Other income, net	337	318	238
Operating profit	5,592	4,505	4,434
Interest expense	(340)	(350)	(383)
Other non-operating income, net	6	—	21
Earnings from continuing operations before income taxes	5,258	4,155	4,072
Income tax expense	(1,644)	(1,205)	(1,327)
Net earnings from continuing operations	3,614	2,950	2,745
Net earnings from discontinued operations	—	31	—
Net earnings	\$ 3,614	\$ 2,981	\$ 2,745
Earnings per common share			
Basic			
Continuing operations	\$ 11.41	\$ 9.19	\$ 8.48
Discontinued operations	—	.10	—
Basic earnings per common share	\$ 11.41	\$ 9.29	\$ 8.48
Diluted			
Continuing operations	\$ 11.21	\$ 9.04	\$ 8.36
Discontinued operations	—	.09	—
Diluted earnings per common share	\$ 11.21	\$ 9.13	\$ 8.36

The accompanying notes are an integral part of these consolidated financial statements.

Lockheed Martin Corporation
Consolidated Statements of Earnings

<i>(In millions, except per share data)</i>	<i>Year ended December 31,</i>		
	2011	2010	2009
Net Sales			
Products	\$ 36,925	\$ 36,380	\$ 35,689
Services	9,574	9,291	8,178
Total net sales	46,499	45,671	43,867
Cost of Sales			
Products	(32,968)	(32,539)	(31,643)
Services	(8,514)	(8,382)	(7,406)
Severance and other charges	(136)	(220)	—
Other unallocated corporate costs	(1,177)	(742)	(671)
Total cost of sales	(42,795)	(41,883)	(39,720)
Gross profit	3,704	3,788	4,147
Other income, net	276	261	220
Operating Profit	3,980	4,049	4,367
Interest expense	(354)	(345)	(308)
Other non-operating income, net	5	74	123
Earnings from continuing operations before income taxes	3,631	3,778	4,182
Income tax expense	(964)	(1,164)	(1,215)
Net earnings from continuing operations	2,667	2,614	2,967
Net earnings (loss) from discontinued operations	(12)	264	6
Net Earnings	\$ 2,655	\$ 2,878	\$ 2,973
Earnings (Loss) Per Common Share			
Basic			
Continuing operations	\$ 7.94	\$ 7.18	\$ 7.71
Discontinued operations	(.04)	.72	.02
Basic earnings per common share	\$ 7.90	\$ 7.90	\$ 7.73
Diluted			
Continuing operations	\$ 7.85	\$ 7.10	\$ 7.63
Discontinued operations	(.04)	.71	.01
Diluted earnings per common share	\$ 7.81	\$ 7.81	\$ 7.64

See accompanying Notes to Consolidated Financial Statements.

Annexes 3

Lockheed Martin Corporation
Consolidated Statements of Cash Flows
(in millions)

	Years Ended December 31,		
	2014	2013	2012
Operating activities			
Net earnings	\$ 3,614	\$ 2,981	\$ 2,745
Adjustments to reconcile net earnings to net cash provided by operating activities			
Depreciation and amortization	994	990	988
Stock-based compensation	164	189	167
Deferred income taxes	(401)	(5)	930
Goodwill impairment charges	119	195	—
Severance charges	—	201	48
Changes in assets and liabilities			
Receivables, net	28	767	(460)
Inventories, net	77	(60)	(422)
Accounts payable	95	(647)	(236)
Customer advances and amounts in excess of costs incurred	(572)	(158)	57
Postretirement benefit plans	(880)	(375)	(1,883)
Income taxes	351	364	(535)
Other, net	277	104	162
Net cash provided by operating activities	3,866	4,546	1,561
Investing activities			
Capital expenditures	(845)	(836)	(942)
Acquisitions of businesses and investments in affiliates	(898)	(269)	(259)
Other, net	20	(16)	24
Net cash used for investing activities	(1,723)	(1,121)	(1,177)
Financing activities			
Repurchases of common stock	(1,900)	(1,762)	(990)
Proceeds from stock option exercises	308	827	440
Dividends paid	(1,760)	(1,540)	(1,352)
Repayments of long-term debt	—	(150)	—
Premium paid on debt exchange	—	—	(225)
Other, net	38	(81)	59
Net cash used for financing activities	(3,314)	(2,706)	(2,068)
Net change in cash and cash equivalents	(1,171)	719	(1,684)
Cash and cash equivalents at beginning of year	2,617	1,898	3,582
Cash and cash equivalents at end of year	\$ 1,446	\$ 2,617	\$ 1,898

The accompanying notes are an integral part of these consolidated financial statements.

Lockheed Martin Corporation
Consolidated Statements of Cash Flows

<i>(In millions)</i>	<i>Year ended December 31,</i>		
	2011	2010	2009
Operating Activities			
Net earnings	\$ 2,655	\$ 2,878	\$ 2,973
Adjustments to reconcile net earnings to net cash provided by operating activities:			
Depreciation and amortization	1,008	1,052	1,014
Stock-based compensation	157	168	154
Deferred income taxes	(2)	452	567
Severance and other charges	136	220	—
Reduction in tax expense from resolution of certain tax matters	(89)	(10)	(69)
Tax expense related to Medicare Part D reimbursement	—	96	—
Net adjustments related to discontinued operations	(16)	(257)	—
Changes in assets and liabilities:			
Receivables, net	(363)	3	(685)
Inventories, net	(74)	(207)	(237)
Accounts payable	609	(364)	(21)
Customer advances and amounts in excess of costs incurred	502	706	496
Postretirement benefit plans	(393)	(1,027)	(394)
Income taxes	304	70	(272)
Other, net	(181)	21	(39)
Net cash provided by operating activities	4,253	3,801	3,487
Investing Activities			
Expenditures for property, plant and equipment	(814)	(820)	(852)
Expenditures for capitalized internal-use software	(173)	(254)	(314)
Net cash provided by (used for) short-term investment transactions	510	(171)	(279)
Net proceeds from sale of EIG	—	798	—
Acquisitions of businesses / investments in affiliates	(649)	(148)	(435)
Other, net	313	22	48
Net cash used for investing activities	(813)	(573)	(1,832)
Financing Activities			
Repurchases of common stock	(2,465)	(2,420)	(1,851)
Common stock dividends	(1,095)	(969)	(908)
Issuance of long-term debt, net of related costs	1,980	—	1,464
Repayments of long-term debt	(632)	—	(242)
Other, net	93	31	105
Net cash used for financing activities	(2,119)	(3,358)	(1,432)
Net increase (decrease) in cash and cash equivalents	1,321	(130)	223
Cash and cash equivalents at beginning of year	2,261	2,391	2,168
Cash and cash equivalents at end of year	\$ 3,582	\$ 2,261	\$ 2,391

See accompanying Notes to Consolidated Financial Statements.