Using the capital structure to increase firm's value: The case of Marks and Spencer plc

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Abstract

Purpose– The purpose of this paper is to examine the relationship between capital structure and firm value, using Marks and Spencer plc (M&S) as a case study. The research aims to assess whether an optimal gearing level can enhance firm value, drawing on theoretical frameworks such as Modigliani and Miller's propositions, the static trade-off theory, and agency theory.

Design/Methodology/Approach – Based on a quantitative analysis of secondary financial data from M&S's annual reports (2010–2016), this study calculates key indicators including the weighted average cost of capital (WACC), gearing ratios, and firm value estimates. The study employs trend analysis and comparative graphs to evaluate the correlation between gearing levels and firm performance over time.

Findings – The findings reveal that, in most years, there is a positive correlation between gearing levels and firm value, although exceptions exist. M&S's managerial strategy consistently prioritizes debt reduction and financial stability over aggressively increasing firm value through high leverage, reflecting a conservative capital management approach.

Research Implications – In the management of corporate finance, especially for large firms, this study underscores the importance of balancing debt utilization with strategic risk control. It suggests that while capital structure impacts firm value, contextual and managerial discretion play a critical role in real-world applications.

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I. Introduction

Capital structure is an approach to financing business activities through a combination method of equity and liability (Brealey, Myers & Allen, 2014) and it is also about optimize resource to improve firm's value. In 1958, FrancoModigliani and Merton Miller proposed a theory: the capital structure and its firm value are irrelevant (Miller, 1958). However this theory just appear in hypothesis - we have to live in the word without any tax and transaction cost, and people have same rate of interest when they borrow and lend, all these things can not happen in the real world. So 1963 Modigliani and Miller published that Corporate income taxes and the cost of capital: a correction to correct the previous theory. The new theory contains many extra factors like tax, cost and proposes that the capital structure affects firm's value, the high gearing level generates tax saving profits. This new theory is an analytical framework for researching capital structure (Arnold, 2013).

Marks and Spencer plcchief finance officer Marc Bollandthinks that Marks and Spencer plchas performed satisfactorily in a challenging marketplace in 2014 (Marks and Spencer annual report, 2014), the delivery sales and underlying per share increased a little, especially in basic earnings per share, which increased 4.2p for per share (increase by 14.8%). In this year, they also focused on corporation for suppliers, guaranteeing suppliers to delivery further efficiencies. From 2014 annual report, Marks and Spencer plcgained more profit from M&S.com and international, which increased by 22.8% and 7.3% respectively, so Marks and Spencer plcdecided to invest them in long-term. In order to keep the balance sheet flexibility, Marks and Spencer plcreduced net debt to £2.46 bn, down from £ 2.61 last year. In 2015 the Marks and Spencer plcCFO Helen Weir presented 'Strong financial disciplines are at the heart of how we run the business' (Marks and Spencer plc annual report, 2015), so they enhanced financial management. From this year's financial report, they got big progress in delivery, which sales of £10.3 bn and underlying profit increased to £661.2m, they finished the year in a strong financial position and improved returns for shareholders, with 18.0p for total dividend, and also achieved significant share price growth (increase by 2.8%). As for capital management, in order to attain strong cash generation, they continued to manage balance sheet – net debt reduced by £240.4m, and capital expenditure reduced to £526.6m down by £183.0m. The full year underlying effective tax rate was 18.9%, and the total taxation is £767m, which is lower than 2014 (£803 m), business rate is the biggest part in taxation fee (accounted for 23%). In 2016, Marks and Spencer plc CFO Helen Weir continued to focused on delivering profit for shareholders and still keep cash flow's flexibility, so they start with some tasks, first, pay more attention on Food sale growth, the food revenue increased by 3.6% and to £5.4 bn, at the same time food gross margin was level on the year at 32.8% (Marks and Spencer plcannual report 2016). Second, improve clothing & home performance. Third, gross margin for clothing & home products be improved. Third, continue to generate cash flow. For shareholders' profit, M&S final dividend was 18.7p (increased by 0.7p), however basic earnings per share reduced to 24.6p (reduced by 17.2%), these information may not positive for Marks and Spencer plc.

From these information, it reveals that M&S devotes to keep shareholders value, reduce debt and generate more cash, however is it benefits for Marks and Spencer plc's capital structure?

II. Literature Review

The firm's mix of debt and equity financing is called capital structure (Arnold, 2013), it includes many factors like debt, equity, and convertible bonds. Company can issue different securities in various financial combination that improve the over market value of the firm (Brealey, Myers, & Allen, 2014). Many experts devote to explore an ideal capital structure to earn more profits.

The stream of cash flows is an essential resource to develop firm's value, when a company financed with debt and equity, then there are two streams within this cash flow: one for the debt holders and another for the equity investors. This mix of debt and equity financing method is called capital structure (Arnold, 2013). Until now many specialists also explore the relationship between the firm's value and capital structure, the quality of capital structure decides the company's value better or not. Modigliani and Miller's proposition in 1963 states that firm's value is not influenced by capital structure in a no tax world, it is an unreality. In the real world that exits tax, the capital structure influences its market value.

2.1 Weighted average cost of capital

Weighted average cost of capital (WACC) is the average rate of return, it is from company expectation for various investors or other financial activities and the weights are the part of each financing source in the firm expectation's capital structure. Using company's future cash flows dividing the cost of capital (WACC) can conclude the firm's value. The formula is:

$$V = \frac{\overline{X}}{D+E}$$

V is total market value, is the income stream form company's except value, D is the market value for debt, E is the equity and r is the cost of capital. In other words, this formula can be simplified as:

$$\text{Weighted average cost of capital} = \frac{\text{Cash flow}}{\text{firm's value}}$$

From this formula, if assuming the future cash flows is not change, and the cost of capital rises, the company's value will decrease. Miles and Ezzell (1980) stated that if the Weighted Average cost of capital can not change, the cash flow generated by the company is the only elements to influence the total value for company.

The capital structure was first proposed in an academic analysis by the financial economists Modigliani and Miller theory in 1958, they created some financial model by making some assumptions. If the debt is increased the cost of equity will rise. If the WACC is constant, the only factor that can affect the firm's value is its cash flow from company's operation or other profit activities. Capital structure is irrelevant. So according to this theory, companies just have one method to increase shareholder's wealth that is making good investment

decision. This famous theory is the MM's first proposition(Arnold, 2012).

MM's first proposition reveals that the total market value within firm is independent of its capital structure. The firm's value is its net present value, so the formula is:

$$\text{firm's value} = \frac{\text{Cash flow}}{\text{Weighted average cost of capital}}$$

The weighted average cost of capital is the rate that company pays their shareholders (Femandes, 2014). The firm's cost of capital depends on two factors, the first one is cost of capital satisfied by ordinary shareholders' expect return , another factor is the opportunity cost of capital satisfied by lenders expect return (Kd), the formula is:

$$\text{Weighted average cost of capital} = \text{Ke} \times \text{We} + \text{Kd} \times \text{Wd}$$

$$\text{We= proportion of equity finance to total finance} = \frac{\text{Debt}}{\text{Equity+Debt}}$$

$$\text{Wd= proportion of equity finance to total finance} = \frac{\text{Equity}}{\text{Equity+Debt}}$$

then firm's value would be increased. But when debt level going to a certain point the tax saving profit (tax shield) is lower than the interest fees, the total market value would be decreased. Therefore, companies can explore the best capital structure to attain the highest value. However there is no one specific theory can provide an accurate capital structure for the company. Companies need to according to their own financial condition to explore the real optimal capital structure.

III. Methodology

3.1 Secondary research

Data is a significant resource for research, and database analysis is also an important research method, it can improve research's accuracy mostly and provide authentic evidence (Bryman & Bell, 2011).

Secondary analysis is the research method that researchers may not participate in the collection of this data, and do not have responsibility for the data collection (Bryman& Bell, 2011). In business and management, secondary analysis is an important method for researchers, it is easy for draw conclusions and reveals the relationship for respondent.

There are some advantages for the secondary analysis. First of all, it saves cost and time. For researchers, they can easy find related data on the website or other channels rather than collect data by themselves. otherwise, primary research like distribute questionnaire will cause many cost, but secondary research will not.

Second, data from annual report or article is more dependable. most of data that are employed most frequently for secondary analysis are of extremely high quality, the data collect process is rigorous, in most of database like company's annual report, organisation are responsible for this data, so they will try their best to reduce the error for data. Otherwise, the samples usually cover a wide variety of regions or year, the wide range of data means more useful information, it can helps researcher to analyse data.

IV. Results and discussion

Marks and Spencer plc's annual report will provide some useful financial information for explore the firm's value, the relative data within its balance sheet like Current liabilities, long term liabilities, shareholders funds, these data will be used for estimate weighted average cost of capital (WACC) and explore its gearing level.

Before calculate weighted average cost of capital (WACC) and gearing level, some financial information need be explored and discussed, furthermore what events happen in Marks and Spencer plc, and how these events to influence its financial structure also need be considered.

Revenue is the profits that a company earned from its business activities, like sell goods or provide service, it is an essential consideration factor to evaluate a company's operation. Operating profit is earnings before interest and taxes (EBIT), it includes revenue except operating expense and non-operating income, in other words, EBIT can clear show a company's financial statement before tax, income tax expense, assets, liabilities and equity will also be analysed for how influences firm's value. The three years (2014 – 2016) financial statement within Marks and Spencer plc will explain some basic information (figure 4.1) .

Fig 4.1 Marks and Spencer Plc Financial Statement Extract

	2014	**2015**	**2016**
	(52 weeks ended 29 March 2014)	**(52 weeks ended 28 March 2014)**	**(53 weeks ended 2 April 2016)**
Revenue	10309.7 £m	10311.4 £m	10555.4 £m
Operating profit	694.5 £m	701.3 £m	584.1 £m
profit before tax	580.4 £m	600.0 £m	488.8 £m
income tax expense	(74.4) £m	(118.3) £m	(84.8) £m
total assets	7903.0 £m	8196.1 £m	8476.4 £m
total liabilities	5196.3 £m	4997.3 £m	5033.0 £m
total equity	2706.7 £m	3198.8 £m	3443.4 £m

Resource: Marks and Spencer plc annual report 2014, 2015, 2016

From this financial statement, revenue is continue increasing within these three years, the stable revenue keeps its operate normal, and helping them have adequate cash flow to invest, repayment of debt or invest in infrastructure. Generally speaking, the stable revenue with a little increase is a positive signal for Marks and Spencer plc.

4.1 Calculate WACC, gearing level and firm's value.

The formula for calculate Weighted average cost of capital is:

$$\text{Weighted average cost of capital} = Ke \times We + Kd \times Wd$$

In this formula Keis the cost of equity of equity, which is about expect return of company for investors, it can not be explored from the data, so just suppose that:

$$Ke = \frac{\text{Equity dividend paid}}{\text{Issued share capital}}$$

Kdis about cost of debt capital, refers effective rate to a company that pays on current debt, due to different tax has different calculation method, so it can be suppose that:

$$Kd = \frac{\text{Interest paid}}{\text{Issued share capital} + \text{Non-current liabilities}}$$

As the literature review expound, and is the weight of debt and the weight of capital, the formula can be supposed that:

$$\text{Equity Weighte} = \frac{\text{Interest capital}}{\text{Issued share capital} + \text{Non-current liabilities}}$$

And

$$\text{Debt Weighte} = \frac{\text{Non-current liabilities}}{\text{Issued share capital} + \text{Non-current liabilities}}$$

From 2014 to 2016 the relative data for Marks and Spencer plc is in this table:

Fig 4.2 WACC for Marks and Spencer plc

	2014	2015	2016
	(52 weeks ended 29 March 2014)	(52 weeks ended 28 March 2014)	(53 weeks ended 2 April 2016)
Issued share capital	408.1	412.0	405.8
Non-Current liabilities	2847.0	2885.7	2928.2
interest paid	132.7	115.3	113.5
Equity dividends paid	273.6	280.7	301.7
cost of equity (Ke)	0.67	0.68	0.74
cost of debt (Kd)	0.05	0.04	0.04
Weight of equity (We)	0.13	0.12	0.12

Resource: Marks and Spencer plc 2014-2016 annual report

From this table, the weight average cost of capital is stable in these three years,in order to reduce the error from the tax, so cash flow will be supposed as 'net cash inflow from operating activities', so it can be calculated as:

Fig 4.3 Financial data for Marks and Spencer plc

	2014	2015	2016
	(52 weeks ended 29 March 2014)	(52 weeks ended 28 March 2014)	(53 weeks ended 2 April 2016)
Cash flow	1129.60	1278.00	1212.00
WACC	0.124820	0.120084	0.124535
Firm's value	9049.83	10642.55	9732.20

Resource: Marks and Spencer plc 2014-2016 annual report

The gearing level has different calculation methods, this time the simply one will be used:

$$\text{Geaing level} = \frac{\text{Long term loans \& overdrafts+Long -term liabilities}}{\text{shareholder's funds}}$$

In this formula, the 'shareholder's fund' can be seen as 'issued share capital'. From the Marks and Spencer plc annual report, the relative data would be showed as:

Fig 4.4 Gearing level for Marks and Spencer plc

	2014	2015	2016
	(52 weeks ended 29 March 2014)	**(52 weeks ended 28 March 2014)**	**(53 weeks ended 2 April 2016)**
Long term loans & overdrafts	445.5	278.9	297.1
Long term liabilities	2847.0	1745.9	1774.7
Shareholder's funds	2706.6	3198.8	3443.4
Gearing level	1.216471	0.632987	0.601673

Resource: Marks and Spencer plc 2014-2016 annual report

Combine two results, the relationship between gearing and firm's value can be seen as:

Fig 4.5 The calculated data for Marks and Spencer plc

	2014	2015	2016
	(52 weeks ended 29 March 2014)	**(52 weeks ended 28 March 2014)**	**(53 weeks ended 2 April 2016)**
Gearing level	1.216471	0.632987	0.601673
Firm's Value	9049.83	10642.55	9732.2

V. Conclusions and Recommendations

The object of the research was to investigate how capital structure influences firm's value, in other words, how gearing level affects the total value within company.

From the literature review, it reveals that capital structure is about firm's finance structure. If the company attains ideal capital structure, the total firm's value will increase, so many experts try to find this structure to optimize company's finance structure. However, with the development of theory, some essential factors also be proved that will affect total firm's value like tax factor and interest rate. Otherwise, weighted average cost of capital (average cost of capital), debt, equity, and firm's value also influence the firm's value.

Modigliani and Miller's second proposition explains that capital structure has relationship with firm's value, when consider corporate tax. When company shoulder more debt the firm's value will also increase, so if control debt in an ideal level, the company's value may increase to the considerable number.

Gearing level can be seen as the ratio proportional relation between the debt level and equity, if rise gearing level the total firm's value will also increase. It means that gearing level has positive correlation with firm's

value.

Firm's value be calculated as using cash flow to divide weighted average cost of capital, although this formula do not consider some complicated factors like personal tax, however it will direct show the final result. Otherwise, weighted average cost of capital also be simply caudated as using related weight to multiply relative cost, this simple formulate just for simplify complex process.

For Marks and Spencer plc this big company, revenue is more than 10 billion pounds, tax and interest paid just occupy a small part, so the tax saving profit will not very obvious. From 2014 to 2016 annual report for Marks and Spencer, their profit in each year is stable, and has clear strategy, especially in investment and control cost aspects, so if they can continue to strengthen their food store service and solve the problem for international profit instability, M&S will attain better financial position.

5.1 Future research suggestion

(1) Consider tax factor

In Marks and Spencer annual report, tax paid is divide in to six parts, and different types may have different formula method, future research can focus on the tax saving profits, and provide more details on tax.

(2) Weighted average cost of capital tendency

As for M&S, its financial structure is stable, so it means that WACC tendency is similar. In other words, if relative details are sufficient, researcher may find suitable capital structure for M&S. and this result will attach much attention in finance research.

(3) Long-term debt and short term debt

In general, long-term debt has more tax shield effect than short-term debt, due to the long- term debt has higher interest rate. So future research can focus on how long-term or short–term debt influences firm's value, it may explore more information for capital structure.

(4) Market value

Market value is another method to evaluate company's value, and gearing level may also has relationship for it, so research market value and gearing level may explore more useful information.

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