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Enhancing firm value through capital structure: A case study of marks and spencer PLC

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Abstract
The research is centered on examining the intricate relationship between a company's capital structure and its overall value, with a specific focus on the case of Marks and Spencer plc. Capital structure essentially pertains to the allocation of resources within a firm and can be significantly affected by various factors, including long-term debt and cash flow.

In order to comprehensively explore the connection between capital structure and a firm's value, several crucial factors must be taken into consideration: Gearing Level, Weighted Average, Cost of Capital (WACC), Modigliani and Merton Theory, Trade-Off Theory. Analysis of Marks and Spencer plc's annual reports spanning from 2014 to 2016 consistently demonstrates a positive correlation between gearing levels and capital structure, which is further substantiated when considering seven years' worth of data for Marks and Spencer plc in England. However, it's imperative to acknowledge that real-world managerial decisions, exemplified by the actions of Marks and Spencer's CFO, extend beyond merely striving for high gearing levels and firm value. They also prioritize considerations such as shareholder funds and cost-reduction strategies. The research findings underscore the influence of gearing levels on capital structure and, consequently, a firm's value. Nevertheless, in practical scenarios, companies do not adopt a one-size-fits-all approach of aggressively pursuing higher firm values. Instead, managers meticulously formulate strategies to adapt their capital structure in response to the ever-evolving economic landscape.

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1. Introduction

Capital structure is a financial strategy that involves balancing equity and liability to fund business operations (Brealey, Myers & Allen, 2014). It's fundamentally about optimizing resources to enhance a firm's value. In 1958, Franco Modigliani and Merton Miller introduced a theory that suggested capital structure had no bearing on firm value (Miller, 1958). However, this theory was based on idealized conditions: a world without taxes, transaction costs, and uniform interest rates for borrowing and lending. These assumptions rarely align with reality.

In 1963, Modigliani and Miller revised their theory in "Corporate income taxes and the cost of capital," acknowledging the influence of factors like taxes and costs. This updated theory recognized that capital structure indeed affects firm value, particularly noting that a higher gearing level could lead to tax savings, enhancing profitability. This revised theory has become a foundational framework for capital structure research (Arnold, 2013).

The real world is dynamic, with ever-changing factors like various costs, interest rates, and market conditions influencing capital structure decisions. Is there an ideal capital structure for a company? Many specialists aim to uncover it, hoping to optimize resource utilization.

The question remains: can optimizing capital structure genuinely enhance a firm's value? Marks and Spencer plc, a renowned UK-based retailer with a global presence spanning 1,382 stores, has a rich history of over a century, making it a symbol of British quality. Despite this storied legacy, recent data from the company's annual reports for the past three years reveal a mixed financial picture. While there has been a slight increase in group revenue, a concerning trend emerged in 2016. Specifically, the group's profit before tax experienced a significant decline of around 20 %, amounting to a reduction of $450 million. Similarly, basic earnings per share also decreased by 18%, settling at 25.6p. These fluctuations underscore the inherent instability in Marks and Spencer plc's revenue streams, a challenge that many companies face in the dynamic business landscape. To address this volatility and strive for sustainable growth, a well-suited capital structure could be instrumental. However, determining the optimal capital structure for a real-world company like Marks and Spencer plc is a complex undertaking. Nonetheless, the pursuit of an effective capital structure holds the potential to enhance the firm's value and establish a positive feedback loop, contributing to more stable revenues and sustained growth. In this context, the dynamic nature of capital structure and its application to a specific company like Marks and Spencer plc presents both a challenge and an opportunity (Marks and Spencer annual reports, 2014-2016). Marks and Spencer Plc places a strong emphasis on quality, choice, and innovation, particularly within its food business segment, which constitutes approximately 60% of its total turnover. The company's diverse offerings extend beyond food to encompass men's, women's, and children's clothing, beauty products, and home goods. Notably, Marks and Spencer Plc holds the distinction of being the largest clothing retailer in the UK for Women's Wear, Men's Wear, and Lingerie. One of the key drivers of its international success lies in its flexible business models, including owned, franchise, and joint venture operations. Additionally, Marks and Spencer Plc takes corporate responsibility seriously, exemplified by initiatives like Plan A. This sustainability-focused program centers on responsible sourcing, energy conservation, waste reduction, and community engagement, contributing to the company's positive reputation among consumers. Interestingly, Marks and Spencer Plc has historically relied on goodwill rather than traditional TV advertising to attract customers. It wasn't until the 1990s that the company ventured into clothing advertisements. The company has nurtured close relationships with its suppliers and sells both food and clothing under the 'St Michael' brand, a registered trademark dating back to 1928. Moreover, Marks and Spencer Plc offers a customer-centric satisfaction guarantee. If customers are dissatisfied with their purchase, they can receive a full refund with their receipt. This commitment to customer service has proven effective in capturing customer attention and loyalty. Notably, around 80% of the products within Marks and Spencer are marketed under their self-owned 'St Michael' brand. This strategic move not only reduces unnecessary costs like agency fees but also provides greater control over product quality and quantity (Marks and Spencer annual report).

Marks and Spencer plc faces challenges from competitors in the retail industry. However, the company has remained adaptable, particularly in the realm of online shopping, which has contributed around £600 million annually to its revenue (Marks and Spencer annual report 2015). In 2014, there were some fluctuations in sales figures. While food sales increased by 1.7%, clothing sales decreased by approximately 1.4%. Other product categories also experienced slight declines, presenting a somewhat challenging scenario for Marks and Spencer plc.

Marc Bolland, the Chief Finance Officer of Marks and Spencer plc, expressed satisfaction with the company's performance in the challenging market of 2014 (Marks and Spencer annual report, 2014). The company saw modest increases in delivery sales and underlying earnings per share, with basic earnings per share rising by 4.2p per share, a 14.8% increase. In this year, Marks and Spencer plc also focused on collaborating with suppliers to achieve greater efficiency. From the 2014 annual report, it is evident that Marks and Spencer plc saw increased profits from M&S.com and international operations, which grew by 22.8% and 7.3% respectively. Consequently, Marks and Spencer plc decided to invest further in these areas for the long term. To maintain balance sheet flexibility, the company reduced net debt from £2.61 billion to £2.46 billion.

In 2015, Chief Financial Officer Helen Weir emphasized the importance of strong financial discipline in running the business (Marks and Spencer plc annual report, 2015). This year marked significant progress, with delivery sales reaching £10.3 billion and underlying profit reaching £661.2 million. The company achieved improved returns for shareholders, paying a total dividend of 18.0p and experiencing significant share price growth. Regarding capital management, Marks and Spencer plc continued its efforts to generate strong cash flow, reducing net debt by £240.4 million and cutting capital expenditure to £526.6 million, down by £183.0 million. The full-year underlying effective tax rate was 18.9%, resulting in total taxation of £767 million, a decrease from 2014 (£803 million), with business rates comprising the largest portion (23%).

In 2016, CFO Helen Weir maintained her focus on delivering profit for shareholders while preserving cash flow flexibility. The company adopted several strategies, including prioritizing food sales growth, improving clothing and home performance, enhancing the gross margin for clothing and home products, and continuing to generate cash flow. While M&S paid a final dividend of 18.7p (an increase of 0.7p), basic earnings per share decreased to 24.6p (a reduction of 17.2%), presenting mixed results for Marks and Spencer plc (Marks and Spencer plc annual report 2016).

2. Literature Review

The blend of debt and equity financing employed by a firm is referred to as its capital structure (Arnold, 2013). This capital structure encompasses a range of financial elements, including debt, equity, and convertible bonds. Companies have the flexibility to issue various securities in different combinations to enhance their overall market value (Brealey, Myers, & Allen, 2014). Consequently, many experts dedicate their efforts to discovering an optimal capital structure that can maximize profits.

Cash flow is a vital resource for increasing a firm's value. When a company utilizes both debt and equity to finance its operations, it results in two distinct streams of cash flow: one for the debt holders and another for the equity investors. This approach of blending debt and equity financing is what we call capital structure (Arnold, 2013). Over time, numerous specialists have delved into exploring the relationship

between a firm's value and its capital structure, recognizing that the quality of the chosen capital structure can significantly impact a company's overall value.

Modigliani and Miller's groundbreaking proposition in 1963 asserted that, in a tax-free world, a firm's value remains unaffected by its capital structure—an idealized scenario. However, in the real world where taxes exist, the capital structure indeed wields influence over a company's market value.

2.1. WACC

The Weighted Average Cost of Capital (WACC) is a critical financial metric that represents the average rate of return a company expects to provide to all its various investors and financial activities. It takes into account the weights of each financing source in the firm's capital structure, reflecting their proportional contribution to the overall capital.

To calculate the firm's value using the WACC, you typically use the company's projected or expected future cash flows and divide them by the cost of capital (WACC). The formula for calculating WACC is as follows:

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

V: market value

$\overline{X}$: Except value

D: debt,

E: the equity

This formula can be simplified as:

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

Indeed, according to the formula for WACC, assuming that the future cash flows remain constant, an increase in the cost of capital will result in a decrease in the company's value. This relationship highlights the critical role that the cost of capital plays in determining a company's overall worth. As Miles and Ezzell (1980) pointed out, if the WACC remains unchanged, variations in the cash flow generated by the company become the sole factor influencing its total value. In such a scenario, the company's capital structure becomes less relevant.

The concept of capital structure and its impact on firm value was initially introduced in the academic arena by financial economists Modigliani and Miller in their groundbreaking work in 1958. They developed financial models based on certain assumptions, one of which was that increasing debt would lead to a rise in the cost of equity. Their theory proposed that if the WACC remained constant, the only factor capable of affecting a firm's value was its cash flow from operations or other profit-generating activities. In essence, under this theory, capital structure became irrelevant, and the primary means for companies to increase shareholder wealth was by making sound investment decisions. This foundational concept is known as MM's first proposition (Arnold, 2012).

MM's first proposition states that a firm's total market value is unaffected by its capital structure. The firm's value is determined by its net present value (NPV), which is calculated using the formula:

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

The weighted average cost of capital (WACC) represents the rate at which a company compensates its shareholders (Femandes, 2014). The firm's cost of capital hinges on two primary factors. The first factor is the cost of capital associated with meeting the expected returns of ordinary shareholders. The second factor pertains to the opportunity cost of capital needed to meet the expected returns of lenders (Kd). This relationship can be expressed through the following formula:

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

We= proportion of equity finance to total finance =

$$\frac{Debt}{Equity+Debt}$$

Wd= proportion of debt finance to total finance =

$$\frac{Equity}{Equity+Debt}$$

The proposition that changes in a company's gearing level do not impact shareholder value when the Weighted Average Cost of Capital (WACC) remains constant is based on a series of idealized assumptions. However, it's essential to acknowledge that these assumptions don't align with the complexities of the real world:

1. Taxation: In reality, corporate taxes exist and can affect the cost of debt, making it a relevant factor in capital structure decisions.
2. Market Imperfections: Real-world markets are not perfectly efficient, and information is not always equally accessible to all participants, leading to information asymmetry.
3. Transaction Costs: Transactions in the financial markets involve various costs, including brokerage fees, legal expenses, and other transaction-related expenses.
4. Financial Distress: Firms facing financial distress often incur significant costs, such as legal fees, restructuring expenses, and potential loss of reputation.
5. Risk Variation: Firms may not neatly fall into distinct risk classes, as risk factors can be complex and dynamic.

Differential Borrowing Costs: Individuals and companies may encounter different borrowing costs due to variations in creditworthiness and other factors. Given these real-world complexities, the assumption that changes in gearing levels have no impact on shareholder value when WACC is constant doesn't hold true in practice. In the real business environment, capital structure decisions can significantly affect a firm's overall value, taking into account factors such as taxation, market dynamics, transaction costs, and financial risks.

2.2. MM theory

Modigliani and Miller (MM) introduced a significant shift in their theory in 1963 by considering the impact of corporate

taxes. When corporate taxes are factored in, the interest on debt becomes tax-deductible, leading to an increase in tax savings as debt levels rise. Consequently, the total firm value experiences an upward trend, establishing a positive correlation between debt and firm value. This development is known as MM's second proposition. However, when personal taxes are considered, the proposition undergoes further changes. With personal taxes in the picture, a company's goal extends beyond reducing operational taxes to also encompass minimizing taxes for creditors and shareholders (Brealey, Myers & Allen, 2014).

The evolution of Modigliani and Miller's theory unfolds in three stages. The initial stage, devoid of taxation considerations, establishes that a company's market value is independent of its capital structure, rendering capital structure irrelevant to the total market value. In the second stage, corporate taxes are introduced, revealing that as a company takes on more debt, the weighted average cost of capital (WACC) decreases, leading to an increase in the company's value (Brealey, Myers & Allen, 2014). This phase highlights the relationship between market value and capital structure, with debt being a positive factor for increasing a company's value. The third and final stage incorporates individual income tax considerations, concluding that when a company carries 100% debt, its market value reaches its peak. Modigliani and Miller's theory underscores the influence of debt on market value, suggesting that a rational debt ratio can assist a company in achieving an optimal financial structure (Brealey, Myers & Allen, 2014).

However, it's essential to acknowledge several limitations of the MM theory that may impact research methods. Firstly, the theory's foundational assumptions can be considered overly restrictive. For instance, it assumes that individuals and businesses can borrow money at the same interest rate, which does not align with reality. In practice, interest rates for individual borrowers are typically higher than those for businesses. Additionally, the assumption of unlimited liability can introduce a degree of error.

Secondly, the MM theory primarily operates from a static perspective and does not account for changes in the economic environment or business circumstances, or other dynamic factors. This limitation can result in the theory overlooking variable factors that influence capital structure. For example, when the overall economic climate shifts from prosperity to downturn, companies may need to reduce debt to mitigate risk.

Thirdly, the theory lacks empirical evidence to substantiate its claims. Despite extensive research efforts by experts to explore the factors influencing capital structure, the results often fail to provide clear support for the MM theory. This absence of robust empirical support represents a significant shortcoming within the Modigliani and Miller theory.

2.3. Tax

Taxation plays a pivotal role in a company's capital structure decisions, as it represents a significant cost that most companies aim to minimize. Debt interest, being tax-deductible, is often preferred over taxation, leading many companies to prioritize paying debt interest over corporate taxes (Arnold, 2012). This preference arises from the way profits are allocated within a company. The interest paid to investors takes precedence and is deducted from profits before corporate taxes are applied. Consequently, interest payments result in extra profits, often referred to as tax-saving profits or tax shields, which directly impact a company's capital structure and overall value (Brealey, Myers & Allen, 2014).

When a company primarily finances its operations with debt capital, the weighted average cost of capital (WACC) reaches its lowest point, and the benefits from tax shields are maximized. At this juncture, the firm achieves its highest market value, and ordinary shareholders reap the maximum profits. However, it's important to note that while maximizing debt can yield substantial financial advantages, it also introduces significant risk for companies in the real world. Therefore, the pursuit of the highest possible debt level must be balanced with the associated risks (Arnold, 2012). In addition to the tax shield's impact on optimizing capital structure, debt financing itself offers advantages. Debt financing tends to be cheaper than equity financing (Pilbeam, 2010). Debt holders typically require a lower rate of return compared to equity investors, resulting in cost savings for the company. When the company generates profits, it incurs lower costs for debt capital than for equity. Furthermore, the transaction fees associated with debt financing are generally lower than those for equity financing.

2.4. Gearing level

Gearing level is a crucial financial metric that denotes the relationship between a company's debt level and its equity. It quantifies the extent to which a company relies on debt for financing its operations. For example, if a company's gearing ratio is 80%, it means that 80% of its capital is sourced from debt. This metric holds significant weight when it comes to decisions by lenders to extend credit to a company, as it informs them about the company's debt burden and its capacity to manage its financial obligations. Moreover, gearing level is not merely an indicator of a company's financial health; it also influences the decisions of investors and shareholders.

Excessive leverage, signified by a high gearing ratio, poses a greater risk of financial distress. Debt incurs interest costs, and when a company significantly increases its debt-to-equity ratio, it escalates the risk of financial instability. High liabilities translate to higher interest expenses, potentially eroding a company's revenue. In dire situations, a company may find it challenging or even impossible to meet its debt obligations, leading to bankruptcy (Brealey, Richard, Myers & Stewart, 2008).

Financial distress has far-reaching consequences, impacting various stakeholders. Shareholders lose confidence and may divest their holdings, customers may abandon the company in favor of competitors, and suppliers may terminate contracts to mitigate potential losses. Shareholders demand higher returns due to increased risk, and talented employees may seek opportunities elsewhere, leading to a loss of valuable human capital. Financially distressed companies often resort to selling assets at reduced prices to maintain operations, further depleting their value. Cash flows become constrained, and profits decline. This cascade of problems creates a vicious cycle that can ultimately lead to bankruptcy, resulting in various additional costs, such as losses from selling assets at reduced prices, legal fees, and litigation expenses (Arnold, 2012).

While maximizing tax-saving profits is important, there is a limit. As a company's debt increases, so do relative costs. In some cases, the additional costs and losses incurred may surpass the tax-saving benefits. Tax shields, which offset

interest expenses, are crucial in financial theory. Companies are typically required to pay interest expenses before corporate taxes are calculated on surplus profits. In 1963, Modigliani and Miller published "Corporate Income Taxes and the Cost of Capital: A Correction" to refine their original theory. They recognized that the capital structure indeed influences a company's value, especially in the context of corporate taxes. When considering corporate tax, the capital structure affects the overall value of a firm (Arnold, 2013).

2.5. Static trade-off theory

The static trade-off theory posits that a company's optimal capital structure is achieved when the tax-saving benefits from debt equal the net present value of bankruptcy costs. This theory, also known as the static trade-off theory, was proposed by Jensen and Meckling in 1976. It considers two primary costs: the cost of financial distress and agency costs, which have the potential to decrease a firm's overall value while increasing its debt. The static trade-off theory plays a critical role in the optimization of a company's capital structure.

When a company takes on more debt, it escalates the risk of financial distress. This implies that the company may struggle or even be unable to meet its interest payments to creditors (Brealey, Richard, Myers & Stewart, 2008). Financial distress carries various adverse costs, influenced by a multitude of factors. For instance, financial distress can trigger a response in a company's revenue. If a company's revenues are highly sensitive to changes in earnings, shareholders may become more inclined to sell their stock. Sensitive revenues are inherently unstable and can potentially lead to financial distress. Another factor is the ratio of variable costs. When a company adopts a high gearing level, investors may demand higher returns (Brealey, Richard, Myers & Stewart, 2008). These relative factors can increase or decrease a company's profits. If a company's performance begins to deteriorate, shareholders may lose faith in the company's future and feel that they cannot achieve their expected profits, prompting them to sell their stock. However, shareholders may not have full insight into the company's strategy. The company might be generating more tax-saving profits, and these additional variable costs could be lower than the tax-saving profits. In other words, variable costs represent unforeseen factors that may influence shareholders' decisions.

The liquidity and marketability of a firm's assets also influence distress costs. Many investors are risk-averse and avoid high-risk investments, believing that selling their investments can yield greater profits than high-risk returns. These selling decisions can result in a revenue shortfall for the company, ultimately affecting its strategic decisions.

2.6. Agency Cost

As the modern market economy evolves, the challenges of managing a company become increasingly complex (Jensen, Michael C., Meckling, William H., 1976). Typically, the owners of a company do not possess the specialized knowledge required to manage every aspect of the business. Consequently, owners often hire professionals to oversee various departments such as human resources, marketing, and accounting. While this division of labor can be highly efficient and beneficial, it also introduces inherent challenges. One of these challenges is the misalignment of interests between agents and owners, commonly referred to as agency costs or the principal-agent problem (Jensen, Michael C., Meckling, William H., 1976).

Agency costs are a significant factor influencing a firm's value. Information asymmetry and differing objectives between shareholders and managers exemplify a classic agency problem. In this context, the manager acts as the agent working on behalf of the principal, who can be the owners or shareholders. This asymmetrical relationship can lead to several problems (Arnold, 2012). Company owners aim to increase the firm's value and garner support from other shareholders while keeping the value as high as possible. However, managers may not be shareholders or may not hold significant shares, and their primary motivation may be personal gain. Managers raise funds from investors and commit to investing these funds to enhance shareholder value. Yet, they might divert these funds into areas that do not immediately increase shareholder value. Managers' performance is often measured by their benefits, such as salary and bonuses, rather than shareholders' value. Consequently, their decisions may not align with the interests of shareholders and can even jeopardize shareholder value. Furthermore, managers may demand lavish treatment, such as comfortable office spaces and private drivers, leading to excessive expenditure, which can negatively impact the company's value (Michael C. Jensen & William H. Meckling, 1976).

Owners frequently hire experts to manage their companies effectively. This rational division of labor usually results in mutually beneficial outcomes. Owners profit from the excellent management of their experts, while experts (agents) receive desirable material rewards, including salaries and benefits, from company owners. However, this division of labor can also lead to adverse effects. Shareholders seek to increase the firm's value, but experts (managers) may not be shareholders and may prioritize their personal gain over shareholder value. For instance, in addition to their wages, managers (agents) may benefit from their discretionary expenditures (Arnold, 2012). This practice can significantly impact the company's value.

Tax shield plays a pivotal role in MM theory as it highlights how taxation offsets the interest paid by a company. Firms must pay interest fees before settling their taxes using surplus profits. Consequently, in 1963, Modigliani and Miller published "Corporate Income Taxes and the Cost of Capital: A Correction" to refine their original theory. They proposed that capital structure does influence a company's value, particularly emphasizing how a high gearing level can yield tax-saving profits. In the absence of tax considerations, capital structure does not affect a company's value according to MM theory. However, once corporate taxes are considered, the capital structure's impact on a firm's total value becomes apparent (Arnold, 2013).

2.7. Pecking Order Theory

In 2014, Rettl and Whited emphasized that different financial theories are applicable under varying conditions that companies face. Leary and Roberts (2010) further argue that while the pecking order theory can explain a significant portion of a company's financing choices, it may not be suitable for all situations. Moreover, there are specific instances when companies intentionally increase their leverage, meaning they take on more debt, in order to benefit from short-term tax advantages. However, these deliberate actions may not align with long-term financial strategies and can introduce unexpected complexities into research

outcomes.

In practice, many financial activities do not precisely align with theoretical frameworks. For example, small companies may lack the authority or capability to issue significant amounts of debt. Even if they have the authority, they may choose to issue only small amounts of debt due to concerns about the potential consequences of excessive debt in the event of financial distress (Rettl & Whited, 2014). It's important to recognize that real-world financial decisions are influenced by a multitude of factors, and companies often tailor their financing choices to their specific circumstances and objectives. This complexity underscores the need for a nuanced understanding of financial theory and its practical applications.

2.8. Conclusion

Achieving the optimal capital structure is a complex task influenced by various factors. According to MM theory, there's no universal "optimal" structure, while the trade-off theory suggests that an ideal structure does exist. The pecking order theory (Myers & Majluf, 1984) offers insights into financing choices. It highlights the advantages of internal financing, controlled by the board of directors, as it is less affected by external factors and typically has lower costs. In contrast, external and indirect financing methods tend to have higher costs.

The proportion of debt within a company plays a crucial role in determining both the cost of capital and profitability. When a company carries a high debt load, the weighted average cost of capital can decrease, leading to increased firm value. However, beyond a certain point, the benefits of tax-saving profits (tax shield) may be outweighed by interest fees, resulting in a decrease in total market value. Consequently, companies must carefully analyze their unique financial circumstances to determine their optimal capital structure.

In conclusion, the search for the perfect capital structure is a nuanced endeavor, with no one-size-fits-all solution. Companies must tailor their capital structure to their specific financial conditions to maximize their overall value.

3. Methodology

3.1 Primary research

Primary research employs various methods, such as distributing questionnaires. This approach offers several advantages, including cost-effectiveness and efficiency (Bryman & Bell, 2011). Questionnaires can be disseminated to a large number of participants quickly. However, there are drawbacks to this method. Respondents may not return the questionnaires promptly, and some might even refuse to participate, posing challenges. Another advantage is that it eliminates interviewer effects and variability, as questionnaires maintain consistency in the way questions are presented (Zikmund, 1997).

Despite its benefits, handing out questionnaires has its disadvantages. Respondents cannot seek immediate clarification if they have questions, and they cannot ask additional questions, potentially impacting the final results. Furthermore, anonymity can be a drawback, as researchers may not know who completed the questionnaire or gather details about the respondents' demographics and occupations, which could affect the outcomes (Bryman & Bell, 2011).

3.2. Secondary research

Data is a crucial resource in research, and one valuable method for analysis is database analysis, which can greatly enhance research accuracy and provide authentic evidence (Bryman & Bell, 2011).

Secondary analysis is a research approach where researchers do not participate in data collection and do not bear responsibility for it (Bryman & Bell, 2011). In business and management, secondary analysis is vital, as it allows researchers to draw conclusions and uncover relationships within the data provided by respondents.

Secondary analysis offers several advantages. Firstly, it saves both time and costs. Researchers can easily access relevant data on websites or through other channels rather than collecting it themselves. Primary research methods, such as distributing questionnaires, often incur substantial costs, which secondary research can bypass. Secondly, data from sources like annual reports or articles tends to be highly reliable. Most frequently used datasets for secondary analysis are of extremely high quality, as the data collection process is rigorous. Additionally, organizations responsible for these datasets prioritize data accuracy. Moreover, the samples often cover a wide range of regions and years, providing a wealth of useful information. These datasets are typically generated and curated by experts with significant experience in the field. Some datasets are even collected by specialized organizations, further enhancing data accuracy and quality. Thirdly, secondary analysis offers opportunities for longitudinal research. Data changes over time, making it challenging to establish trends. However, secondary analysis can provide insights into these trends, such as analyzing a company's revenue over ten years to predict future performance. Fourthly, it allows for subgroup and subset analysis. When dealing with a large dataset, researchers can optimize subgroup information. Lastly, secondary analysis is well-suited for cross-cultural research. In a globalized world with cultural differences, primary research methods can be hindered by language and cultural barriers, leading to incorrect results. In contrast, secondary analysis can provide direct information without these hindrances. Additionally, secondary analysis provides more time for data analysis, as data collection is usually a time-consuming task. It helps researchers obtain high-quality results from different sources.

Despite these advantages, secondary research has limitations. Researchers may not be familiar with the data collected by others, requiring time for understanding its source and context. The complexity of some datasets can be overwhelming, as they contain vast amounts of information related to respondents and variables. Researchers must decide at which level of analysis to use the data. Quality control for secondary data can be challenging, as it is collected by others, potentially containing false information. The absence of key variables in secondary data can also be problematic, as it may not align with the researcher's specific requirements.

In this research, secondary research using Marks and Spencer plc's annual report data is chosen as the primary method. This choice is supported by the availability of data related to non-current liabilities and cash flow. However, secondary research has its limitations, such as the potential for incomplete or inaccurate information, and the complexity of the data can pose challenges in the analysis.

4. Data Presentation and Discussion

Marks and Spencer plc's annual report offers valuable financial data for assessing the firm's value. Data from its balance sheet, including current liabilities, long-term

liabilities, and shareholders' funds, will be used to estimate the weighted average cost of capital (WACC) and explore its gearing level.

However, before calculating WACC and gearing level, it's crucial to delve into some financial information and events that have impacted Marks and Spencer plc. Understanding these events and how they influence the company's financial structure is essential.

Revenue, the profit generated from business activities such as selling goods or providing services, is a fundamental metric for evaluating a company's performance. Operating profit, or earnings before interest and taxes (EBIT), provides insights into a company's financial status before considering taxes. Income tax expenses, assets, liabilities, and equity will also be analyzed to understand their impact on the firm's value. The financial statements from 2014 to 2016 within Marks and Spencer plc will be examined to extract essential insights (refer to Table 1).

Table 1: Marks and spencer's Plc financial statement extract

	2014	2015	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's Plc annual report 2014, 2015, 2016

From the financial statement provided, it's evident that revenue has shown consistent growth over these three years. This stable revenue trajectory indicates that the company's operations remain healthy, enabling them to maintain sufficient cash flow for investments, debt repayment, and infrastructure development. Generally, steady revenue with slight increases is a positive indicator for Marks and Spencer plc.

Operating profit, often referred to as earnings before interest and taxes (EBIT), represents the profit generated from a company's core business operations, excluding income from investment activities. EBIT serves as a reflection of the company's earnings capacity and operational efficiency, providing a direct measure of profitability while excluding extraneous factors. However, it's important to note that Marks and Spencer Plc's operating profit has not exhibited stability over these three years (2014-2016), particularly in 2016 when it experienced a 20% decrease compared to 2015. This suggests that events occurring in 2016 had a significant impact on its operational performance.

Profit before tax is another metric used to assess a company's profitability, focusing on earnings before accounting for taxes. It is also referred to as "earnings before tax." This profit figure encompasses all earnings prior to taxation and offers insights into how taxes affect the company's overall income.

Assets represent the economic resources owned by a company, corporation, or individual, and they are a fundamental component of a company's balance sheet. The value of assets is influenced by the company's overall value and its operational activities. Assets can encompass various forms, including cash flows or benefits expected in the future, manufacturing equipment, or specific technologies. They can be broadly categorized into short-term and long-term assets, providing a direct reflection of the company's value. Over the period from 2014 to 2016, Marks and Spencer plc witnessed a continuous increase in its assets, indicating a transformation of cash flow into assets, which contributes to the enhancement of the company's overall value.

Liabilities, on the other hand, represent a company's financial debts and can be categorized into two main types: current liabilities and non-current liabilities. Liabilities hold significant importance for a company's operations, as they represent costs that impact the company's overall value. Excessive liabilities can lead to increased financial burdens. However, having some level of liabilities can also be beneficial, as it signifies that the company has secured resources to create value. In these three years, Marks and Spencer managed to control its liabilities to around £500 million, contributing to the stability of the company's financial structure.

Equity is calculated as the value of assets minus liabilities, offering an alternative perspective on a company's operations. Sustainable growth in equity is a positive signal for Marks and Spencer plc. An analysis of Marks and Spencer plc's financial statements over the three-year period reveals an increasing trend in assets and revenue. While other factors exhibited fluctuations, these changes could be attributed to the company's annual strategies. However, from a macroscopic perspective, no significant events appear to have occurred at Marks and Spencer plc during this period.

In 2014, Marks and Spencer plc implemented several strategic initiatives that had notable impacts on its financial position. Firstly, there was a strategic focus on "investing in the future." This involved increasing investments in online

and international operations due to their high potential for returns. However, this strategy also incurred higher costs related to building the brand culture, necessitating adjustments in the company's capital expenditure (capex) strategy.

The second strategy, "creating flexible infrastructure – fit for the future," aimed to enhance the company's delivery capabilities. Marks and Spencer plc completed the development of its independent delivery platform in February 2014, reducing dependency on external services like Amazon. This new technology system allowed for more agile responses to changing consumer demands. In particular, it improved product delivery efficiency during peak periods, such as the holiday season, thereby boosting sales.

The third strategy was centered on "strengthening the financial position." The company financed its investments using existing cash flows while simultaneously reducing net debt from £2.61 billion to £2.46 billion. This approach aimed to maintain a strong balance sheet and financial flexibility.

Lastly, Marks and Spencer plc placed a strong emphasis on "sustainable reporting." Through its Plan A initiative, the company sought to create value through sustainable business practices. This project focused on environmental protection and job creation in developing countries. Over the years, Marks and Spencer plc had invested significantly in this project, and in 2014 alone, it generated a net benefit of £145 million reinvested back into the business (Marks and Spencer plc annual report, 2014).

Marketplace dynamics played a significant role in influencing the total value of Marks and Spencer plc. In 2014, the economic environment in the UK was characterized by positivity, with a 2.7% increase in Gross Domestic Product (GDP), moderate inflation rates, and a slight rise in employment rates. These factors contributed to increased consumer confidence. However, it's important to note that heightened consumer confidence doesn't always translate into increased purchasing behavior, making the marketplace a macroscopic factor that can impact a company's performance.

Within Marks and Spencer plc, different segments bore various responsibilities in response to these marketplace changes. While the overall clothing market experienced growth in the UK, consumers became more price-conscious. They sought to balance quality and affordability in their purchases and looked for "better and best" items at competitive prices (Marks and Spencer plc annual report, 2014). To adapt to this shift in consumer behavior, Marks and Spencer plc adjusted its clothing strategies in 2014. They focused on enhancing product quality, improving clothing design, and incorporating luxurious materials such as leather, silk, and cashmere. These strategic changes catered to consumer preferences for high-quality items at reasonable prices.

In the food segment, customers continued to prioritize value in their shopping experiences. Marks and Spencer plc responded by consistently reducing food prices while maintaining restaurant-quality and competitively priced food offerings. These efforts helped attract a large customer base to Marks and Spencer plc's food offerings, ensuring steady business in this segment (Marks and Spencer plc annual report, 2014).

Table 2: Marks and spencer's 2014 financial statement extract

	29 Mar 2014 (£m)	30 March 2013 (£m)	variance %
Group revenue	10309.7	10026.8	2.8
UK	9155.7	8951.4	2.3
International	1154	1075.4	7.3
Underlying operating profit	741.9	778.6	-4.7
UK	619.2	658.4	-6.0
International	122.7	120.2	2.1
Underlying profit before tax	622.9	648.1	-3.9
Non-underlying items	-42.5	-100.9	57
Profit before tax	580.4	547.2	6.1
Underlying basic earnings per share	32.2p	31.9p	0.9
Basic earnings per share	32.5p	28.3p	14.8
dividend per share	17.0p	17.0p	

***Resource*:** Marks and spencer's Plc annual report 2014

Table 2 provides an excerpt from Marks and Spencer's 2014 financial statement, outlining key financial figures for the year ended March 29, 2014, and comparing them to the previous year (year ended March 30, 2013). Below is an analysis of the revenues and profitability based on this financial data:

Group Revenue: Marks and Spencer reported a total group revenue of £10,309.7 million in 2014, representing a 2.8% increase from the previous year. This growth is a positive sign and indicates an expansion of the company's overall business.

UK Revenue: The revenue generated from the UK market amounted to £9,155.7 million, a 2.3% increase from the previous year. This indicates steady growth in Marks and Spencer's domestic market.

International Revenue: Revenue from international markets reached £1,154 million, showing substantial growth of 7.3% compared to the previous year. This suggests that Marks and Spencer's international expansion efforts were successful

during this period.

Underlying Operating Profit: The underlying operating profit for the group was £741.9 million in 2014, marking a decrease of 4.7% from the previous year. This decrease may be attributed to various operational factors, and further investigation is needed to understand the specific causes.

UK Underlying Operating Profit: In the UK, the underlying operating profit was £619.2 million, reflecting a 6.0% decrease from the previous year. This decline in profitability within the UK market is a point of concern and requires closer examination.

International Underlying Operating Profit: The international segment reported an underlying operating profit of £122.7 million, representing a 2.1% increase from the previous year. This suggests that international operations were relatively more profitable during this period.

Underlying Profit Before Tax: The underlying profit before tax for the group was £622.9 million, down by 3.9% from the previous year. This decrease indicates that the company faced challenges in maintaining its pre-tax profitability.

Non-Underlying Items: Non-underlying items resulted in a negative impact of £42.5 million on profits, which is significantly less than the negative impact of £100.9 million in the previous year. This reduction in non-underlying items is a positive development.

Profit Before Tax: Marks and Spencer reported a profit before tax of £580.4 million, a 6.1% increase from the previous year. This increase in profitability is a noteworthy achievement.

Earnings Per Share (EPS): The underlying basic earnings per share (EPS) were 32.2p, showing a modest increase of 0.9% from the previous year. Basic EPS, which includes all factors, increased significantly by 14.8%, reaching 32.5p. This suggests improved earnings attributable to shareholders.

Dividend Per Share: The dividend per share remained unchanged at 17.0p, indicating that the company maintained its dividend payout to shareholders.

In summary, Marks and Spencer experienced overall revenue growth, particularly in international markets, during the financial year 2014. However, there were challenges in maintaining profitability, especially in the UK market. Non-underlying items had a less negative impact, and the company reported increased profit before tax. These financial figures indicate a mixed performance, and further analysis is required to understand the factors influencing these results in greater detail.

To enhance M&S.com's service, Marks and Spencer plc made a substantial investment of approximately £100 million, focusing on bolstering its multi-channel capabilities. This included the launch of a new website in February 2014.

To strengthen its brand influence, Marks and Spencer plc expanded its selling space in the UK by 1.8%, which involved adding 28 new food stores. Internationally, they increased their selling space by 10%.

Recognizing the pivotal role of the supply chain in its strategy, Marks and Spencer plc invested significantly in supply chain improvements and technology enhancements to facilitate future business growth. This expenditure not only served to optimize their supply chain but also fostered positive relationships with suppliers, mitigating associated risks.

The investment in technology specifically aimed at reducing delivery costs and times, with expectations of yielding greater benefits in the future.

Marks and Spencer plc strategically extended its store network to encompass a diverse range of locations, with a focus on city centers and travel hubs. This geographical spread ensured convenience for customers. Additionally, they continued to update in-store facilities and their web platform to enhance the shopping experience. The company's financial management system played a crucial role in cost control, guiding their investment decisions to minimize risks and maximize profits. Importantly, all investment activities were self-funded and adhered to strict financial discipline.

Marks and Spencer plc emphasized building and nurturing relationships with suppliers, collaborating closely throughout the product lifecycle. They were also committed to social responsibility, with over 3,000 product and material suppliers adhering to Global Sourcing Principles, reflecting a shared commitment to environmental protection. Furthermore, the company prioritized its relationship with employees, providing high-standard training and development opportunities. Regularly organized activities enriched employees' lives and fostered a sense of community.

Social responsibility was integral to Marks and Spencer plc's operations. They actively encouraged employees to participate in charity events, even opening stores for such purposes. The company engaged customers in Plan A, promoting their involvement in charitable initiatives. In 2014, Marks and Spencer plc's employees and customers collectively raised £4.2 million for charities and contributed around 4 million pieces of clothing to be donated to underprivileged families.

According to Marc Bolland, the Chief Executive of Marks and Spencer plc, the company's transformation was described as an incremental process, with significant milestones achieved in preparation for the evolving retail landscape. In 2014, sales increased by 2.7%, with clear signs of progress in the clothing business, including advancements in quality. The food business, a major focus area, saw significant growth across new stores, M&S.com, and international markets.

Key highlights of their 2014 performance included impressive growth in food business (£5.1 billion, up by 4.2%) and strong international division performance (£1.2 billion, up by 6.2%). Additionally, their successful innovations in M&S.com resulted in a 22.8% increase in online sales. Despite positive growth in clothing sales, the company's designers remained committed to creating diverse styles to cater to customer preferences.

Over the preceding three years leading up to 2014, Marks and Spencer plc shifted its focus to becoming a customer-centric company. They invested in upgrading store facilities and environments to enhance the overall shopping experience, while their new website design aimed to streamline the online shopping process. Looking ahead, Marks and Spencer's future plans included continued emphasis on infrastructure development, the improvement of store facilities, and the creation of a more comfortable shopping environment. Quality and style remained paramount in their clothing division, with designers dedicated to meeting customer demands. Moreover, Marks and Spencer plc sought to collaborate with high-quality fabric suppliers in Asia to enhance the quality of their clothing products.

In terms of future plans, Marks and Spencer plc intended to open approximately 150 new food stores in the UK over the next three years while maintaining a commitment to offering value-driven products and exceptional service. The robust growth experienced in international markets confirmed the validity of their international expansion strategy, with plans

to open 250 new stores worldwide over the next three years. Expansion activities would persist in overseas markets, with a belief that investing in international markets carried low risk but promised high returns, not just in terms of profits but also brand influence. Additionally, there were considerations for expanding food stores in Western Europe.

Regarding M&S.com, the platform's functionality and infrastructure were deemed ready for the future. The company recognized the growing importance of online shopping and aimed to position M&S.com as a profitable modern distribution channel. To achieve this, they planned to make further investments in the online platform, incorporating elements such as brand culture, history, and events.

In the financial realm, the significant investment phase had concluded, and capital expenditure was expected to decrease. The focus for the financial department would shift towards cost reduction while safeguarding the firm's value.

4.1. 2015 Annual report analysis

In the 2015 financial report of Marks and Spencer plc, Helen Weir, the Chief Finance Officer (CFO), emphasized the importance of strong financial disciplines in their business operations. During this year, Marks and Spencer plc made significant advancements in its delivery system, with a turnover of £10.3 billion and an underlying profit growth of 6.1% to reach £661.2 million. Their financial management was at the core of their strategic activities, successfully accomplishing tasks related to cash generation and shareholder returns, resulting in a total dividend of 18.0p, marking significant growth during this period.

In the UK, the food division's revenue increased by 3.4% to £5.2 billion. However, M&S.com sales experienced a decrease of 2% to £636.5 million, and UK operating costs rose by 1.5%. While international markets continued to perform well, there were some macroeconomic challenges that significantly affected overseas sales, including adverse euro exchange rates and a challenging consumer environment, leading to a loss of £37.2 million.

Throughout 2015, Marks and Spencer plc continued to focus on effective financial management to reduce debt, resulting in a reduction of £2.4 million. This move improved the company's ability to generate cash and provide more benefits to shareholders.

Building on their recent years of investment, Marks and Spencer plc enhanced their operational capabilities. They concentrated on reducing capital expenditure while improving their financial performance. These positive endeavors led to a cash return of £150 million to shareholders. Investment in infrastructure and property portfolio management remained important tasks in 2015. M&S aimed to update its supply chain system to ensure it could provide high-quality services in the future. Additionally, expanding new stores to meet customer demands and increase their brand's global influence were strategic priorities. To enhance the overall customer purchasing experience, M&S added 1.5% to selling space, opening 67 new stores during the year, with 62 of them belonging to M&S Food. In the coming years, Marks and Spencer plc planned to continue expanding store space and providing more services to customers. The financial report details these developments.

Table 3: Marks and spencer's 2015 financial statement

	29 Mar 2015 (£m)	30 March 2014 (£m)	variance %
Group revenue	10311.4	10309.7	Level
UK	9223.7	9155.7	0.7
International	1088.3	1154	-5.7
Underlying operating profit	762.6	741.9	2.8
UK	670.2	619.2	8.2
International	92.3	122.7	-24.8
Underlying profit before tax	661.2	622.9	6.1
Non-underlying items	-61.2	-42.5	-44.0
Profit before tax	600	580.4	3.4
Underlying basic earnings per share	33.1p	32.2p	2.8
Basic earnings per share	29.7p	32.5p	-8.6
dividend per share	18.0p	17.0p	

***Resource*:** Marks and spencer's Plc annual report 2015

Table 4: Marks and spencer's plc operating cost 2015

	29 Mar 2015 (£m)	29 Mar 2014 (£m)	variance %
Retailing staffing	954.5	978.8	5.1
Retail occupancy	1116.4	1054.4	2.3
Distribution	408.7	445.5	10.0
Marketing and related	167.6	147.7	-4.9
Support	560.2	533.2	0.5
Total	3207.4	3159.6	1.5

***Resource*:** Marks and spencer's Plc annual report 2015

In 2015, Marks and Spencer plc experienced a reduction in staffing costs due to a decrease in the number of employees. While this reduction had a limited impact on the company, it presented an opportunity for Marks and Spencer plc to enhance its human resource capabilities and attract more talent. The costs related to impairments and depreciation of buildings led to an increase in occupancy expenses. Additionally, investments were made to improve the in-store environment, provide more space, and enhance customer satisfaction.

The growth of internet sales and a lower workforce contributed to a reduction in distribution costs. Internet sales showed a consistent increase in benefits year by year, prompting Marks and Spencer plc to allocate more resources to improving online services for customers. The company also prioritized increasing its brand influence, resulting in significant expenditures on creative new TV advertisements. Support costs primarily focused on developing a new website platform and recognizing employees through awards. The growing popularity of internet sales in 2015 led to increased costs related to initiatives such as building a new platform. The reduction in the number of employees contributed to lower staffing costs, as well as a decrease in other distribution-related expenses.

Following the investment period in 2014, Marks and Spencer plc shifted its focus towards delivering more value to customers. This shift involved a reduction in various costs and expenditures, as outlined below:

Table 5: Marks and spencer's plc capital expenditure 2015

	29 Mar 2015 (£m)	29 Mar 2014 (£m)	Variance %
Uk store environment	92.7	163.2	-0.43
New UK stores	63.0	89.4	-0.30
International	37.5	69.0	-0.54
Supply chain and technology	273.8	346.2	-0.79
Maintenance	94.5	73.2	0.29
Supply chain and technology	94.5	67.2	0.41
proceeds from property disposals	-35.4	-25.0	0.42
Total capital expenditure	526.0	710.0	-0.26

***Resource*:** Marks and spencer's Plc annual report 2015

With the exception of maintenance, supply chain, technology, and processing costs, Marks and Spencer plc managed to reduce all other expenses. Notably, costs associated with transport systems and platform maintenance, which initially took up a significant portion, decreased as a result of stringent quality standards for internet sales and transportation. This decrease was considered an investment in efficiency. Furthermore, the costs related to opening new stores, upgrading facilities, and constructing new warehouses saw an increase.

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

In this formula, Ke represents the cost of equity, which reflects the expected return for investors. Since this value cannot be directly obtained from the available data, we will make the assumption that:

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

Kd represents the cost of debt capital, which is the effective rate a company pays on its current debt. Due to variations in

tax regulations and calculation methods, we will make the assumption that:

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

As previously discussed in the literature review, Wd represents the weight of debt, and We represents the weight of equity in the capital structure. Based on this understanding, we can assume the formula to be:

$$Equity\ wighte = \frac{Issued\ capital}{Issued\ share\ capital + Non - current\ liabilities}$$

And

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

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

Table 6: WACC for marks and spencers plc

	2014 £m	2015 £m	2016 £m
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
Weight of debt (Wd)	0.87	0.88	0.88
WACC	0.12482	0.120084	0.124535

***Resource*:** Marks and spencer's Plc 2014-2016 annual report

From this table, it is evident that the weighted average cost of capital remains relatively stable over the course of these three years. To mitigate potential errors related to taxation, cash flow will be considered as the 'net cash inflow from operating activities.' Consequently, it can be calculated as:

Table 7

	2014 £m	2015 £m	2016 £m
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's Plc 2014-2016 annual report

From gearing level calculation

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

We can calculate the data as:

Table 8

	2014 £m	2015 £m	2016 £m
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's Plc 2014-2016 annual report

Then from Table 7 and Table 8, we can calculate gearing level and firm's value:

Table 9

	2014	2015	2016
Gearing level	1.216471	0.632987	0.601673
Firm's value	9049.83	10642.55	9732.2

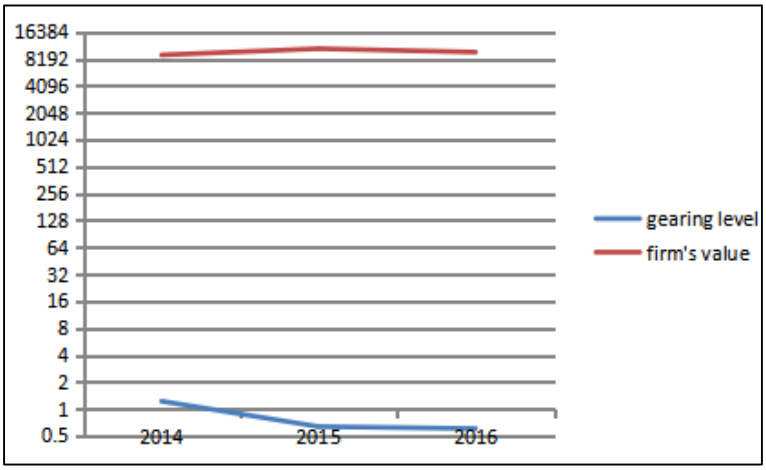

Fig 1

Looking at this graph, it's apparent that the gearing level decreased over the course of these three years. However, there's an interesting observation that firm value increased in the first year and then decreased back to £9,000m in the following year. The relationship between firm value and gearing level doesn't seem straightforward based on this three-year data. To gain a more comprehensive understanding, it would be beneficial to analyze seven years' worth of data for Marks and Spencer plc in the UK region. This extended dataset could provide additional insights.

Table 10: Marks and spencer's financial data in England

	2010	2011	2012	2013	2014	2015	2016
Issued capital	396	396	401	404	408	412	406
Long-term liabilities	3094	2278	2386	2618	2646	2424	2076
interest paid	162	99	137	218	139	117	116
Equity dividends paid	236	248	268	271	274	281	302
cost of equity (Ke)	0.59596	0.62626	0.66833	0.67079	0.67157	0.68204	0.74384
cost of debt (Kb)	0.05236	0.04346	0.05742	0.08327	0.05253	0.04827	0.05588
Weight of equity (We)	0.11347	0.14809	0.14388	0.13369	0.13360	0.14528	0.16358
Weight of debt (Wd)	0.88653	0.85190	0.85612	0.86631	0.86641	0.85473	0.83642
WACC	0.11404	0.12977	0.14532	0.16181	0.13523	0.14034	0.16841

***Resource*:** Marks and spencers.com

Table 11

	2010	2011	2012	2012	2014	2015	2016
cash flow	1350	1203	1095	1095	987	1130	1132
WACC	0.11404	0.12976	0.14531	0.14531	0.13523	0.14033	0.16841
firm's value	11837.9	9270.39	7535.19	7535.19	7298.56	8051.93	6721.57

***Resource*:** Marks and spencers.com

Gearing level

Table 12

	2010	2011	2012	2013	2014	2015	2016
Short term loans & Overdraft	483	602	328	559	449	280	297
Long term liabilities	3094	2278	2386	2618	2646	2424	2076
shareholder's funds'	2169	2674	2790	2505	2708	3200	3445
Gearing	1.64914	1.077038	0.97276	1.26826	1.1429	0.845	0.68882

The relationship between firm's value and gearing level

Table 13

	2010	2011	2012	2013	2014	2015	2016
gearing level	1.64914	1.07703	0.97276	1.26826	1.14291	0.845	0.68882
firm's value	11837.9	9270.39	7535.19	5858.61	7298.56	8051.93	6721.57

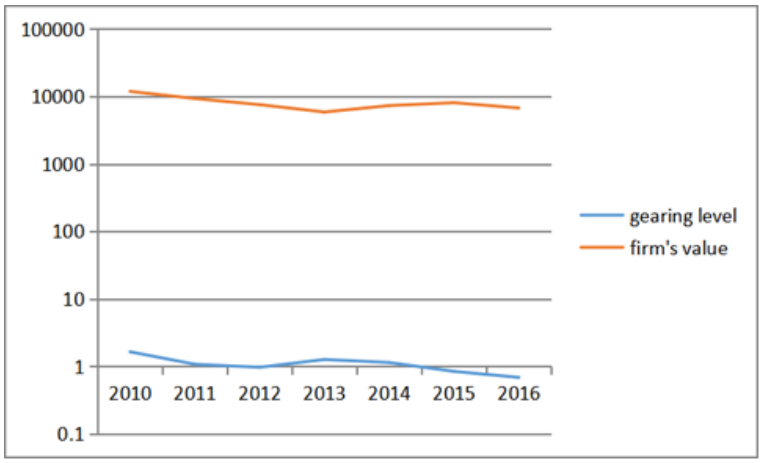

Fig 2

In the depicted graph, we observe that from 2010 to 2012, there was a substantial decrease in the gearing level, accompanied by a corresponding decline in the firm's value. Conversely, during the period from 2012 to 2014, the gearing level increased initially before declining, in contrast to the firm's value, which displayed the opposite trend. The years from 2014 to 2016 saw a decrease in gearing levels, while the firm's value remained relatively stable. This pattern suggests a positive correlation: when gearing levels reduced from 1.64 to 0.97 (2010-2012) and from 1.14 to 0.68 (2014-2016), the firm's value likewise decreased. However, an exception occurred in 2013, where the gearing level increased while the firm's value decreased. This data underscores the notion that, except for 2013, a higher gearing level generally corresponds to an increase in firm value.

In our calculations, certain critical figures, such as the expected rate of return, were unavailable, even though they wield substantial influence over both the firm's value and the weighted average cost of capital (WACC). Furthermore, variations in taxation methods were not considered to minimize errors. Specifically, the impact of interest payments offsetting certain tax costs, as per the tax shield theory, was not explicitly addressed. It's worth noting that for large corporations like M&S, interest payments and taxation represent a relatively small portion of revenue, constituting around 5%, and certain taxes may not decrease even with high revenue and a stable staff base.

For a corporate giant like Marks and Spencer plc, boasting annual revenues exceeding £10 billion and underlying profits around £7 billion, it's clear that the impact of interest

payments and taxes on their overall financial statements is relatively modest (taxes around £700 million, interest payments around £115 million). In general, a higher gearing level has the potential to enhance the firm's value, a point affirmed by the financial records of Marks and Spencer over the past seven years. With the exception of 2013, the financial reports for other years demonstrate a correlation between fluctuations in gearing levels and corresponding changes in firm value.

Now, turning to the concept of weighted average cost of capital (WACC), Marks and Spencer plc in England maintained a stable WACC from 2010 to 2016, aligning with CFO Helen Weir's assertion that "strong capital management" is at the core of their business strategy. During the period from 2014 to 2016, which saw a transition from Alan Stewart to Helen Weir as CFO, there was a concerted effort to reduce financial costs, from £114 million in 2014 to £93.5 million in 2016. This demonstrates that the company's financial leaders consistently emphasize cost control and prudent investment.

Furthermore, it's crucial to recognize that cash flow plays a pivotal role in determining firm value. In this regard, Marks and Spencer's annual reports from 2014 to 2016 consistently indicated a stable closing net cash flow, hovering around £190 million. Consequently, it can be inferred that for M&S, while cash flow certainly matters, it may not be the most critical factor impacting firm value.

In reviewing the financial reports over this three-year period, it becomes evident that the management's objective is not solely focused on increasing firm value, especially through the method of increasing gearing. The potential risks associated with high debt levels, including the erosion of investor confidence and the emergence of additional complications, make M&S cautious about making significant changes to their debt levels. Conversely, the company remains committed to reducing debt and concentrating on financial responsibility, which projects a more robust financial image.

It's crucial to remember that a firm's value is influenced by numerous factors, including the broader political and economic landscape and international relations. Relying solely on increasing gearing levels to boost firm value is deemed unwise. Moreover, a company's pursuit is not just about enhancing its firm value but also about realizing profits and securing its future, highlighting the multifaceted nature of this evaluation.

This perspective is further validated by a comprehensive analysis of seven years' worth of data. While debt levels did undergo fluctuations in some years, these shifts were often a result of specific managerial strategies. For instance, in 2014, Marks and Spencer embarked on a three-year innovation plan to modernize facilities and overhaul their delivery system, temporarily leading to a higher gearing level. However, this plan was designed to span several years, allowing the costs to be distributed over time and preventing the accumulation of substantial debt in the short term. Ultimately, the preference of management has been to reduce debt levels and maintain financial stability.

Therefore, when accounting for the complex factors at play, such as investor expectations and the diverse impacts of taxation, the data consistently suggests that, in most cases, increasing the gearing level corresponds with an increase in firm value. However, it's essential to understand that companies do not universally adopt this strategy to elevate their firm value. Consequently, a high gearing level may not necessarily translate into the most substantial profits for a company, as the suitability of different gearing levels is contingent upon a company's financial condition and its future strategic outlook.

5. Conclusion

The research aimed to explore the influence of capital structure on a firm's value, specifically, how the gearing level impacts a company's overall worth.

From the literature review, it becomes apparent that capital structure pertains to a company's financial composition. Achieving an ideal capital structure is believed to boost a firm's total value, prompting many experts to seek this optimal financial arrangement. However, as the theoretical landscape has evolved, essential factors like taxation and interest rates have also been recognized as influential. Additionally, variables such as weighted average cost of capital, debt, equity, and firm value all play pivotal roles in determining a firm's overall value.

Modigliani and Miller's second proposition elucidates the relationship between capital structure and firm value, especially when corporate tax considerations come into play. It suggests that an increase in a company's debt level leads to a corresponding increase in its firm value. Therefore, by managing debt within an ideal range, a company can enhance its overall value significantly.

Gearing level, representing the proportional relationship between debt and equity, exhibits a positive correlation with a company's firm value. In essence, increasing gearing levels tend to elevate the total value of a firm.

Firm value can be calculated by dividing cash flow by the weighted average cost of capital. While this formula doesn't account for intricate factors such as personal tax, it provides a straightforward representation of the final result. Similarly, the weighted average cost of capital can be calculated simply by multiplying related weights by their respective costs, a simplification of a more intricate process.

Analysis of economic data from Marks and Spencer plc between 2014 and 2016 reveals that the connection between firm value and gearing level is not always straightforward. However, it does underscore that excessively high gearing levels may not necessarily lead to higher firm values.

When considering a seven-year dataset for Marks and Spencer plc in England, it's clear that, in most cases, higher gearing levels are associated with higher firm values. This suggests that, when overlooking complex factors like tax and interest rates, gearing level has a positive correlation with firm value.

The Chief Finance Officer at Marks and Spencer emphasized a three-year strategy to reduce debt from 2014 to 2016. This underscores that reducing debt was a long-term strategy for M&S rather than seeking to increase debt to boost firm value. In 2014, Alan Stewart, M&S CFO, highlighted the company's commitment to maintaining a strong balance sheet and reducing the cost of group funding. Despite bearing a gearing value of 1.21, considered high, M&S diligently controlled costs and debt. This demonstrates the critical importance of debt management to investors and shareholders, who may seek higher returns or divest their stocks if they perceive elevated risk.

In 2015, Helen Weir, M&S CFO, continued to stress the significance of capital management, debt control, and cost reduction. Although gearing levels dropped to 0.63, firm

value increased significantly. In 2016, Helen Weir reiterated the company's focus on capital management and delivering returns to shareholders. All three annual reports highlighted the importance of debt control for M&S.

In the real business world, as indicated by M&S's annual reports, firms may aim to maximize firm value but are cautious about increasing debt haphazardly. High gearing levels, equating to higher debt, invariably introduce more risk. This risk can lead to a company's unfavorable financial position. Consequently, all M&S annual reports underscore the importance of generating cash flow and managing debt.

For a large corporation like Marks and Spencer plc, with revenues exceeding £10 billion, taxes and interest payments constitute a relatively small portion of their financials. Tax-saving profits, therefore, are not markedly significant. M&S's profit remained stable from 2014 to 2016, with a clear strategic focus, particularly in investment and cost management. Continuously strengthening their food store services and addressing international profit volatility will position M&S for a stronger financial future.

6. Future Research Suggestions and reflection

Tax Factor Analysis: Future research should delve deeper into the tax factor and its impact on a company's financial structure. Given that Marks and Spencer's annual report breaks down tax payments into various categories, a detailed analysis of tax-saving strategies and their effects on profitability would be valuable.

Weighted Average Cost of Capital (WACC) Trends: While Marks and Spencer's financial structure appears stable, a comprehensive analysis of WACC trends over time can provide valuable insights. Researchers could attempt to identify patterns in WACC and its relationship with the company's performance and financial decisions.

Long-Term vs. Short-Term Debt: Investigate the effects of long-term and short-term debt on firm value. Specifically, explore how the choice between long-term and short-term debt influences a company's capital structure and tax shield benefits. This research could shed light on optimal debt maturity structures for firms.

Market Value Analysis: Consider conducting research on market value and its relationship with gearing levels. Analyze how changes in gearing levels impact market valuation and investor sentiment. This research could provide a more holistic view of the relationship between capital structure and market performance. By focusing on these research areas, scholars and analysts can gain a deeper understanding of the complex dynamics between capital structure, taxation, and firm value, ultimately contributing valuable insights to the field of finance.

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