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Hodnocení finanční výkonnosti společnosti Dongfeng Hongtai
Evaluation of Financial Performance of Dongfeng Hongtai Company

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Description:

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

In Ostrava 6.May 2015

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Content

1 Introduction

Financial analysis is an instrument which in order to make financial decision, people selection, evaluation, and interpret financial data, along with other pertinent information. It is performed by professionals who prepare reports using ratios that make use of information taken from financial statements and other reports. This result reports are mainly for top management of a company to make decisions on future development. Financial analysis of the ultimate goal is to provide financial statement users to make relevant decisions. General purpose of financial analysis can be summarized as: to evaluate the past performance, measure current financial situation, to predict the future trend of development.

The aim of submitted bachelor thesis is provide the financial analysis of Dongfeng Hongtai Company during 2009 to 2013 period.

The reason that I choose Dongfeng Hongtai Company as my subject on financial analysis is that Dongfeng Hongtai Company is a very famous auto company in China and auto industrial has close connection with people's standard of living. Through financial analysis of Dongfeng Hongtai Company, we can get a general ideal about why Dongfeng Hongtai Company can perform well during 5 years. This thesis is divided into 5 chapters.

The main sources of financial information are the balance sheet statement, the income statement, and the cash flow statement during period 2009 to 2013 of Dongfeng Hongtai Company. The financial analysis of Dongfeng Hongtai Company is based on evaluating company and industry data from various sources.

In chapter 2, there are three methods of analysis used in this thesis, which will be described in detail. There are three main parts of this chapter, description on balance sheet, income statement and cash flow, description on common size analysis and financial ratio analysis, description on pyramidal decomposition of return on equity.

In chapter 3, the general idea about the product and service, achievement, ownership and development will be presented. Through this chapter, the image of what Dongfeng Hongtai Company looks like will appear.

Chapter 4 is the most important part of this thesis, data from the balance sheet, income statement and cash flow from period 2009 to 2013 of Dongfeng Hongtai Company will be used. Common size analysis, financial ratios, pyramidal decomposition of return on equity will be combined with the data to provide us with the more concrete idea about the financial trend of Dongfeng Hongtai Company.

In chapter 5, the general conclusion will be draw about what Dongfeng Hongtai Company's development is, which aspects still need to be improved, how can Dongfeng Hongtai Company develops well in the future.

2 Description of the financial analysis

In this part, we will explain three methods of financial analysis, Common-size analysis, financial ratio analysis and pyramidal decomposition of return on equity. At the same time, we will introduce the main three statements, balance sheet, cash flow statement, and income statement.

Financial analysis, which refers to profitability, solvency, liquidity, stability, history and the prospects for growth, trade comparison and other financial indicators and methods, analysis of enterprise, project or investment. And the financial analysis of a company is a process to formulate an assessment of the company's present and future financial condition which is good for understanding whether a company is worth to be invested in.

Financial analysis can be used to evaluate the condition of a company, its ability to manage expenses the effectiveness of its credit policies. We usually analyze the financial conditions of a company through some analysis tools, for example Common-size analysis and financial ratio analysis and pyramidal decomposition of return on equity which based on several main statements of a company.

At the same time, financial analysis has three regular aims. The first aim is to master the regular pattern of enterprise production and business operation. Financial analysis is to grasp and understand enterprise production and operation of capital movement regulations, and thus it can serve for the enterprise financial management and production management. The second one is to know the operation and business situation of a business and find out possible problems. Through the financial analysis, we can make wise decision accordingly and solve the problems. The third one is to get a clear idea about enterprise's strengths and shortages, choose the right strategies for the company so that the company can function better in the market. The strengths and shortages of the company are reflected in the company's solvency ability, profitability ability and so on.

At the same time, according to the comparison and analysis of these factors, the company can make clear ideal of the strengths and shortages of its competitors so that the company can take effective competition strategy during operating activities. From the other side, we can make the purpose of financial analysis from the different market subjects. Through regularly checking

enterprise's management performance, managers can determine whether some links appear omissions.

From the investors' perspective, the meaning of financial analysis mainly reflects on two aspects. Through analysis of net assets and the profitability of businesses, investors decide whether or not to invest more money. For lenders, in order to get the principal and interest on schedule, it is necessary for lenders to analyze the company's solvency. To decide whether to continue to have the financial resources of creditor's rights by figuring out whether the funds of the company are enough to be used to pay off debts.

2.1 Financial statements

There are many sources of the financial analysis data. Financial statements is the primary sources to analyze the financial condition of a company. The three basic financial statements: balance sheet statement, income statement and cash flow. The balance sheet statement, which includes the company's assets, liabilities and owner' equity. Income statement also called profit or loss statement, which shows how the net income of the firm is arrived at over a stated period. The cash flow statement, which shows the inflows and outflows of cash caused by the firm's three activities during a stated period.
Source: http://www.businessdictionary.com/definition/financial-statement.html

In this part, we will continue to introduce the balance sheet statement, income statement and cash flow statement.

2.1.1 Balance Sheet Statement

Balance sheet reflects the company at a specific date (such as the end of the quarter, year-end) of all assets, liabilities and owners' equity of the financial statements, which show the interest in possession or control of economic resources at a certain date, the existing obligations and net assets of the owner of a claim. The balance sheet, which balances the use of accounting principles, will be in line with the accounting principles of assets, liabilities and owners' equity.

The balance sheet shows business at some point in time the financial position of static reports. The transaction accounts into assets, liabilities and owners' equity the two blocks after a sub-record, transfer, ledger, trial balance, adjusting the accounting procedures and so on, in a static situation of the enterprise as a benchmark specific date, condensed into a report.

Assets are defined by the business transaction in the past to bring the matter or form, owned or controlled by the company, is expected to give companies the economic interests of the resource. Assets refer to any commercial or exchange value of anything that companies, institutions and individuals owned. Assets can be classified as current assets, fixed assets, tangible assets, intangible assets and so on.

Liabilities, is an enterprise past transaction or event, expected to result in a present obligation of outflow of economic benefits. Liabilities are the economic enterprise debt, which must be repaid after a certain period, the repayment period or a specific amount of time they had occurred or was established by the contract, the provisions of regulations and constraints. Liability is an obligation that must be fulfilled.

Equity refers to the residual interest in shareholders' equity after deducting liabilities of corporate assets enjoyed by the owner. Including stock, capital reserves, surplus reserves and retained earnings. Owner's equity is affected by changes in the occurrence of change and total change in total assets and liabilities. The proportion of owner's equity contribution contains the owner's share of its profits. At the same time, the owner must take the business risks of their contribution. Owners' equity also means that the owner has a legal right to entrust the management of companies and others to manage the enterprise.

A standard company balance sheet has three parts: assets, liabilities and owners’ equity. The main categories of assets are usually listed on the first, and typically in order of liquidity. Assets are followed by the liabilities. The total amount for assets must equal to the combined total amounts for liabilities and owners' equity. The balance sheet is shown in *Table 2.1*.

Table 2.1 Example of the balance sheet.

Balance Sheet Statement	
Assets	**Liabilities**
Current Assets	Accounts payable
Accounts receivable	Long-term bank loan
Inventories	Short-term liabilities
Cash	Other current liabilities
Long-term Assets	**Equity**
Land	Common stock
Building	Preferred stock
Equipment	Retained earnings

Source: own elaboration

2.1.2 Income Statement

Income statement reflects the business a certain accounting period, which can be monthly, quarterly, semi-annually or annually. It also reflects production and operating results of the financial statements. Operating results of both a certain accounting period may appear to be profitable, it may appear to be a loss, therefore, the income statement is also known as the income statement. It fully reveals the variety of business income in a particular period of implementation, various fees, costs or expenses occurred, as well as corporate profits realized loss situation or occurrence.

We can divide the income statement to two parts, the first part is the operating part and the second part is non-operating part. The aim of the income statement is to reveal a company's management to investors whether the company earn or lost money over the fiscal period.

The income statement is based on *income - costs = profit* to prepare the basic relationship, the specific contents depend on income, costss, profits and other accounting elements and their content, the project is a concrete manifestation of the income statement, expense and profit factor content. From the perspective of capital movements reflect the business perspective, it is a reflection of the financial statements of the dynamic performance of the business, the main provider of the operating results of the relevant aspects of corporate information, financial statements are dynamic. The basic formula is shown in *(2.1)*. The income statement is shown in *Table 2.2*.

$$Revenues - costs = net\ income \quad (2.1)$$

Table 2.2 Example of the income statement

Income statement
Revenues
Cost
Operating costs
Business tax and surcharges
Selling costs
Administrative costs
Finance costs
Impairment of assets
The total profit(EBIT)
Interests
EBT
Income tax
Net profit(EAT)

Source: own elaboration

To sum up, income statement is a dynamic financial record of the company operating performance during a period of time, reflect the period of sales revenue, cost of sales, operating costs and tax payment and report the results for the company to achieve profits or get losses. It displays the revenues recognized for a specific period, and the cost and expenses charged against these revenues, with the basic equation of *Profit = Revenue – Costs*.

2.1.3 Cash Flow Statement

Cash Flow is a reaction period of time (such as monthly, quarterly or annual) business activities, investing activities and financing activities of its cash and cash equivalents of the impact of the financial statements. This report shows that the balance sheet (Balance Sheet) and income statements (Income Statement / Profit and Loss Account) in cash and cash equivalents affect how well an analysis based on the company's operating, investing and financing perspective. As an analytical tool, the main role of the cash flow statement is to determine the short-term viability of the company, in particular the ability to pay bills. *(Vance, 2002)*

Cash flow statement reflects a company in a certain period of cash inflows and cash outflows

dynamic situation reports. Its contents are consistent with the composition of the balance sheet and income statement. By cash flow statement can be summarized to reflect operating activities, investing activities and financing activities affect the inflow of corporate cash outflow for the evaluation of corporate profits, financial position and financial management than the traditional income statement provides a better foundation. The cash flow can be positive or negative. The inflow is amount of money received during a period and the outflow is amount of money spent during a period. The basic formulas are as follows:

Net cash flow= sum of inflow- sum of outflow *(2.2)*

Total cash flow = cash flow from operating activities + cash flow from investing activities + cash flow from financing *(2.3)*

Cash flow from operating activities includes inflows and outflows from day-to-day company´s activities. Cash inflows include cash sales of goods, products or services, collection of receivables, etc. Cash outflows include cash payments for inventory, salary and wages payments, taxes, paying payables, etc.

Changes in accounts receivable on balance sheet from one accounting period to the next must also be reflected in cash flow. If the account receivables decrease, it means more cash has entered into the company from customers paying off their credits. Thus, the amount decreased by account receivables is added to the net sales. If the account receivables increase from one accounting period to another, the amount of increase must be deducted from net sales because even though this amount represents revenues, it is not cash. The same logic holds for taxes payable, salaries payable, prepaid insurance, inventories and so on.

Cash Flow from investing activities includes inflows and outflows as a result of selling and purchasing of investments. Investments include tangible assets (property, equipment, plant, etc.) and intangible assets (patents, etc.) and long-term investments in the shares and bonds. Usually, cash changes from an investment project are a ‘cash out’ item, because cashes are used to buy new equipment, buildings or short-term assets such as marketable securities. When a company divests of its assets, the transaction is considered as ‘cash in’ for calculating cash flow from investing activity.

Cash Flow from financing activities includes inflows and outflows from obtaining and

repaying capital (equity and long-term debt), Cash inflows include cash from issuing shares (common and preferred) or bonds and cash from credits and borrowings. Cash outflows include dividends payments, repay bonds, repaid credits and borrowings. The categorization of the cash flow can be divided into three activities. Here we can see the example of cash flow statement in *Table 2.3* as follows:

Table 2.3 Table 2.3 Example of cash flow statement

Cash flows from operating activities
Sale of goods and services received
Tax Refund
Total cash inflows from operating activities
Purchase goods and services cash received
Employees payment
Payments of taxes
Total cash outflows from operating activities
Cash flows from investing activities
Cash received from investment income
Net cash received from disposal of assets
Net cash from disposal of subsidiaries
Total cash inflows from investing activities
Cash purchase of assets
Cash paid for investments
Net cash used in other subsidiaries
Total cash outflows from investing activities
Cash flows from financing activities
Cash received from investment absorption
Cash received from borrowings
Total cash inflows from financing activities
Cash paid for debt repayment
Cash dividends,profits or interest payments
Total cash outflows from financing activities
Total cash inflows
Total cash outflows
Total net cash flows

Source: www.dfhtkg.com.cn/

2.2 Common-size analysis

Common-size analysis is a method of comparing either financial statements of different-sized companies or financial statements of one company from different time periods. It can be divided into two kinds of ways, vertical common-size analysis and horizontal common-size analysis. The base amount for the balance sheet is usually total assets, and for the income statement it is usually revenues.

Through common-size analysis can identify gaps, determine the direction of the differences,

the nature causes of the differences and their impact on the differences, in order to improve the company's management. This method of analysis may be performed on either income statements or balance sheets, but it is only as accurate as the accounting practices used to come up with the numbers. *(Fabozzi, 2003)*

2.2.1 Vertical common-size analysis

Vertical common-size analysis pays more attention on internal reports, which analyze the internal structure of statement items. It's for the income statement, balance sheet statement and cash flow statement.

All items in the income statement as a percentage of revenue stated the balance sheet items are expressed as a percentage of total assets and the cash flow statement items are expressed as a percentage of total net cash flow. The steps of vertical analysis are as flows. First, calculate the table, each item in the proportion of the population. Second, to determine the ratio of the project by the position occupied in the report, and how important it is. Third, the ratio of the base period or the previous year ratio compared data, monitor trends. Here we can see the example of vertical common-size analysis in *Table 2.4 as follows:*

Table 2.4 Example of vertical common-size analysis

	2009	2010	2011	2012	2013
Tatol liabilities	76.00%	75.09%	76.60%	72.89%	81.24%
Total owners' equity	24.00%	24.91%	23.40%	27.11%	18.76%
Total liabilities and owners' equity	100.00%	100.00%	100.00%	100.00%	100.00%

Source: own elaboration

The main advantage of vertical common-size analysis is that it can easily compare with all balance sheets of management sizes. Also, it can make it easy to see the main changes within one financial operation.

2.2.2 Horizontal common-size analysis

Horizontal common-size analysis refers to the reporting period reflect the financial position of the enterprise information with the previous financial condition or history of a period of comparative information reflects the enterprise. It is the study of the operation of a business analysis of the development of changes in financial performance or financial condition. Here

we can see the example of horizontal common-size analysis in *Table 2.4*

Table 2.4 Example of horizontal common-size analysis

Assets	2008-2009	
	Absolute(EUR)	Relative(%)
Total assets	500	
Long-term assets	100	-10%
Current assets	300	6.7%
Other assets	100	3.30%

Source: own elaboration

The value of horizontal analysis depends on its usages from three ways. First, we can compare the results of one company over time to determine whether its financial situation is improving. Second, it can be useful for comparing the results of multiple companies in the same industry to determine which company has the best performance over time. Finally, it is most useful when comparing companies in the same industry.

2.3 Financial ratio analysis

When we pick up the published accounts of a company for the first time, it can be an experience as you are faced by page after page of numbers. Financial ratios provide you with the tools you need to interpret and understand such accounts. They are basic if you want to analyze the performance of a selected company.

Financial ratios can assess changes between an investment earnings can also compare different companies at some point a particular industry. Financial ratio analysis can eliminate the influence of the scale used to compare the benefits and risks of different companies to help investors and creditors to make rational decisions (Vause, 2009).

2.3.1 Profitability ratios

Profitability ratios measure the ability of a company to generate profit from invested capital in the form of return during a period. The higher the profitability ratios are, the better competitive position of the company. Profit must be compared with the amount of capital invested in the business, and to sales revenue. Profitability ratios will inevitably reflect the business environment of the time. Comparisons with other businesses in the same industry segment will provide an indication of management's relative ability to perform in the same business and economic environment.

Operating profit margin indicates how well the company manages its operations so that the manager will control the costs to make profits. This ratio tells analysts what a firm's bottom line looks like before deductions for payments to creditors and tax authorities. When looking at operating margin to determine the quality of a company, it is best to look at the change in operating margin over time and to compare the company's yearly or quarterly figures to those of its competitors. If a company's margin is increasing, it is earning more per dollar of sales. Higher operating profit margin is expected. *OPM* is operating profit margin. The formula for operating profit margin *(2.4)* is as follows:

$$OPM = \frac{Operating\ Costs}{Revenues} \tag{2.4}$$

Net profit margin measures net profit per unit of revenue. It is calculated as revenue minus all expenses. Net income includes both recurring and nonrecurring components. Generally the net profit margin adjusted for nonrecurring items offers a better view of a company's potential future profitability. Some industries tend to have relatively low margins, which are compensated for by high volumes. Conversely, high margin industries may be low volume. Higher than average net profit margins for the industry may be an indicator or good management. *NPM* stands for net profit margin. *EAT* stands for earning after tax. The formula for net profit margin (2.5) is as follows:

$$NPM = \frac{EAT}{Revenues} \tag{2.5}$$

Return on assets shows how efficient by using a company's assets to generate earnings. The higher the ratio, the more income is generated by a given level of assets. Also, it will called

return on investment. Calculating the return on assets has two main purposes. First, it can give potential investors an idea of how well a company performs with the assets it has. This may suggest that a small company may do a better job using an investment than a larger company. Another use is for the company itself to analyze how well it is likely to use an investment. *ROA* stands for return on assets. *EBIT* stands for earnings before interest and tax. The formula for return on assets *(2.6)* is as follows:

$$ROA = \frac{EBIT}{Assets} \tag{2.6}$$

Return on equity (ROE) measures the efficiency of a company at generating profits from shareholders' equity which include preferred equity and common equity. Return on equity is calculated based on their due as net income and not a true reflection of molecules corporate performance, so the final value of *ROE* is also not determine the success of the enterprise value or a reliable indicator. However, this formula still appears in many of the company's Annual Report. *ROE* stands for return on equity. *EAT* stands for earnings after tax. The formula for return on equity *(2.7)* is as follows:

$$ROE = \frac{EAT}{Equity} \tag{2.7}$$

2.3.2 Liquidity ratios

Liquidity ratio is the most commonly used financial indicators, which measure the ability of companies to repay short-term loans used. In general, the higher the liquidity ratio, the ability of enterprises to repay short-term debt is stronger. Under normal condition, the business cycle, the turnover rate of current assets in the amount of accounts receivable and inventories and cash are the main factors affecting the liquidity ratios. We analyze company's liquid assets in the form of cash or can be quickly converted in cash and short-term liabilities and obligations. If the ratio is lower than need, it must borrow to payback. The main liquidity ratios are current ratio, quick ratio and cash ratio. Here we will continue to introduce.

Current ratio is current assets to current liabilities ratio, a measure of corporate liquidity in short-term debt before maturity, the ability to be able to become cash used to repay debt.

We believed that the current ratio should be 2: 1 or more, the current ratio of 2: 1, indicating that current assets are double current liabilities, not even half of current assets realized in the short term, but also to ensure that all of the current liabilities repaid. In general, the higher the ratio, indicating that liquidity is stronger corporate assets, short-term solvency also stronger; otherwise weak. To keep in mind is that the receivable and payable time of the cash flow method should not be considered. For example, a company can without a bills today, but tomorrow is a big majority of bills, at the same time it can also has a large number of inventory (part of current assets), what's more, the inventory can be sold for a long time, the company also shows a good liquidity ratio, but in fact it is not strong liquidity. This means that the company will not anticipate any problems in being able to honor short-term debt that may have been acquired to enhance some portion of the production process or replace equipment. The formula for current ratio *(2.8)* is as follows:

$$Current\ ratio\ = \frac{Current\ assets}{Current\ liabilities} \tag{2.8}$$

Quick ratio refers to the ratio of liquid assets to current liabilities. It is a measure of corporate liquidity which can be immediately used to repay current liabilities.

Quick assets include cash, short-term investments, notes receivable, accounts receivable, can be realized in a short time. The current assets in inventory, non-current assets due within one year and other current assets should not be taken into account. In general, the higher the ratio means the greater the company's liquidity. Note that inventory is excluded from the sum of assets in the Quick Ratio. Ratios are tests of viability for business entities but do not give a complete picture of the business' health. More to the point, relatively large inventories are often a sign of short -term trouble. The firm may have overestimated sales and overbought or overproduced as a result. The formula for quick ratio *(2.9*) is as follows:

$$Quick\ ratio\ = \frac{Current\ assets - Inventories}{Current\ \ liabilities} \tag{2.9}$$

Cash ratio shows the ratio of the total amount of cash and cash equivalents and current assets to current liabilities of a company, and to measure the liquidity of the company's assets. It only measures cash and cash equivalents, so it is three liquidity ratios in the most conservative one.

For current officers and shareholders in a company, the cash ratio is an excellent indicator of the financial stability of the business. When it can be demonstrated that the corporation is keeping a healthy balance between the marketable securities and the level of current liabilities, the efforts can focus more on growing the company, rather than attempting to simply maintain current sales and productivity. The formula for cash ratio *(2.10)* is as follows:

$$Cash\ ratio\ = \frac{Cash + Marketable\ securities}{Current\ liabilities} \tag{2.10}$$

2.3.3 Solvency ratios

The solvency ratios, usually we call it debt ratios, which measure company's ability to meet its long-term obligations.

If the data is greater than 1, the stronger and higher solvency is. For an enterprise that often require continuous calculation of the ratio of debt principal repayments five fiscal years, in order to determine the stability of its solvency. From the perspective of evaluating the long-term solvency situation of the enterprise, they usually choose the lowest annual datas.

Debt ratio to assets is total liabilities to total funding ratio of corporate debt to indicate the proportion of the total funds. Debt ratio refers to the relationship between debt and assets, net assets, which reflects the company to pay principal and interest on the debt capacity to pay the debt. If the ratio is less than 0.5, most of the company's assets are financed through equity. If the ratio is greater than 0.5, most of the company's assets are financed through debt. A company with a high debt ratio might be in danger if creditors start to demand repayment of debt.

Creditors consider debt ratio as low as possible, the lower the ratio, the more there is to protect creditors, the smaller the risk of loans. From the shareholder's perspective, if we can ensure that all capital is greater than the borrowing interest rate margins, the bigger the better hope the index, otherwise contrary. From the operator point of view, debt is too high, business is difficult to continue the financing, low debt, indicating a lack of business dynamism; therefore from a financial management perspective, companies have to make trade-offs between profitability and risk, determine a reasonable capital structure. The formula for debt ratio *(2.11)* is as follows:

$$Debt\ ratio\ to\ assets\ = \frac{Total\ debt}{Total\ assets} \tag{2.11}$$

Debt to equity ratio is similar to debt ratio, which the debt of the company is relative to the equity. The debt to equity ratio is considered a balance sheet ratio because all of the elements are reported on the balance sheet statement. If the debt-to-equity ratio is 1, it means that investors and creditors will have an equal stake in the total assets. The two components are often taken from the firm's balance sheet or statement of financial position, the ratio may also be calculated using market values for both, if the company's debt and equity are publicly traded, or using a combination of book value for debt and market value for equity financially. The formula for debt to equity ratio *(2.12)* is as follows:

$$Debt\ to\ equity\ ratio\ = \frac{Total\ debt}{Equity} \tag{2.12}$$

Interest coverage ratio refers to the relationship between a period of corporate interest expense, taxes and a profit before interest expense ratio of the amount. This ratio indicates the ability of enterprises to gain business loan interest payments. If interest is 1, it means the operating profit before taxes and interests can cover interest payment 1 times. When the interest coverage ratio is smaller than 1, the company is not generating enough cash from its operations *EBIT* to meet its interest obligations. The Company would then have to either use cash on hand to make up the difference or borrow funds. If the interest coverage ratio is bigger than 1, the said enterprise has the ability to pay interest. *EBIT* stands for earnings before tax. The formula for interest coverage *(2.13)* is as follows:

$$Interest\ coverage\ = \frac{EBIT}{Interest\ paid} \tag{2.13}$$

2.3.4 Activity ratios

Asset management ratio is used to measure the efficiency of asset management companies in the financial ratios that measure the status of the company's assets turnover indicators including the business cycle, inventory turnover, accounts receivable turnover ratio, liquidity and asset turnover total asset turnover. Usually, the higher ratio is, the better condition of the company..

Accounts receivable turnover ratio is reflected in the company's accounts receivable turnover rate ratio. It shows a certain period the average number of accounts receivable into cash. The company's accounts receivable has a pivotal position in current assets. The company's accounts receivable if they can recover in time, the use of funds will be able to substantially increase the efficiency of the company. Accounts receivable turnover rate is expressed in time for accounts receivable turnover days, also known as accounts receivable average payback period or the average closing now. It said the company's receivables from the right to obtain reimbursement, time becomes cash needs. The lower the turnover rate, the longer receivables are being held-and the less likely they are to be collected. Also, there is an opportunity cost of tying up funds in receivables for a longer period of time. *ART* stands for accounts receivable turnover. The formula of *ART (2.14)* is as follows:

$$ART = \frac{Credit\ sales}{Accounts\ receivables} \tag{2.14}$$

Inventory turnover ratio is the ratio of cost of goods sold and the average inventory balance business for a certain period. Inventory turnover rate to reflect that liquidity and inventory amount of funds used inventory is reasonable, encourage enterprises to ensure the continuity of production and management, while improving capital efficiency, enhance short-term solvency.

A low turnover rate may point to overstocking in the product line or marketing effort. However, in some cases a low rate is needed, for example, the expected market prices are on the way of going up or the market will meet shortage in the near future. A high turnover rate may indicate inventory levels, which may lead to a loss in business as the inventory is too low. IT stands for inventory turnover. The formula of *IT (2.15)* is as follows:

$$IT = \frac{Cost\ of\ good\ sold}{Average\ inventory} \tag{2.15}$$

The total asset turnover ratio refers to net operating income from business in a certain period with the average percentage of total assets. Total asset turnover ratio is an important indicator of management quality and efficiency of comprehensive evaluation of all of the assets of the enterprise. Turnover rate is higher, indicating that the total asset turnover, the faster, reflecting the stronger sales. Enterprises can puerile way to accelerate the turnover of assets, bringing an increase in absolute terms of profits.

The formula for calculating a total asset turnover is relatively simple. The first step is to identify the net sales occurring during the period under consideration. Next, the value of the average total assets held during the same period is determined. The total of the net sales is divided by the average total assets, providing a simple snapshot of the level of actual return that resulted from the use of the assets. *TAT* stands for total assets turnover. The formula of *TAT (2.16)* is as follows:

$$TAT = \frac{Revenues}{Assets} \tag{2.16}$$

Days of turnover ratios are another form to analyze activity ratios. This method usually calculates the time how long the company will taste to finish a financial cycle.
Days of turnover can be divided into two parts which is days of inventory turnover and days of receivable turnover. The formulas for days of inventory turnover *(2.17)* and days of receivables turnover *(2.18)* are as follows:

$$Days\ of\ inventory\ turnover = \frac{Number\ of\ days}{Inventory\ turnover} \tag{2.17}$$

$$Days\ of\ receivables\ turnover = \frac{Number\ of\ days}{Receivables\ turnover} \tag{2.18}$$

2.4 Pyramidal Decomposition of Return on Equity

Pyramidal decompositions enable to analyze what drives the value of financial ratios. Here we need to introduce influence quantification, which enables to analyze indicators, whose changes have caused change in the basic ratio. Basic methods for quantification of influence divided into four kinds: method of gradual changes, method of decomposition with surplus, method of logarithmic decomposition, method of functional decomposition. Here we only introduce two methods. Specifically, it is expressed as *ROE* (return on equity) which is usually broken into three parts: net profit margin, assets turnover, and financial leverage. (*Zmeškal, 2004).*The formula can be expressed as follows:

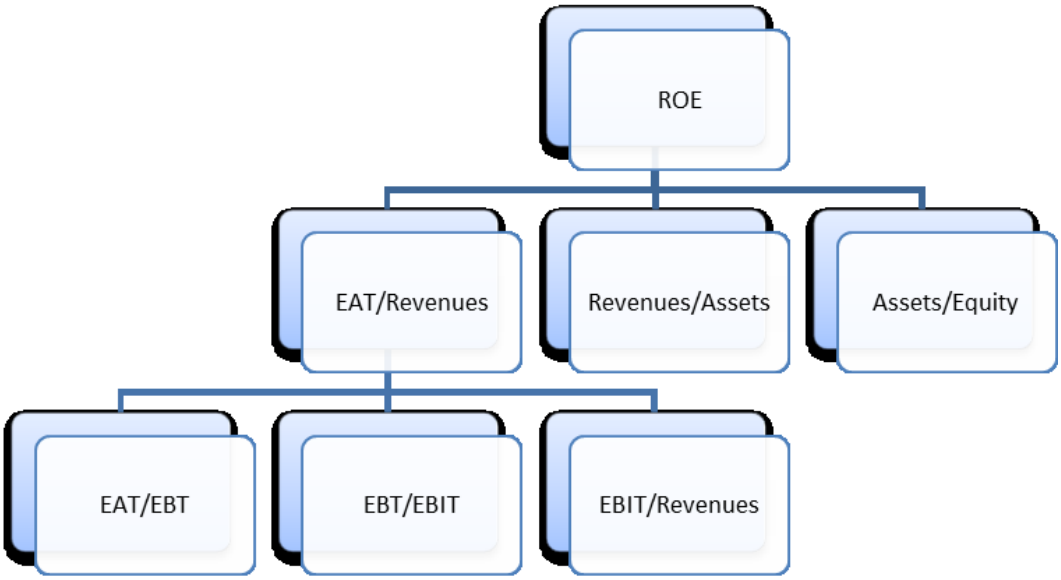
$$ROE = \frac{EAT}{Equity} = \frac{EAT}{Revenues} \cdot \frac{Revenues}{Assets} \cdot \frac{Assets}{Equity} \tag{2.19}$$

Also, net profit margin is usually broken into three parts: tax burden, interest burden operating margin. If we want to separate the effects of taxes and interest, we can decompose the profit margin as follows:

$$\frac{EAT}{Revenues} = \frac{EAT}{EBT} \cdot \frac{EBT}{EBIT} \cdot \frac{EBIT}{Revenues} \tag{2.20}$$

EAT means earnings after tax, *EBT* means earnings before tax, *EBIT* means earnings before interests and tax. After substitution into pyramidal decomposition of return on equity analysis we can get *Graph 2.1* as follows:

Graph 2.1 Pyramidal Decomposition of Return on Equity



Source: own elaboration

2.4.1 Method of gradual change

Method of gradual changes enables to quantify the change in the basic ratio caused by change in the component ratio. Usually it will be decomposed into three component ratios. x means basic ratio, Δx means absolute change in basic ratio, a means component ratio, Δa means absolute change in in the component ratio, Δx_{a_i}means absolute change in the basic ratio caused by the change in the first component ratio. The formula is showed in *(2.21)* as follows:

$$\Delta x_{a_1} = \Delta a_1 \cdot a_{2.0} \cdot a_{3.0} \tag{2.21}$$

$$\Delta x_{a_2} = a_{1.1} \cdot \Delta a_2 \cdot a_{3.0}$$

$$\Delta x_{a_3} = a_{1.1} \cdot a_{2.1} \cdot \Delta a_3$$

2.4.2 Logarithmic decomposition method

The method impacts the component ration on the change in the basic ratio is calculated as follows *(2.22)*. x means basic ratio, Δx means absolute change in the basic ratio, I_x means index of change in basic ratio, I_a means index of change in component ratio.

$$\Delta x_{a_i} = \frac{In\ I_a}{In\ I_x} \cdot \Delta x \qquad (2.22)$$

3 Profile of Dongfeng Hongtai Company

Dongfeng Hongtai is the Dongfeng's passenger strategic suppliers core business, the leading supplier of passenger car technology integration business in Wuhan Economic Development Zone. It is the former Wuhan Shenlong limited stock car parts the company with the former Wuhan Shenlong HongTai investment Co. in August 2006 through the merger of state-controlled enterprises. Registered capital is 255 million yuan.
Source: http://www.dfhtqc.com/

3.1 Service and product of Dongfeng Hongtai Company

The company's main business includes "three plate" (auto parts manufacturing, logistics and industrial services, automotive after-market).

The products and services include: stamping and welding parts assembly and tooling, plastic and rubber parts, car bumpers tank, car seats, car exterior parts, tire assembly, front axle assembly, air conditioning assembly, tune up, warehousing, packaging, distribution, logistics, industrial waste recycling; dual fuel car modification, vehicle sales several branches of light oil and lubricants sales, automotive resource recycling, automotive customer service center. Currently DPCA, Dongfeng Passenger, Dongfeng Yulong, Dongfeng commercial vehicle, Anhui Chery, Shanghai GM, southeast of cars and other vehicle manufacturers supporting the production of a variety of parts and assemblies, and to provide vehicle sales, car modification and industrial services business.

3.2 Achievement of Dongfeng Hongtai Company

Over the years, the company has always been advocating to the "integrity management, harmonious development" business philosophy, management quality steadily improved, the three major business segments growing rapidly, continuously enhance the competitiveness of enterprises. Company-owned subsidiaries, holding subsidiaries have all passed ISO9001/TS16949 quality system certification, has strong product development capabilities in the automotive parts, car trade and service brand known nationwide, industrial services business in the zone has grown into a strong brand .

After years of development, the company has continued growth in various economic indicators, the overall strength steadily, the company was identified as Hubei Provincial Bureau of Statistics, Biggest Auto Parts Enterprises in Hubei Province, Top Ten Auto Parts Enterprises in Hubei Province. Also, it's the Top Ten Corporate Tax Enterprises in Wuhan Economic and Technological Development Zone. From 2008 to 2011, Dongfeng Hongtai Company achieved Wuhan Best Hundred Enterprises. for four consecutive years. From 2009 to 2011, the company was named for three consecutive years Dongfeng "Best civilized unit."

In 2012, the company successfully purchased "Wuhan Plastics Group", a Dongfeng's first plastic exterior parts business, effective resources to enrich the company's product development for the company has injected fresh blood, but also for a new round of business integration foundation .

In 2012, the company mainly engaged in the new index hit a new record, sales revenue reached 4.5 billion yuan. The total profit of the yuan, continued to maintain a good momentum of profitable growth. Three business segments develop steadily. Around three business segments of "Punch welding, automotive accessories, packaging, logistics, industrial services, auto sales," five businesses were growing rapidly, not only to promote the further development of the company's current stable career, but also for the future growth of the company's expanded the new space of the careers.

In 2013, the company achieved operating income of 7.97 billion yuan. It's a high record that the increase is nearly 40 percent. The profitability is maintained at a good level, exceeding the annual comprehensive assessment indicators issued by the Board of Directors annual business objectives and Dongfeng headquarters issued. The operating margin, return on invested capital, the main financial indicators debt ratio, labor productivity continued to optimize all business units have achieved operating profit, maintained a good momentum of profitable growth.

The next few years, the company will focus on "five" "cause doubling plan" (three blocks, five simultaneous rapid career growth, and strive to achieve two quadruple by 2015. That is the basis of sales in 2010 quadruple reached 10 billion yuan, total operating profit in 2010 reached 350 million yuan, based on quadruple), providing quality products and services to vehicle manufacturers, for the achievements of A Hundred of Dongfeng as a struggling dream; the company Dongfeng's build a sustainable development of competitive enterprises, to become

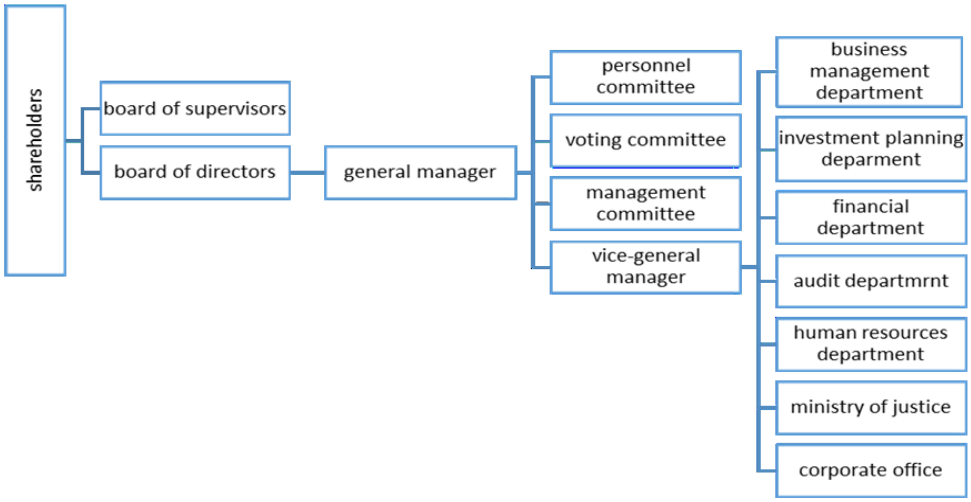
outstanding suppliers and service providers of well-known automobile plant.

3.3 Ownership of Dongfeng Hongtai Company

Dongfeng Hongtai Company is a state-owned asset of enterprises. The higher unit is Dongfeng Motor Corporation. The investments structure of Dongfeng Hongtai Company is as follows: Dongfeng Motor Corporation is 87.24%, Wuhan Economic Development Investment Co. Ltd. is 9.95% and China's Dongfeng Automotive Industry Import and Export Co. Ltd. is 2.81%.

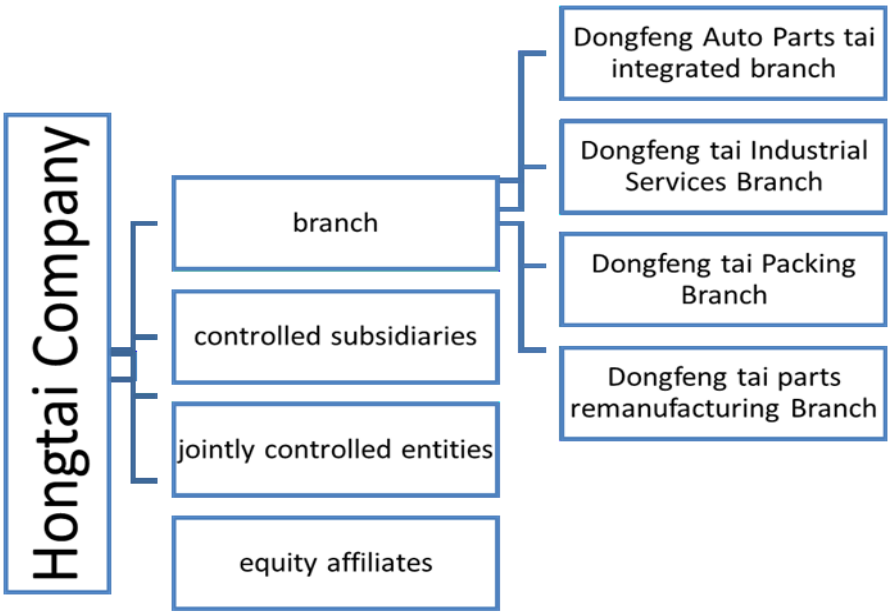
Dongfeng Motor Corporation was founded in 1969, which is one of the backbone enterprises of China's auto industry. The main business located in Shiyan, Xiangyang, Wuhan, Guangzhou these four bases. It forms a "based in Hubei, radiation the whole country, come to world". The company is headquartered in the "nine provinces" in Wuhan. Main business covers the full range of commercial vehicles, passenger cars, engines and auto parts and auto level career. The company has total assets of 73.25 billion yuan, 12.4 million employees. In 2008, it sold 1.321 million cars, the sales revenue is 196.9 billion yuan, about 14.08% overall market share. In the domestic automotive segments market, heavy truck, SUV, ranked first. Passenger Light truck, light passenger ranked second. In 2008 the company ranked the top 500 Chinese enterprises on 20, top 500 Chinese manufacturing enterprises on 5.Dongfeng is also the member of world's top 500. The structure of branches *(Graph 3.1)* and *(Graph 3.2)* are as follows.

Graph 3.1 Structure of branches 1



Source: http://www.dfhtqc.com/

Graph 3.2 Structure of branches 2



Source: http://www.dfhtqc.com/

3.4 Management Innovation of Dongfeng Hongtai Company

By the end of 2014, Dongfeng Hongtai won the Twenty-first National Enterprise Management Innovation Award, Dongfeng Hongtai Company declared 'Multiple ownership structure of the parent company under the classification of governance', which results of the first prize. It is for the first time in Dongfeng system to get a national management innovation award.

It is the latest practice of Dongfeng Hongtai Company in deepening reform, innovation-driven areas. In 2006, Dongfeng Hongtai Company is merged by the two main different companies: manufacturing companies and investment companies. The new business scope covers three plates, which are auto parts, packaging and logistics and industrial services, automotive after-market. Dongfeng Hongtai Company has two branches, five wholly-owned subsidiaries, five holding subsidiaries, six joint control of the company, a relatively subsidiaries, three equity affiliates, which has the diversified equity structure.

In order to effectively enhance shareholder value over the years, Dongfeng Hongtai Company pays attention to corporate strategy and business forms. According to the classification management, building and other means, Dongfeng Hongtai Company designs

different dimensions of governance processes to improve governance and efficiency. Dongfeng Hongtai Company combined the top-level design (corporate governance) and subsidiaries business processes control to strengthen the subsidiaries human, financial, material, technical, information and other resources management and control.

According to the modern enterprise system, Dongfeng Hongtai Company manages the corporate governance system, optimizes the organizational structure and introduces a series of modern corporate governance to emphasis on standardized subsidiary board of directors system. After the management process, Dongfeng Hongtai Company implements the ‘three will be’ the PDCA cycle. Efficient board of supervisors, shareholders, directors, management level of communication and decision-making build an effective platform to enable the board and management level working together on strategic decisions. At the same time, companies give full play to the Party's state-owned enterprises to implement risk management and control and to further standardize the power operating mechanism.

During execution, the company proposed to build Dongfeng Hongtai classification management ideas, which divided the subsidiary of governance types into one-way control mode (a wholly owned subsidiary / subsidiaries), two-way control mode (jointly controlled companies), and more to governance model (as opposed to the holding company) and weak governance (joint stock company), it designed for different types of governance and management of different dimensions of governance processes. In 2014, the 17 secondary units of Dongfeng Hongtai Company, there are more than 6 subsidiaries realized sale revenue of 500 million yuan, more than 10 subsidiaries realized 10 million yuan total profit points. Because the ability of branches and subsidiaries of Dongfeng Hongtai Company enhanced, it laid the foundation for the development of Dongfeng Hongtai Company.

Dongfeng Hongtai Company has effective solutions to the conflict of shareholders, directors and managers. It balanced the interests of the game between shareholders, the Board of Directors to resolve on the powers of the competition. Also, it has avoided the manager ‘internal control risk’ and greatly enhanced the operational efficiency of its subsidiaries. In recent years, the market structure of Dongfeng Hongtai Company realized from the ‘simplification’ to ‘diversity ‘. At the end of December 2014, Dongfeng Hongtai Company achieved sales of 10.3 billion yuan, an increase of 26%, to reach annual sales of 10 billion yuan a year. Dongfeng Hongtai Company formally entered the ranks of billion enterprises.

3.5 Development of Dongfeng Hongtai Company

On Dec.13th, 2012, Dongfeng Hongtai Company full acquired Wuhan Plastics Company, the assets and all the business of Wuhan Plastics Company entered into Dongfeng system.

The full name of Wuhan Plastics Company is called Wuhan Plastics Industrial Group Co., Ltd., is approved by Wuhan Reform Committee in 1988, which is joint a number of plastics companies. On Dec.10th, 1996, it became the member of Shenzhen Stock Exchange, which became the first listed company in domestic plastic industry. Its main business is plastic fuel tank, colored plastic bumper, small color injection molded parts, composite products, such as logistics and distribution, and synchronization.

Successful acquisition of Wuhan Plastics Company is a major asset restructuring for the future and win-win situation changes. This big decision is for their further sustainable and rapid development. Wuhan Plastics Company provides a new platform to create new opportunities. At the same time, with the assets placed in Wuhan Plastics and effective integration of plastic parts business, the company will also take new business for Dongfeng Hongtai Company.

Dongfeng Hongtai Company has the mission of creating the whole value chain of integrated supply capabilities utilities sector. Through the accumulation of years of development and with the rapid development speed, Dongfeng Hongtai Company became the core businesses of Dongfeng's passenger strategic suppliers. With Wuhan Plastics Company formal entry, assets, business, personnel and efficient integration, product structure and business structure will optimize the structure of Dongfeng Hongtai Company. The business of Dongfeng Hongtai Company will usher new development opportunities.

4 Financial Analysis of Dongfeng Hongtai Company

In this chapter, we will provide financial analysis of Dongfeng Hongtai Company. All the evaluation is from data of Dongfeng Hongtai Company through 2009 to 2013 period. The methods introduced in chapter 2 will be used to analyze Dongfeng Hongtai Company. The data, tables and charts will be shown in this chapter. First, we will use common-size analysis and financial ratio to analyze. And then we will calculate pyramidal decompositions of *ROE* to analyze. After finishing everything, we can clearly notice the financial performance or position of Dongfeng Hongtai Company in industry and predict its future development. All calculations are carried out based on data.

4.1 Common-size Analysis

Common-size analysis is a very useful analysis method for the different companies with different size to compare their financial statements, or the company compares to themselves during different periods. The introduction of common-size analysis has showed in Part 2. In this part, the common-size analysis will be divided into two parts, the one is vertical common-size analysis, the other is horizontal common-size analysis. I will use tables and charts to analyze the condition of Dongfeng Hongtai Company.

4.1.1 Vertical Common-size Analysis

Vertical analysis is also called static analyze, it is a kind of financial analysis where each category in one sheet is represented as a proportion of the total account. The advantage of vertical analysis is that the business of all sizes can be compared. It also makes it easy to see annual relative changes within one business. In vertical common-size analysis, we will analyze what Dongfeng Hongtai Company happens during 2009 to 2013.

Firstly, we pay attention to the short version income statement sheet of Dongfeng Hongtai Company. Income statement presents information on the financial results of a company's business activities over a period. Annex 2 shows the income statement of Dongfeng Hongtai Company from 2009 to 2013. And we can get the proportions of different items to the total revenues in following Table. The data will be showed in *Table 4.1* and *Chart 4.1*. The data will be simplified from *Annex 2*.

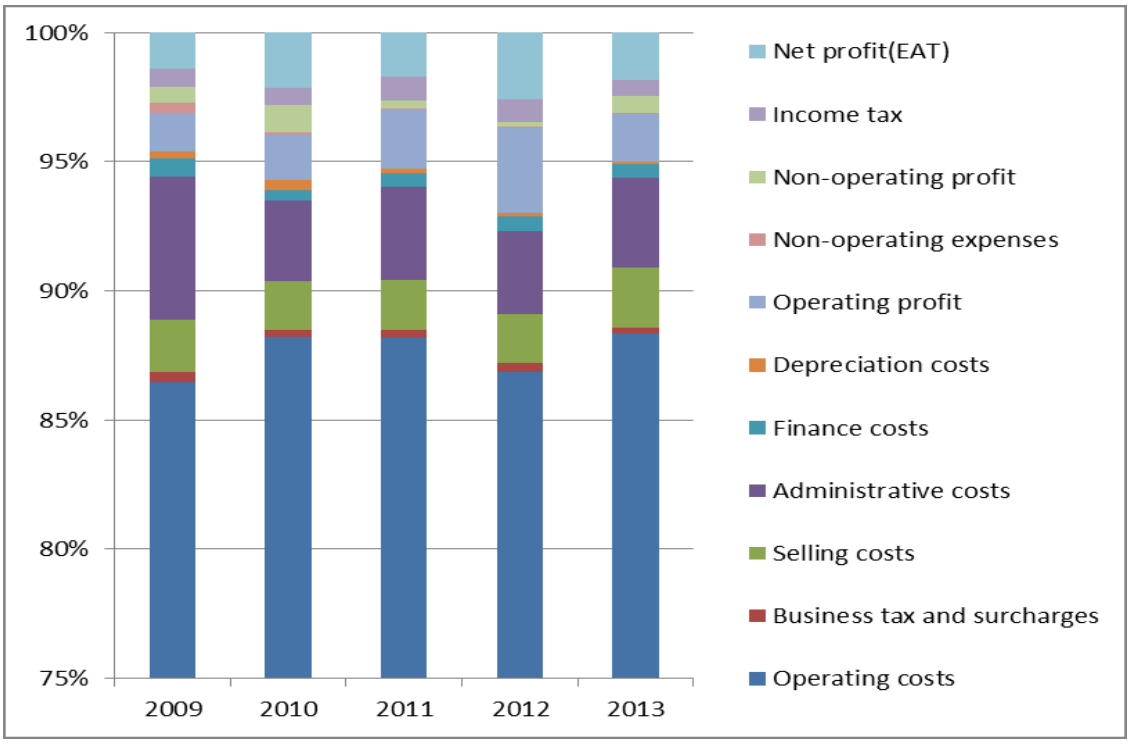
Table 4.1 Vertical common-size analysis of income statement

	2009	2010	2011	2012	2013
The total profit(EBIT)	2.33%	2.94%	2.77%	2.61%	2.54%
Total cost	97.67%	97.06%	97.23%	97.39%	97.46%
Operating costs	88.52%	90.83%	90.48%	90.97%	90.63%
Business tax and surcharges	0.40%	0.27%	0.34%	0.36%	0.21%
Selling costs	2.09%	1.95%	2.00%	1.98%	2.39%
Administrative costs	5.69%	3.23%	3.70%	3.35%	3.59%
Finance costs	0.70%	0.41%	0.52%	0.62%	0.55%
Depreciation costs	0.28%	0.37%	0.19%	0.12%	0.08%
Operating profit	1.52%	1.83%	2.33%	3.48%	1.88%
Non-operating expenses	0.40%	0.11%	0.04%	0.05%	0.06%
Non-operating profit	0.63%	1.06%	0.35%	0.16%	0.66%
Income tax	0.70%	0.69%	0.91%	0.92%	0.66%
Net profit(EAT)	1.45%	2.20%	1.78%	2.71%	1.88%
Revenue	100.00%	100.00%	100.00%	100.00%	100.00%

Source: own calculation

In the *Table 4.1,* we can see individual item from income statement. In *Chart 4.1*, we can see share of individual items of income statement.

Chart 4.1 Vertical common-size analysis of income statement



Source: own calculation

Table 4.1 and *Chart 4.1* show common-size analysis of income statement of Dongfeng Hongtai Company. From the *table 4.1* and *Chart 4.1,* we can easily see that in 2009, Dongfeng

Hongtai Company's operating costs make up percentage about 88.52%, it is actually not good for a company, and also the data is almost the same level during next four years. Operating costs is an essential item of income statement. Also, we can find that in 2009, the administrative costs are higher than the next four years, that because in 2009, the structure of Dongfeng Hongtai Company has a big change, the costs will be higher. But after that, the administrative costs go down. Selling costs remain stable at about 2%. The other costs like business tax, finance costs, depreciation costs, non-operating expenses and income tax have very little influence on total revenues. At the same time, we can find that in 2012, the net profit is really a big amount that is because in the end of 2012, Dongfeng Hongtai Company fully acquired Wuhan Plastics Company, it will make a great profit.

In *Table 4.1* we can find most of the items were stable and they changed in a small range and only the depreciation costs decrease from 2010 to 2012. Even in 2012, there is a low increasing of costs. The company still has a stable condition.

After vertical common-size analysis of income statement, we pay attention to the short version balance sheet of Dongfeng Hongtai Company in assets. The basic data comes from *Annex1*.

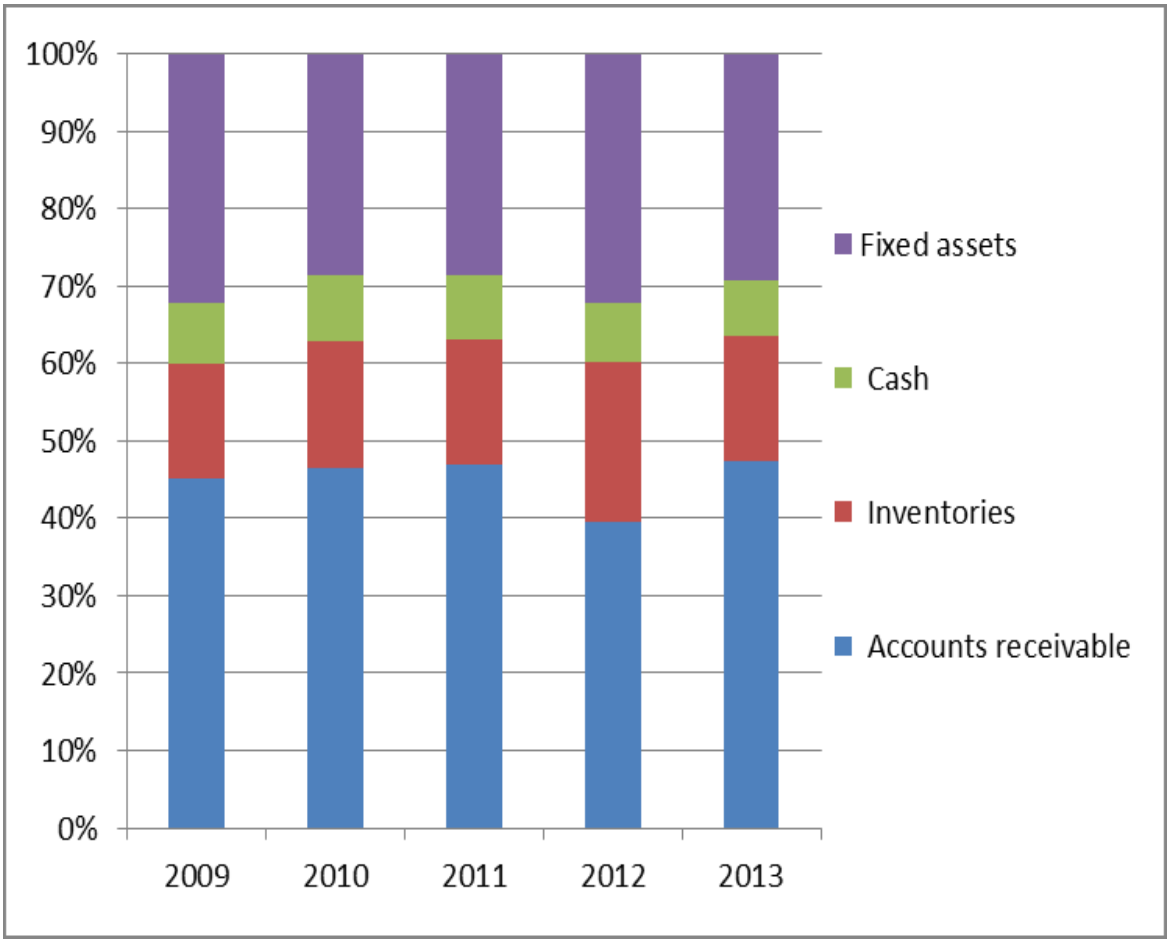
Table 4.2 Vertical common-size analysis of assets

	2009	2010	2011	2012	2013
Current assets	67.84%	71.32%	71.33%	67.79%	70.67%
Accounts receivable	45.13%	46.56%	46.89%	39.49%	47.34%
Inventories	14.84%	16.28%	16.21%	20.73%	16.25%
Cash	7.88%	8.47%	8.23%	7.57%	7.08%
Fixed assets	32.16%	28.68%	28.67%	32.21%	29.33%
Total assets	100.00%	100.00%	100.00%	100.00%	100.00%

Source: own calculation

According to *Table 4.2*, we can see the current assets continuously increase from 2009 to 2011, especially the accounts receivable. In 2012 the current assets begin to decrease but the inventories are up to 20.73% of the total assets which result the less proportion of the cash part. We take the histogram to show the individual proportions visually as *Chart 4.2*.

Chart 4.2 Vertical common-size analysis of assets



Source: own calculation

From *Chart 4.2*, it is very clear to see the proportion of each item of revenues have changed in the 5 years. Just like what mentioned above, we can easily find inventories take a bigger part and accounts receivable becomes smaller in 2012. Also we can find the fixed assets almost have the same proportion from 2009 to 2012 and accounts receivable has the largest proportion in these 5 years. Fixed asset is good for company to make products, we can see in 2012, the fixed assets are higher than the other years because of acquisition, the company need to buy a new land for development. Still, the accounts receivable has the biggest proportion which is not good but it will become a strategy to expand selling. Because these 5 year, the whole car industry develops very fast, Dongfeng Hongtai Company tried to use credit sale strategy.

As the same way we did in last case, we can easily get the common-size balance sheet case which is stated as follows to analyze liabilities and owners' equity (*Table 4.3*).

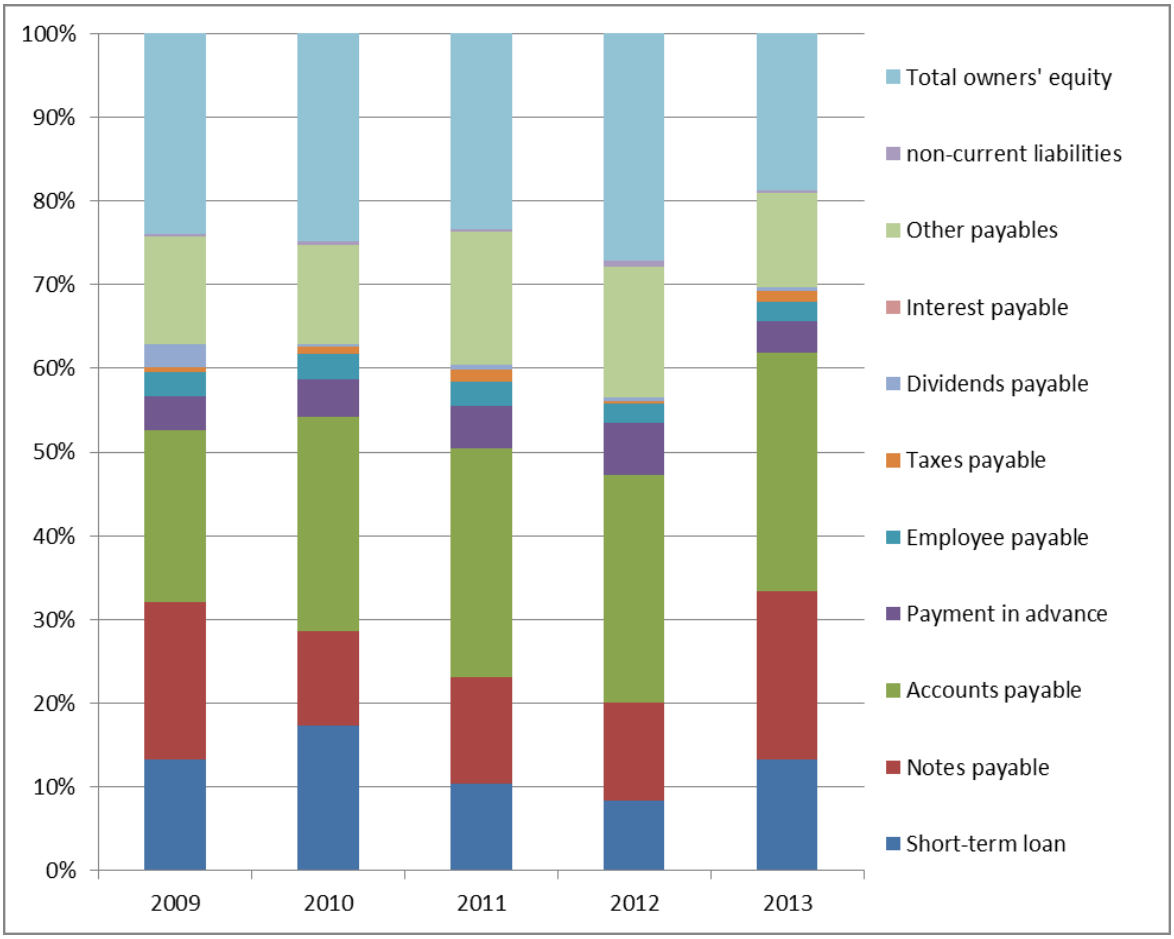
Table 4.3 Vertical common-size analysis of liabilities and owners' equity

	2009	2010	2011	2012	2013
Short-term loan	13.30%	17.41%	10.34%	8.45%	13.35%
Notes payable	18.80%	11.18%	12.82%	11.57%	20.04%
Accounts payable	20.46%	25.57%	27.31%	27.26%	28.52%
Payment in advance	4.10%	4.48%	5.07%	6.17%	3.74%
Employee payable	2.90%	3.05%	2.79%	2.36%	2.30%
Taxes payable	0.62%	0.89%	1.49%	0.30%	1.25%
Dividends payable	2.75%	0.28%	0.54%	0.39%	0.43%
Interest payable	0.01%	0.01%	0.01%	0.01%	0.01%
Other payables	12.83%	11.89%	15.96%	15.69%	11.33%
non-current liabilities	0.22%	0.33%	0.27%	0.70%	0.27%
Total liabilities	76.00%	75.09%	76.60%	72.89%	81.24%
Total owners' equity	24.00%	24.91%	23.40%	27.11%	18.76%
Total liabilities and owners' equity	100.00%	100.00%	100.00%	100.00%	100.00%

Source: own calculation

According to the *Table 4.3*, we can see the short-term loan and employee payable have an increasing proportion from 2009 to 2010 but from 2011 to 2012, it begins to become less proportion of the total liabilities. Also, the accounts payable, payment in advance become more and more important from 2009 to 2011. From the table, we can easily find, in 2012 there must have something happened. In 2012, the proportion of the accounts payable increase because of the increasing inventories, which we can see from the last table. According to owners' equity, we can find that in 2013, the total owners' equity goes down almost 10%, it is because the liabilities increase. Dongfeng Hongtai Company needs to invest new projects. We take the chart to show the individual proportions visually as *Chart 4.3*.

Chart 4.3 Liabilities and owners' equity vertical common-size analysis



Source: own calculation

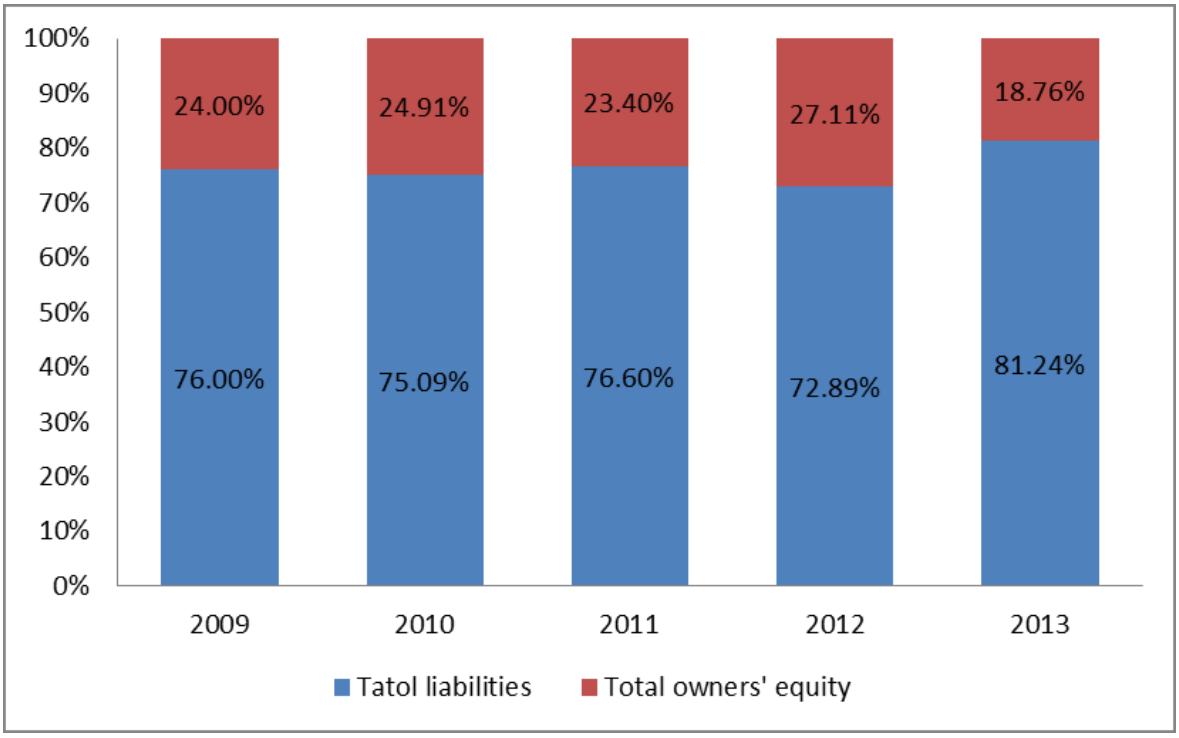
From *Chart 4.3*, it is very clear to see the proportion of each item of revenues have changed from 2009 to 2013 of Dongfeng Hongtai Company. In above tables we can find most of the items were stable. They changed in a small range. Payment in advance, employee payable, taxes payable, dividends payable and interest payable take small proportion of the total liabilities. From the comparison between current liabilities and non-current liabilities in these 5 years, we can find the current liabilities have almost the whole proportion because Dongfeng Hongtai Company is a state company, if the company need a great amount of capital to finance, sometimes the government will support it to do financial activities.

In 2012, the inventories increase a lot we can find from the balance sheet statement, which makes the accounts payable increase so that the selling costs will also increase, which we can confirm from the income statement of Dongfeng Hongtai Company.

From Chart 4.3, we can also see the percentage of liability is always exceeding that of equity, during the five year. The debt financing is based on equity financing, if a company has enough equity capital, and this company can get the credit help relatively easier. Even though the high percentage of debt financing is a signal that Dongfeng Hongtai Company has good financing environment because the support of government, we cannot ignore if the debt to equity ratio is higher, the degree of guarantee debt capital is weak as well. If the debt to equity ratio is lower, then the company has strong financial strength, and the degree of security for debt is high.

Except liability, companies usually have another financing way, which the capitals are from the holder of company. It is equity. The assets financed by liabilities and equity are shown in *Chart 4.4 as follows:*

Chart 4.4 Comparison between liabilities and owners' equity



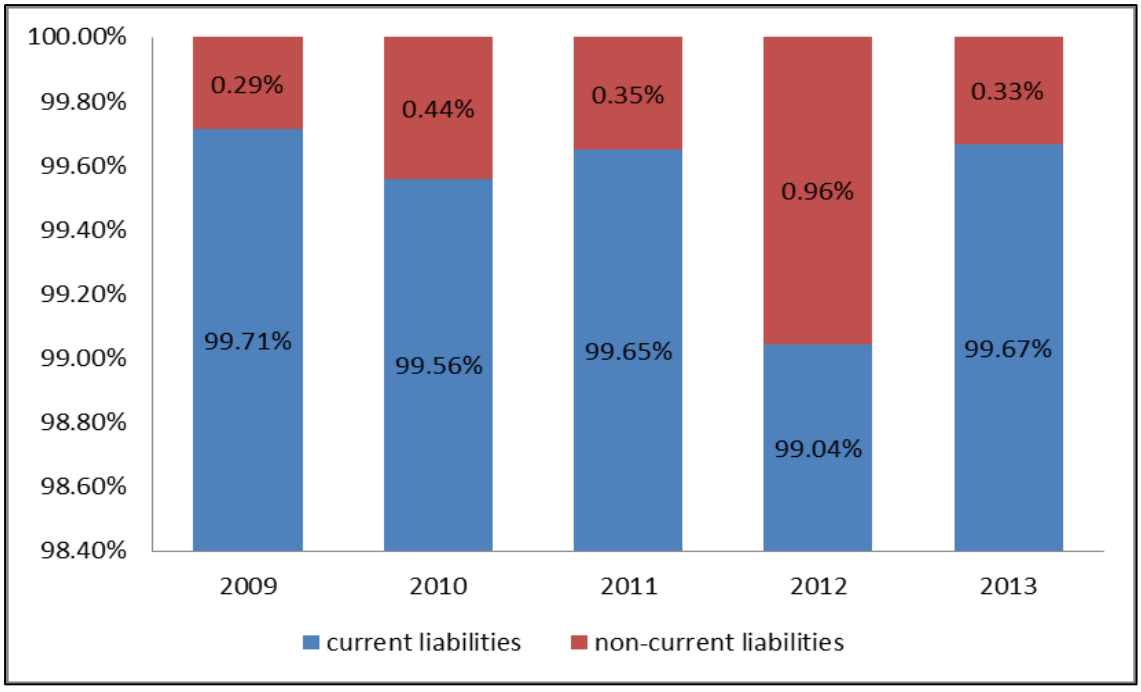
Source: own calculation

Equity and liabilities are two main financing channels of companies. Equity means ownership and liabilities mean debts. High ratio of liabilities can help company gain the advantage of leverage which comes with high risk. If the liabilities increases, the lower percentage will the owner's equity be. In the year 2009 to 2013, we can find the liabilities have higher proportion than equity. While in 2012, this years' equity increase. It is because Dongfeng

Hongtai Company paid off part of its long-term debt in 2012. This change improved the company's financing structure. Although it weakened its financing leverage, it reduced the company's pressure of debts. And the increasing of equity improved the company's welfare. It was good for increasing the enthusiasm of workers and shareholders. Moreover, it will be benefited for company's development.

We can appraise the structure of liability from the following aspects: structure of asset, sales status and interest rate. Normally, if a company has more liquid assets, it should have more current liabilities. If a company has more non-liquid assets, it is better for the company to have more non-current liability. Dongfeng Hongtai Company is such a company that has a relative stable sales source, which allows it to have more current liabilities. As for the interest rate, because the long term interest rate will be higher than short term interest rate, for a company, it can be useful to cut down capital cost of holding more current liabilities rather than long term liabilities. In above, we have seen the comparison between liabilities and owner's equity, here we will show the comparison between current liabilities and non-current liabilities in *Chart 4.5 as follows:*

Chart 4.5 Comparison between current liabilities and non-current liabilities



Source: own calculation

As we know, bank loan is the common chose of company to finance because of the low

interest and low risk. But for Dongfeng Hongtai Company, it will be some different. Bank loan at most 40 percent of the total liabilities. From the comparison between current liabilities and non-current liabilities in these 5 years, we can find the current liabilities have almost the whole proportion because Dongfeng Hongtai Company is a state company, if the company need a great amount of capital to finance, sometimes the government will support it to do financial activities.

In general, Dongfeng Hongtai Company has a good structure and is in a stable development.

4.1.2 Horizontal Common-size Analysis

In horizontal common-size analysis, the year of 2009 will be regarded as base year, and then we will use the absolute change and relative change to analyze the balance sheet statement and income statement. The data comes from *Annex1* and the results are shown in the *Table 4.4* as follows:

Table 4.4 Absolute Changes compared to 2009 in balance sheet statement (million ¥)

	2010	2011	2012	2013
Current assets	340.99	606.19	608.37	2151.76
Accounts receivable	211.10	391.11	277.00	1446.00
Inventories	86.87	145.79	267.62	505.19
Cash	43.02	69.29	63.74	200.56
Fixed assets	69.83	176.08	290.03	837.91
Total assets	410.82	782.27	898.40	2989.66
current liabilities	294.20	604.80	599.17	2492.45
non-current liabilities	2.91	2.82	12.87	8.81
Tatol liabilities	297.11	607.62	612.04	2501.26
Total owners' equity	113.71	174.66	286.35	488.41
Total liabilities and owners' equity	410.82	782.27	898.40	2989.66

Source: own calculation

From *Table 4.4*, we can find the assets were all increasing by compared with the year 2009. While in 2012 the accounts receivable and cash are lower than 2011. It means it was decreasing actually. And the current liabilities in 2012 are lower than 2011. They were both the presentation and reason for the assets and liabilities don't increase too much in 2012. From the Annexes1, we can easily know that the current assets continuously increase from 2009 to 2011, especially

the accounts receivable. In 2012 the current assets begin to decrease but the inventories are outstanding as 20.73% of the total assets which result the less proportion of the cash part. In 2012, the whole car market has a big challenge, the whole car market didn't sell well so that will be a big problem for Hongtai Company. The auto parts and Citroen, Peugeot car doesn't sell well which makes inventories increase and accounts receivable decrease.

Also, we can see the short-term loan and employee payable have an increasing proportion from 2009 to 2010 but from 2011 to 2012, it begins to become less proportion of the total liabilities. At the same time, the accounts payable, payment in advance become more and more important from 2009 to 2011. In 2012, the proportion of the accounts payable increase because of the increasing inventories. The relative change compared to 2009 in balance sheet statement is showed in *Table 4.5* as follows:

Table 4.5 Relative Changes compared to 2009 in balance sheet statement

	2009	2010	2011	2012	2013
Current assets	100.00%	136.42%	164.74%	164.97%	329.79%
Accounts receivable	100.00%	133.89%	162.79%	144.47%	332.15%
Inventories	100.00%	142.42%	171.19%	230.68%	346.68%
Cash	100.00%	139.57%	163.72%	158.62%	284.44%
Fixed assets	100.00%	115.73%	139.67%	165.34%	288.77%
Total assets	100.00%	129.76%	156.67%	165.09%	316.60%
current liabilities	100.00%	128.13%	157.83%	157.29%	338.31%
non-current liabilities	100.00%	196.54%	193.55%	527.11%	392.11%
Tatol liabilities	100.00%	128.33%	157.93%	158.35%	338.46%
Total owners' equity	100.00%	134.31%	152.71%	186.41%	247.39%
Total liabilities and owners' equity	100.00%	129.76%	156.67%	165.09%	316.60%

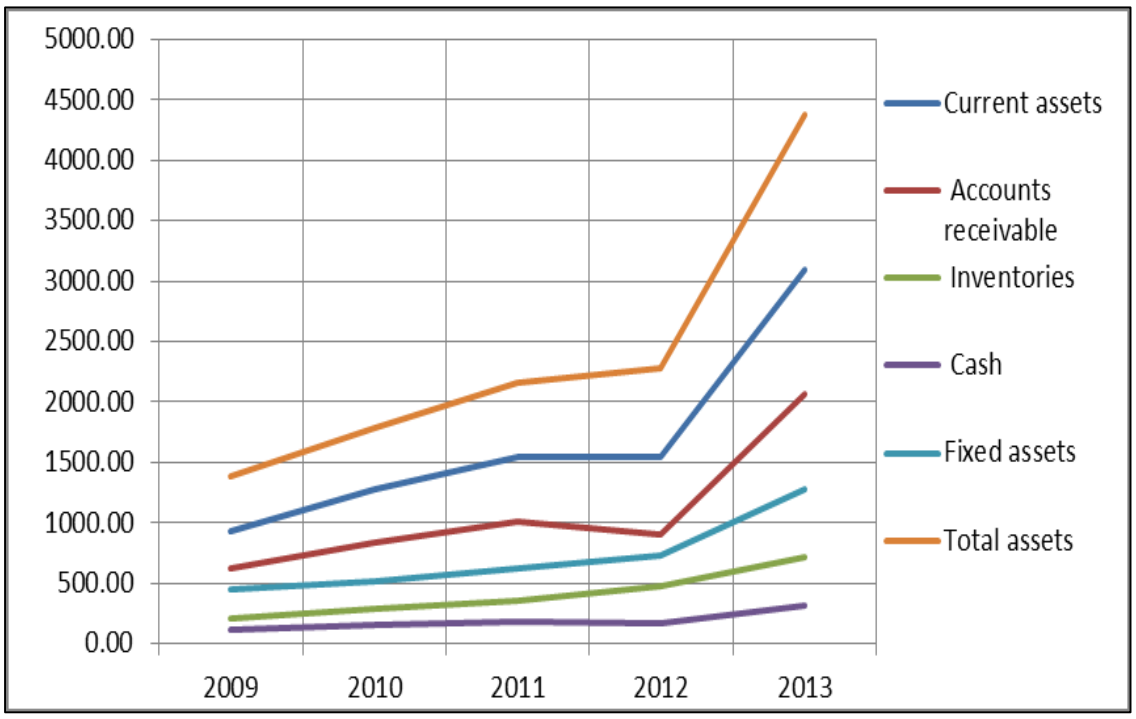
Source: own calculation

The relative change in *Table 4.5* shows almost the same with the absolute change. We choose the yellow area in 2012, in this area, we can find the increase inventories and non-current liabilities increase over 200%. On the one hand, it is because the whole car market has a develop problem, on the other hand, Dongfeng Hongtai Company fully acquire Wuhan Plastics Company at the end of 2012 so that the non-current liabilities will increase that year. As for 2013, because of acquiring Wuhan Plastics Company, Dongfeng Hongtai Company has more new business and it realizes the target of producing and selling by self. This measure creates a huge profit. According to the above data, we can easily find the Dongfeng Hongtai Company

has a great change during these five years, after 5 years, all the data of this company becomes 3 or more times of 2009.

From the data of *Table 4.5*, we can get some information about horizontal common-size analysis of assets from *Chart 4.6* as follows:

Chart 4.6 Horizontal common-size analysis of assets.



Source: own calculation

From *Chart 4.7*, we can find the total assets increase stable from 2009 to 2012, but after 2012, the total assets increase sharply and we can still see the accounts receivables have the most important influence on current assets because Dongfeng Hongtai company expands credit sale in 2013, the accounts receivable will be sure to increase sharply. Also, from chart we will see cash has the smallest amount of the whole assets. Especially in 2012, Dongfeng Hongtai Company paid back the dividends to shareholders and the acquisition of Wuhan Plastics Company still cost a great amount of capital. In general, we can find the assets of Dongfeng Hongtai Company has a trend of increasing, it will be a good condition for the development of Dongfeng Hongtai Company.

In conclusion, from the *Table 4.5* and *Chart 4.6,* which tell us the balance sheet statement condition of Dongfeng Hongtai Company during 2009 to 2013. By means of vertical analysis, some trends over time have been identified as to the balance sheets. More detailed results can

be obtained by the use of financial ratio analysis which is included in the next.

After analyzing the balance sheet, we will continue to analyze income statement. Results are shown in the *Table 4.6* as follows:

Table 4.6 Absolute Change compared to 2009 in income statement (million ¥)

	2010	2011	2012	2013
Operating revenues	1275.55	2165.81	2877.93	6557.89
Operating costs	1212.73	1990.37	2651.62	6016.54
Business tax and surcharges	1.36	6.32	9.60	11.16
Selling costs	23.00	41.97	55.01	162.50
Administrative costs	1.02	46.99	57.26	202.51
Finance costs	0.49	8.09	16.52	33.84
Depreciation costs	6.26	2.72	0.69	1.73
Total cost	1244.86	2096.47	2790.70	6428.29
Operating profit	28.73	63.91	132.07	129.94
Non-operating revenues	17.55	-2.05	-7.46	41.94
Non-operating expenses	-3.33	-4.87	-4.26	-1.98
Non-operating profit	20.88	2.82	-3.21	43.92
The total profit(EBIT)	49.60	66.73	128.86	173.87
Income tax	8.79	23.02	30.09	42.77
Net profit(EAT)	40.82	43.71	98.77	131.10

Source: own calculation

According to *Table 4.6*, from 2011 to 2012, it shows that non-operating revenues decrease. From 2010 to 2013, the absolute change of non-operating expense shows minus. Also in 2012, non-operating profit is still minus, it means the non-operating service exist loss. However the net profit is increasing a lot because the non-operating service has little proportion of the total profit, which we can find the evidence from *Chart 4.1*.

Table 4.7 Relative Changes compared to 2009 in income statement

	2009	2010	2011	2012	2013
Operating revenues	100.00%	177.91%	232.28%	275.77%	500.53%
Operating costs	100.00%	182.81%	235.92%	281.07%	510.86%
Business tax and surcharges	100.00%	120.70%	196.48%	246.51%	270.34%
Selling costs	100.00%	166.64%	221.62%	259.42%	570.90%
Administrative costs	100.00%	101.09%	149.89%	160.79%	315.00%
Finance costs	100.00%	104.20%	169.57%	241.96%	390.85%
Depreciation costs	100.00%	235.76%	159.02%	115.00%	137.56%
Total cost	100.00%	177.04%	229.74%	272.70%	497.82%
Operating profit	100.00%	214.06%	353.76%	624.38%	615.95%
Non-operating revenues	100.00%	202.84%	88.01%	56.27%	345.70%
Non-operating expenses	100.00%	49.35%	25.88%	35.15%	69.79%
Non-operating profit	100.00%	298.76%	126.83%	69.47%	518.14%
The total profit(EBIT)	100.00%	238.99%	286.97%	461.06%	587.16%
Income tax	100.00%	175.55%	297.94%	358.73%	467.78%
Net profit(EAT)	100.00%	269.65%	281.67%	510.51%	644.85%

Source: own calculation

The relative changes present the relationship as ratios which are related to benchmarks. It reflects the same problems.

Sometimes we say as the development of productivity, the selling costs and the other costs will be decreased by years. However, from the date from *Table 4.7*, we can find the costs almost increase every year. That is because Dongfeng Hongtai Company is a young company, from the start years, this company need to expand. Maybe after 10 or 20 years, we will find a decreasing selling and administrative costs.

From *Table 4.6* and *Table 4.7*, we can see Dongfeng Hongtai Company develop stable and positive.

In above, we have analyzed the horizontal common-size analysis of balance sheet statement and income sheet statement. Here we will start horizontal common-size analysis of net cash flow.

Cash flow can provide the real data on cash flow in recent period and information to evaluate the quality of current income. Thus, cash flow can help to appraise a company's financial elasticity, evaluate a company's liquidity and predict a company's future cash flow. By reflecting the increase or decrease of cash flow from three major activities, namely, operating activity, investing activity and financing activity, cash flow can help to correctly appraise the

company's ability in paying back debts and the ability of paying. The data is all calculated from Annex 3. The result will be showed in *Table 4.8* and *Chart 4.7* as follows:

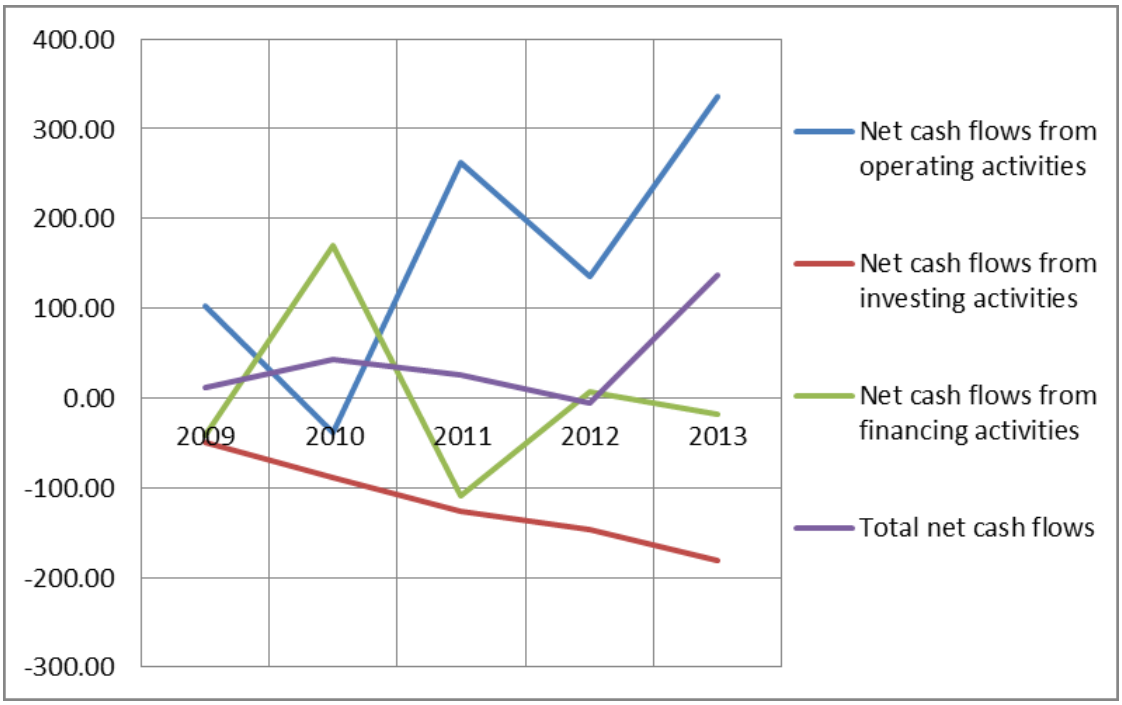
Table 4.8 Horizontal common-size analysis of net cash flow(million ¥)

	2009	2010	2011	2012	2013
Net cash flows from operating activities	102.89	-38.98	261.85	134.75	336.06
Net cash flows from investing activities	-50.16	-88.06	-127.07	-146.53	-180.58
Net cash flows from financing activities	-41.09	170.07	-108.51	6.23	-18.34
Total net cash flows	11.63	43.02	26.27	-5.56	137.14

Source: own calculation

According to *Table 4.8*, we can see the data of net cash flow of Dongfeng Hongtai Company from 2009 to 2013, here we can make *Chart 4.7* to continue analyze.

Chart 4.7 Horizontal common-size analysis of net cash flow(million ¥)



Source: own calculation

Even though the total net cash flow is almost positive except 2012, cash flow from operating, financing and investing may have totally different directions. By analyzing their directions year by year, we may get different conclusions.

In 2009, net cash flow from financing and net cash flow from investing are negative, only net cash flow from operating is positive. It means that finance activity and investment activity cannot generate enough cash flow, each activity is completely dependent on borrowing to maintain, once Dongfeng Hongtai Company meets the debt difficulties, financial situation will be very dangerous. Fortunately, this situation does not last long.

In 2010, the net cash flow from operating activities and the net cash flow from investing activities are negative and only net cash flow from financing activities is positive. To expand investment, it is normal that the net cash flow from investing is negative and continuously goes down, but Dongfeng Hongtai Company should pay attention to the moderate investment scale. In 2012, net cash flow from operating activities and the net cash flow from financing activities are positive, while the net cash flow from investing is still negative. It means that business activity and borrowing can generate cash inflows, but Dongfeng Hongtai Company should pay attention to the investment project's feasibility study, or increasing investment will cause waste.

4.2 Financial Ratio Analysis

Financial ratio analysis is the method that assesses the financial performance and financial condition of the company through financial calculation and other information. Financial ratio analysis calculates financial ratios which are based on the company's financial statements. The main items which will be used include revenue, total assets, total liabilities, equity and so on.

4.2.1 Profitability Ratio

Profitability ratio measures the company's ability to generate profitable sales from invested capital in the form of return during a period. For a company's manager, this ratio helps to evaluate the business profit performance for a particular period. It can be presented by net profit margin (NPM), return on assets (ROA) and return on equity (ROE). Here we use *Table 4.9* and *Chart 4.8* as follow to analyze the condition of Dongfeng Hongtai Company.

Table 4.9 Profitability ratios

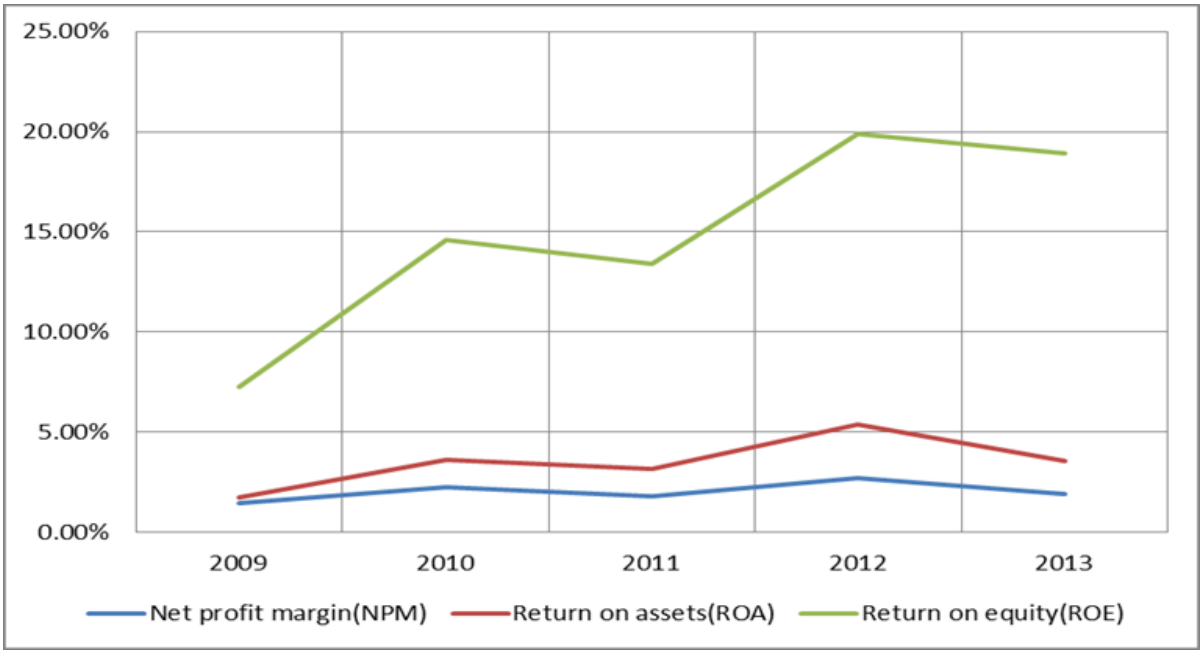
	2009	2010	2011	2012	2013
Net profit margin(NPM)	1.47%	2.23%	1.78%	2.72%	1.89%
Retuin on assets(ROA)	1.74%	3.62%	3.13%	5.39%	3.55%
Return on equity(ROE)	7.26%	14.58%	13.39%	19.88%	18.93%

Source: own calculation

According to *Table 4.9*, we can see the data of profitability ratios of Dongfeng Hongtai Company from 2009 to 2013. From *Table 4.9*, we can easily find from 2009 to 2013, return on equity is less than 15% of Dongfeng Hongtai Company, but from 2012 to 2013, the return on equity increase very fast especially in 2012, which means the profitability condition of Dongfeng Hongtai Company became better.

We have seen the detail data in *Table 4.9*. Here we can make *Chart 4.8* to continue analyze profitability as follows:

Chart 4.8 Profitability ratios



Source: own calculation

Net profit margin (NPM) measures net profit per unit of revenue so that the company will know if the company operates well. The function of net profit margin can be found in (2.5). According to the *Chart 4.8,* we can see in 2010 and 2012, net profit margin increases, it means during this time the cost of the company decreases so that the company will get better proportion net profit. On the other way, in 2011 and 2013, net profit margin decrease, but from *Annex 2*, we can find both the net profit and revenue continuously increase.

Return on assets (ROA) shows how efficient by using a company's assets to generate earnings. The higher the ratio, the more income is generated by a given level of assets. The function of return on assets can be found in (2.6). From *Table 4.9*, 1.74% in 2009 means when the company arranges 1 RMB asset, it can earn 0.174 RMB as net income. While it is outstanding in 2012, which is because of the increasing operating revenue explained in *Annex 2*. Increasing of the ROA means there is more income which is generated by the assets each different year.

Return on equity (ROE) measures the efficiency of a company at generating profits from shareholders' equity which include preferred equity and common equity. The function of return on equity can be found in (2.7). From *Table 4.9*, 7.26% in 2009 represents the company can gain 0.726 RMB when use 1 RMB assets which financed by the holders of the company. We can find there are many similarities between *ROE* and *ROA* whatever the factors of influence or status they represented. It is because the total asset always equals to the sum of total liabilities and equity which was introduced at part 2. For the factor of operating profits mentioned before, the ratios in 2012 had a special increasing. It shows the increasing of the company's profitability power.

4.2.2 Liquidity Ratio

Liquidity ratio measures ability of a company to meet its short-term obligations using assets which are most readily converted into cash. It reflects the short-term assets such as cash and cash equivalents, receivables and inventories. If the ratio is lower than need, it must borrow to payback. Liquidity Ratio contains three parts: current ratio, quick ratio and cash ratio. More measures will exclude assets that need to be converted into cash. Here we use *Table 4.10* and *Chart 4.9* to analyze the condition of Dongfeng Hongtai Company.

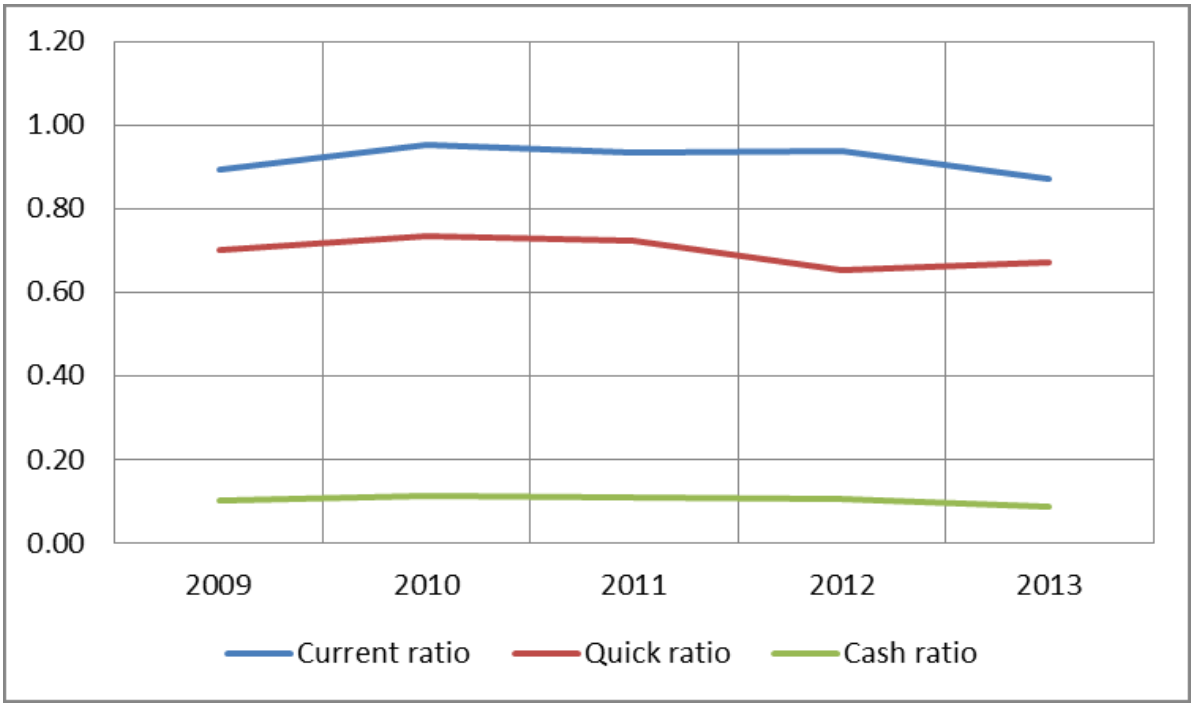
Table 4.10 Liquidity ratio of Dongfeng Hongtai Company

	2009	2010	2011	2012	2013
Current ratio	0.90	0.95	0.93	0.94	0.87
Quick ratio	0.70	0.74	0.72	0.65	0.67
Cash ratio	0.10	0.11	0.11	0.10	0.09

Source: own calculation

Based on the dates from *Table 4.10*, we made *Chart 4.9* here as follows:

Chart 4.9 Liquidity ratio of Dongfeng Hongtai Company



Source: own calculation

Current ratio is current assets to current liabilities ratio, a measure of corporate liquidity in short-term debt before maturity, the ability to be able to become cash used to repay debt. The function of net profit margin can be found in (2.8). In current ratios, a high ratio indicates a high level of liquidity. As the chart above, we can find all these ratios are lower than 1. It showed the low level of liquidity. In 2010, the ratio raises to 0.90, because the payments for payable and debts in that year decrease than the past year. In 2011, the ratio was decreasing because the company repaid part of the long-term debt and the interest was reduced.

Quick ratio is similar to the *cash ratio* except that it excludes inventory. The function is shown as (2.9). Cash ratio represents a reliable measure of an individual entity's liquidity in a crisis situation. The function is (2.10). From the *Chart 4.9*, we can find the waves of quick ratio and cash ratio are almost the same because of the calculation of formulas. Accounts receivable is the only difference. So the margin between them was the value of receivable dividing short-term liabilities. Both the quick ratio and cash ratio follow the rule as which a higher ratio represents greater liquidity. We can find quick ratios in each year were higher than cash ratio. From the *Table 4.10*, we can find the cash ratio is in a low rate, which means the cash liquidity ability is not high enough.

4.2.3 Solvency Ratio

Solvency ratio measures the proportion of total assets financed by the firm's creditors. There are two types of debt ratios. One type focuses on balance sheet measures of outstanding debt relative to another source of financing shown as debt-to-assets ratio and debt-to-equity ratio. The other type, known as coverage ratio, which focuses more on income statement measures of the firm's ability to generate sufficient cash flow to make scheduled interest and principal payments shown as interest coverage. We can find the relationship of debt ratio in *Table 4.11* and *Chart 4.10.*

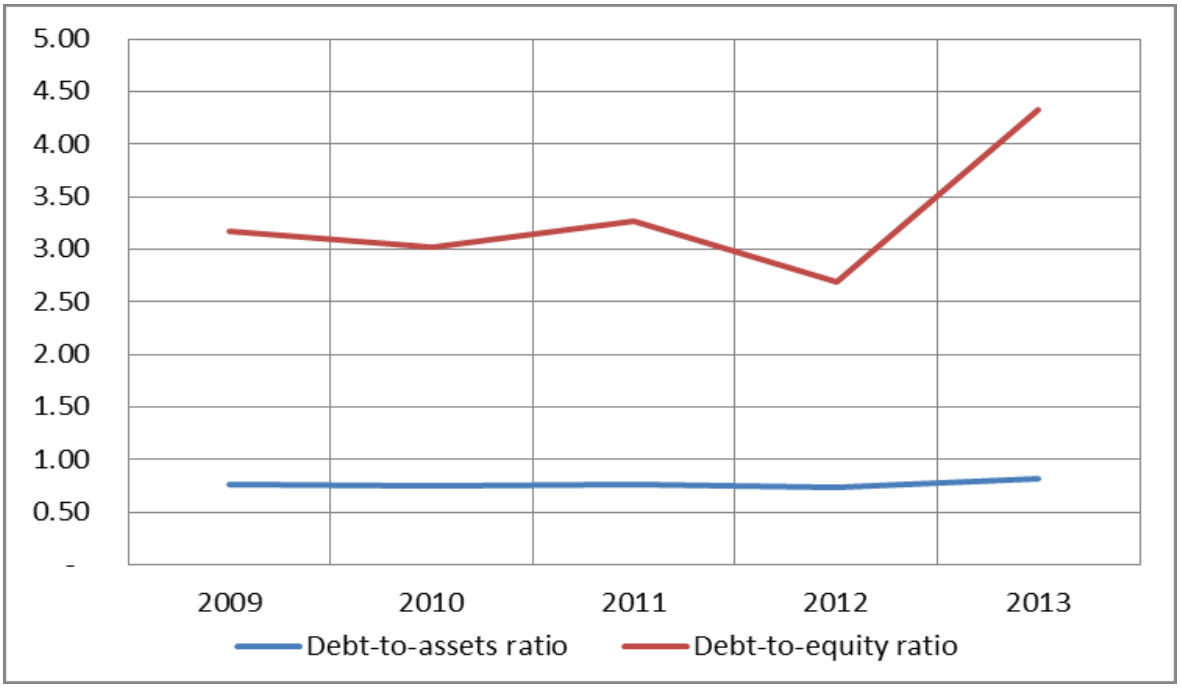
Table 4.11 Debt-to-asset ratio & Debt-to-equity ratio

	2009	2010	2011	2012	2013
Debt-to-assets ratio	0.76	0.75	0.77	0.73	0.81
Debt-to-equity ratio	3.17	3.02	3.27	2.69	4.33

Source: own calculation

In above, we can find debt-to-assets ratio and debt-to-equity ratio are calculated via *Table 4.11*. Based on the dates from *Table 4.11*, we made *Chart 4.10* here as follows:

Chart 4.10 Debt-to-asset ratio & Debt-to-equity ratio



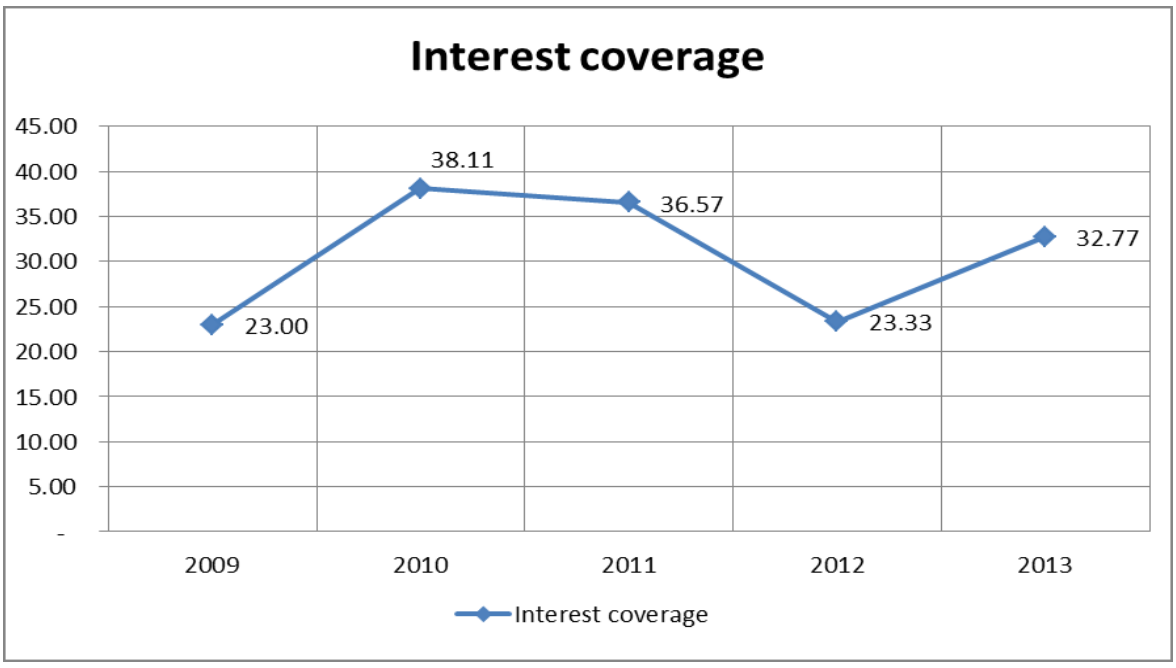
Source: own calculation

Debt-to assets ratio measures the percentage of total assets financed with debt. The function can be found at (2.11). *Debt-to-equity ratio* measures the amount of debt capital relative to equity capital. The function is (2.12). From the *Chart 4.10*, we can find the obviously trends of these two lines.

Debt-to-assets ratio is stable and below 1 ratio, which has no outstanding change from 2009 to 2012 because the ratio presented the relationship between assets and liabilities. In 2012, debt-to-equity ratio is decreasing. It means Dongfeng Hongtai Company reduced the ratio of liabilities in financing the funds. It will reduce the risk of solvency meanwhile it may decrease the tax leverage.

Interest coverage ratio refers to the relationship between a period of corporate interest expense, taxes and a profit before interest expense ratio of the amount. This ratio indicates the ability of the enterprises to gain business loan interest payments. The function of interest coverage can be found in (2.13). The current ratio of Dongfeng Hongtai Compang from 2009 to 2013 period is listed in *Chart 4.11*.

Chart 4.11 Interest coverage



Source: own calculation

From the chart above, we can find the trends of change. As 23.00 in 2009 means the operating

profit before taxes and interests can cover interest payment 23.00 times. And it seems that interest coverage goes down in 2012 because this year the interest paid increase fast because Dongfeng Hongtai company acquiring Wuhan Plastics Company. From *Chart 4.11,* we can easily find that the interest coverage over the five years is higher than 23, it means Dongfeng Hongtai Company has the high ability to pay interest.

4.2.4 Activity Ratio

Asset management ratio is used to measure the efficiency of asset management companies in the financial ratios that measure the status of the company's assets turnover indicators usually including the inventory turnover, total asset turnover, accounts receivable turnover and days of turnover ratio. The activity ratio from 2009 to 2013 period is listed in *Table 4.12 and Chart 4.12.*

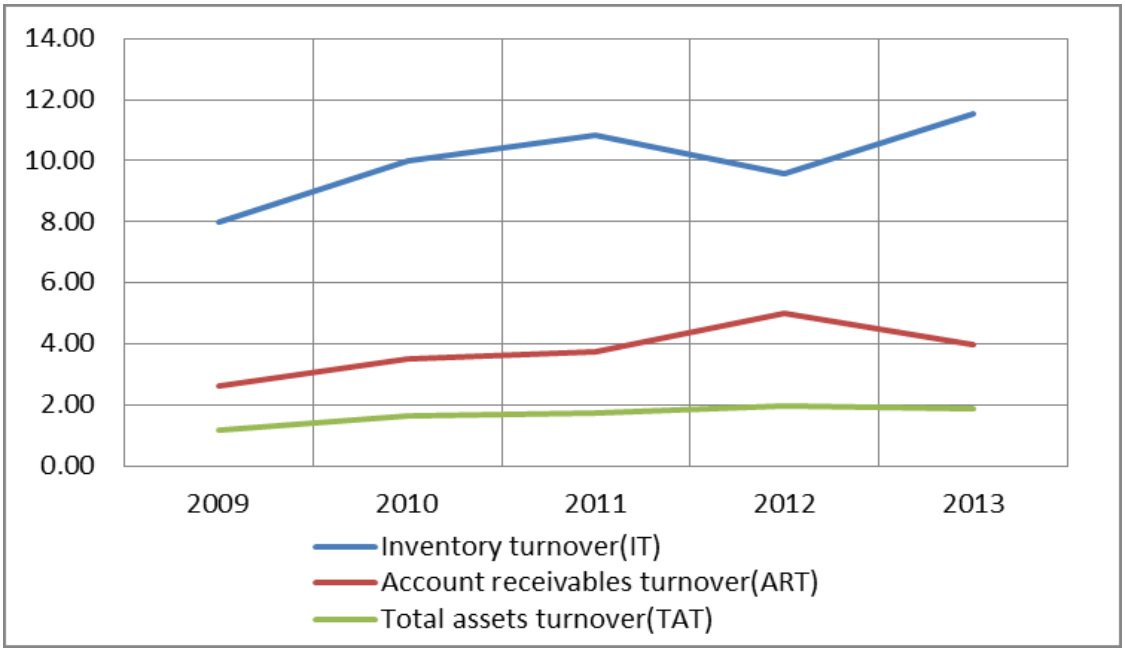
Table 4.12 Activity ratio of ART, TAT and IT

Activity ratio	2009	2010	2011	2012	2013
Inventory turnover(IT)	7.99	9.99	10.85	9.56	11.54
Account receivables turnover(ART)	2.63	3.49	3.75	5.02	3.96
Total assets turnover(TAT)	1.19	1.63	1.76	1.98	1.88

Source: own calculation

Based on the dates from *Table 4.12*, we made *Chart 4.12* here as follows:

Chart 4.12 Activity ratio of ART, TAT and IT



Source: own calculation

Accounts receivable turnover ratio (ART) is reflected in the company's accounts receivable turnover rate ratio. It shows a certain period the average number of accounts receivable into cash. The function of account receivables turnover (ART) can be found in (2.14). From *Table 4.12,* we can see the ratio in 2012 was very high as 5.02, it means the company can cover its receivable 5.02 times by total revenues in this year. In 2013, it is only 3.96. In 2013 total revenues haven't been recovered and the receivable at a usual value, so the ratio was so low in this year. From 2009 to 2012, we can see the accounts receivables turnover increase stably, which shows this period the ability of the average number of accounts receivable into cash is positive.

Inventory turnover ratio (IT) provides a measure of how quickly a firm sells its goods. Inventory is the goods which haven't been sold, and it is the least liquid current assets. The function of inventory turnover can be found in (2.15). Inventory is the least liquid current assets, while costs of goods sold represent inventories that have been sold. Inventory turnover ratio measures how many times per year the entire inventory was turnover or sold. In 2009 the ratio is 7.99 which mean the company can turnover its entire inventory 7.99 times in this year. In the following 2 years, the ratio had low speed of development, it means the period of inventories sold out became shorter. In 2012, the ratio goes down. It means the period of inventories sold out becomes longer.

Total asset turnover ratio (TAT) measures the company's overall ability to generate revenues with a given level of assets. The function of total assets turnover can be found in (2.16). We can find the total assets turnover ratio in 2009 is 1.19. It means the company can get the 1.19 RMB of revenues with 1 RMB assets being used. From the chart we can see all the ratios are over 1. It is a positive signal for a developing company. In 2012, the ratio is highest as 1.98 because of the high revenues.

Days of turnover ratios are another form to analyze activity ratios. This method usually calculates the time how long the company will taste to finish a financial cycle. Days of turnover can be divided into two parts which is days of inventory turnover and days of receivable turnover. Its function can be found at (2.17) and (2.18). We can get those ratios of Dongfeng Hongtai Company by *Table 4.13* and *Chart 4.13*.

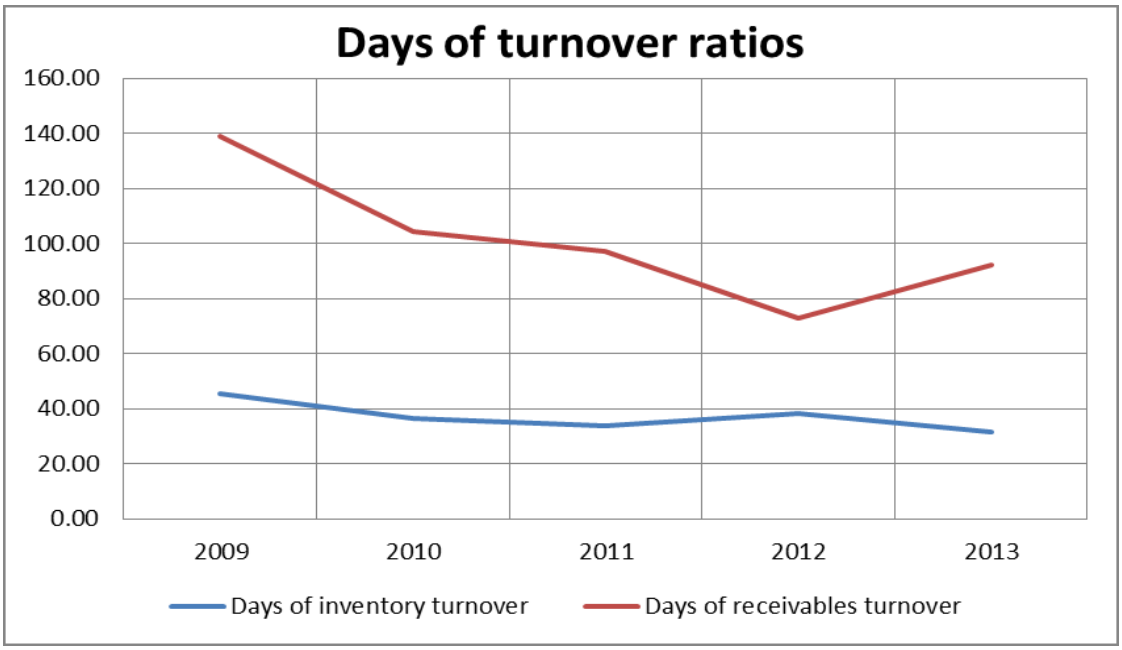
Table 4.13 Days of turnover ratio of Dongfeng Hongtai Company

	2009	2010	2011	2012	2013
Days of inventory turnover	45.7	36.6	33.7	38.3	31.6
Days of receivables turnover	138.9	104.5	97.3	72.9	92.1

Source: own calculation

Based on the dates from *Table 4.12*, we made *Chart 4.12* here as follows:

Chart 4.13 Days of turnover ratios



Source: own calculation

From *Table 4.13*, we can find how long the financial cycle is. Take the year 2009 for example, 45.65 days means that the company can turnover its entire inventory in 45.65 days within one year. It is about 8 times per year. 138.86 days means the company can cover its receivable in 138.86 days by total revenues in this year. It is about 3 times per year. In *Chart 4.13,* days of receivable turnover is low and stable in these 5 years with a little decrease.

All these days should be compared with the number of days of a year, which are usually 365. If the days are longer than 365, it means the activity can't be finished within 1 year. If the days are shorter than 365, the project can be finished within 1 year. Hence, the shorter is, the better is.

4.3 Pyramidal Decomposition of Return on Equity

Pyramidal decomposition is used to analyze what drives the value of financial ratios. The introduction of Pyramidal Decomposition we can see in part 2. In this part, we will continue to calculate the results of gradual changes to analysis the financial position of Dongfeng Hongtai Company during 2009 to 2013. The change of 2009 to 2013 of return on equity will be shown in *Table 4.14* as follows:

Table 4.14 Change of 2009 to 2013

	2009	2010	2011	2012	2013
Net profit margin	0.015	0.022	0.018	0.027	0.019
Assets turnover	1.199	1.646	1.766	1.986	1.889
Financial leverage	4.165	4.024	4.273	3.689	5.331
ROE	7.26%	14.58%	13.39%	19.88%	18.93%
Absolute change	X	7.32%	-1.18%	6.49%	-0.96%
Index change	X	200.76%	91.88%	148.47%	95.18%

Source: own calculation

According to *Table 4.14*, we can see that the absolute change of return on equity is negative in 2011 and 2013. And the Index change in 2010 and 2012 is really high, which are over 100%. We all know that the effects of quantization, including four possible ways to changes decompose excess of the number of decomposition and functional decomposition Method. In this work, we will focus on two methods, which is the method of gradual changes and logarithmic decomposition method to analyze.

4.3.1 Method of gradual change

According to *Table 4.15*, we can calculate the gradual change of component ratios in each period in *Table 4.15* and *Chart 4.14*.

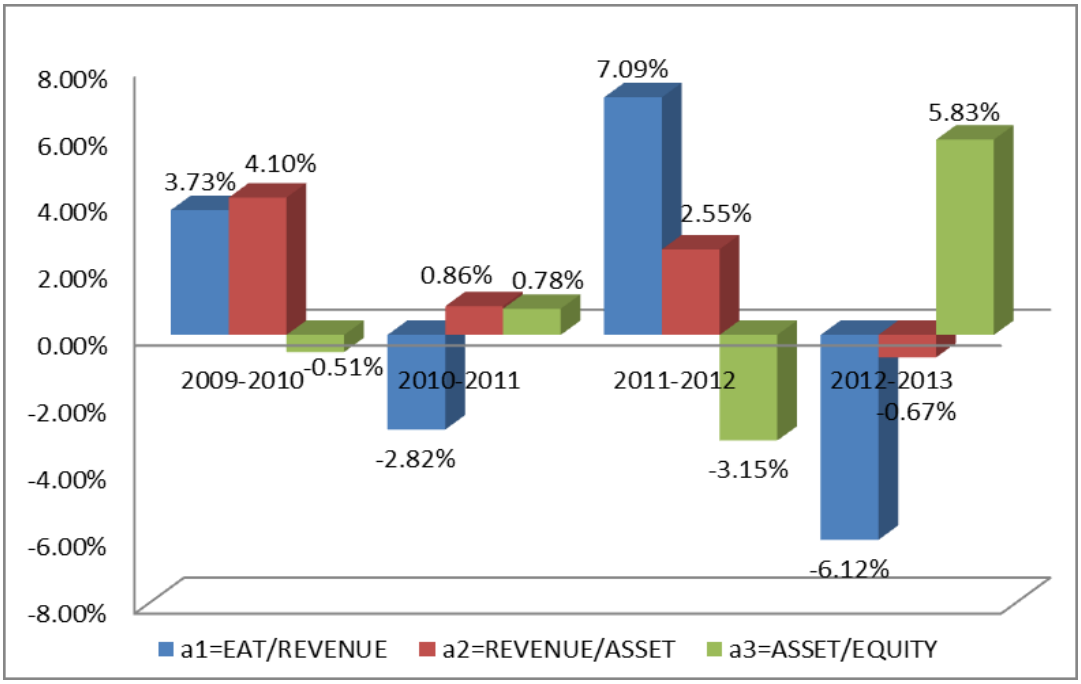
Table 4.15 Method of gradual change

	a_{2009}	a_{2010}	△a	$\triangle X_{ai}$	Order
a_1=EAT/REVENUE	0.015	0.022	0.75%	3.73%	2
a_2=REVENUE/ASSET	1.199	1.646	44.70%	4.10%	1
a_3=ASSET/EQUITY	4.165	4.024	-14.11%	-0.51%	3
Sum	x	x	x	7.32%	x
	a_{2010}	a_{2011}	△a	$\triangle X_{ai}$	Order
a_1=EAT/REVENUE	0.022	0.018	-0.43%	-2.82%	1
a_2=REVENUE/ASSET	1.646	1.766	11.99%	0.86%	2
a_3=ASSET/EQUITY	4.024	4.273	24.94%	0.78%	3
Sum	x	x	x	-1.18%	x
	a_{2011}	a_{2012}	△a	$\triangle X_{ai}$	Order
a_1=EAT/REVENUE	0.018	0.027	0.94%	7.09%	1
a_2=REVENUE/ASSET	1.766	1.986	22.02%	2.55%	3
a_3=ASSET/EQUITY	4.273	3.689	-58.47%	-3.15%	2
Sum	x	x	x	6.49%	x
	a_{2012}	a_{2013}	△a	$\triangle X_{ai}$	Order
a_1=EAT/REVENUE	0.027	0.019	-0.83%	-6.12%	1
a_2=REVENUE/ASSET	1.986	1.889	-9.69%	-0.67%	3
a_3=ASSET/EQUITY	3.689	5.331	164.18%	5.83%	2
Sum	x	x	x	-0.96%	x

Source: own calculation

In above, we can find the calculation via method of gradual change. Based on the dates from *Table 4.15*, we made *Chart 4.14* here as follows:

Chart 4.14 Method of gradual change



Source: own calculation

From *Table 4.15*, we can see that from 2009 to 2010, the financial leverage has negative influence on *ROE*. The assets turnover has the most impact on *ROE*. From 2010 to 2011, we can see net profit margin influence *ROE* most and it is negative influence. The assess turnover and financial leverage have almost the same impact.

From 2011 to 2012, net profit margin still has most influence and it becomes positive effect. The financial leverage has negative influence again. Financial leverage itself is a risky factor: on one part, shareholders can get double or multiple returns in their investment, on the other part, companies that are highly leverage may be at the risk of bankrupt if they are unable to make payments on their debts, in addition, such companies may also find it difficult to ask for new borrows. A well operated company has much more possibility of avoid the side effect of financial leverage, which is also an important guarantee to investors' benefits. From 2012 to 2013, we find net profit margin is the most contribution part to ROE but it is negative. Unfortunately the net profit margin and total assets turnover are all negative, which are -6.12% and -0.67%. So the sum of the change during this two year is negative.

In a whole word, from the analysis of gradual changes, we can see from *Chart 4.14,* the net profit margin is the most important ratio to contribute to the growth of ROE. However, the net

profit margin is always negative which will result the sum of the change becomes negative. At the same time, the total assets turnover and financial leverage still play the important role in contributing to the *ROE* change.

4.3.2 Logarithmic decomposition method

According to *Table 4.16*, we can also use the logarithmic decomposition method to calculate during 2009 to 2013.The result of *ROE* change will be showed in *Table 4.16* and *Chart 4.15* as follows:.

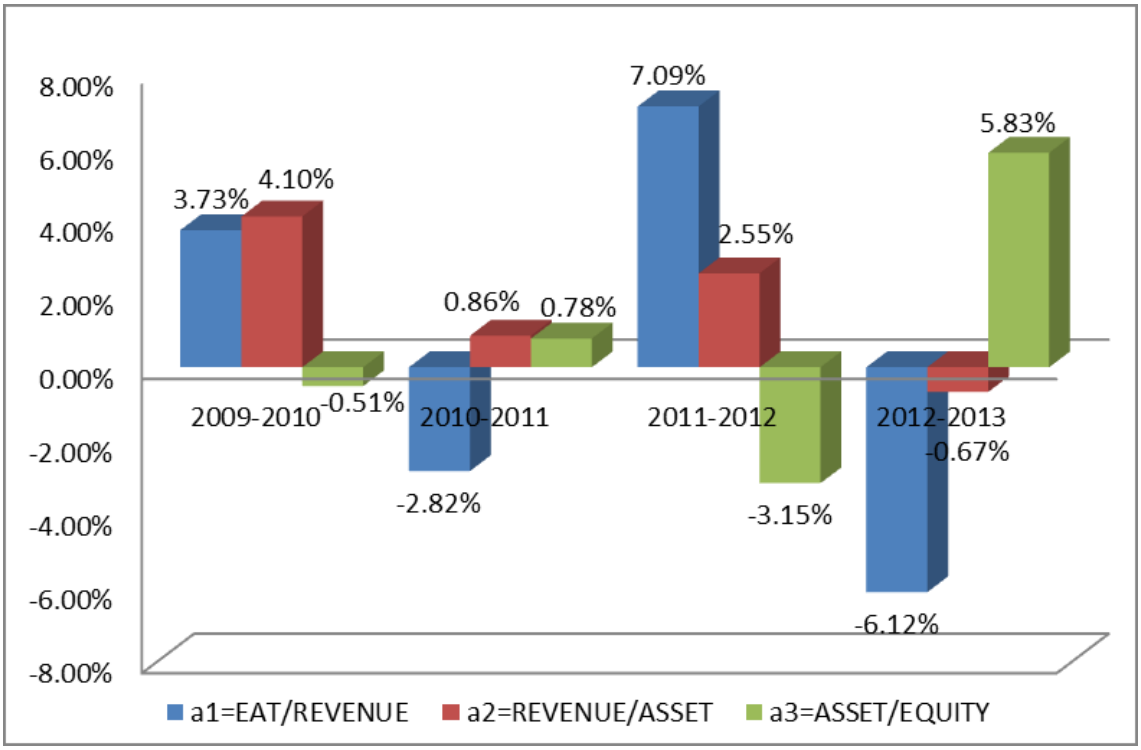
Table 4.16 Logarithmic decomposition method

	a_{2009}	a_{2010}	I_a	$\triangle X_{ai}$	Order
a_1=EAT/REVENUE	0.015	0.022	151.35%	4.35%	2
a_2=REVENUE/ASSET	1.199	1.646	137.30%	4.43%	1
a_3=ASSET/EQUITY	4.165	4.024	96.61%	-0.48%	3
Sum	x	x	x	8.30%	x
	a_{2010}	a_{2011}	I_a	$\triangle X_{ai}$	Order
a_1=EAT/REVENUE	0.022	0.018	80.64%	-3.01%	1
a_2=REVENUE/ASSET	1.646	1.766	107.29%	0.98%	2
a_3=ASSET/EQUITY	4.024	4.273	106.20%	0.84%	3
Sum	x	x	x	-1.18%	x
	a_{2011}	a_{2012}	I_a	$\triangle X_{ai}$	Order
a_1=EAT/REVENUE	0.018	0.027	152.94%	6.98%	1
a_2=REVENUE/ASSET	1.766	1.986	112.47%	1.93%	3
a_3=ASSET/EQUITY	4.273	3.689	86.32%	-2.42%	2
Sum	x	x	x	6.49%	x
	a_{2012}	a_{2013}	I_a	$\triangle X_{ai}$	Order
a_1=EAT/REVENUE	0.027	0.019	69.24%	-7.13%	1
a_2=REVENUE/ASSET	1.986	1.889	95.12%	-0.57%	3
a_3=ASSET/EQUITY	3.689	5.331	144.51%	6.01%	2
Sum	x	x	x	-1.69%	x

Source: own calculation

In above, we can find the calculation via logarithmic decomposition method. Based on the dates from *Table 4.16*, we made *Chart 4.15* here as follows:

Chart 4.15 Logarithmic decomposition method



Source: own calculation

Since gradual change and logarithmic change are both methods for influence quantification, we can use *Table 4.16* and *Chart 4.15* to distinguish these two ways of measurements and get a general ideal about advantages and disadvantages of them. According to different conditions, we should know which step we can take to have a better analysis of the data. We can see that during period 2010 to 2013, net profit margin has the biggest influence on *ROE*, which means that the benefits of shareholders have a close relationship with the operating situation of Dongfeng Hongtai Company. The higher the net profits of Dongfeng Hongtai Company or the lower the cost the company are, the higher possibility that shareholders can make profits from their investment. During 2009 to 2010, even though net profit margin still keeps an important influence on *ROE*, its leading position has been taken placed by asset turnover. Asset turnover is meant to calculate the company's efficiency in using its assets, the higher the number is, the better use of assets. While high efficiency in using assets always accompanied by increased cost on operating. The higher the company's asset turnover, the lower its profit margin tends to be. For shareholders, it is crucial to judge and weigh the mixture influence of net profit margin and asset turnover.

From *Table 4.16* and *Chart 4.15* we can find the difference of calculation result of gradual

change and logarithmic change is very little. For gradual change method, the advantage is that it is does not a matter whether a component ratio is positive or not, the disadvantage is that during calculation, you have to be very careful to the sequence of the number. In contrast, for logarithmic method, sequence does not a matter of final result but all the component ratio must be positive according the mathematic rule.

5 Conclusion

In this financial analysis thesis, we have explained three methods of financial analysis, Common-size analysis, financial ratio analysis and pyramidal decomposition. At the same time, we have introduced the main three statements, balance sheet, income statement and cash flow statement.

The aim of submitted bachelor thesis is provide the financial analysis of Dongfeng Hongtai Company during 2009 to 2013 period.

This thesis analyzed the financial statement of Dongfeng Hongtai Company. The objective of the thesis was to assess the financial performance of Dongfeng Hongtai Company. The financial performance was evaluated by financial analysis, including common-size analysis, financial ratio analysis and pyramidal decomposition, during the period from 2009 to 2013.

By analyzing the financial statements of Dongfeng Hongtai Company, we should notice some important points. First, Dongfeng Hongtai Company developed quite fast during these five years; we can see its revenue was increasing times. Second, Dongfeng Hongtai Company had a very good ability to arrange its assets to make more space to develop; we can see it had very good liquidity and can pay its payables. Third, during the period Dongfeng Hongtai Company had a high speed development, cause its current assets growth up three times during 2009 to 2013. Finally, acquisition is very important to Dongfeng Hongtai Company, because its net profit is increasing in recent years.

In common-size analysis we can know that during the chosen period, it showed that the growth of Dongfeng Hongtai Company is in good condition. What's more, after analyzing of company's cash flow statement showed that the net cash flow in operating activities is the main parts, and that resulted in an efficiency of fund.

From the pyramidal decomposition of return on equity analysis, we can find out the financial leverage of Dongfeng Hongtai Company during period 2009 to 2013 is stable, which directly influenced the return on equity a lot. On the other hand, this condition can tell us in this period, especially in 2012, the company spent lots of money on investments because of acquisition.

The overall results of this study suggests that Dongfeng Hongtai Company is a big and fast developing company, but they still should pay attention to its liquidity and profitability. Besides, Dongfeng Hongtai Company needs to research or create new technology according to the customers' demand, which can make their products or services more competitive in order to make more profits. At the same time, it needs to innovate the modal of management. All in all, Dongfeng Hongtai Company should not only chase to make profit in China, but also make innovation to make it more and more competitive to other more powerful companies.

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List of Abbreviation

ART	*Accounts Receivable Turnover*
EAT	*Earnings after Tax*
EBIT	*Earnings before Interest and Tax*
EBT	*Earnings before Tax*
IT	*Inventory Turnover*
NPM	*Net Profit Margin*
ROA	*Return on Asset*
ROE	*Return on Equity*
TAT	*Total Assets Turnover*

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Ostrava dated 6. May 2015

signature Bowen Cai

List of Annexes

Annex 1: Balance Sheet Statement during period of 2009 - 2013

Balance Sheet Statement (million ￥):

	2009	2010	2011	2012	2013
Current assets	936.40	1277.40	1542.59	1544.77	3088.16
Accounts receivable	622.87	833.97	1013.98	899.87	2068.87
Inventories	204.80	291.67	350.58	472.42	709.99
Cash	108.74	151.76	178.03	172.48	309.30
Fixed assets	443.88	513.71	619.97	733.91	1281.79
Total assets	1380.29	1791.11	2162.56	2278.68	4369.95
Current liabilities	1046.08	1335.75	1650.69	1645.06	3538.27
Short-term loan	183.61	311.07	223.50	192.51	583.21
Notes payable	259.54	199.71	277.15	263.67	875.92
Accounts payable	282.44	456.84	590.66	621.14	1246.26
Payment in advance	56.59	79.99	109.63	140.55	163.54
Employee payable	40.02	54.58	60.33	53.69	100.59
Taxes payable	8.59	15.82	32.15	6.76	54.65
Dividends payable	37.94	4.95	11.72	8.80	18.72
Interest payable	0.19	0.25	0.30	0.34	0.45
Other payables	177.16	212.54	345.24	357.61	494.93
non-current liabilities	3.01	5.92	5.83	15.89	11.82
Tatol liabilities	1049.09	1341.68	1656.52	1660.95	3550.09
Total owners' equity	331.38	445.09	506.04	617.74	819.79
Total liabilities and owners' equity	1380.48	1786.77	2162.56	2278.68	4369.88

Annex 2: Income Statement during period of 2009 - 2013

Income Statement (million ￥):

	2009	2010	2011	2012	2013
Operating revenues	1637.29	2912.84	3803.10	4515.23	8195.19
Operating costs	1464.39	2677.13	3454.77	4116.02	7480.93
Business tax and surcharges	6.55	7.91	12.87	16.15	17.71
Selling costs	34.51	57.51	76.48	89.52	197.01
Administrative costs	94.19	95.21	141.18	151.45	296.70
Finance costs	11.64	12.13	19.73	28.15	45.48
Depreciation costs	4.61	10.87	7.33	5.30	6.34
Total cost	1615.89	2860.76	3712.37	4406.60	8044.18
Operating profit	25.19	53.91	89.10	157.25	155.13
Non-operating revenues	17.07	34.62	15.02	9.61	59.01
Non-operating expenses	6.56	3.24	1.70	2.31	4.58
Non-operating profit	10.50	31.38	13.32	7.30	54.43
The total profit(EBIT)	35.69	85.29	102.42	164.55	209.56
Income tax	11.63	20.41	34.65	41.72	54.40
Net profit(EAT)	24.06	64.88	67.77	122.83	155.16

Annex 3: Cash Flow Statement during period of 2009 - 2013

Cash Flow Statement (million ￥):

	2009	2010	2011	2012	2013
Cash flows from operating activities					
Sale of goods and services received	1537.55	2811.50	3907.43	4720.56	7349.54
Tax Refund	1.96	8.50	3.46	0.15	0.06
Other cash received	45.88	8.68	174.44	203.62	185.00
Total cash inflows from operating activities	1585.39	2828.69	4085.33	4924.33	7534.60
Purchase goods and services cash received	1253.50	2567.76	3360.01	4013.44	6116.47
Employees payment	126.18	153.77	177.66	229.43	421.76
Payments of taxes	54.07	88.61	112.18	168.05	198.41
Other cash paid	48.75	57.54	173.65	378.66	461.90
Total cash outflows from operating activities	1482.50	2867.67	3823.48	4789.59	7198.54
Net cash flows from operating activities	102.89	-38.98	261.85	134.75	336.06
Cash flows from investing activities					
Cash received from investment income	0.10	3.28	6.57	76.97	
Net cash received from disposal of assets	0.07	0.28	2.48	3.14	2.57
Net cash from disposal of subsidiaries				3.80	0.19
Other cash received			18.16	52.00	3.57
Total cash inflows from investing activities	0.17	3.56	27.21	135.91	6.34
Cash purchase of assets	49.84	76.63	152.17	202.28	272.32
Cash paid for investments	0.50	14.99	2.00		
Net cash used in other subsidiaries					-85.43
Other cash paid			0.10	80.16	0.03
Total cash outflows from investing activities	50.34	91.62	154.27	282.44	186.91
Net cash flows from investing activities	-50.16	-88.06	-127.07	-146.53	-180.58
Cash flows from financing activities					
Cash received from investment absorption	4.78	55.00		2.00	4.90
Cash received from borrowings	249.95	385.27	300.46	293.48	795.51
Other cash received	0.00	3.00	2.79	80.02	0.00
Total cash inflows from financing activities	254.73	443.27	303.24	375.50	800.41
Cash paid for debt repayment	281.45	228.27	388.25	347.71	781.85
Cash dividends,profits or interest payments	14.38	44.93	20.20	21.56	32.85
Other cash paid	3.34		3.31		4.04
Total cash outflows from financing activities	295.83	273.21	411.76	369.27	818.75
Net cash flows from financing activities	-41.09	170.07	-108.51	6.23	-18.34
Total cash inflows	1840.30	3275.52	4415.79	5435.74	8341.35
Total cash outflows	1828.66	3232.49	4389.51	5441.29	8204.20
Total net cash flows	11.63	43.02	26.27	-5.56	137.14