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Fundamentální analýza společnosti Suning Commerce Group Co., Ltd.

Fundamental Analysis of the Suning Commerce Group Co., Ltd.

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1. Introduction
2. Characterisation of Fundamental Analysis
3. Macroeconomic and Industry Analysis
4. Company Analysis and Stock Valuation
5. Conclusion

Bibliography
List of Abbreviations
Declaration of Utilization of Results from the Diploma Thesis
List of Annexes
Annexes

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The declaration

"Here with I declare that I elaborated the entire thesis, including all annexes, independently."

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Contents

1 Introduction

Fundamental analysis is the verification of the factors that influence the health of the economy, industry groups, and companies. A measurement of security valuation which contains examining the company's financials and operations, especially sales, earnings, growth potential, assets, debt, management, products, and competition under the condition which taking the consideration of overall macroeconomy and the development of the company’s industry..

Fundamental analysis includes macroeconomic analysis, industry analysis and company analysis. For the macroeconomic analysis, fundamental analysis might focus on economic data to assess the present and future growth of the economy, considers factors including interest rates, production, earnings, employment, GDP and so on. At the industry level, there might be an examination of the industry’s sale, development and the relation with surroundings. At the company level, fundamental analysis may involve examination of financial data, management, operations and financial performance. These factors derive a stock's current fair value and forecast future value, if fair value is not equal to the current stock price, thus, the stock is either over or under valued and the market price will ultimately be influenced by fair value.

This work is focus on Suning Commerce Group Co., Ltd. which principally operates franchised retail stores of household appliances in China. It is one of the largest privately owned electrical appliance retailers in China. Suning Commerce is also the front runner of China’s 3C household appliances retail chain stores.

The main objective of this work is to conduct the stock valuation of Suning Commerce Group Co., Ltd. and forecast its probable price evolution. First, the characterisation of fundamental analysis will be explained. Macroeconomic,

industry and company analysis will be described in detail. Main attention will be paid to the indicators and models that will be used latter in the work. Second, the analysis of the macroeconomic environment and industry performance will be stated. The domestic macroeconomy which involves GDP, interest rate, employment situation and inflation, government policy, the business cycle as well as consumer's sentiment will be shown in detail. Industry structure of Suning Commerce Co., Ltd. and performance will be described. Next, the characterization of the company will be stated and the analysis of the company's financial situation will be carried out through the method of the financial analysis, some equity valuation models will be used for testing the stock valuation and forecasting the stock price of the company. All results will be summarized at the end of the thesis.

2 Characteristics of Fundamental Analysis

This chapter is based on introducing the measurements to evaluate the company's stock value according to exam the underlying forces that influence the well being of economy, industry and the company. The measurements will be introduced as follows:

- Global analysis;
- Industry analysis;
- Company analysis and stock valuation.

The main information sources for this chapter are by Bodie, Kane and Marcus (2011), McMillan, Pinto, Pirie and Venter (2011), Damodaran (2010), Clayman, Fridson and Troughton (2008).

2.1 Global Analysis

The global analysis is also called macroeconomic analysis which is the field of economics that studies the performance of the aggregate economy. Using macroeconomic analysis is for studying the influence of the macroeconomics factors on stock value, predicting the direction of the economy and its impact on the whole future stock market. In analyzing a company's prospects it is important to start with the broad economic environment and measuring the state of the aggregate economy. The macroeconomy is the environment in which all companies operate. Macroeconomics examines economy-wide phenomena such as changes in unemployment, rate of growth, gross domestic product, inflation, price levels, interest rates and so on. The key economic statistics used to describe the state of the macroeconomy will be stated as follows.

2.1.1 Gross Domestic Product

The gross domestic product (GDP) is one the primary indicators used to

measure the health of a country's economy. It represents the total value of all goods and services which are produced over a specific time period.

GDP has a large impact on almost everyone within the economy. Rapidly growing GDP indicates an expanding economy with large opportunity for a firm to increase sales. When the economy is healthy, there is low unemployment and wage increases as enterprises demand labor to meet the growing economy. The change of GDP indicates that change of the whole economy. A significant change in GDP, whether up or down, usually has a significant effect on the stock market. But it is not simply to say that the growth of GDP has an absolutely effect on increasing the stock price, the actual situation sometimes will be different. Two situations will be described according to the circumstances of changing GDP below.

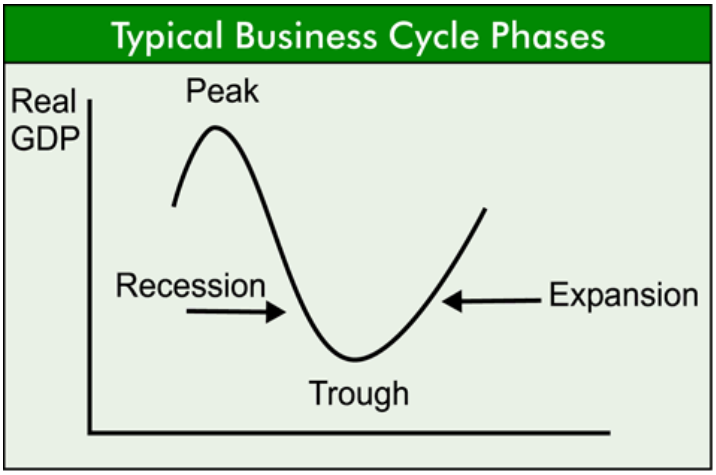
- When the GDP is growing consistently, steadily and rapidly, it will have positive effect on stock market. The increasing economy can improve the companies' business environment and increase the overall level of profits of the listed companies, leading to an increase in dividends and decrease the investment risk, which is conducive to rising stock prices; the economic growth can also create a better expectation of future for investors, which leads to stimulate the stock market and increase the demand for investment, thus it will increase the stock prices.
- When the GDP is growing rapidly under high inflation, the macroeconomy is in the serious imbalance with the high speed economic growth, the aggregate demand exceeds aggregate supply greatly. In this situation, decline in real incomes resulting in declining in the securities market condition changes the expectations of investors concerning the future situation.

Business Cycle

Business cycle is the predictable long-term pattern that changes in gross domestic product. It refers to the fluctuations in economic activity that an economy undergoes over a period of time.

In the business cycle, the economy passes through four stages which are peak, recession, trough and expansion. It is shown on figure 2.1 as follows.

Figure 2.1 Typical Business Cycle Phases



(Business Cycles in Economics [online]. [2.4.2014]. Available on http://www.erelscredit.com/?p=30)

The stock market tends to be a leading indicator of the business cycle, since investors look to other indicators and tend to exit the market at or before an economic contraction and return to the market during recovery.[1]

In general, during the recession, stock prices will gradually decline, till trough point the stock price will fall to its lowest. However, at the beginning of economic recovery, the stock price will gradually rise, till the peak point the stock rose to the highest one. The reason is when the economy is going to decline, the products of firms are unsaleable, accordingly the profits decrease, the firms have to decrease their production, which cause divides and bonus

[1] The Effect of the Business Cycle on Stock Markets [online]. [2.4.2014]. Available on http://www.investopedia.com/exam-guide/series-65/economic-concepts/business-cycle-stock-markets.asp

decrease continuously, the stockholders dump the stock due to the poor stock return, resulting in the decrease of stock price. When the recession has reached to the economic crisis, the entire economic life is in the paralyzed condition, a large number of business failures, the stockholders sell their stocks due to their pessimistic attitude resulting in the large decline of stock prices and cause the market is in the depression and panic. After going through the trough, the economy starts expanding, the products start gaining sales, with the adjustment of economic structure, the firms are able to pay out the dividends, stockholders can gain the benefits by holding stocks who buy the stocks one after another, resulting in rising of stock prices slowly. When the economy achieves prosperity, the firms increase their production capacity and outputs largely and gain a large number of profits, dividends and bonus increase accordingly, thus the stock prices go up to the highest point. In reality, the changes of stock prices always go ahead of the changes of business cycle.[2]

2.1.2 Employment

When measuring the employment in a country, normally the unemployment rate is used as the measurement. The unemployment rate is the percentage of the total labor force which is unemployed but actively seeking employment and willing to work. The unemployment rate measures the field to which the economy is operating at full capacity and is a factor only related to workers. High and persistent unemployment, in which economic inequality increases, has a negative effect on the succeeding long-run economic growth. Unemployed persons are unable to earn enough money to meet financial obligations and fail to pay their mortgage payments that may result in more people become homeless through foreclosure or eviction. They

[2] The Effect of the Business Cycle on Stock Markets [online]. [2.4.2014]. Available on http://www.stockbus.cn/books/zt/tzlljq/201.htm

can easily lose their confidence and increase their stress and emotion. High unemployment leads to waste of resources such as available labour and can also cause civil unrest and conflict.

If unemployment rates are going up, it signals that companies are cutting jobs and don't have a positive outlook about the economy. This is likely to have a negative impact on the stock market. If unemployment is low, it signals a strong economy. Employers are adding workers and optimistic about the outlook. Stock markets are likely to react positively. If the economy is already heated up, though, the stock market may view the low unemployment as likely to cause inflation and not react as positively.[3]

2.1.3 Inflation

Inflation is the rate at which the general level of prices for goods and services is rising and subsequently the purchasing power is falling, thus, when the general level of prices rise, each monetary unit can buy fewer goods and services. High and unpredictable inflation rate is regarded as harmful to a whole economy. It causes inefficiencies in the market, makes it difficult for companies to budget, make long-term plan and also discourages the investment and savings.

CPI is one of the most frequently used indicators for studying periods of inflation or deflation, which measures the weighted average of prices of a basket of consumer goods and services. Changes in CPI are used to evaluate price changes associated with the cost of living. Large rises in CPI during a short period of time typically indicate periods of inflation and large drops in CPI during a short period of time usually mark periods of deflation.

Larger volatility of stock movements is related to higher inflation rates. Effect of inflation on stock market is also evident from the fact that it increases

[3] Unemployment & the Stock Market [online]. [2.4.2014]. Available on http://www.ehow.com/facts_6799813_unemployment-stock-market.html

the rates if interest. If the inflation rate is high, the interest rate is also high. In the wake of both (inflation and interest rates) being high, the creditor will have a tendency to compensate for the rise in interest rates. Therefore, the debtor has to avail of a loan at a higher rate. This plays a significant role in prohibiting funds from being invested in stock markets.[4]

2.1.4 Interest Rates

An interest rate is the rate at which interest is paid by a debtor for the use of money that they borrow from a creditor and expressed as a percentage of principal. Interest rates mainly influence investment on a macroeconomic field. If interest rates increase across the board, then investment decreases, resulting in a fall in national income. With credit cards and loans, the interest rate directly affects the cost of borrowing. Lower interest rates mean a lower cost will be paid, while higher interest rates mean a higher cost. High interest rates reduce the present value of future cash flows, thus reducing the attractiveness of investment opportunities.

The relationship between interest rates and stock prices is reverse, which means that increase of interest rates cause decrease f stock prices. As a consequence, real interest rates are key determinants of business investment expenditures. When interest rates go up, it costs more to borrow money. This affects overhead costs. And it means that companies' profits are affected. Therefore, if interest rates go down, the idea is that companies will spend less money and therefore have higher profits. This stimulates investors to put their money in the stock market, which leads to raise the market values.[5]

[4] Inflation Stock Market. [online]. [2.4.2014]. Available on http://www.economywatch.com/inflation/economy/stock-market.html

[5] Interest Rates and the Stock Market [online]. [2.4.2014]. Available on http://voices.yahoo.com/interest-rates-stock-market-1406197.html

2.1.5 Sentiment

Sentiment is a statistical measurement and economic indicator of the overall health of the economy as determined by consumer opinion. It refers to consumers' and producers' attitudes of optimism and pessimism regarding the economy that is a significant determinant of economic performance. (Bodie, Kane and Marcus, 2011, P. 732).

Consumer confidence index is an indicator to gauge consumer confidence which measures the degree of optimism that consumers feel about the overall economy and their personal financial situation. How confident people feel about stability of their incomes affect their economic decisions, such as spending activity. For this reason, it serves as one of the key indicators for the overall shape of the economy.[6] In essence, if consumer confidence is high, consumers will be making more purchases. On the other side, if confidence is lower, consumers tend to save more and spend less. Consumer confidence typically increases when the economy expands, and decreases when the economy shrinks. However, this does not necessarily happen as consumers may not have perfect information on the situation of the economy. In general, it plays a role as a lagging indicator of stock market performance.

2.1.6 Government Policy

The government has two broad classes of macroeconomic tools which affect demand for goods and services and the supply. They are fiscal policy and monetary policy, which aims to develop the overall economy. Fiscal policy is complex to implement but has a quite direct impact on the economy, whereas monetary policy is easy to formulate and implement but has a less immediate impact. Fiscal policy directly stimulates or restrains the economy and monetary policy works largely through its impact on interest rates.

[6] Consumer confidence [online]. [2.4.2014]. Available on http://en.wikipedia.org/wiki/Consumer_confidence

Increasing the money supply can lower interest rates that cause stimulate demand for investment.

A) Fiscal Policy

Fiscal policy refers to using government budget to affect economic activity, which is related to the government's expenditures and tax actions. Government spends money on military and police, education and health care, and also transfers payments such as welfare benefits from tax revenues. Government uses fiscal policy to influence the level of aggregate demand in the economy for achieving economic objectives of price stability, full employment, and economic growth.

B) Monetary Policy

Monetary policy is the policy made by central bank, currency board or other regulatory committee that determine the size and rate of growth of the money supply, thus it can influence interest rates for promoting economic growth and stability.

Monetary policy is regarded either being expansionary or contractionary, in which an expansionary policy increases the total money supply in the economy more rapidly than usual, and contractionary policy expands the supply of money more slowly than usual or shrinks it. Expansionary policy is generally used to reduce unemployment rate in a recession by lowering interest rates in the hope that easy credit will motivate businesses into expanding. Contractionary policy is used to slow inflation in order to avoid the distortions and deterioration of asset values.[7]

[7] Monetary policy [online]. [2.4.2014]. Available on http://en.wikipedia.org/wiki/Monetary_policy

2.2 Industry Analysis

Industry analysis is the analysis of an explicit branch of manufacturing, service, or trade and dividing an economy into different pieces that allows for more in-depth analysis of the economy as a whole, thus any economy can be divided into sectors. Individual companies are generally classified into sectors according to their largest sources of revenues. It is important for investors to invest in a good industry, because it’s hard for a firm to manage well in a troubled industry. Stocks with the same sector generally rise and fall as a group since the same underlying factors exist. Companies operating in the same sector can also be compared with each other to evaluate the relative attractiveness of a company.

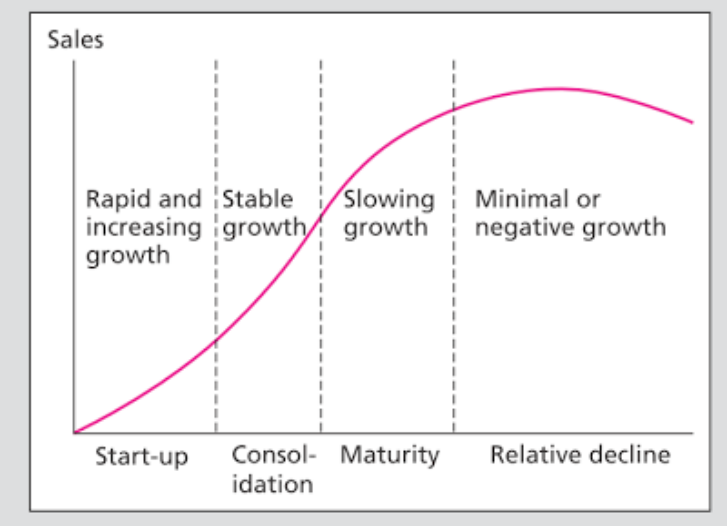
Industry analysis measures the specific industry performance to determine the degree of consistency, stability, and risk in the returns in the industry over time. The objective of this analysis is to identify industries that offer the highest potential for investment returns on a risk-adjusted basis. (McMillan, Pinto, Pirie and Venter, 2011, P. 385).

2.2.1 Industry Life Cycles

Industry life cycle is the development of an industry's sales over time that is used to chart the life cycle and relating to the different stages an industry will experience, from the first product entry to its eventual decline.

There are four stages in the industry life cycle which are start-up, consolidation, maturity, and relative decline. Sales increase rapidly at the start-up stage, then take off rapidly but still faster than that of general economy during the consolidation stage. After leveling out at maturity where the growth of sales is not faster than general economy, sales then begin a gradual decline. (Bodie, Kane and Marcus, 2011, P. 750).

Figure 2.2 The industry life cycle



(Industry life cycle [online]. [2.4.2014]. Available on http://ch-hsieh.blogspot.cz/2013/12/blog-post_9.html)

Start-Up Stage

In the start-up stage of the life cycle, an industry is in its initial phase. Probably a new, unique product offering has been developed and patented, therefore starting a new industry. It shows the rapid and increasing growth of sales. At this stage, it is hard to predict which companies will be outstanding and leading the industry. Some companies will operate successfully, however other companies will fail, thus considerable risk exists within the industry. During this stage, the companies can increase the sales rapidly, because the new product has not reached to saturation in the market.

Consolidation Stage

After going through the start-up stage, the industry starts to manifest, the industry life cycle curve reflects stable growth. In this stage, the growth rate of market is very high, demand increases rapidly, the technology is going to finalize the design gradually, the characteristics and competition situation of the industry and customers' characteristics are going to be clear, the barrier to

entry for firms is increasing, and the amount of types of products and competitors is increasing.

Maturity Stage

At this level, the product has reached its saturation in the market. More offering does not help increasing the growth of sales distinctly. The industry life cycle curve becomes noticeably flatter, reflecting slowing growth.

Firms may compete on quality to separate their product from other lower-cost offerings, or conversely the firm may try a low-cost/low-price strategy to increase the volume of sales and make profits from inventory turnover. A firm at this stage may have excess cash to pay dividends to shareholders. But in mature industries, there are usually fewer companies, and those that survive will be larger and more dominant.[8]

Relative Decline

At this point, the growth rate of the industry might be less than the rate of overall economy or even goes down. Probably because the product innovation does not catch up with that by new competitors and the new technology appears. In this aspect, investors should seek for high growth industries.

When a firm is at the stage of start-up and consolidation, investors mostly expect that the stock price of the firm is going up, they must hold or buy the stocks, as well as when it is at maturity stage, investors would like to hold the stock. But when the firm is going to the stage of relative decline which indicates the economy is going down, investors expect the stock price is going down.

2.2.2 Industry Structure and Performance

For knowing the industry structure and performance, it's important to

[8] Industry life cycle [online]. [2.4.2014]. Available on http://www.inc.com/encyclopedia/industry-life-cycle.html

measure the industry's competitive environment. There are five determinants of competition which have been described by Michael Porter for industry strategic analysis below.

A) Rivalry between Existing Competitors

When there are more competitors in an industry, they seek to expand and stabilize their market share, thus it leads to generate more price competition and lower profit margins. For most industries the intensity of competitive rivalry is the main determinant of the competitiveness of the industry. Several potential factors will be described as follows.

- Sustainable competitive advantage through innovation.
- Competition between online and offline companies.
- Level of advertising expense
- Powerful competitive strategy.
- Firm concentration ratio.
- Degree of transparency.[9]

B) Threat of Entry

It is the barrier to entry which indicates how difficult the new competitors have to deal with and enter the industry. In general industries which are easy to enter are more competitive comparing with the industries which are difficult to enter. In industries which are easy to enter, sources of competitive advantage tend to disappear quickly. On the other side, in industries which are hard to enter, sources of competitive advantage keep longer, and companies also tend to benefit from having constant competitors.

Profitable markets which bring high returns are more attractive for new companies. This results in many new entrants that eventually will decrease

[9] Porter five forces analysis [online]. [2.4.2014]. Available on http://en.wikipedia.org/wiki/Porter_five_forces_analysis#Threat_of_new_entrants

profitability for all companies in the industry. The existence of barriers to entry, government policy, capital requirements, absolute cost, cost disadvantages independent od size, economies of scale, economies of product differences, brand equity, switching cost or sunk costs, expected retaliation, access to distribution, customer loyalty to established brand and industry profitability, those are the most important factors to estimate the threat of entry.

The existence of barriers to entry due to patents, rights and so on. The entry barriers of this characteristic are high and exit barriers are low. Few new companies can enter and less well-performing companies can exit easily.

C) Pressure from Substitute Products or Services

Product substitution occurs when small businesses' customers believe that a similar product can be used with the same function at a better price. Both in the same industry or in different sectors of enterprises, may be due to the production of products are substitutes. Substitute products shows that the industry encounters competition from companies in related industries, thereby generating the competition between them, and it also has an effect on changing the competition strategy of firms. Firstly, the increase of product prices and potential profits can be limited because of the existence of substitutes which can be easily accepted by consumers. Secondly, because of the existence of the substitutes producers, companies have to improve their quality of products, decrease the price of products by decreasing costs, or make unique products. Therefore the lower price of substitutes, better quality and lower consumer switching costs cause the stronger pressure of competition. The intensity of competition from substitutes producers can be verified by sales growth rate of substitutes, production capacity of substitutes producers and expansion situation of earning.

D) Bargaining Power of Buyers

Powerful buyers can put pressure on suppliers through requiring lower prices, higher quality, or extra services. The power of buyers tends to increase when customers demand large volumes of the business's product, substitutes are available for the product, costs of changing suppliers are low and so on.

It is affected by number of suppliers and purchasers which related to their size and power, switching costs to other suppliers, number of contracted suppliers and customers' ability to produce the product by themselves. (Mcmillan, Pinto, Pirie and Venter, 2011, P. 387).

E) Bargaining Power of Suppliers

When less suppliers exist in the industry, no substitutes available for the suppliers' product and costs much by switching suppliers, the suppliers gain power.

It is affected by number of industries buying suppliers' products, number of supply substitutes, switching costs of suppliers' customers, the condition of industry and customers' ability to enter industry. ((Mcmillan, Pinto, Pirie and Venter, 2011, P. 387).

2.3 Company Analysis

Company analysis is an analysis that based on an inter-comparison with the relevant data of some important items in the financial statement of the same period, computing the ratios for evaluating the company's operating activities, current and historical conditions. Company analysis gathers the ratios in several categories which are used to analyze a company's financial performance and operations. Four types of analysis are subject to company analysis, which are operation capacity analysis, liquidity ratios, long-term solvency analysis and profitability analysis.

2.3.1 Operation Capacity Analysis

Operation capacity analysis uses turnover methods to estimate how efficient a firm is in its operations and usage of assets investment. It aims to analyze how quickly a firm puts its investment to use and convert into cash, cash equivalents or sales. Five categories of ratios and their formulas will be described as follows. In this respect, this analysis will involve the firm's management of inventory, receivables, payables, assets and working capital.

$$\text{Inventory turnover} = \frac{\text{Cost of goods sold}}{\text{Inventory}} \tag{2.1}$$

$$\text{Number of days of inventory} = \frac{365 \cdot \text{Inventory}}{\text{Cost of goods sold}} \tag{2.2}$$

Generally if the ratio of inventory turnover is big and less number of days, the level of inventory occupied would be low, the liquidity can be stronger, thus the speed of converting inventory into cash or cash equivalents is faster.

$$\text{Receivable turnover} = \frac{\text{Total revenue}}{\text{Receivables}} \tag{2.3}$$

$$\text{Number of days receivables} = \frac{365 \cdot \text{Accounts receivables}}{\text{Revenue}} \tag{2.4}$$

It indicates how well the firm can manage its receivables from their customers.

The asset turnover ratio estimates the efficiency that the assets are being used to generate revenues and the times it takes to earn revenues. The higher the ratio is, the more efficient on using the assets the firm is.

$$\text{Total asset turnover} = \frac{\text{Total revenue}}{\text{Total assets}} \tag{2.5}$$

$$\text{Current asset turnover} = \frac{\text{Total revenue}}{\text{Total current assets}} \tag{2.6}$$

$$\text{Working capital turnover} = \frac{\text{Total revenue}}{\text{Total working capital}} \tag{2.7}$$

A firm's working capital turnover rate is higher, it means that a firm can generate more revenues by the working capital of each input and it has higher usage efficiency of its working capital.

Number of days of payables

$$= \frac{\text{Accounts payable} \cdot 365}{\text{cost of goods sold} + \text{ending inventory} - \text{beginning inventory}} \tag{2.8}$$

Number of days of payables indicates how long a firm would take for paying its credits on average.

2.3.2 Liquidity Ratios

Liquidity ratios measure a firm's short-term financial situation and the ability to meet or repay the short-term borrowing. If the liquidity ratios are higher, it indicates that a firm has better ability to meet its immediate needs and pay off its short-term borrowing. There are three ratios which are current ratio, quick ratio and cash ratio.

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}} \tag{2.9}$$

$$\text{Quick ratio} = \frac{\text{Cash} + \text{Short} - \text{term marketable investments} + \text{receivables}}{\text{Current liabilities}} \tag{2.10}$$

$$\text{Cash ratio} = \frac{\text{Cash} + \text{Short} - \text{termmarketable investments}}{\text{Current liabilities}} \tag{2.11}$$

2.3.3 Long-term Solvency Analysis

Long-term solvency analysis is an analysis that shows how well the firm manages its long-term debts and ability to pay off its long-term obligations. It is used to evaluate a firm's ability to meet its debt.

$$\text{Debt} - \text{to} - \text{equity ratio} = \frac{\text{Total debt}}{\text{Totalshareholders' equity}} \tag{2.12}$$

$$\text{Financial leverage} = \frac{\text{Total assets}}{\text{Total shareholders' equity}} \tag{2.13}$$

$$\text{Interest coverage ratio} = \frac{\text{EBIT}}{\text{Interest payments}} \tag{2.14}$$

$$\text{Debt} - \text{to} - \text{assets ratio} = \frac{\text{Total debt}}{\text{Total assets}} \tag{2.15}$$

The analysis aims to estimate the relation of capital sources provided by creditors and investors, inspect the stability of a firm's financial structure, regulate the firm's operation properly and measure the ability to meet the firm's interest payments.

2.3.4 Profitability Analysis

Profitability analysis measures a firm's ability to make profits. It reflects the company's financial health and its performance in business, shows the condition of business operations and effectiveness of the firm to know how much the firm makes the profits from its sales, investment capital and shareholders' investments. The four selected indicators which are operating profit margin, net profit margin, return of equity and return on assets will be described below.

$$\text{Operating profit margin} = \frac{\text{Operating income}}{\text{Total revenue}} \tag{2.16}$$

$$\text{Net profit margin} = \frac{\text{Net income}}{\text{Total revenue}} \tag{2.17}$$

$$\text{ROE} = \frac{\text{Net income}}{\text{shareholders' equity}} \tag{2.18}$$

$$\text{ROA} = \frac{\text{Net income}}{\text{Total assets}} \tag{2.19}$$

2.4 Stock Valuation

The main purpose of equity valuation is to evaluate a value for a company or security. A key assumption of any fundamental value technique is that the value of the security is driven by the fundamentals of the company's underlying business at the end of the day.[10] Equity valuation is the measurement of calculating intrinsic values of firms and their stocks. The main purpose is to forecast future market prices, or more generally, potential market prices, and thus to make a profit from price movement. If the stocks are undervalued,

[10] Equity Valuation [online]. [2.4.2014]. Available on http://www.investopedia.com/articles/investing/080913/equity-valuation-comparables-approach.asp

people expect the stock price will go up, investors should hold or buy the stocks. If the stocks are overvalued, people expect the stock price will go down, investors should sell the stocks.

In the view of fundamental analysis, stock valuation based on fundamentals aims to evaluate their intrinsic value of the stock, based on forecasts of the future cash flows and profitability of the business.[11]

2.4.1 Dividend Discount Model

Dividend discount model is a procedure for valuing the price of a stock by using predicted dividends and discounting them back to present value. The idea is that if the intrinsic value obtained from the DDM is higher than what the shares are currently trading at, then the stock is undervalued, on the contrary, the stock is overvalued.[12]

The intrinsic value of a share is thus the present value of these cash flows added together. The formulas are shown below in which V equals intrinsic value, D_t equals dividend per share in t period, P_n equals current stock price and r equals the discount rate.

$$V = \frac{D_1}{(1+i)} + \frac{D_2}{(1+i)^2} + \frac{D_3}{(1+i)^3} + L + \frac{P_n}{(1+i)^n} \tag{2.20}$$

$$V_0 = \sum_{t=1}^{n} \frac{D_t}{(1+r)^t} + \frac{P_n}{(1+r)^n} \tag{2.21}$$

Gordon Growth Model

Gordon Growth Model is a model for determining the intrinsic value of a

[11] Stock valuation [online]. [2.4.2014]. Available on http://en.wikipedia.org/wiki/Stock_valuation#Price_to_Earnings_.28P.2FE.29

[12] Dividend Discount Model [online]. [2.4.2014]. Available on http://www.investopedia.com/terms/d/ddm.asp

stock, based on a future series of dividends that grow at a constant rate g. Given a dividend per share that is payable in one year, and the assumption that the dividend grows at a constant rate in perpetuity, the model solves for the present value of the infinite series of future dividends.[13]

$$V_0 = \frac{D_0 \cdot (1+g)}{r-g} = \frac{D_1}{r-g} \tag{2.22}$$

CAPM Model

CAPM is a model that describes the relationship between risk and expected return and that is used in the pricing of risky securities.[14] It is used to be calculated as the discount rate in the dividend discount model.

$$i = R_f + \beta \cdot [E(R_m) - R_f] \tag{2.23}$$

$$\beta = \frac{Cov(R_i, R_m)}{Var(R_m)} \tag{2.24}$$

In which $E(R_i)$ is the expected return on the capital asset β is the sensitivity of the expected excess asset returns to the expected excess market returns, R_f is the risk-free rate of interest such as interest arising from government bonds, $E(R_m)$ is the expected return of the market, $E(R_m) - R_f$ is known as the market premium.[15]

[13] Gordon Growth Model [online]. [2.4.2014]. Available on http://www.investopedia.com/terms/g/gordongrowthmodel.asp

[14] Capital Asset Pricing Model [online]. [2.4.2014]. Available on http://www.investopedia.com/terms/c/capm.asp

[15] Capital asset pricing model [online]. [2.4.2014]. Available on http://en.wikipedia.org/wiki/Capital_asset_pricing_model

2.4.2 Free Cash Flow Model

An alternative approach to the dividend discount model values the firm using free cash flow, that is, cash flow available to the firm or its equity holders net of capital expenditures. (McMillan, Pinto, Pirie and Venter, 2011, P. 787). For estimating the free cash flow, the DCF method will be used below.

$$\text{Free Cash Flow} = EBIT\cdot(1-t) + \text{Depreciation} - \text{Investments} - \Delta NWC \quad (2.25)$$

DCF method is the value of a company which determined by the future free cash flows discounted by cost of capital.

A) Forecasting Free Cash Flows[16]

The first step of business when doing discounted cash flow method is to determine how far out into the future we should project cash flows. The standard procedure is to forecast sales revenues over the selected future period which will be used to predict. By breaking down the after tax operating profit, investment, net working capital and depreciation, we can evaluate the cash flows the company will produce. Free cash flow represents the actual amount of cash that a company has had from its operations, which could be used to enhance shareholders value.

By calculating free cash flow, firstly, we should make a financial plan which the main goal is to determine the future development of the relevant items. It consists of sub-plans as follows.

- Plan of sales. It comes from the strategic analysis. The sales in the future selected years should be estimated by the relevant factor.
- Plan of the operating profit margin. The objective is to assess the relationship between changes in cost and volume of production.

[16] DCF Analysis [online]. [2.4.2014]. Available on http://www.investopedia.com/university/dcf/default.asp

$$OPM = \frac{\text{Operating Income}}{\text{Sales}} \tag{2.26}$$

- Plan of net working capital. The objective is to assess the relationship between changes in the items of the NWC and volume of production.

$$NWC = \text{Inventory} + \text{Receivables} - \text{Payables} \tag{2.27}$$

$$k = \frac{\text{items of the NWC}}{\text{Sales}} \tag{2.28}$$

- Plan of investment. It is necessary to take into account the capacity due to planned sales growth, at the same time. It's necessary to plan and depreciation.

$$\text{Depreciation} = \text{Fixed assets} \cdot \text{depreciation rate} \tag{2.29}$$

$$\text{Fixed assets}_t = \text{Investments}_t - \text{Fixed assets}_{t-1} \tag{2.30}$$

$$k = \frac{\text{Investents}}{\text{Sales}} \tag{2.31}$$

B) Cost of Capital and Growth Rate

Cost of Capital represents the opportunity cost that investors face for investing their funds in one particular business instead of others with similar risk. Growth rate is used to estimate the development of the free cash flow of the company. A company's WACC is a function of the mix between debt and equity and the cost of that debt and equity. The rate applied to determine the cost of debt should be the current market rate the company is paying on its

debt.

$$WACC = R_e \cdot \frac{E}{A} + R_d \cdot (1-t) \cdot \frac{D}{A} \tag{2.32}$$

$$g = \frac{FCF_t - FCF_{t-1}}{FCF_{t-1}} \tag{2.33}$$

C) The total enterprise value

The total enterprise value is a measurement of a firm's value that used as an alternative to straightforward market capitalization. Due to the possibility of FCF estimation, the two-phase method is used to divide the life of the company into two phases.

$$V = \sum_{t+1}^{T} \frac{FCF_t}{(1+r)^t} + \frac{FCF_{t+1}}{(r-g)} \cdot (1+r)^{-t} \tag{2.34}$$

D) The fair value of the equity

As the enterprise value include the company's debt, to come up with a fair value of the company's equity, its net debt from the company must be subtracted from the value, which reflect the company have excess equity that can go ahead and pay off the debt.

$$\text{Equity Value} = \text{Enterprise Value} - \text{Net Debt} \tag{2.35}$$

E) Fair value for the company's shares

Fair value for the company's shares indicates that how much the company's equity worth regarding each share.

$$\text{Equity Value per share} = \frac{\text{Equity Value}}{\text{Shares outstanding}} \tag{2.36}$$

If dividing the fair value by the number of the company shares outstanding, a fair value for the company's shares will be proved. If the shares are trading at a lower value than this, it means that the investors have opportunities to hold or buy the stocks. If they are trading higher than the per share fair value, shareholders may should consider selling the stocks.

3 Global and Industry Analysis

Based on the theoretical part in chapter 2, this chapter will provide global analysis and industry analysis in the circumstance of China market. The data and figures will be shown and explained in detail, through which we can know the situation in China regarding the macroeconomy and relevant industry performance.

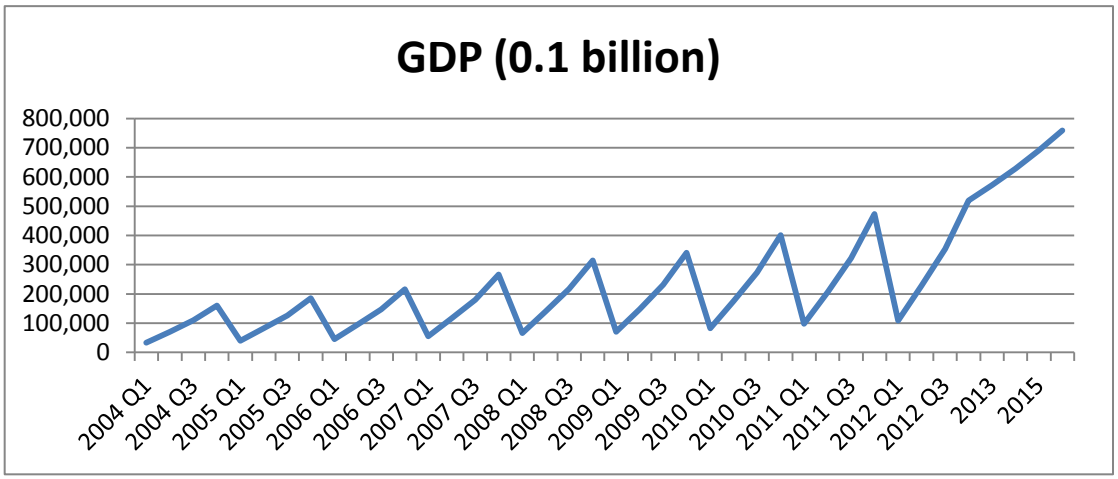
3.1 Global analysis

Global analysis is used to evaluate the overall macroeconomy in China. For estimating it specifically, in this analysis Gross Domestic Product, employment, labor cost, inflation, interest rate, consumers' sentiment and the government policy will be analyzed in detail. The main data is based on the report of National Bureau of Statistics of China.

3.1.1 Gross Domestic Product

The GDP in China is 519,4.7 billion yuan in 2012. The GDP value of China represents 13.27 percent of the world economy.

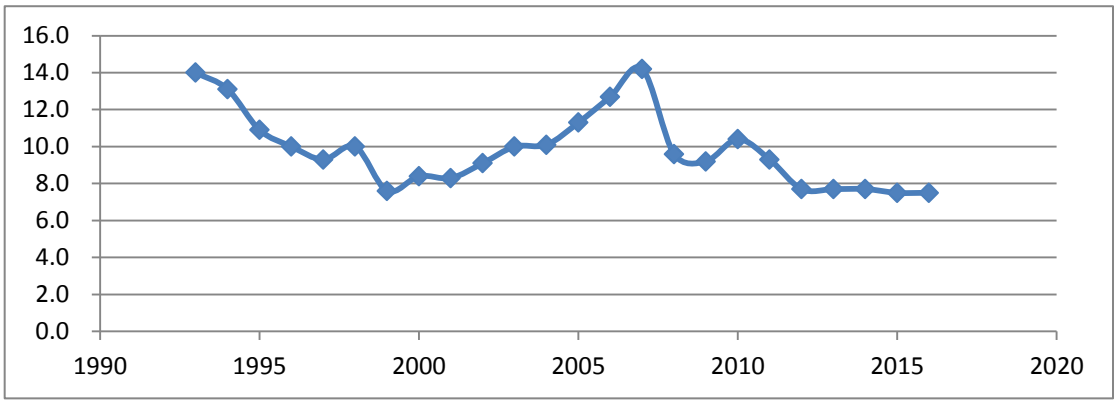
Figure 3.1 Gross Domestic Product in China



(National Bureau of Statistics of China [online]. [2.4.2014]. Available on http://data.stats.gov.cn/workspace/index?m=hgnd)

Figure 3.1 is based on the quarterly data from 2004 to 2012, which shows the changes of GDP quarterly of each year. The GDP within one year goes through from trough to peak in the short-term. However, the trend of the overall GDP is going up year by year. As for long-term period, the GDP is in expansion in China. From this point of view, the GDP is predicted that it will continue to increase after 2012.

Figure 3.2 GDP growth rate in China



(The World Bank [online]. [2.4.2014]. Available on http://www.worldbank.org/en/publication/global-economic-prospects/regional-outlooks/eap)

Figure 3.3 China Stock Market

(China Stock Market. [online]. [2.4.2014]. Available on http://www.tradingeconomics.com/china/stock-market)

On the other hand, from 1993 to 2012, the GDP growth rate fluctuates the range from 7.7% to 14.2%. The GDP growth rate always fluctuates around 8% each year. This is due to the government policy that targets to 8% of GDP growth every year. Therefore even during the financial crisis, the GDP growth rate still remains above 9%. Currently, Chinese government changes to lower GDP which can be between 7% and 8%. From 2013 to 2016, the GDP is predicted about 7.6%.

When compare the stock price in China stock market with GDP growth rate, we can see that the fluctuations between these two elements are changing consistently. The obviously change period is during 2007 to 2010. During financial crisis, the GDP growth rate goes down, while the stock price is also going down. From 1990 to 2014, the stock market in China reached to 1681.05 index points in average. In October of 2007, the index reaches to the highest points which accounts for 6092.06, while in December of 1990, 99.98 index points reached to the lowest in record.

3.1.2 Employment

Unemployment rate in China is reported by the Ministry of Human Resources and Social Security of the PRC.[17] It increases to 4.10 percent in 2012. It is already kept for 3 years since 2010.

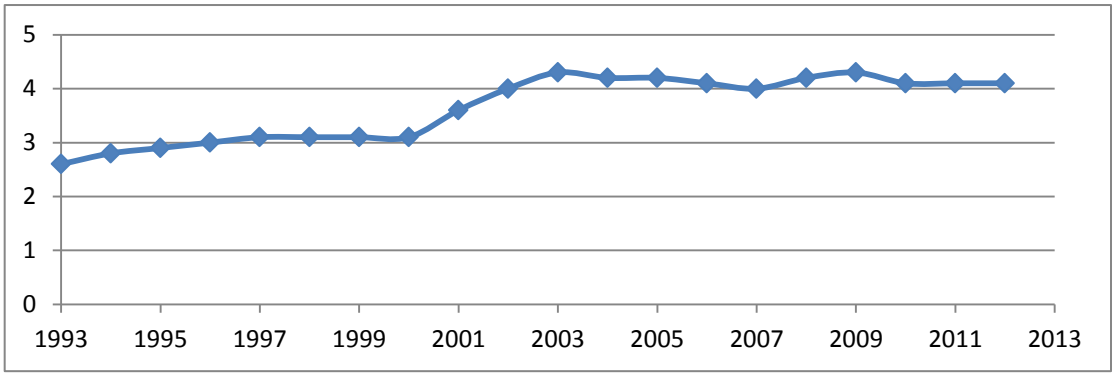
Since the year of 2003, the unemployment rate is going to be relatively flat. Unemployment rate in China is consistently 4.14% in average from 2002 to 2012, while in 2003 and in 2009, it reaches to the highest rate 4.3%. According to a statement released after an executive meeting of the State Council, China aims to create 85 million jobs and hold its unemployment rate under 5% from 2011 to 2015.[18]

[17] China Unemployment Rate [online]. [2.4.2014]. Available on http://www.tradingeconomics.com/china/unemployment-rate

[18] China.org.cn [online]. [2.4.2014]. Available on http://www.china.org.cn/china/2011-12/17/content_24177934.htm

During the global financial crisis in 2008, the unemployment rate increased slowly, while the average wage index goes to the trough position and remained lower. Meanwhile, the average wage index also equals the average labor cost.

Figure 3.4 The registered urban unemployment rate

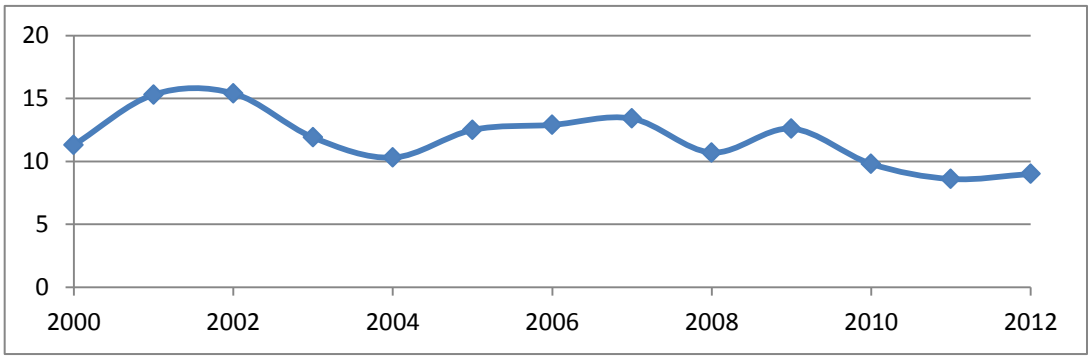


(National Bureau of Statistics of China [online]. [2.4.2014]. Available on http://data.stats.gov.cn/workspace/index;jsessionid=DA97989E4A80D1B9CA0AD069221D42C8?m=hgnd)

The labor costs are very sensitive to the unemployment rate that the labor costs always go to the opposite position with unemployment rate. In recent year, the average wage index seems to be a downward trend. Wages have been pushed up by long-term decline in the aggregate labor force, combined with a rapid depletion in rural surplus labor, which has until recently provided an ultimate source of cheap labor[19]. It indicates that in China the labor cost in agriculture area still accounted for a large percentage, while manufacturing and utilities account for lowest percentages.

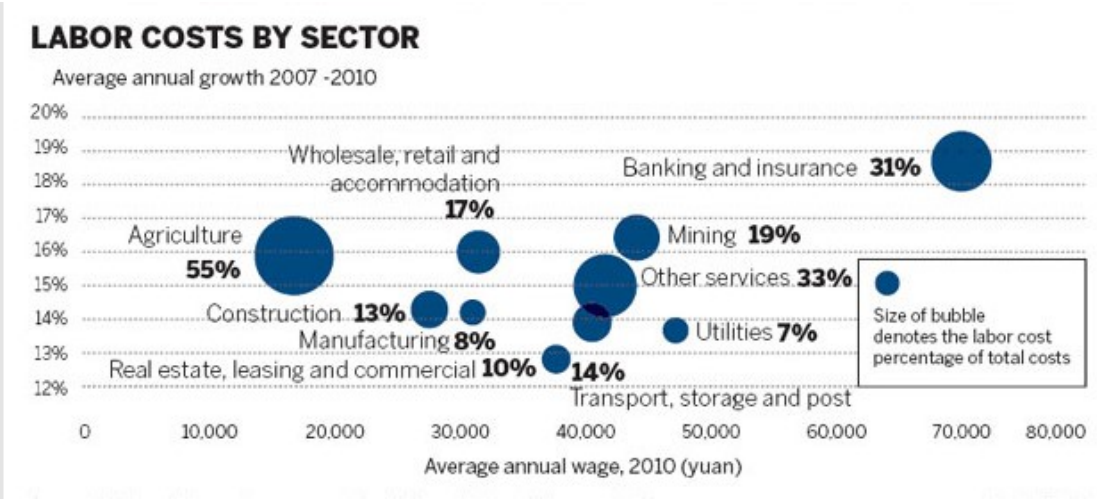
[19] China Daily [online]. [2.4.2014]. Available on http://www.chinadaily.com.cn/business/2012-09/26/content_15783913.htm

Figure 3.5 The average wage index of employed person in urban units



(National Bureau of Statistics of China [online]. [2.4.2014]. Available on http://data.stats.gov.cn/workspace/index;jsessionid=DA97989E4A80D1B9CA0AD069221D42C8?m=hgnd)

Figure 3.6 Labor Costs by Sector



(China Daily [online]. [2.4.2014]. Available on http://www.chinadaily.com.cn/business/2012-09/26/content_15783913.htm)

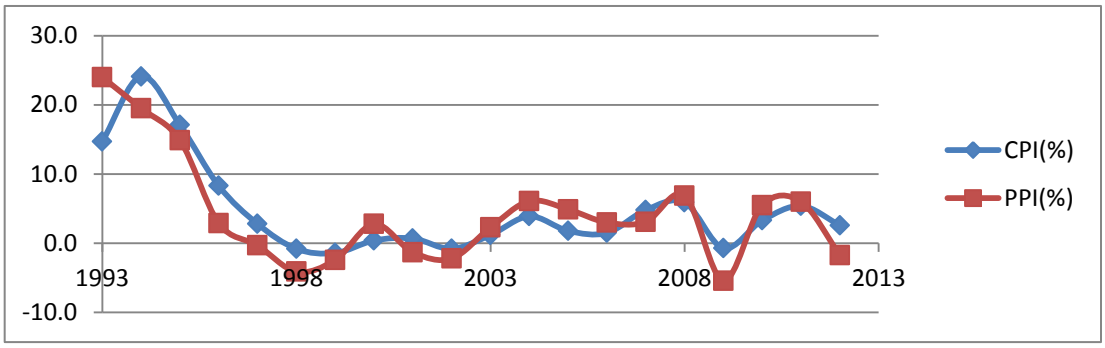
3.1.3 Inflation

In general the inflation rate is expressed by the consumer price index. The CPI in China shows the changes in prices of a basket of goods and services paid by consumers. CPI in China from 1986 to 2012 is 5.75% in average, 28.40% is the highest in February of 1989 and the lowest of -1.4% is in April of 1999. Since 1994, it declined sharply until 1999. After 1999, the CPI kept the

ranges from -1.4% to 5.4%.

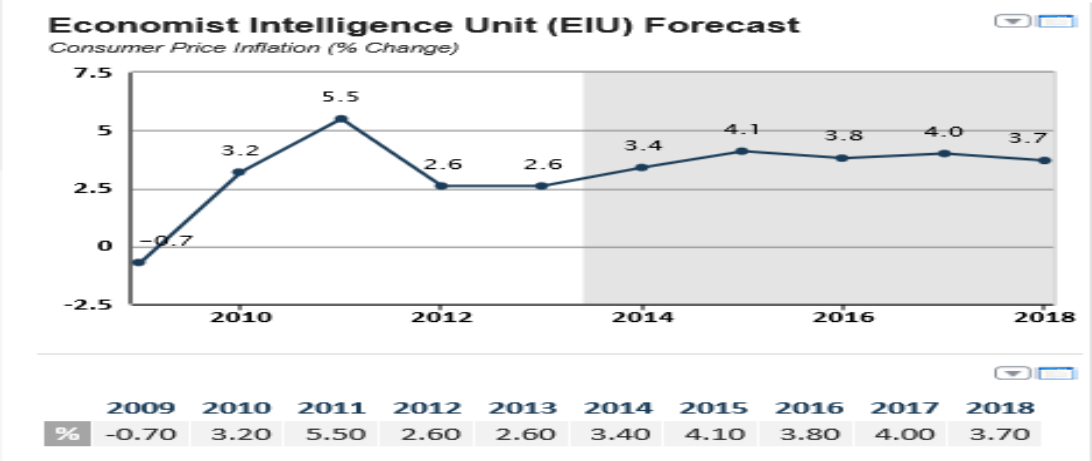
In 2012, China's CPI dropped to 2.6% and in recent years the CPI kept lower rates. Although the government set the target by 3.5%, the CPI was still below the target. It warns that the risk of deflation was rising in China. In 1993 there was divergence between CPI and PPI, CPI and PPI went to the negative growth at some periods, which both show that the contradiction between supply and demand are quiet outstanding.

Figure 3.7 Consumer Price Index and Producer Price Index



(National Bureau of Statistics of China [online]. [2.4.2014]. Available on http://data.stats.gov.cn/workspace/index;jsessionid=DA97989E4A80D1B9CA0AD069221D42C8?m=hgnd)

Figure 3.8 China inflation forecast 2013-2018



(knoema [online]. [2.4.2014]. Available on http://cn.knoema.com/yrbmclg/china-inflation-forecast-2013-2015-and-up-to-2060-data-and-charts)

According to the Economist Intelligence Unit, economists predict that in the future China inflation tends to have stable growth and control the range within 4%. Thus it may help prevent the possibility of deflation.

3.1.4 Interest Rate

The interest rate is 6.42% in average from 1996 to 2013. The current interest rate is 6% which is beyond the average percentage. Its highest percentage is from 10.98% in 1996 to 5.32% in 2002. In 2008, China cut borrowing costs for the first time since 2008 and loosened controls on banks' lending and deposit rates, making efforts to against a deepening slowdown as Europe's debt crisis that threatens global growth.[20] According to the relatively stable interest rate from 2001 to 2012, the interest rate is expected that it will fluctuate around 6% in the next years.

Figure 3.9 China Interest Rate

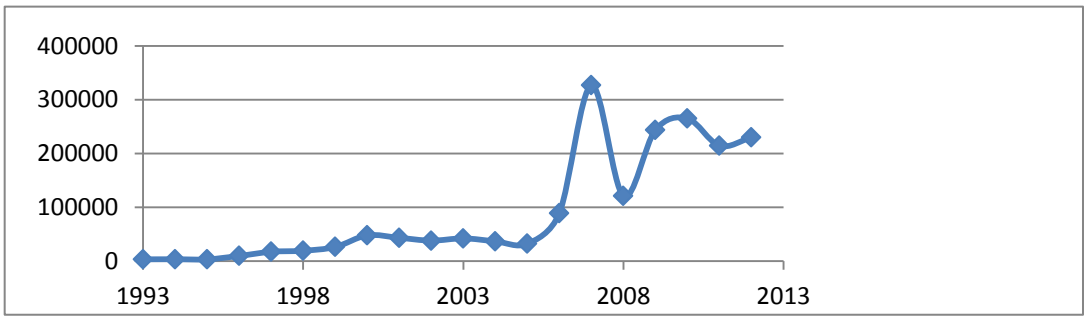
(China Interest Rate [online]. [2.4.2014]. Available on http://www.tradingeconomics.com/china/interest-rate)

The interest rate indirectly influences the stock prices in the market. The trend of the stock prices in China went opposite position with the trend of interest rate. In my opinion, if the interest rate keeps around 6%, the stock

[20] Bloomberg [online]. [2.4.2014]. Available on http://www.bloomberg.com/news/2012-06-07/china-cuts-interest-rates-for-first-time-since-2008.html

price will not be lower than 12 trillion yuan.

Figure 3.10 China Market Capitalization of Shares (0.1 billion)

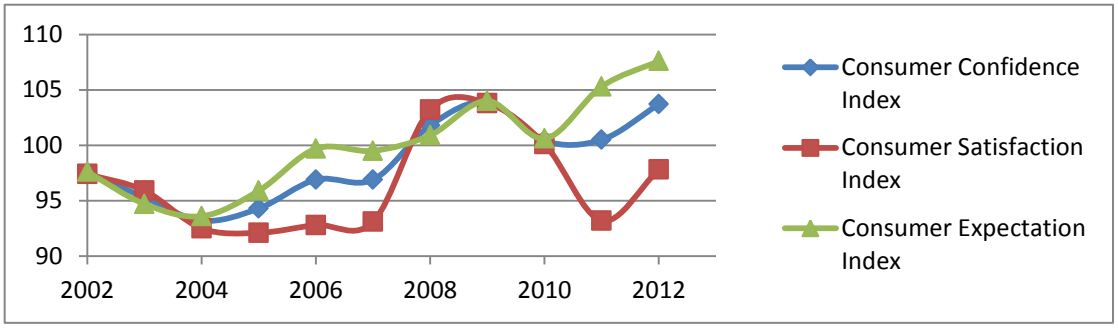


(National Bureau of Statistics of China [online]. [2.4.2014]. Available on http://data.stats.gov.cn/workspace/index;jsessionid=DA97989E4A80D1B9CA0AD069221D42C8?m=hgnd)

3.1.5 Sentiment

The levels of consumer confidence that above and below the baseline of 100 indicate degrees of optimism and pessimism. The indices consist of four key sectors which are real estate, durables, automobiles and stock investment.

Figure 3.11 China- Consumer Confidence Index and other related indicators



(AASTOCKS [online]. [2.4.2014]. Available on http://www.aastocks.com/en/forex/market/dbindepth.aspx?country=1&indicator=7&period=3&startdate=2002/12/31&enddate=2012/12/31)

From 2002 to 2004 and from 2009 to 2010, the three consumer indices

were quiet close and had smaller gap. During 2008 to 2009, Consumer Satisfaction Index was higher than consumer confidence and expectation, the reason is because the Chinese government took effective action to deal with the global financial crisis well than people expected. However, the Consumer Satisfaction Index became lowest among other related indicators. Consumer Confidence Index accounts for the middle position all the time between Consumer Satisfaction Index and Consumer Expectation Index. As the economy is at the recovery period since the financial crisis and government took action to enhance the economy development, consumers would increase their confidence gradually.

3.1.6 Government Policy

Currently China persists in maintaining proactive fiscal policy and prudent monetary policies, for stimulating economic growth and maintaining price stability. Every five years Chinese government would make plan for the next five years, which called fiver-year plan. Now it is already the 12th five-year plan starting from 2011 to 2015, which aims to plan the economic development, set growth targets and launch reforms with the goals of decreasing inequality and creating an environment for more sustainable growth by prioritizing more equitable wealth distribution, increasing domestic consumption, and improving social infrastructure and social safety nets[21].

A) Fiscal Policy

During the past five year period, the fiscal revenue of central government reached to approximately 21.9 trillion yuan. Meanwhile, the fiscal expenditure of central government reached to around 24.9 trillion yuan.

China's fiscal expenditure increased its spending mostly on education, medical

[21] globalEDGE [online]. [2.4.2014]. Available on http://globaledge.msu.edu/countries/china/economy

care, green industry and transportation. More than two thirds of government expenditure focused on related areas of public-welfare. Moreover the central government has sought to implement structural tax cuts. China has piloted its Value Added Tax reform in 9 provinces and cities, cutting 40 billion yuan in taxes for more than one million businesses in 2012. It can help develop the services sector and upgrade China's economic structure.[22] Meanwhile for stimulating domestic demand and quickening the economic transition, Chinese government launched special offers and subsidies for appliance businesses called “home appliance going rural” which lead to encourage rural residents to consume. There are three main parts that the proactive policy focuses on in China as follow.

- Improve the structural tax deduction policy, stimulate business development and guide consumers to consume.
- Enhance income of urban and rural residents and make an effort to expand consumption demand.
- Optimize the investment structure and strengthen the weak link of economic and social development.

In short, the proactive fiscal policy is beneficial to China stock market in medium-long term.

B) Monetary Policy

Currently according to the unified deployment of State Council, the central bank of China continues to maintain the prudent monetary policy. There are two main parts that Central bank takes actions.

- Optimize the combination of open market operations and carry out open market operations flexibility. Central bank aims to buy or sell government bonds on the open market which can lead to move short-term interest

[22] Chinadaily [online]. [2.4.2014]. Available on http://www.chinadaily.com.cn/bizchina/2013-03/13/content_16304837.htm

rates and change the supply of base money in the system.

- Lower the deposit-reserve ratio timely and adjust the floating range of deposit and loan interest rates. One-year benchmark deposit interest rate decreases from 3.5% to 3% which lower 0.5% in total. One-year benchmark loan interest rate decreased from 6.56% to 6% which lower 0.56% in total.

Moreover, China monetary policy aims to reduce the debt rate that can lower the capital price. It has provided more beneficial opportunities for firms that lowering their financing costs.

3.2 Industry Analysis

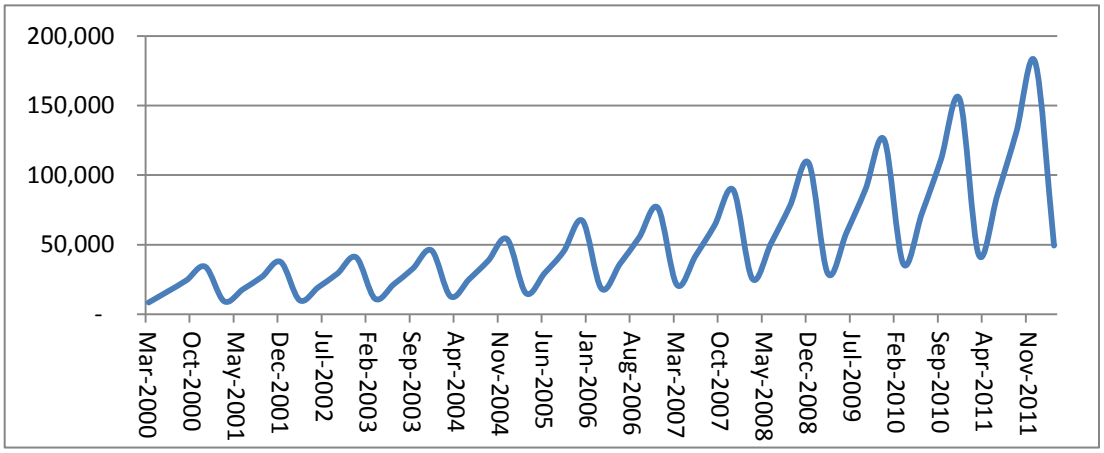
As Suning Commerce is an appliance retailer, to estimate the industry analysis, the stage at which currently the retail is that will be carried out, the industry performance in China market will be explained based on the Porter's five forces. The more detail will be described in the following subchapters.

3.2.1 Industry Life Cycle

The industry life cycle is described according to the quarterly total retail sales of consumer goods in China. During the quarterly period, the retail sales were changeable, in the short-term the retail sales went from bottom to top. However, in the long-run the retail sales maintained increasing year by year.

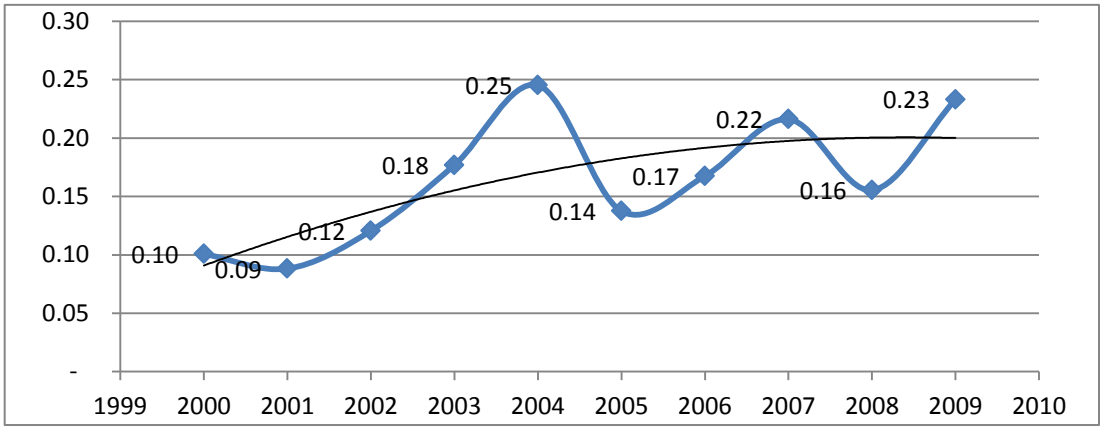
Although the retail sales kept increasing, the retail sales have relatively stable and slowing growth. The product of retail industry has become more standardized, the sales revenues become narrower. The supply of retail market is sufficient enough. And appliance retail is the industry which is in the oligopoly in China. Thus the industry of retail is in the maturity stage. As well as for appliance retail, in China the two giants of appliance retailers that cause it hard for new appliance retailers to entry.

Figure 3.12 Total Quarterly Retail Sales of Consumer Goods (0.1 billion)



(National Bureau of Statistics of China [online]. [2.4.2014]. Available on http://data.stats.gov.cn/workspace/index;jsessionid=DA97989E4A80D1B9CA0AD069221D42C8?m=hgnd)

Figure 3.13 Annual Retail Sales Growth Rate



3.2.2 Industry Structure and Performance

The main industry structure and performance is based on the Porter's five forces regarding the specific situation of the retail industry. The industry structure and performance are all based on China market. Rivalry between existing competitors, barrier of entry, bargaining power of buyers and suppliers and potential substitutes will be explained in detail.

A) Rivalry between Existing Competitors

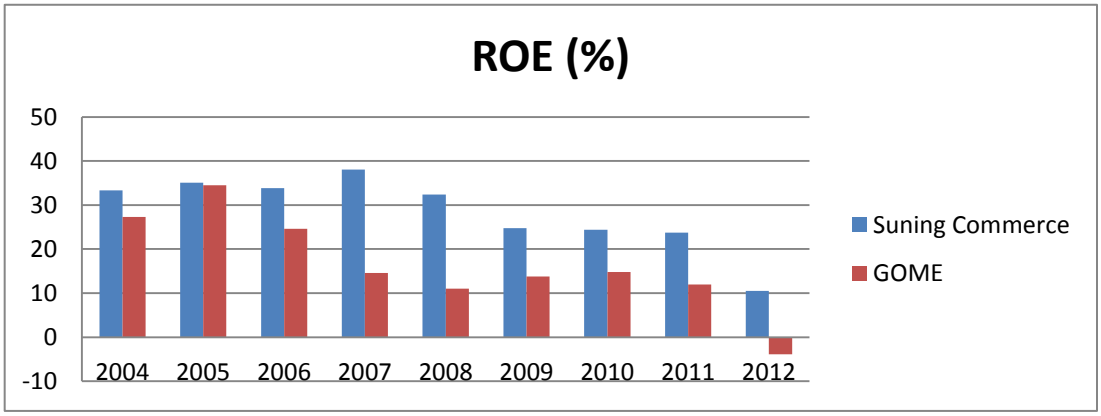
At present, there are about 100,000 appliance businesses in China, the companies which have strongest competition capacity are Suning Commerce, GOME and Sanlian Commercial Corporation. On an international scale, the international giants squeeze into China market, such as Best Buy and Media Markt. The number of competitors with appliance retail increases.

In China, there are two giants that leading the industry for selling household appliance which are GOME Electrical Appliances Holding Limited and Suning Commerce Group Co,. Ltd. Both core suppliers are all Samsung, Sony, Nokia, Haier and Media. GOME Electrical Appliances Holding Limited is one of the largest private enterprises as electrical household appliance retailers, which listed in HongKong Stock Exchange. The main distinction between two companies is shown as follows.

- Service. The product quality and service level are nearly homogenous between these two companies. However, Suning Commerce focuses on consultation service, opening free hotline for 24 hours each day. While GOME focuses on after-sale service, providing free home delivery service.
- Expansion. Suning Commerce expands stores on a large scale with fast speed, most of them are chain stores. However, GOME expands stores on a relatively small scale with slower speed, most of them are direct-sale stores. In recent year, Suning Commerce expanded 180 stores, while GOME expanded 133 stores.
- Business pattern. Suning Commerce prefers fleet sales focusing on scale effect, but GOME prefers retail sale which are small profits and quick returns.
- Sales and Profitability. The profitability of Suning Commerce is higher than GOME. In 2009, at the list of the China's top 100 appliances retail, Suning Commerce ranked the first by achieving sales revenues of 117 billion yuan,

while GOME Electrical Appliances Holding Limited ranked the second by achieving sales revenues of 107 billion yuan. As for profitabilty of both retailers, the return on equity of Suning Commerce is always higher than it of GOME.

Figure 3.14 Return on Equity between Suning Commerce and GOME



(MORNINGSTAR [online]. [2.4.2014]. Available on http://financials.morningstar.com/ratios/r.html?t=GMELF)

B) Threat of Entry[23]

As two giants, Suning Commerce and GOME bring the industry barrier for potential competitors in domestic market. First of all, the appliance stores are mostly located in downtown area, scarce available resources cause the extremely high price of business real estate. In the face of capital intensive and scarce resources by going into this industry, although local retail businesses of appliance have geographic advantages, it's still very hard to entry the industry to compete with others all around the country that the local retail businesses are restricted by capital.

In fact, the global giant of appliance retail Best Buy has entered into China market, but its coming doesn't have an apparent impact on the domestic

[23] mofgov [online]. [2.4.2014]. Available on http://images.mofcom.gov.cn/www/201307/20130704101826714.pdf

market of appliance retail. So far, Best Buy has closed its stores and only left 9 retail stores in China, its sphere of influence is only restricted to Eastern China.

However, as the entrance of some foreign companies, they still have particular advantages. Regarding the background, Media Markt, which is the biggest e-retailing company, owns its stores all over 16 countries, is a relatively mature brand, has not only abundant capital but mature sales pattern. Regarding the relationship between retailers and suppliers, Best Buy adopts cash spot, while domestic retailers always default on their loans to suppliers up to months which resulting in strained relations between domestic retailers and suppliers.

C) Pressure from Substitute Products or Services

Except the internal competition, chain stores for home appliance also have to be in face of the threat of substitutes which including retail channels concurrently that engage in appliance, e-shop and manufacturers which self-build the sales channel of appliance.

· Retail channels concurrently engage in appliance, for instance Carrefour, Wal-Mart and Hualian. However, these supermarkets mainly focus on ordinary daily necessities, the household appliance is just complementary item and sold in middle-to-low priced products, they cannot pose strong threats to such a large chain store of appliance retail as Suning Commerce.

· There are big differences between e-shop and chain stores which are after-sales service and physical display. For customers, if there is small gap among the price, chain stores definitely take a strong advantage. Meanwhile, Suning Commerce has its own e-shop called Suning E-go. Suning E-go becomes the fifth biggest online shop in China.

· The manufacturers which self-build their sales channels are mainly focus on one brand of appliance and depend on their loyal customers. The price and

services of manufacturers are almost the same with ones of appliance retailers. However, in current situation the manufacturers pay more costs than chain stores of appliance retails due to the realized scale economy.

D) Bargaining Power of Buyers[24]

For lowering the purchase costs, Buyers would like bargain about goods in the market, they seek to lower price and high quality products. Regarding ample supply of appliance products in the market, consumers have large opportunities to choose which products they prefer. A lot of competitors exist, which indicates that the retailers would take action on decreasing the price to gain their market share and position, promote buyers' ability of bargaining. The price elasticity of demand of appliance is relatively high, consumers are sensitive to the price due to recently deflation in China, they lose their passion to purchase which indirectly increase buyers' power. Meanwhile, due to the development of network techniques, consumers can get enough information, thus it promotes consumers to compare the prices in the market. Regarding the value-added services, Suning Commerce focuses on the quality of providing services to customers and has credit with customers, which somehow reduce customers' sensitivity to price.

E) Bargaining Power of Suppliers

As retail industry, retailers and suppliers strongly rely on each other. Samsung, Sony and Nokia which are appliance retailers' core suppliers, continues to stay at the list of top five suppliers for the two giants Suning Commerce and GOME.[25] However, retailers reduces their independence on foreign brands, the position of national brands is improving gradually. Based

[24] Baidu [online]. [2.4.2014]. Available on http://wenku.baidu.com/view/5c5700bdf121dd36a32d8273.html

[25] Suning [online]. [2.4.2014]. Available on http://www.suning.cn/snsite/index/gysn/sngk/gsgk/gsgk-1.html

on the number of stores, network topology and sales ability, the retailers can take advantages on negotiating with suppliers. Suppliers hopes to find the balance between Suning Commerce and GOME, if they give up one, which means they must rely on another retailer fully, it’s not good to take the advantage on negotiating. Suppliers can find opportunities to self-build appliance channels, which put stress on retailers, however, the cost for self-building is relatively high comparing with the cost to the retail market. All in all, the bargaining power of suppliers to the retailers is relatively lower than it if buyers to the retailers.

4 Company Analysis and Equity Valuation

This chapter provides the characterisation of the company, company analysis and equity analysis based on the methods in chapter 2. The data, tables and figures will be presented in this chapter, thus we can know the company's financial performance and predict the company's intrinsic value. All calculations are carried out based on data in annexes.

4.1 Characterisation of Suning Commerce

Suning Commerce Group Co., Ltd. was founded in 1990 and is located in Nanjing, China. The company was formerly known as Suning Appliance Company Limited and changed its name to Suning Commerce Group Co., Ltd in 2013. In July of 2004, Suning Appliance (002024) listed on the Shenzhen Stock Exchange. After 23 years of business development, Suning Commerce is one of national 15 large-scale commercial enterprise group, which is cultivated mainly by the Ministry of Commerce.

Figure 4.1 Suning Commerce common stock on Shenzhen Stock Exchange

(Yahoo Finance [online]. [2. 4. 2012]. Available on http://finance.yahoo.com/q/bc?s=002024.SZ&t=my&l=on&z=l&q=l&c=)

Suning Commerce Group Co., Ltd. primarily operates a home appliance retail chain in China. The company offers consumer appliance, computer, and communication products. Its products include TVs, refrigerators, washing machines, digital products, small household electronics, and air conditioners. The company also provides installation, maintenance, and other services for electronic appliances. Suning Commerce is the front runner of China's 3C household appliances retail chain stores. In 2009, it earned 90 billion yuan of sales revenues. Up to now, it has approximately 1,700 chain stores in approximately 600 cities in mainland China, 180,000 employees.

Development Strategy

Suning Commerce insists in market-orientation and customer orientation and promises "brand, price, service" in one step for providing consumers with abundant goods of high quality.

A) Retail stores

Around the market and consumer segments, Suning Commerce innovates storefront mode, forming a retail store format including four categories which are super stores, flagship stores, community stores and towns shop, across urban and rural areas chain network to provide convenient appliance service for millions of families.

B) Suning e-commerce platform

Suning Commerce relies on the scale of procurement and brand advantages, cooperates with Suning physical stores, distribution and after-sales service network, accelerates the construction of a high level of online shopping platform for online shoppers to provide the most satisfactory shopping experience of 3C, consumer electronics, OA office application software, life appliances, large appliances etc. Since the early 2010, Suning e-commerce platform always maintained rapid development, currently ranks

among the top three of B2C industry in China. Suning Commerce aims to achieve development of online and offline at the same space.

Suning will provide open financial service, supply chain service and brand promotion service for manufacturers, distributors and retailers, and offer overall intelligent product, content and application solutions to customers including individuals, families and enterprises, and creating the new business model of "physical stores + e-commerce + retail service provider".[26]

C) Publicity strategy

Suning Commerce is the first retail firm to use the spokesperson to spread its brand. Thus the firm gathers a group of superstars who represent different image, according to their different characteristics and image, they represent different products and areas for reaching to the publicity strength.

Company's main achievement from 2008 to 2012

- In 2008, Suning Commerce is top 50 among Asia enterprises.
- In 2009, Suning Commerce ranks at top 9 in the global retail chain of electronic household appliance at the list of global retail top 500.
- In 2010, at fastest development top 50 within global retail top 500, Suning Commerce exceeds Apple and ranks at 3rd in 2010. In Forbes global enterprises top 2000, it rises to 949th, keeps becoming the No.1 in Chinese commercial retail.
- On June 29, 2011, the World Brand Lab released the List of "2011 (the 8th) China Top 500 Most Valuable Brands". With brand value increased to RMB72.816 billion, Suning continuously ranked the first place in China's commercial retail industry.
- On June 28, 2012, the World Brand Lab released the 2012 (the 9th) List of China Top 500 Most Valuable Brands. With brand value increasing from

[26] Suning Commerce Group Co,.Ltm.[online]. [2.4.2014]. Available on http://www.suning.cn/snsite_en/index/gysn/sngk/gsgk/gsgk-1.html

RMB72.816 billion last year to RMB81.568 billion this year, Suning ranked the first place in China's commercial retail industry successively for 6 years, and acted as a continuous pace-maker in this industry.

Corporate Mission

A) Value Mission

Suning persists in the solid development mode of "leasing, construction, purchasing and merging" continuously, combined "horizontal expansion" and "vertical permeation", and keeps perfecting the chain network layout. Meanwhile, Suning takes the lead in developing e-commerce as a traditional retailer, and realizes coordinated development of on-line and off-line businesses. Through the expansion of the logistics platform and the enhancement of informatization, Suning keeps strengthening its core competitiveness, and accelerated its transformation and upgrading from a traditional retail industry to a modern service industry.[27]

B) Win-win Mission

Suning endows a new meaning to the concept of "realizing win-win in cooperation with all suppliers" at the beginning of its entrepreneurship by making use of the weapon --- information technology, and realized leap-forward development in the extent and depth of cooperation with suppliers.

C) Service Mission

Suning concentrates more on customer demand, and transforms customer demand into high-quality and intimate service product; it keeps raising its pre-sales, in-sales, and after-sales service ability and quality, and provides comfortable shopping experience and assures after-sales services for customers; and also, it keepst enriching the contents of value-added services

[27] Suning Commerce [online]. [2.4.2012]. Available on http://www.suning.cn/snsite_en/index/gysn/qyshzr/csrln/csrln-1.html

and upgrading the projects of customer care, and become the life partner of customers.[28]

D) Employee Mission

Along with the expansion of chain scale, the flourishing development of e-commerce, and the deep-going promotion of international strategy, Suning has created a career platform for employees to realize the optimized unification of personal value and enterprise's value by systematic, institutional and normalized cultivation and competitive remuneration excitation system.

4.2 Company Analysis

Company analysis is used to calculate financial ratios which based on the company's financial statements (Annexes 1 – 3). In the company analysis, operation capacity analysis, liquidity ratios, solvency analysis and profitability analysis will be analyzed in detail.

4.2.1 Operation Capacity Analysis

According to formula 2.1 – 2.8, we can get the result of ratios from financial statement (Annexes 1 – 3) as follows.

Table 4.1

Year	2008	2009	2010	2011	2012
Inventory Turnover	8.42	7.62	6.55	5.67	4.70
Receivable Turnover	453	168	68	51	77
Total Assets Turnover	2.31	1.63	1.72	1.57	1.29
Current Assets Turnover	2.90	1.93	2.19	2.23	1.84
Working Capital Turnover	10.59	6.15	7.60	14.49	8.07

From table 4.1, we can see that the total asset turnover and the current

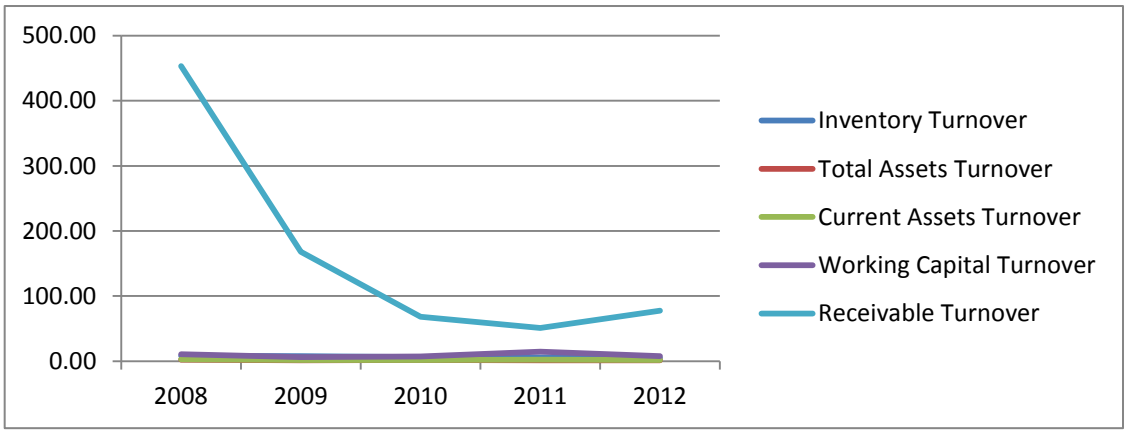
[28] Suning Commerce [online]. [2.4.2012]. Available on http://www.suning.cn/snsite_en/index/gysn/qyshzr/csrln/csrln-1.html

asset turnover are relatively stable, it means that the velocity of total asset turnover and current asset turnover is relatively fast and have better usage. In 2011 the value of the working capital turnover is the highest, because the amplification of the company's total revenue is much higher than its working capital, in general, it still remains higher rate that the company can obtain more revenues by the working capital of each input and it has high usage efficiency of its working capital.

Table 4.2

Year	2008	2009	2010	2011	2012
Number of days of inventory	43	48	56	64	78
Number of days of receivables	1	2	5	7	5
Number of days of payables	32	37	38	39	45

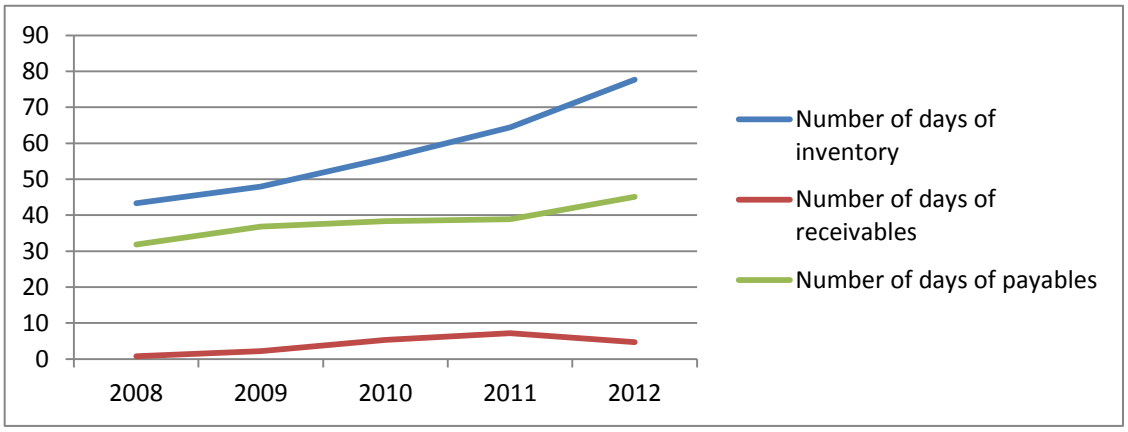
Figure 4.1



In table 4.1 and chart 4.2, the value of inventory turnover is decreasing year by year while the number of days of inventory is increasing. The reason is the promotion of New Year's Day and selling season before Chinese traditional Spring Festival and the expansion of the company. As the implementation of the policies which are "home appliances to the countryside" and "old for new service", and also the increase of the business of group purchase, receivables from customers increase, therefore in figure 4.1, the value of receivable

turnover is decreasing while the number of days of receivables is increasing from 2008 to 2011. The number of days of payables keeps increasing which is because Suning increased its inventory and most suppliers are using payment days settlement, accordingly the payables increase.

Figure 4.2



Although it looks that Suning has problems on converting inventory into cash and getting receivables and payables, due to the industry of Suning and its special situation, its ability of operating asset is strong.

4.2.2 Liquidity Ratios

According to formula 2.9 – 2.11 and financial statement (Annexes 1 – 3), the current ratio, quick ratio and cash ratio can be calculated as follows.

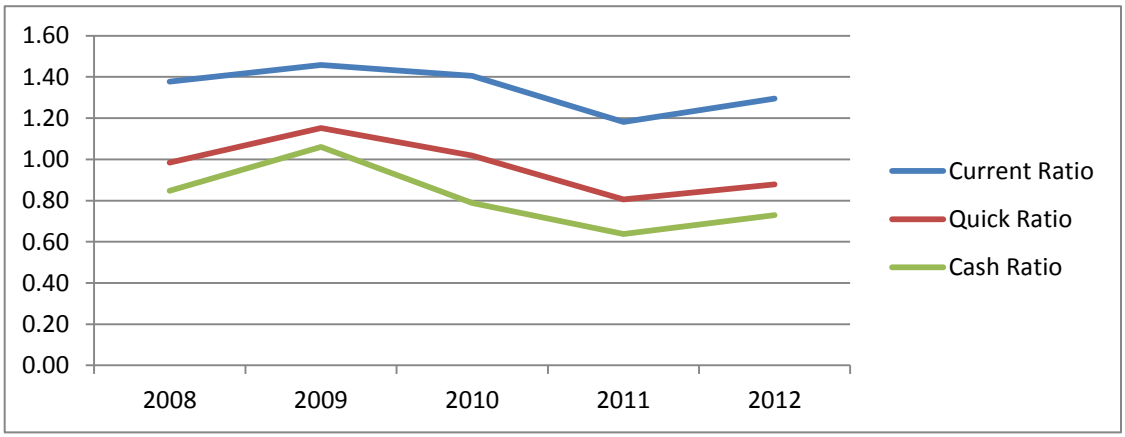
Table 4.3

Year	2008	2009	2010	2011	2012
Current Ratio	1.38	1.46	1.41	1.18	1.30
Quick Ratio	0.98	1.15	1.02	0.81	0.88
Cash Ratio	0.85	1.06	0.79	0.64	0.73

In figure 4.3, we can see that from 2008 to 2012 current ratio and quick

ratio have no large changes and are relatively stable, the current ratio keeps between 1 and 1.5, while the quick ratio just floats between 0.8 and 1. Table 4.3 shows that in 2010 the current ratio decreases comparing with it in 2009, from creditors' point of view, the level of protection of debt decreases; from the manager's point of view, the company's short-term solvency goes down, the financial risk and the difficulty of raising funds are increased.

Figure 4.3



However, the main reason is the parent company and its subsidiary company appropriately increase bank financing, which makes large increase of short-term borrowing. And the decrease of quick ratio is because the increase of current assets and current liabilities, but in comparison inventory increases more, which indicates that the company's ability of converting inventory into cash becomes lower and excessive inventory becomes more, thus it lowers the ability of the company's liquidity. From 2011 to 2012, the cash ratio increases due to the achievement of private placement in 2011 and public issue of corporation bonds in 2012 that raise funds successfully.

In general, each indicator doesn't have significant changes during these 5 years. Suning still keeps high liquidity and short-term solvency.

4.2.3 Long-term Solvency Analysis

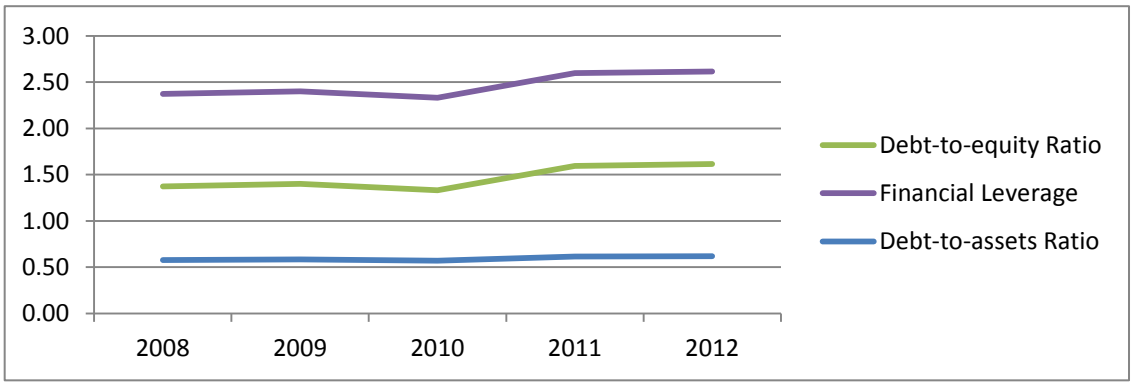
In the long-term solvency analysis, there are four selected ratios will be calculated. Based on formula 2.12 – 2.15 and financial statement (Annexes 1 – 3), we can get the results in the following table.

Table 4.4

Year	2008	2009	2010	2011	2012
Debt-to-equity Ratio	1.37	1.40	1.33	1.60	1.62
Financial Leverage	2.37	2.40	2.33	2.60	2.62
Interest Coverage Ratio	178.60	2583.35	3662.81	557.54	32.45
Debt-to-assets Ratio	0.58	0.58	0.57	0.61	0.62

From the table 4.4 and chart 4.4 which show the ratios of company's long-term solvency, we can see that Suning's long-term solvency is not bad. The debt-to-assets ratio remains at the level of 0.57 and shows an upward tendency. The debt-to-equity ratio is around 1.33 and also shows an upward tendency. The debt-to-assets ratio and debt-to-equity ratio tend to relatively high, on the one hand, it indicates that Suning's financial risk is relatively high;

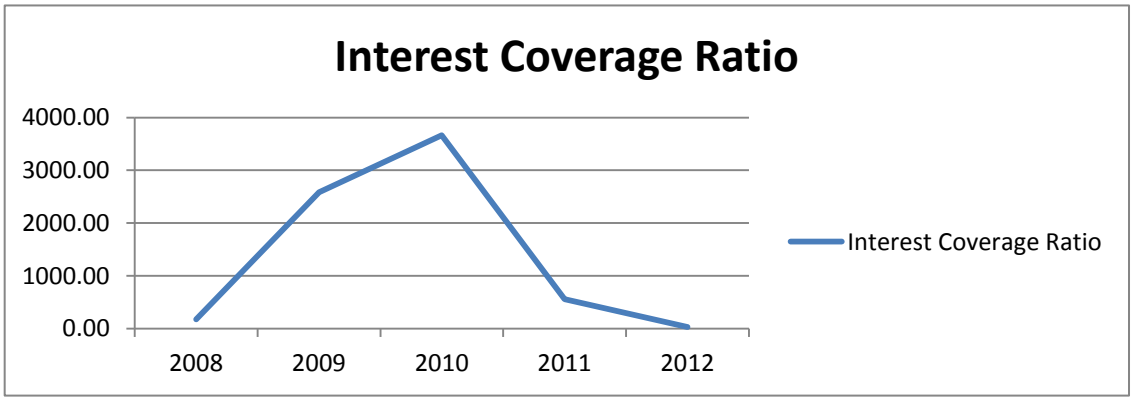
Figure 4.4



on the other hand, it may exists the situation that Suning rationally use financial leverage to improve the level of earnings. Because of the large

increase of bank financing by subsidiary company and the deferred income tax liabilities from value-added assessment when Suning fits LAOX company into consolidation range, drastically increases Suning's total liabilities during 2010 and 2011. In recent 5 years, Suning's financial leverage keeps over 2 and the same upward tendency with debt-to-assets ratio. It also indicates that the effect of using financial leverage properly. Although Suning's long-term solvency is not bad, it cannot constitute the risk for Suning.

Figure 4.5



In figure 4.5, there is big fluctuation range in interest coverage ratio, in 2010 it reaches the highest. The profit before tax increases, but interest expenses are quite low in 2009 and 2010. It shows that the company has more interest income than interest expense. In general, the company has quite high interest coverage ratio, it's in rich financial health.

4.2.4 Profitability Analysis

Based on formula 2.16, 2.17, 2.18 and 2.19 and financial statement (Annexes 1 – 3), we can get the result as follows.

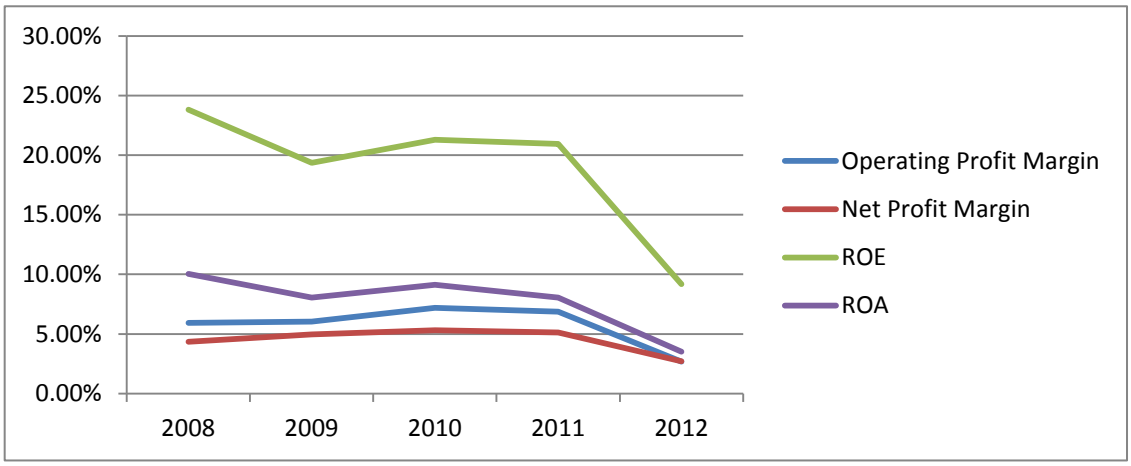
From figure 4.6, we can see that the indicators of company's profitability present overall downward tendency, especially in 2012 the ratios goes down at most. Meanwhile, during 2011 and 2012, the profitability goes down relatively

high. The return on assets and the return on equity goes down, it's related to the rapid decrease of company's net profit during 2011 and 2012, the rapid increase of capital reserve makes the total shareholders' equity increase in 2012, although steady rise of return on equity from 2009 to 2011, it indicates that Suning creates the value for shareholders is not enough, it needs to be improved.

Table 4.5

Year	2008	2009	2010	2011	2012
Operating Profit Margin	5.94%	6.05%	7.19%	6.86%	2.69%
Net Profit Margin	4.35%	4.96%	5.31%	5.13%	2.72%
ROE	23.82%	19.36%	21.29%	20.93%	9.19%
ROA	10.04%	8.06%	9.14%	8.06%	3.51%

Figure 4.6



From 2008 to 2010, the operating profit margin goes up which indicates that the company improves its market competitiveness, has big development potentials, however, the indicator does down in 2012 which is mainly because of the sharply increase of operating profit that the assets impairment loss drastically increase. The company increases its inventory scale and improves its independent products that cause the loss of the price of inventory. The net

profit margin goes down from 4.35% in 2008 to 2.72% in 2012 which decreases 2% in total is because Suning carried out the policy of “online and offline”, expanded offline chain stores which substantially increased its rental expenses and increased the selling expenses of “online Suning shopping platform” and advance publicity of chain stores.

In general, the company’s profitability has downward tendency, but still it’s in the process of well development, the level of profitability is little stable. But the data of those indicators still needs to be paid attention, the company has to improve its assets utilization efficiency and operating management.

4.3 Stock Valuation

In this valuation about the company, four years will be selected to predict the future values which are from 2013 to 2016. Two models will be used in this chapter to calculate the company’s intrinsic value which is estimated in 31st December 2012, which are all based on expected cash flows. The first one is dividend discounted model, the other one is free cash flow model.

4.3.1 Dividend Discount Model

The dividend discount model is the model which is based on discounting the expected dividends of the company. To carry out the intrinsic value, some input data for this model will be used to estimate dividends over next years, rate of return on equity and growth rate of dividends in later years. The first input is rate of return on equity. To estimate the rate of return on equity, CAPM model will be measured which is according to formula 2.21 and 2.24. In CAPM model, risk free rate, risk premium and beta are needed. In this part of the thesis, beta will be estimated on the historical returns by using covariance function. All the data are in Annexes 4-5. Regarding the risk premium, it is available for China market on Damodaran website.

Table 4.6

Risk Premium[29]	7.05%
Stock beta	0.73
Risk free rate(China government bond 1Y)[30]	2.94%
Require Rate of Return	8.06%

It is necessary to estimate g as the dividend growth rate. The dividends are basically based on net income as well as sales, thus sales prediction is needed. For this purpose, the factors which influence sales can be used to estimate the future sales. In this company, because it is retail business, its sales can be influenced by the economic development expressed by GDP, the more GDP the more sales.

For measuring the relation between sales and GDP, the calculation is carried out in Eviews which will be described in the following table regarding the data in table 4.7, the more details will be shown on Annex 6.

Table 4.7

Year	Sales Revenue (thousands)	GDP(0.1 billion)
2004	9,107,247	159,878
2005	15,936,391	184,937
2006	24,927,395	216,314
2007	40,152,371	265,810
2008	49,896,709	314,045
2009	58,300,149	340,903
2010	75,504,739	401,513
2011	93,888,580	473,104
2012	98,357,161	519,470

[29] Damodaran [online]. [2.4.2014]. http://pages.stern.nyu.edu/~adamodar/ l

[30] China Construction Bank. [online]. [2.4.2014]. Available on http://tool.ccb.com/Info/52566394

Table 4.8

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-30424390	2484730	-12.24454	0.0000
GDP	257.2658	7.285174	35.31361	0.0000

According to table 4.8, the formula to show the relation between sales and GDP is $Sales=-30424390+257.2658 \cdot GDP$. Based on this strong relationship, we can predict that sales of the company in the future will depend on the GDP. Thus the GDP growth rate will be used as dividend growth rate for the future dividends and the future GDP growth rates are all predicted annually by the international institution The World Bank.

Table 4.9

Year	2013	2014	2015	2016
Sales Revenue (thousands)	116,700,791	131,429,002	147,531,013	164,935,304
GDP(0.1 billion)[31]	571,880	629,129	691,718	759,369
GDP growth rate forecast [32]	7.70%	7.70%	7.50%	7.50%

Table 4.10

Year	2008	2009	2010	2011	2012
DPS	0.04	0.03	0.1	0.15	0.05

Based on table 4.9 of GDP growth rate forecast, the average GDP growth rate is chose as a constant growth rate g which is equal to 7.6%. The current stock price of Suning Commerce is 7.32,[33] D_0 is 0.05 which is based on table 4.10 in 2012. According to formula 2.20, 2.21 and 2.22, we can get the result of intrinsic value as follows.

[31] International Monetary Fund [online]. [2.4.2014]. Available on http://www.imf.org/external/pubs/ft/weo/2013/02/weodata/weorept.aspx?sy=2011&ey=2018&scsm=1&ssd=1&sort=country&ds=.&br=1&pr1.x=46&pr1.y=11&c=924&s=NGDP&grp=0&a=

[32] The World Bank [online]. [2.4.2014]. Available on http://www.worldbank.org/en/publication/global-economic-prospects/regional-outlooks/eap

[33] Bloomberg [online]. [2.4.2014]. Available on http://www.bloomberg.com/quote/002024:CH

Table 4.11

Year	2013	2014	2015	2016	Terminal Value (V4)	Intrinsic Value of Suning Commerce.
DPS(Dividend per Share)	0.054	0.058	0.062	0.067	15.636	
Present Value	0.050	0.050	0.049	0.049	11.467	16.749

As the current price is 7.32 per share, it is lower than the intrinsic value which is 11.467, it means that the stock of Suning Commerce is undervalued. It is better for investors to consider holding or buying the stocks.

4.3.2 Free Cash Flow Model

In this model, the future free cash flows to firm will be forecast. The items that consist of free cash flows are net operational profit after taxes, depreciation, changes in net working capital and investments which will be planned to forecast separately, through which the free cash flow to firm in the future can be estimated as enterprise value. To estimate the company's intrinsic value, the equity value will be estimated, based on the shares of the company, finally the intrinsic value can be estimated in 31st December 2012 and compared with current price.

A) Forecasting free cash flows

The free cash flow model is based on the future. The items which consist of free cash flows which based on financial statement (Annexes 1 – 3) are all influenced by sales, for forecasting each item, the ratios of each item to sales will be estimated. Finally based on these ratios, the future items will be predicted. The main items for estimating the ratios will be presented in the following table.

Table 4.12

Year	2008	2009	2010	2011	2012
EBIT	2,964,374	3,875,032	5,431,948	6,444,081	3,013,603
Accounts Receivable	110,127	347,024	1,104,611	1,841,778	1,270,502
Net Inventories	4,908,211	6,326,995	9,474,449	13,426,741	17,222,484
Accounts Payable	3,633,327	5,003,117	6,839,024	8,525,857	10,457,733
INV	1,004	597,374	792,896	554,793	574,279
Depreciation	162,519	194,466	209,134	392,738	598,380
Fixed Assets	3,316,431	2,895,971	3,914,317	7,347,467	8,579,277
tax rate	23.41%	23.89%	24.00%	24.52%	22.71%

To forecast more specifically, the core components of net working capial will be predicted separately. According to the statistical significant relation between sales and GDP, the future sales are already predicted based on table 4.7, 4.8 and 4.9. Thus, the ratios of each item to sales can be estimated, which indicate the proportion of sales that each item accounts for. As for depreciation, it is directly generated by fixed assets, therefore, the depreciation rate is the rate of depreciation to fixed assets which is shown in table 4.12.

Table 4.13

Year	2008	2009	2010	2011	2012
Operating profit margin	0.06	0.07	0.07	0.07	0.03
k_1	0.00	0.01	0.01	0.02	0.01
k_2	0.10	0.11	0.13	0.14	0.18
k_3	0.07	0.09	0.09	0.09	0.11
k_4	0.00	0.01	0.01	0.01	0.01
Depreciation rate	0.05	0.07	0.05	0.05	0.07

In table 4.13, k_1, k_2, k_3 and k_4 are the ratios of accounts receivables to sales, net inventories to sales, accounts payable to sales and investments to sales respectively. All the calculations of ratios are based on formula 2.26, 2.28, 2.29 and 2.31. To forecast each item in the next year, the ratios and tax rate will be averaged.

Table 4.14

	Operating profit margin	k1	k2	k3	k4	Depreciation rate	Tax rate
Average	0.06	0.01	0.13	0.09	0.007	0.06	23.71%

Since we get the result of the average ratios which accounts for the proportion of sales in table 4.14, based on the future sales from 2013 to 2016 in table 4.9, the earnings before interests and taxes, changes in net working capital and investment will be predicted in the next years. However, to estimate the fixed assets, it's necessary to estimate the investments first, then based on formula 2.29 and 2.30, the depreciation of next years can be forecasted. All the items will be shown in the following table 4.15.

Table 4.15

Year	2013	2014	2015	2016
EBIT	6,934,215	7,809,347	8,766,108	9,800,250
Accounts Receivable	1,291,248	1,454,210	1,632,372	1,824,944
Net Inventories	15,182,355	17,098,443	19,193,257	21,457,493
Accounts Payable	10,417,722	11,732,489	13,169,894	14,723,551
ΔNWC	-1,979,371	764,282	835,572	903,150
INV	758,921	854,701	959,415	1,072,597
Depreciation	546,811	596,859	653,039	715,847
FCFF	7,057,636	4,935,923	5,546,049	6,217,081

As one of two giants of appliance retailers in China, Suning Commerce is planning to expand its business in new markets lead to increase investment. Based on formula 4.25, table 4.14 and 4.15, finally we forecast the unlevered free cash flow to firm from 2013 to 2016.

B) Cost of Capital and Growth Rate

To estimate the cost of capital WACC, it's necessary to estimate the cost of equity and cost of debt. As for the cost of equity, the CAPM model is used to

measure which is already shown in table 4.6. The cost of debt is the rate of bank loans to business and thus after-tax cost of debt will be used for estimating WACC. From formula 2.32, we can get the estimation of the cost of WACC as follows.

Table 4.16

R_E	8.06%
R_D (from the interest rate of China Bank)[34]	8.55%
Total Assets	76,161,501
Total Liabilities	47,049,966
Total Shareholders' Equity	29,111,535
WACC	7.11%

Because free cash flow model is also discount cash flow model which based on the future value. To forecast the enterprise value based on future cash flows, the long-term cash flow growth rate will be measured. Based on formula 2.33 and table 4.15, the growth rates are calculated.

Table 4.17

Year	2014	2015	2016	g
g	-30.06%	12.36%	12.10%	7.6%
weight	0.047	0.003	0.15	0.8

From 2013 to 2014, then FCFF is relatively unstable, while from 2015 to 2016, it becomes relatively flat. From this point of view, the weights are set to estimate a better constant long-term growth rate and avoid the negative growth at the same time, and the sum of weights should be equal to 1. Meanwhile, the GDP growth rate is used as an indicator for estimating long term growth rate of cash flows. For the long-term stable cash flow, I assume that the growth rate

[34] Wangyi Finance [online]. [2.4.2014]. Available on http://money.163.com/11/0728/07/7A1KQ58U00252G50.html

will lower 1% of GDP growth rate, since the stable growth rate cannot be larger than the growth rate in economy in which the firm operates. Thus, g can be estimated as follows.

$$g = -30.06\% \cdot 0.047 + 12.36\% \cdot 0.003 + 12.10\% \cdot 0.15 + 7.6\% \cdot 0.8$$

$$= 6.52\%$$

C) Total Enterprise Value

To estimate the total enterprise value, the first step is to measure the present value of unlevered cash flows, the second step is to measure the terminal value. The calculation is based on formula 2.34, table 4.15 and 4.16.

$$EV = \frac{7057636}{1+0.0685} + \frac{4935923}{(1+0.0685)^2} + \frac{5546049}{(1+0.0711)^3} + \frac{6217081}{(1+0.0711)^3 \cdot (0.0711-0.0652)}$$

$$=869,996,720$$

D) Fair Value of the Equity

Suning Commerce has its net debt of 23,849,528 thousand yuan. It is assumed that it will be the same in the future 4 year which the net debt is fixed at 23,849,528 thousand yuan, because it's relatively stable in recent years. If the company has excess equity, it can go ahead and pay off the debt. Then in formula 2.35, the equity value of Suning Commerce will be estimated as follows.

$$EquityValue = 869,996,720 - 23,849,509 = 846,147,192$$

E) Equity Value per share

To estimate the equity value per share, the equity value will be divided by the total shares. As the common shares outstanding are increasing year by year, it can be forecasted by sales and the ratio of shares outstanding to sales.

Based on the company's financial statement, Suning Commerce doesn't have long term loans, which anyhow indicates that the company prefers equity. K_5 represents the ratio of shares outstanding to sales based on table 4.7.

Table 4.18

Year	2008	2009	2010	2011	2012
Total Common Shares Outstanding	2,991,008	4,664,141	6,996,212	6,996,212	7,383,043
k_5	0.06	0.08	0.09	0.07	0.08

Table 4.19

Year	2013	2014	2015	2016
Total Common Shares Outstanding	8,920,262	10,046,043	11,276,833	12,607,165

Average k_5 is 0.08. Based on the sales forecast in table 4.9, the shares outstanding are predicted in next years. Average the shares outstanding, it is 10,712,576. Finally the equity value per share is estimated as follows.

$$\text{Equity value per share} = \frac{846,147,192}{10,712,576} = 78.99$$

As the current price is 7.32 yuan, the equity value per share is higher than the current price, which means that the stock is undervalued. For investors, it's better to consider holding or buying the stock of Suning Commerce.

Based on the two cash flow models which are estimated, intrinsic values which are both higher than the current price, although in free cash flow model, the equity value per share is much higher than current price based on the calculation. Therefore, the stock is undervalued. From this point of view, it's better to consider holding or buying the stock of Suning Commerce for investors.

5 Conclusion

Based on fundamental analysis, this work is to analyze the intrinsic value of company Suning Commerce Group Co., Ltd. Considering the overall economy in China, the macroeconomic analysis tells us that in China the economy is in a smooth and stable development. GDP is continuously growing year by year due to the 8% target by the government policy. Inflation rate was targeted at 3.5% by Chinese government. For developing the economy, government aims to expand the domestic demand, encourage investment and consumption, government sets the policy of “home appliance to rural” and decrease the debt rate for enterprises. Meanwhile, the policy is beneficial for appliance retailers that they can expand their products to more markets and consumers. Following the recovery of economy, the consumers become optimistic about the macroeconomic trends.

Suning Commerce Group Co., Ltd. is one of two appliance retail giants. For new companies, they have barrier to entry; for competitors especially GOME, Suning Commerce’s profitability, sales and expansion stores are all better than GOME; for buyers, they can have more bargaining power. Retailers and suppliers rely on each other, but domestic suppliers have to compete with foreign suppliers and they should seek the balance between two retail giants, therefore, they cannot have strong bargaining power to retailers. Although some suppliers and e-shop tries to directly sell their products, considering the costs and Suning E-go, appliance retailers especially Suning Commerce are better to earn profits.

Based on the financial analysis, it indicates that the company takes the risk of converting the shot-term assets into cash. Suning Commerce has relatively high liquidity, is about to use financial leverage properly and its level of profitability is stable. But it still has to pay attention to improve the assete utilization efficiency and operating management.

Finally by estimating the stock's intrinsic value based on two discount cash flow models, both results indicate that the stock of Suning Commerce is undervalued.

According to the factors of macroeconomy, the industry performance in China, the company's financial performance, as well as valuation and forecast of the stock, It is concluded that the stock of Suning Commerce Group Co., Ltd is undervalued. Therefore, Suning Commerce's stock is expected to increase in next years, it is better for investors to consider holding or buying the stock.

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List of Abbreviations

ROA	Return On Assets
ROE	Return On Equity
CNY	China Currency
OPM	Operating Profit Margin
EBIT	Earnings Before Interests and Taxes
INV	Investment
DCF	Dividend Discount Model
GDP	Gross Domestic Product
NWC	Net Working Capital
FCFF	Free Cash Flow to Firm
CPI	Consumer Price Index
PPI	Producer Price Index

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Ostrava dated 25. 4. 2014

Yulei Chen

Student's name and surname

List of annexes

Annex 1 Income statement of Suning Commerce Group Co., Ltd.

Income Statement	Amount (CNY in Thousand)				
Year	2008	2009	2010	2011	2012
Sales Revenue	49,896,709	58,300,149	75,504,739	93,888,580	98,357,161
Cost of Goods Sold	41,334,756	48,185,789	62,040,712	76,104,656	80,884,646
Sales Tax & Other Charges	203,491	271,516	268,129	369,751	313,081
Selling Expenses	4,780,468	5,192,356	6,809,109	9,367,346	11,810,941
Administrative Expenses	784,521	912,093	1,250,311	2,088,637	2,350,107
Interest Expenses-operating	16,598	1,500	1,483	11,558	92,864
Interest Income-operating	404,691	367,106	635,043	919,032	663,311
Net Interest Expenses/Income	-388,093	-365,606	-633,560	-907,474	-570,447
Other Operating Expenses	164,803	196,634	262,166	352,046	371,856
Assets Impairment Loss	52,389	32,335	75,924	69,537	183,374
Operating Profit	2,964,374	3,875,032	5,431,948	6,444,081	3,013,603
Non-Operating Revenue	45,746	111,578	72,465	117,555	354,445
Non-operating Expenses	-59,247	-60,243	-102,369	-88,410	-126,450
Total Profit	2,950,873	3,926,367	5,402,044	6,473,226	3,241,598
Income Tax	690,945	937,872	1,296,536	1,587,220	736,136
Earnings After Tax	2,259,928	2,988,495	4,105,508	4,886,006	2,505,462
Minority Interest in Earnings	89,739	98,539	93,688	65,412	-170,657
Net Profit	2,170,189	2,889,956	4,011,820	4,820,594	2,676,094

Annex 2 Balance sheet of Suning Commerce Group Co., Ltd.

Balance Sheet	Amount (CNY in Thousand)				
Year	2008	2009	2010	2011	2012
Monetary Capital	10,574,232	21,960,978	19,351,838	22,740,084	30,067,365
Tradable Financial Assets	-	7,378	-	-	-
Notes Receivable	-	6,874	2,505	7,265	2,987
Accounts Receivable	110,127	347,024	1,104,611	1,841,778	1,270,502
Prepayment	1,081,882	947,924	2,741,405	2,334,507	3,104,874
Interest Receivable	28,463	32,376	31,385	74,821	87,729
Other Receivables	94,392	110,975	975,737	382,375	425,728
Net Inventories	4,908,211	6,326,995	9,474,449	13,426,741	17,222,484
Other Current Assets	390,920	455,740	793,656	1,309,062	1,245,460
Total Current Assets	17,188,227	30,196,264	34,475,586	42,116,633	53,427,129
Available-for-sale financial assets	-	-	-	1,764	982
Long-term Receivables	69,091	88,450	130,768	476,564	499,675
Long-term Equity Investment	1,004	597,374	792,896	554,793	574,279
Investment Properties	-	339,958	387,134	684,420	1,270,242
Fixed Assets	3,316,431	2,895,971	3,914,317	7,347,467	8,579,277
Construction in Process	64,009	408,528	2,061,752	1,251,501	2,478,083
Intangible Assets	566,354	764,874	1,309,337	4,368,264	6,039,735
Project Materials	-	-	-	2,002	7,772
Development Expenditures	19,103	58,513	22,125	93,898	42,297
Long-term Deferred Cost	233,253	237,942	529,531	841,692	839,352
Goodwill	-	-	616	226,623	185,094
Deferred Income Tax Asset	161,055	251,958	283,320	512,150	756,221
Other Non-current Assets	-	-	-	1,308,702	1,461,363
Total Non-current Assets	4,430,300	5,643,568	9,431,796	17,669,840	22,734,372
Total Assets	21,618,527	35,839,832	43,907,382	59,786,473	76,161,501
Short-term Borrowing	156,000	-	317,789	1,665,686	1,752,492
Notes Payable	7,096,536	13,999,191	14,277,320	20,617,593	24,229,852
Accounts Payable	3,633,327	5,003,117	6,839,024	8,525,857	10,457,733
Advance Collections	184,822	276,792	393,820	350,051	542,171
Salaries Payable	134,085	139,530	201,295	273,558	258,838

Tax Payable	387,961	301,542	525,750	790,756	123,312
Interest Payable	66	-	-	5,305	13,810
Other Payables	608,046	666,391	1,539,020	2,743,925	3,346,992
Long-term Liabilities Mature within 1 year	152,870	97,128	112,178	120,029	44,868
Other Current Liabilities	124,852	235,148	328,152	545,502	475,188
Total Current Liabilities	12,478,565	20,718,839	24,534,348	35,638,262	41,245,256
Bond Payable	-	-	-	-	4,465,345
Estimated Liabilities	-	-	-	101,135	62,975
Deferred Income Tax Liabilities	4,755	6,739	34,395	183,239	163,175
Other Non-current Liabilities	22,887	189,271	493,248	833,299	1,113,215
Total Non-current Liabilities	27,642	196,010	527,643	1,117,673	5,804,710
Total Liabilities	12,506,207	20,914,849	25,061,991	36,755,935	47,049,966
Capital Stock	2,991,008	4,664,141	6,996,212	6,996,212	7,383,043
Capital Reserve	1,086,191	2,975,652	655,288	517,074	4,679,471
Surplus Reserve	364,270	517,465	746,529	1,007,130	1,154,866
Undistributed Profit	4,334,488	6,383,317	9,932,866	13,793,238	15,272,189
Currency Translation Reserve	-	-229	7,294	14,680	-30,439
Minority Interest in Equity	336,363	384,637	507,202	702,204	652,405
Total Shareholders' Equity	9,112,320	14,924,983	18,845,391	23,030,538	29,111,535
Total Liabilities and Shareholders' Equity	21,618,527	35,839,832	43,907,382	59,786,473	76,161,501
Net debt	-10,418,232	-21,960,978	-19,034,049	-21,074,398	-23,849,528

Annex 3 Cash flow statement of Suning Commerce Co., Ltd.

Cash Flow	Amount (CNY in Thousand)				
Year	2008	2009	2010	2011	2012
Cash Received for Goods Sold and Services Rendered	55,016,517	66,475,716	86,811,064	107,078,755	112,468,540
Tax Refund Received	17,075	2,152	1,164	2,986	3,122
Receipts from Other Business Activities	540,445	706,951	1,859,413	2,809,980	1,604,338
Cash Inflows from Operating Activities Subtotal	55,574,037	67,184,819	88,671,641	109,891,721	114,076,000
Cash Outflow for Goods & Services Purchased	-44,423,817	-52,855,065	-72,265,161	-86,764,974	-91,204,379
Cash Salaries	-1,546,296	-1,702,300	-2,369,111	-3,923,252	-4,356,400
Various Taxes Paid	-2,021,435	-3,107,429	-3,256,178	-4,250,251	-3,832,920
Other Operating Cash Outflow	-3,763,348	-3,965,083	-6,899,855	-8,364,724	-9,382,860
Cash Outflow for Operating Activities Subtotal	-51,754,896	-61,629,877	-84,790,305	-103,303,201	-108,776,559
Net Operating Cash Flow	3,819,141	5,554,942	3,881,336	6,588,520	5,299,441
Divestment Cash Inflow	-	-	-	700,000	333
Cash Received for Investment Income	-	-	-	12,000	12,508
Other Investing Cash Inflow	-	-	-	234,459	-
Net Cash Received from The Disposal of Intangible and Other Long-term Assets	3,745	2,772	2,695	46,527	156,728
Cash Inflow from Investment Activities Subtotal	3,745	2,772	2,695	992,986	169,569
Capital Expenditures	-2,454,061	-1,195,375	-4,679,732	-6,093,596	-6,012,465
Other Investing Cash Outflow	-	-	-	-	-99,062
Investing Cash Outflow	-	-704,475	-983,835	-889,837	-194,501

Cash Outflow from Investment Activities Subtotal	-2,454,061	-1,899,850	-5,663,567	-6,983,433	-6,306,028
Net Cash from Investment Activities	-2,450,316	-1,897,078	-5,660,872	-5,990,447	-6,136,459
Receipts from Equity Securities	2,462,362	3,020,951	41,226	48,138	4,748,102
Cash Raised from Loan	466,000	-	412,883	1,382,313	2,085,571
Cash Proceeds of Bond Issue	-	-	-	-	4,500,000
Cash Inflow from Financing Activities Subtotal	2,928,362	3,020,951	454,109	1,430,451	11,333,673
Cash Debt Repayment	-450,000	-156,000	-95,094	-34,416	-1,998,766
Profit or Interest Payment	-454,669	-91,296	-235,565	-716,634	-1,133,530
Payment for Other Financing Activities	-	-	-	-	-34,276
Cash Outflow for Financing Activities Subtotal	-904,669	-247,296	-330,659	-751,050	-3,166,572
Net Cash Flow from Financing Activities	2,023,693	2,773,655	123,450	679,401	8,167,101
Effect of Currency Fluctuation on Cash Position	-	-229	7,523	-4,781	-35,522
Difference of Net Increase of Cash & Cash Equivalents	3,392,518	6,431,290	-1,648,563	1,272,693	7,294,561
Open Balance Monetary Capital	3,501,220	6,893,738	13,325,028	11,676,465	12,949,158
End Balance Monetary Capital	6,893,738	13,325,028	11,676,465	12,949,158	20,243,719

Annex 4 Stock Prices of Suning Commerce Group Co., Ltd. and SSE Composite Index

Stock price in CNY(Adjusted close)		
Date	Suning Commerce	SSE Composite Index
7/2008	9.64	2,775.72
8/2008	8.61	2,397.37
9/2008	7.46	2,293.78
10/2008	5.82	1,728.79
11/2008	7.79	1,871.16
12/2008	7.68	1,820.81
1/2009	6.73	1,990.66
2/2009	6.9	2,082.85
3/2009	7.74	2,373.21
4/2009	9.63	2,477.57
5/2009	9.39	2,632.93
6/2009	10.37	2,959.36
7/2009	9.98	3,412.06
8/2009	9	2,667.75
9/2009	10.58	2,779.43
10/2009	10.43	2,995.85
11/2009	12.25	3,195.30
12/2009	13.41	3,277.14
1/2010	11.77	2,989.29
2/2010	11.91	3,051.94
3/2010	12.12	3,109.10
4/2010	10.88	2,870.61
5/2010	10.54	2,592.15
6/2010	11.07	2,398.37
7/2010	12.14	2,637.50
8/2010	14.74	2,638.80
9/2010	15.51	2,655.66
10/2010	14.89	2,978.83
11/2010	13.44	2,820.18
12/2010	12.73	2,808.08
1/2011	12.16	2,790.69
2/2011	13.7	2,905.05
3/2011	12.46	2,928.11
4/2011	12.67	2,911.51
5/2011	11.9	2,743.47
6/2011	12.53	2,762.08
7/2011	12.15	2,701.73

8/2011	11.59	2,567.34
9/2011	10.18	2,359.22
10/2011	10.51	2,468.25
11/2011	8.87	2,333.41
12/2011	8.25	2,199.42
1/2012	8.51	2,292.61
2/2012	8.8	2,428.49
3/2012	9.63	2,252.16

Annex 5 Stock Rate of Return of Suning Commerce Group Co., Ltd. and SSE Composite Index

Stock rate of return		
Date	Suning Commerce	SSE Composite Index
8/2008	-10.68%	-13.63%
9/2008	-13.36%	-4.32%
10/2008	-21.98%	-24.63%
11/2008	33.85%	8.24%
12/2008	-1.41%	-2.69%
1/2009	-12.37%	9.33%
2/2009	2.53%	4.63%
3/2009	12.17%	13.94%
4/2009	24.42%	4.40%
5/2009	-2.49%	6.27%
6/2009	10.44%	12.40%
7/2009	-3.76%	15.30%
8/2009	-9.82%	-21.81%
9/2009	17.56%	4.19%
10/2009	-1.42%	7.79%
11/2009	17.45%	6.66%
12/2009	9.47%	2.56%
1/2010	-12.23%	-8.78%
2/2010	1.19%	2.10%
3/2010	1.76%	1.87%
4/2010	-10.23%	-7.67%
5/2010	-3.13%	-9.70%
6/2010	5.03%	-7.48%
7/2010	9.67%	9.97%
8/2010	21.42%	0.05%
9/2010	5.22%	0.64%
10/2010	-4.00%	12.17%
11/2010	-9.74%	-5.33%
12/2010	-5.28%	-0.43%
1/2011	-4.48%	-0.62%
2/2011	12.66%	4.10%
3/2011	-9.05%	0.79%
4/2011	1.69%	-0.57%
5/2011	-6.08%	-5.77%
6/2011	5.29%	0.68%
7/2011	-3.03%	-2.18%
8/2011	-4.61%	-4.97%

9/2011	-12.17%	-8.11%
10/2011	3.24%	4.62%
11/2011	-15.60%	-5.46%
12/2011	-6.99%	-5.74%
1/2012	3.15%	4.24%
2/2012	3.41%	5.93%
3/2012	9.43%	-7.26%

Annex 6 Regression Output

Equation: UNTITLED Workfile: SALES FORECAST::Unti...

View | Proc | Object | Print | Name | Freeze | Estimate | Forecast | Stats | Resids

Dependent Variable: S
Method: Least Squares
Date: 04/15/14 Time: 05:08
Sample: 2004 2012
Included observations: 9

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-30424390	2484730.	-12.24454	0.0000
GDP	257.2658	7.285174	35.31361	0.0000

R-squared	0.994418	Mean dependent var	51785638
Adjusted R-squared	0.993621	S.D. dependent var	32621846
S.E. of regression	2605529.	Akaike info criterion	32.57730
Sum squared resid	4.75E+13	Schwarz criterion	32.62113
Log likelihood	-144.5978	Hannan-Quinn criter.	32.48272
F-statistic	1247.051	Durbin-Watson stat	1.573575
Prob(F-statistic)	0.000000		