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The Influence of Dividend Policy on the Company Value--Take Apple Inc for an Example

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ABSTRACT

Dividend policy is one of the core contents of company, it plays an important role in firm operating. Stable dividend payment is beneficial to convey the signal that the enterprise has good development and can attract more investment from shareholders. However, the long-term dividend payout can lead to the increase of the company's leverage ratio. This point is always ignored in many studies. In order to have an intuitive discussion, this research will take Apple Inc as an example. Apple has a big difference before and after the dividend, for example, it can be seen in corporate value and dividend yield. This is why this research choose Apple company as an example. Apple firstly announced a dividend in 2012 and has continued to do so ever since. After that, Apple's enterprise value has risen considerably and it gradually expanded the world market. However, the company's debt level was much higher than past time. To find the relationship between them, the research used P/E valuation method, EV/EBITDA valuation method and NAV valuation method to calculate Apple's value, then it found out that dividend policy not only have a certain effect on improving company value, but also increasing debt held. Therefore, this research predicted that dividend payment will improve firm's value and make company grow steadily, while it makes company get higher debt than before. All the financial data used in the research were obtained from Apple's annual report and finance official website.

Keywords: *Dividend policy, Apple company, enterprise value, dividend impact*

1. INTRODUCTION

Dividend policy is one of the core contents of company, it takes an important role in firm operating. Leithner and Zimmermann (1993) used dividend policies of most European countries to have a study, the results showed that the companies in these countries adopted stable dividend policy [1]. In the capital market, dividends can convey the information of a company's profitability, also a stable dividend can reduce uncertainty among investors, so it has a certain impact on the stock price and help company obtain long-term development.

Nowadays, Apple Inc. is a famous high-tech company. It listed on market on 1980, and invented many popular electronic products. In 2012, Apple firstly declared that they would pay cash dividend at $2.65 per share quarterly. This decision let Apple's stock immediately rose nearly 3%, and price closed above $600 for the first time. In year 2014, its dividend reached the peak at $3.29 per share. That year, Apple announced a plan to split its stock in the proportion of 7:1. Since then, with the lower stock price, Apple had attracted multiple investors and its value continued to rise, also the dividend had been steadily paid. However, in year 2012 to 2019, debt-to-asset ratio soared from 33 % to 73%. Apple's liabilities had become to rise, in particular, the proportion of financial liabilities. This meant company borrowed from outside to pay the dividend and more debt would increase the risk of company.

In order to visually demonstrate the dividend policy's influence on firms, Apple Inc will be used as example to have a discussion. it is widely believed that dividends have a positive impact on the business, but from a financial perspective. It shows different result. Therefore, the objective of this research is using three valuation models to calculate company's recent five years financial value, then use results to gain conclusion and find gap from previous researches.

In this paper, it will combine with theoretical analysis and empirical research, qualitative and quantitative methods to have a discuss. Through P/E valuation method, EV/EBITDA valuation method and NAV valuation method to calculate the amount of Apple's value and growth rate in recent five years to find the impact of dividend policy. In addition, combine results with the company itself and market strategy to objectively discuss whole findings. At last, give the suggestions for Apple company to deal with existing problems. Most data will be extracted from the company's annual report, P/E ratio and EV (Enterprise Value) will gain from finance official website.

2. LITERATURE REVIEW

Equity financing has become a normal way for company to list on the market, so boost share price to increase company value is an important goal to achieve continuous refinancing. However, it is not enough to make a substantial effort at amount of company's valuation. Intrinsic incentive for shareholders is also a way to sustain investment, and it usually takes the form of paying dividends. Generally speaking, there are two ways of dividend payment, cash dividend and stock dividend. Company distribute their free cash to pay the cash dividend, because it can reduce the investment risk and enables investors to obtain current earnings. Additionally, because of cash payment, management has less cash on their own, so they become more cautious on investing project. Its idea is similar with agency cost theory of dividends (Rozeff 1982), which was believed that dividend payment was negatively correlated with management shareholding, and it was an alternative means to solve the management agency problem [2]. For stock dividends, it cannot obtain current period income, but can guarantee future earnings to some extent, because it gives shareholders more power of the company.

According to Al Mutairi, Tian and Tan, cash dividend in hand was more preferred than uncertain future price appreciation (2009) [3]. Paying dividends would reduce the risk of stock investing, the more dividends were given, the more confidence investors had in the company, so business could raise more capital, then the value improved. This opinion affirms the current market that equity investors prefer to receive dividend income, and regard it as more reliable the retained earnings. In addition, under the extension of Miller and Modigliani's irrelevant theory, the signaling hypothesis argued dividend could be seen as a signal of business's performance. Information about earning was reflected on stock price and dividend paid affected investors' expectations of company, thus impacted the business value.

In fact, dividend policy varies from company to company, dependings on business mature standard and income level. As Fama and French (2001) indicated, companies would change dividend policy over time. During start-up periods, companies rarely paid dividends because their investment’s opportunity cost exceeded the capital they internally generate. After a certain development, when the internal capital over the opportunity cost of investment, the company would pay the excess fund to shareholders to reduce the possibility of wasting cash flow [4]. The less discretionary cash flow management has, the lower the expenditure due to agency costs. This means under the positive dividend policy, company not only can maintain the relationship with shareholders, but also can reduce the operating cost to improve the earnings. This theory proves the rationality of agency cost theory from the side. Arnott and Asness (2003) found that higher level of dividend payout ratio was related to company's higher future growth [5]. This insight is consistent with the idea of dividend signaling hypothesis. Gradually, the market always associate dividends with a company's earnings and value, and use dividend as a benchmark to measure company's performance.

Even though company's profits can be distributed as dividends, adequate cash reserves are required to fund operational activities and deal with emergencies. Like Facebook has not pay dividend yet, dividend payment is not an obligation and it has some drawbacks. The wide fluctuation of dividend usually makes investors think the business operating condition is unstable and the investment risk is larger than before. Most investors are risk abhorrer, when they do not consider to reinvest, company start to meet financing difficulty. Combine with what Fama and French (2001) had said: "Firms that pay dividends are at a competitive disadvantage since they have a higher cost of equity than firms that do not pay," [4] it market has low tendency to pay dividends. If the firms under the poor operating condition but still pays dividends, it may cause to be short of funds, even face with bankruptcy risk. Therefore, some researchers suggested dividend is disappearing. However, in the further research, it was found that high-yielding companies collectively generated most of the earnings and dominated the dividends supply, while most companies had a modest collective impact on total earnings and dividends (DeAngelo et al 2004) [6]. It presented dividend was concentration on small part of people, but not disappear. Generally sating, the theoretical framework of modern dividend policy still cannot completely meet the need of explaining practical problems, which still needs to be further studied.

Reviewing domestic and foreign research literature on influencing factors of dividend policy, these related studies show dividends have a comprehensive effect on a company. Many studies took company value as the independent variable, and financial ratios were taken as the dependent variable to conduct correlation test and regression analysis, they aimed to discuss stable dividend payment level can promote company value. Besides, traditional financial indicators were used for empirical analysis. Other research also wielded financial theory to explain corporate dividend policy and analyze the future development of the business. However, there are some limitations. Most were discussed from the macro points of view, thus ignoring some micro factors. For example, some research pointed out that the more debt the company has, the smaller the cash dividend per share will be, rather than discuss that dividend payout may cause firms get more debt. Therefore, there is a lack of research that can open new minds of the dividend impact. Based on previous survey and current findings, this paper plan to add the index of corporate growth and debt ratio into the empirical model, and make two hypotheses. First is that the dividend payment will improve firm’s value and make company grow steadily. Second is that dividend payout will make company get higher debt than before.

3. RESULT

Table 1 Apple's financial data under P/E valuation model [7] [9] [10]

Millions	2015	2016	2017	2018	2019
P/E ratio	11.99	13.67	16.75	19.02	18.9
Net profit	53394	45687	48351	61046	55256
Firm value	640194	624541	809879	1161095	1044338
Growth rate		-2.4%	29.7%	43.4%	-10.1%

P/E ratio is obtained from the perspective of shareholders, represents their judgment of the company value. It mainly evaluates the profitability of a business Through table 1, P/E ratio showed that shareholders had good expectations for the development of the company and expected future growth. Although Apple's floating trend of net profit was instable, firm value still rose. It had a rapid increase from year 2017 to 2018, and growth rate was up to 43.4%. While there showed a small decline in year 2016 and 2019 respectively, in particular, 2019 had over 10% reduction.

Table 2 Apple's financial data under EV/EBITDA valuation model [8] [9] [10]

Millions	2015	2016	2017	2018	2019
EV	687831	636239	927168	1004807	1112797
Growth rate		-7.5%	45.7%	8.4%	10.7%
EBITDA	8249	7053	7150	8180	7648
EV/EBITDA	83	90	130	122	146

EV is the market recognized business value, calculated by shares value minus net liabilities. EBITDA is earning before interest, tax, depreciation and amortization. EV/EBITDA model standing at the investor's view, include both shareholders and creditors. It reflects the proportional relationship between the invested capital and corporate earnings in the coming year. It mainly assesses the solvency ability of the business, the ratio is better to be smaller. Through table 2, EV had a 20% compound annual growth rate between 2016 and 2019, it was a positive phenomenon. For EV's growth rate, after experiencing negative growth in 2016. It showed an irregular rising condition. However, EBITDA had a max amount in 2015 and experiences two years decreasing, in 2018 it returned to original level then fell again. The ratio presented uptrend tendency, from 83 in 2015 to 146 in 2019, it had nearly doubled in a few years.

Table 3 Apple's financial data under NAV valuation model [9] [10]

Millions	2015	2016	2017	2018	2019
NAV	119355	128249	134047	107147	90488
Growth rate		7.5%	4.5%	-20.1%	-15.5%
Asset/liability	58.9%	60.1%	64.3%	70.7%	73.3%

NAV method is subtracting the total assets of a business from the total liabilities, it sets a floor for enterprise value. Through table 3, after peaking at 134 billion in 2017, it began to decline. Even in 2019, its value number fell below 100 billion, which was less than year 2015. Apple's NAV growth rate had been constantly declining and demonstrated negative number since 2018. The debt-to-asset ratio had been rising by 15% for recent five years, reached at 73% in year 2019. The company had a high financial risk and low debt paying ability.

4. DISCUSSION

This research predicts that the value of the company will increase and grow at a steady rate. Additionally, with the dividend payment, company will show a rise in liability. After studying about these hypotheses, it showed there really had an increase in firm value, but not at a steady pace. Therefore, the first hypothesis is partially supported. Through the constant rise in debt-to-asset ratio, it verifies

the second hypothesis that dividend cause a high liability level of company.

Generally saying, Apple's overall performance over the last five years was great and the company gained market recognition, which could be seen in data. This is because the company has promoted new electronic technology products and achieved a certain market share. Apple's IOS system and high demand for smart products are driving the company's development. In addition, the lower share price after the split attracts new investment and the stable dividend policy has helped the company to obtain growing enterprise value. However, it is hard not to associate corporate debt levels with dividend payments as they rise year by year. The ratio of assets to liabilities mainly restricts cash dividends by affecting the liquidity of enterprises (Yuan 2011) [11]. By looking at net profit and EBITDA, it can be seen that the profitability of enterprises is not ideal in recent years. Although Apple dose not cut its dividend, under the circumstances, constant payments put pressure on the company. This maybe the reason why company choose to split their stock to relieve financial stress.

In order to solve the liability problem, Apple company can make such changes. Apple has much excess cash on hand, also some short-term securities. While to avoid tax reasonably, nearly 90% cash is in foreign countries. In this case, the company can consider the implementation of the regional system of dividends. For non-local shareholders, pay dividends based on foreign earnings, which can spread financial stress around the head office. On the other hand, company can substitute stock dividends or reduce the overall dividend amount, it can improve earning and save cash, but the risks of these approaches need to be taken into account.

5. CONCLUSION

When conducting this research, it finds some limitations. First, this study ignores the trial conditions of three valuation models to some extent. For P/E valuation model, PE ratio of market evaluation is based on the industry average standard so may necessarily not suit Apple, because it is a leading enterprise in intelligent product industry. Besides, this model also assumes a high-growth company is more valuable than a low-growth company. As a result, the equity may deal with a high value not always pay more than those with a low value. What is more, the changes of capital structure will not affect the valuation of the company, and this is more suitable for company with a single business or fewer subsidiaries. Apple has many overseas subsidiaries around the world and the company operates many projects, using EV/EBITDA valuation model may lack the accuracy of data. In addition, EBITDA is often compared to cash flow, but it is gained after deducting multiple items of expenditure, it is easy to send the wrong signal on valuation outcome. Although NAV valuation model takes into account such factors as expected price changes, development speed and investor return rate, it pays more attention to the tangible assets of the enterprise and regardless of the differences in business, so it more suitable for real estate industry. When discussing the impact of dividend policy on company value, this research focuses on changes in the company's financial data. However, dividend policy’s cause factors and influence are extensive, so the investigative questions of this study are a bit narrow. Further research can be conducted based on a broader proposal perspective.

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