Jaakko Viirimäki

Corporate Hedging and Its Effect on Firm Value

School of Accounting and Finance
Bachelor's Thesis
Finance

Vaasa 2026

University of Vaasa
School of Accounting and Finance
Author: Jaakko Viirimäki
Topic of the Thesis: Corporate Hedging and Its Effect on Firm Value
Degree: Bachelor of Science in Economics and Business Administration
Program: Accounting and Finance
Major Subject: Finance
Supervisor: Anupam Dutta
Year of Graduation: 2026 **Pages:** **31**

Abstract:
This thesis studies the relationship between corporate hedging and firm value. Particularly, it investigates whether derivative instruments used for hedging can create additional value for a firm. Furthermore, the purpose is also to find out whether certain derivative instruments perform better at creating additional value than others.

Corporate hedging is a frequently covered topic in modern financial literature, and it has received plenty of attention, especially over the past few decades. Nowadays, hedging strategies are increasingly used to manage financial risk. According to classic financial theory, hedging can create additional value by stabilizing cash flows, reducing financial distress costs, and lowering the probability of underinvestment problems.

Despite the substantial amount of academic attention, empirical evidence regarding the value-enhancing effects of corporate hedging remains mixed. Therefore, this ongoing debate is the primary motivation for this study. The thesis analyzes the performance of corporate hedging as a value-enhancing strategy based on a literature review of empirical research.

Keywords: Corporate hedging, Derivatives, Firm value, Tobin's Q

Table of Contents

1 Introduction

The value impact of corporate hedging has attracted broad attention in the field of finance over the past couple of decades (Allayannis & Weston, 2001; Aretz & Bartram, 2010; Bessler, Conlon, and Huan, 2019; MacKay & Moeller, 2007). Despite a considerable amount of empirical evidence, it remains unclear whether corporate hedging has a definitive positive impact on firm value.

The primary reason for this discordance can be divided into two challenges. First, empirical evidence indicates a wide range of results regarding the value impact of corporate hedging. The estimates vary from significant positive premiums to neutral and even negative results (Allayannis & Weston, 2001; Geyer-Klingeberg, Hang, and Rathgeber, 2021). Second, the empirical studies conducted apply vastly different econometric methods and measure the impact of hedging with diverse variables, leading to heterogeneous findings.

Understanding the relationship between firm value and corporate hedging is becoming increasingly important, since the use of foreign exchange and interest rate derivatives has grown substantially in recent years. This development is reflected in the expansion of over-the-counter markets, where most derivative instruments are exchanged. Trading volume in FX derivatives increased by nearly 30%, reaching a daily average of $9.6 trillion. Furthermore, interest rate derivatives expanded by approximately 60%, rising to $7.9 trillion between 2022 and April 2025 (Bank for International Settlements, 2025).

As these two instruments serve as the primary tools in financial risk management, it is necessary to acknowledge that corporate hedging has become one of the most important strategies for managing financial risk. Furthermore, despite the growing importance of corporate hedging, academic studies remain inconclusive, indicating the need for further research. To understand the net effect of corporate hedging, it is also necessary to examine what drives corporations to adopt hedging as a tool for financial risk management.

1.1 Purpose of the study

The purpose of this thesis is to study the impact of corporate hedging on firm value. If hedging is performed correctly, it should contribute to higher firm value by reducing costs of financial distress, expected taxes, or other agency costs. (Nance et al., 1993). Corporate hedging is most often conducted with foreign exchange, commodity, and/or interest rate derivatives. It should be noted, however, that derivatives can be used in speculative ways, which usually lead to higher financial risk and, consequently, lower firm value. Therefore, my first hypothesis is the following.

H_1: Non-financial firms that use FX, Commodity, and/or Interest rate derivatives solely for hedging purposes should achieve a higher firm value than those that do not.

Furthermore, it can be established that perhaps not all derivative instruments contribute equally to higher value impact. Most non-financial companies experience volatility in foreign exchange cash flows, which can increase the need for FX hedging. According to Froot, Scharfstein, and Stein (1993), stabilizing internal cash flows can enable firms to maintain more cost-effective investment policies by reducing the need for costly external financing. Therefore, by directly reducing the exchange risk in cash flows, FX hedging may have a higher value impact on firms than interest rate or commodity derivatives.

H_2: Foreign exchange derivatives can achieve a greater positive impact on firm value than commodity or interest rate derivatives.

1.2 Structure of the thesis

The first chapter introduces the topic and the purpose of the study. In the second chapter, corporate hedging is defined by explaining derivatives along with hedging strategies and motives. The third chapter presents the theoretical background for the study, including the Modigliani-Miller irrelevance theory and Agency theory. Moving on, chapter four includes the literature review that presents empirical evidence supporting the hypothesis, as well as contrary findings. Finally, chapter five concludes the study with a discussion of the findings.

2 Corporate hedging and derivatives

Corporations operating outside the financial sector are exposed to multiple types of financial risk. According to Mian (1996), these risks include volatility in operating cash flows, fluctuations in foreign exchange and interest rates, and commodity price movements, such as those currently observed in the oil markets due to the conflict in the Middle East. Corporate hedging aims to manage these exposures by using derivative instruments that lock in prices or rates in advance for future transactions (Hull, 2022).

2.1 Determinants of corporate hedging

According to Nance et al. (1993), financial theory indicates that hedging can increase firm value by reducing expected taxes, costs of financial distress, or agency costs. Corporate hedging is conducted using derivative instruments, such as forwards, futures, options, and swaps, to reduce the firm's financial volatility.

For example, if a Finnish manufacturing company expects to receive payment from an American company in six months, changes in the EUR/USD exchange rate might decrease the payment's value when converted into euros. The Finnish company can arrange a forward contract that fixes the exchange rate in advance. By doing so, the company agrees to sell the dollars it will receive and exchange them for euros at the locked-in rate.

As the rate between the currencies is fixed in advance, the Finnish company eliminates its exposure to exchange rate changes and can therefore reduce cash flow volatility linked to foreign-currency transactions. As a result, the firm can operate with greater financial stability and improved predictability of future incomes. The locked-in cash flow also provides reliability to internal funds, allowing the firm to make investment decisions with greater confidence. This brings us to why corporate hedging, when conducted correctly, should bring more value to the company.

This previous example highlights a central argument in the literature arguing in the favor of corporate hedging. Effectively implemented hedging can positively value impact. This can happen as stabilized internal cash flows reduce the likelihood that investment opportunities must be postponed or abandoned due to uncertain funding. Due to friction in capital markets, external financing can be costly, leading to the well-known underinvestment problem. By alleviating all cash flow volatility and ensuring the availability of internal funds, hedging allows firms to take on positive net present value projects in a more consistent manner. Therefore, corporate hedging should improve investment efficiency and ultimately increase firm value (Froot, Scharfstein & Stein, 1993).

2.2 Derivatives and their use in corporate risk management

Since the 1980's, derivative instruments have become increasingly popular in finance. In the 2020's, derivatives are not only used for traditional risk management purposes such as hedging, but also for executive compensation plans and added to bond issues. Looking at the value of the underlying assets, the derivatives market has exceeded the size of the stock market (Hull, 2022).

Derivatives are primarily used for hedging, speculation, and arbitrage. Although it is important to understand the various uses, in the context of this paper, we shift the focus to hedging. A derivative contract involves two entities agreeing to a future transaction (Hull, 2022). As the name states, derivative instruments derive their value from other variables, which can range from the number of rainy days to the price of a stock or a commodity like oil. Most derivatives are traded in the over-the-counter market, a place where contracts are negotiated privately between parties. These participants include banks, other financial institutions, and corporations (Hull, 2022).

Derivative instruments include options, futures, forwards, and swaps. Forward contracts aim to reduce risk by fixing the price of an asset in advance. Compared to forwards, futures are standardized and traded on exchanges. However, options act more as an insurance policy. An option can be used to buy or sell assets at a predetermined price in the future. But, unlike forwards and futures, the owner of an option cannot be forced to complete the transaction. In addition to hedging from adverse price movements, options allow investors to benefit from favorable price movements (Hull, 2022).

In contrast to hedgers, who want to avoid exposure to movements in the price of an asset, Speculators aim to take an active position in the market (Hull, 2022). For example, a speculator who expects the price of oil to rise may buy oil futures, profiting if the price moves in their favor, but suffering a loss if it does not. Therefore, derivatives can be used in versatile ways.

There have been more than one example in the past, where experts in finance have lost substantial amounts of money when speculating with derivatives. In 1998, Long-Term Capital Management (LTCM), led by Nobelists Myron Scholes and Robert Merton, collapsed, bringing the whole financial system to the verge of disaster. LTCM's core business was convergence arbitrage in bond markets. It meant exploiting tiny pricing discrepancies between related fixed-income instruments. In its later stages, the fund also moved into equity markets. In early 1998, LTCM believed that implied volatility in equity markets was too high and placed large short positions in S&P 500 index options and major European equity index options (Lowenstein, 2001).

However, Russia's debt crisis triggered a dramatic widening of spreads, which caused liquidity risk to be realized in full force. Ultimately, the volatility strategy alone lost LTCM approximately 1.3 billion in just a few months, and the equity fell from 4,7 billion to 700 million in only 7 months. Fearing a global financial crisis, the Federal Reserve forced the largest US banks to invest in LTCM to stabilize the situation (Lowenstein, 2001).

The collapse of LTCM and other financial catastrophes caused by the speculative use of derivatives sends a strong message that derivative instruments have a significant risk-increasing potential when used speculatively. While derivatives can be efficient tools for managing financial risk, relying solely on them, along with speculative use, can lead to negative outcomes. Derivatives are a double-edged sword, which is why risk management practices with these instruments require close examination.

2.3 Hedging strategies

As discussed earlier, corporations are equipped with multiple tools for managing financial risk. The four most common derivative instruments, forwards, futures, swaps, and options, are all used to hedge against undesirable financial exposure. When a company decides to hedge, the objective is to neutralize a risk as effectively as possible.

This can be achieved through either a short hedge or a long hedge, which depends on the financial position taken. Short hedges can be implemented using futures contracts when a company already has an asset expected to be sold at a future date. This is done if the company fears a price decline in the asset. On the other hand, long hedges are utilized when a company plans to acquire an asset in the future and seeks security against the asset becoming more expensive (Hull, 2022).

However, in practice, perfect hedges are hard to perform. The effectiveness of a hedge depends on the correlation between the futures price and the spot price of the asset being hedged. To calculate this, the optimal hedge ratio is defined as the ratio of the futures position size to the exposure being hedged. As described by Hull (2022), the minimum-variance hedge ratio is expressed in example (1).

$$h = \rho \frac{\sigma_s}{\sigma_f}, \qquad (1)$$

The optimal hedge ratio (h) is obtained by multiplying the correlation (ρ) between changes in the spot price (σ_s) and changes in the futures price (σ_f) by the ratio of their respective standard deviations. This formula highlights that the optimal hedge ratio is not fixed but varies with the statistical relationship between the price series, furthermore implying that firms operating in markets with lower price correlation must adjust their hedge size accordingly.

Optimal hedging strategies can differ from company to company. A recurring debate in the corporate hedging literature concerns the relative efficiency of different derivative instruments. For instance, according to some arguments, commodity futures are fundamentally superior to commodity put options for managing price risk. The traditional view has been that put options are a less efficient hedging device. This argument has historically been based on overly simplified mathematical models measuring risk-aversion behavior. Therefore, it has a limited view on how the conclusions apply in the real world (Akron, 2019).

However, the perspective has been increasingly challenged. Akron (2024) highlights that hedging with only put options can be more efficient than hedging with futures. The study finds that both instruments can manage unwanted price movements. However, this is done through different mechanisms. The long put option has limited loss potential, equal to the premium paid. To showcase this, it is important to compare the payoff profiles of the two instruments. The net payoff for a long put option is calculated in example (2).

$$\max(K - S_T, 0) - P_0, \qquad (2)$$

In the equation, S_T refers to the spot price at expiration, K is the strike price, and $P_0$is the option premium paid. As mentioned, a futures contract locks in a fixed price regardless of market direction, but a put option allows the firm to benefit from favorable price movements while limiting the maximum loss. In addition, Akron (2024) highlights that futures and put options can be used simultaneously. The paper explains that having both instruments in the hedging arsenal increases the space of optimal hedging allocations. This example serves as a reminder that firms should not limit themselves to a single instrument but consider the full range of available derivatives when designing their hedging strategies.

Beyond the choice of instrument, optimal hedging strategies are also affected by firm-specific factors such as ownership structure and executive compensation plans, which can influence both the extent and the form of hedging undertaken (Akron, 2019).

3 Theoretical background

3.1 Modigliani-Miller Irrelevance Theorem

Corporate hedging has its roots in the well-known Modigliani-Miller Irrelevance theory, which states that, in a perfect capital market, where taxes, bankruptcy costs, and asymmetric information are non-existent, a firm's value cannot be affected by financing through debt or equity (Modigliani & Miller, 1958). Therefore, in those conditions, hedging would not serve a purpose since it aims to tackle precisely the frictions mentioned.

The Irrelevance theory is formalized by the value proposition formula, which simply states that firm value is independent of how it is financed, if the markets perform without friction (Modigliani & Miller, 1958). The value proposition formula is presented in example (3), where V_L refers to the value of a levered firm and V_U to the value of an unlevered firm.

$$V_L = V_U, \qquad (3)$$

However, the real-world capital markets are far from perfect. Taxes, financial distress costs, and information asymmetries exist and create situations under which hedging can generate firm value. The existence of these imperfections provides the theoretical foundation for corporate risk management practices.

From a tax perspective, hedging may positively impact firm value once the assumption of a tax-free environment is relaxed (Modigliani & Miller, 1958). The rise of a firm's income may cause a convex tax schedule, which means that marginal interest rates are also higher. By reducing the income volatility through hedging, the expected tax burden can be reduced over time. The argument is formalized by Smith and Stulz (1985), who demonstrate that tax convexity alone is enough to justify corporate risk management.

Financial distress costs present a further real-world challenge outside the perfect capital market conditions outlined by Modigliani and Miller (1958). The distress cost may be realized when a highly leveraged firm experiences volatile cash flows, since it faces an elevated probability of being unable to meet its debt obligations. The costs associated with this outcome are twofold. Direct costs arise immediately upon payment challenges, leading to legal fees, restructuring expenses, and even costs of bankruptcy proceedings in the worst-case scenario.

However, indirect financial distress costs can be damaging and occur well before the issues are formalized. This can include customers who lose their confidence and take their business elsewhere. Additionally, banks can also harden their credit terms. Collectively, these costs have a certain negative impact on firm value and therefore carry that loss to shareholders (Custódio et al., 2023). Again, by stabilizing cash flow, hedging can reduce the probability of these scenarios.

Information asymmetry between market participants introduces another condition absent from the perfect capital market model of Modigliani and Miller (1958). As firm management has access to superior information about firm value relative to outside investors, external financing becomes more costly than internal funds due to adverse selection (Myers & Majluf, 1984). Hedging reduces the demand for this expensive external financing by stabilizing internal cash flows.

3.2 Agency Theory and Managerial Incentives

Agency theory, presented by Jensen and Meckling (1976), refers to the conflict of interest between firm stakeholders. Moreover, it usually means that the interests of the firms' management and stockholders are not aligned. From the perspective of corporate hedging, this can lead to ineffective or even damaging hedging measures when the firm's personnel are not acting in the firm's best interest.

The identity and attributes of the company's head management play a prominent role in the decision-making of corporate hedging strategy. For example, due to expertise and technical competency requirements, financial risk management is one of the few areas a CFO is responsible for almost independently. Therefore, CFO's characteristics can play a major role in hedging strategies implemented (Barbi et al., 2024). According to the paper, the findings indicate that poorly formed compensation plans may induce excessive hedging strategies.

Furthermore, Graham and Harvey (2001) and Campello et al. (2011) provide survey-based evidence that managerial characteristics and personal risk preferences are reflected systematically in corporate financial policy, including hedging. Therefore, the firm-level hedging behavior cannot be fully explained by firm characteristics alone. It must also account for the individuals making those decisions.

Furthermore, if CFO's compensation is closely tied to firm performance, it has been shown to shape risk management behavior in noticeable ways. More specifically, if the CFO's compensation plan is tied to equity and therefore personal losses if the firm value metrics decrease, their personal incentives can lead to risk management decisions that diverge from those of shareholders, leading to the agency problem (Smith & Stulz, 1985).

On the other hand, option-heavy compensation packages may discourage hedging by increasing the convexity of managerial utility (Smith & Stulz, 1985). That can lead to provoking the CFO with risk-seeking rather than risk-managing behavior. The net effect of these incentive structures on hedging outcomes depends critically on the specific composition of executive pay. The key takeaway is that the existing literature highlights the importance of examining CFO-specific incentives and characteristics as determinants of corporate hedging policy.

However, the CFO compensation structure represents only one dimension of the agency problem. Firms' ownership structure can also act as an amplifier for agency conflicts,

causing financial decisions that are not aligned with shareholders' interests. When ownership is widely dispersed among minor shareholders, monitoring managerial behavior, such as suboptimal hedging, becomes difficult (Shleifer & Vishny, 1986). This grants the managers the possibility to pursue their own interests, leading often to increased volatility rather than firm value maximization.

On the other hand, concentrated ownership in the form of large institutional investors offers better monitoring, however, at the expense of minority shareholders. As large institutions often have major ownership in the firm, their personal risk preferences may affect the company's hedging policies (Shleifer & Vishny, 1986).

4 Literature review

As discussed previously, corporate hedging and firm value are topics that have been covered in numerous papers in the past few decades (Allayannis & Weston, 2001; Geyer-Klingeberg, Hang, M., & Rathgeber, 2021). As the value impact of corporate hedging remains unsettled, this thesis covers the most recent studies investigating the matter. The following empirical findings are in the context of two hypotheses established earlier. First, non-financial firms that use FX, Commodity, and/or Interest rate derivatives solely for hedging purposes should achieve a higher firm value than those that do not. And secondly, foreign exchange derivatives can achieve a greater positive impact on firm value than commodity or interest rate derivatives.

The value impact of corporate hedging is most often measured by Tobin's Q. It is defined as the ratio of a firm's market value to the book value of its total assets. Tobin's Q is often used as a proxy for firm performance and firm value since it captures both the current financial performance and the market's expectations of future growth opportunities. In the context of hedging, a Q ratio greater than one implies that investors reward the firm's risk management practices with a valuation premium above its book value. Tobin's Q is presented in the following example (4).

$$Tobin's\ Q = \frac{Market\ Value\ of\ Total\ Assets}{Total\ Assets}, \qquad (4)$$

4.1 Overview of the literature

Although the study was conducted over two decades ago, Allayannis and Weston (2001) established the baseline for the relationship between corporate hedging and firm value. The paper examines the use of foreign-currency derivatives by 720 major non-financial firms in the US. The study was groundbreaking, as it documented an average hedging premium of 4.87%. Therefore, the results support the hypothesis that hedging can generate value to the firm. According to the paper, the significant hedging premium is justified primarily by the effect hedging has on mitigating the underinvestment problem (Allayannis & Weston, 2001).

A more recent meta-analysis by Bessler, Conlon, and Huan (2019) synthesizes results from 47 empirical studies covering the relationship between hedging and firm value. Their purpose of study is rooted in the fact that financial theory and economic reasons validate the use of hedging as a creator for enhanced firm value, but since the empirical evidence behind it is mixed, the subject requires more attention.

The meta-analysis aims to draw generalizable inferences about the topic, overcoming the sample-size limitations of individual studies (Bessler et al., 2019). The paper measures results between corporate hedging and shareholder value by using the Tobin's Q formula. The key findings indicate that corporate hedging is associated with higher Tobin's Q, particularly for hedging foreign exchange risk (Bessler et al., 2019). Therefore, the results agree with my hypothesis. The study also sheds light on the heterogeneity in findings for corporate hedging and its value impact.

Thirdly, corporate hedging and firm value are examined in an up-to-date study by Ji and Wei (2023). The paper applies statistical analysis to examine the relationship between derivatives and firm value on non-financial listed companies over the period of 2013 to 2022. The study uses an automated approach to categorize firms into derivative users and non-users. Therefore, the sample size is a major advantage, although the categorizing algorithm is unlikely to be error-free. The results indicate that hedging

increases firm value, and a robustness analysis verified the findings. Furthermore, the study continues to argue that currency and commodity derivatives positively affect firm value, whereas interest rate derivatives have the opposite effect (Ji & Wei, 2023).

Additional meta-analysis conducted by Bachiller, Boubaker, and Mefteh-Wali (2021) examines 51 empirical studies on corporate hedging, which provides comprehensive analysis on the subject. The paper aims to shed light on the relationship between hedging and firm value, taking effect size and publication bias into consideration. The results of the paper indicate again that there is a positive and statistically significant connection between hedging and firm value, and foreign exchange and commodity derivatives are found to be the most effective. The most fascinating finding from the paper is that hedging is found to be more beneficial in developed countries that operate under common law. According to the paper, this effect is due to the improved corporate governance and more mature financial markets (Bachiller et al., 2021).

4.2 Empirical evidence supporting the hypothesis

The key findings across the four studies presented in the last chapter provide compelling support for the first hypothesis. Although the evidence regarding the relationship between corporate hedging and firm valuation is mixed, the four studies, from different time periods, provide united and consistent evidence for the hypothesis that corporate hedging can have a positive value impact. The varying methods across the studies offer even further confirmation of the argument of this paper. Allayannis and Weston (2001) examine the topic in a single-country setting, while Bessler et al. (2019) examine it over multiple decades and various studies.

The fact that the hedging premium can be found across multiple time periods, in variations of study methodology, and in different geographical environments provides genuine reasoning for the positive relationship between hedging and firm value. The value-creation mechanism is justified by the underinvestment argument, which Allayannis and Weston (2001) present as their primary rationale for the substantial hedging premium observed. As hedging stabilizes the cash flow, firms can ensure that internal funds are available for reasonable investments even in turbulent market conditions.

By synthesizing the three studies, the collective suggestion is that investors reward firms with higher valuations first and foremost, since hedging reduces the probability of the underinvestment problem. Therefore, empirical evidence strongly supports the accuracy of the first hypothesis.

These findings naturally raise a further question on whether the value impact of hedging is equally effective across different derivative instruments or if one rises above the others. Therefore, it is important to evaluate the accuracy of the second hypothesis. Do foreign exchange derivatives have the upper hand when it comes to the value impact?

The meta-analyses conducted by Bessler et al. (2019) and Bachiller et al. (2021) address the question above, presenting evidence of heterogeneity in the value relevance of corporate hedging. Bessler et al. (2019) present that the statistical model applied demonstrates that only foreign exchange derivatives consistently increase firm value. On the other hand, the study then finds that both commodity price and interest rate derivatives are both irrelevant to certain growth in value. The study goes on to present additional results confirming a positive but economically minor relationship between hedging and firm value (Bessler et al., 2019). However, the paper by Bachiller et al. (2021) indicates that, along with foreign exchange derivatives, commodity derivatives are found to have a significant and positive value impact.

It is also worth noting that the findings are heavily influenced by the methods used to measure hedging and the locations where the firms operate. Studies within the meta-analysis that use more detailed methods to measure hedging efficiency tend to yield more convincing results than those using simpler variables. In terms of the environment, superior results are found in the emerging markets and Europe (Bessler et al, 2019).

Additional evidence from Allayannis, Ihrig, and Weston (2001) provides further justification for the argument that FX derivatives are superior tools for corporate hedging. The study's research on multinational firms reveals that FX hedging is directly associated with reduced exposure to exchange risk. On top of that, FX derivatives seem to enhance the effect of operational hedging, which, on their own, does not contribute to higher firm value. This finding highlights the superiority of FX hedging, as it not only reduces risk but also enables other risk management strategies to work more efficiently (Allayannis et al., 2001).

All in all, these findings present strong support for the second hypothesis. FX derivatives seem to have a clear advantage over other financial hedging tools, as they are continuously associated with firm value enhancement. Therefore, it is no surprise that FX derivatives are undoubtedly the most common tool in financial risk management.

4.3 Contrary findings

As this paper examines the efficiency of corporate hedging objectively, it must be noted that not all data support the hypotheses. A major meta-analysis conducted by Geyer-Klingeberg, Hang, and Rathgeber (2021) provides a more critical and comprehensive perspective on the value impact of corporate hedging. The meta-analysis synthesizes 71 studies and over a thousand hedging premium estimates. The results indicate that the relationship between hedging and firm value is not as straightforward as suggested by Allayannis and Weston (2001).

As mentioned in the introduction, the valuation effects often depend on the study design. Therefore, the point of view by Geyer-Klingeberg et al. (2021) is important to consider. The paper finds that when correcting biases linked, for example, to publication and variables used, the positive firm value premium linked to hedging decreases substantially. Moreover, the paper highlights that foreign exchange derivatives remain with a positive premium of approximately 2 %, which is significantly lower than previous estimates showcased. However, the results achieved with interest rate and commodity price derivatives reveal a firm value discount of 0,8 % and 0,6 % respectively (Geyer-Klingeberg et al., 2021).

These findings crucially challenge the somewhat generalized view of corporate hedging's value creation qualities. However, the study goes on to examine the reasons for these results. The paper highlights that managerial incentives and corporate governance affect crucially to the outcome of hedging's contribution to firm value. Firms that suffer from less effective governance practices may allow managers to employ their personal hedging strategies to pursue their own interests, which can lead to derivatives being used in a speculative way (Geyer-Klingeberg et al., 2021).

The paper continues to analyze the heterogeneous effectiveness of corporate hedging across economic environments. The study finds that firms operating in less developed financial markets may achieve increased results on corporate hedging. This is caused by

the greater market frictions that exist in those environments. On the other hand, in more developed markets with refined capital structures, the premium of corporate hedging is found to be lower (Geyer-Klingeberg et al., 2021).

A study on 219 non-financial companies in Pakistan by Butt, Rizavi, Nazir, and Shahzad (2024) shows similar results. The main results of the paper indicate that the use of derivatives has a negative impact on firm value. The paper highlights that in the observed sample, derivatives may have been used for speculation rather than hedging. As the study additionally investigates the effect of governance in terms of the results achieved with the derivatives, it is found that poor corporate governance strengthens the negative effect drastically (Butt et al., 2022).

On the other hand, the study argues that strong governance can improve the effects of use of derivatives. This is due to the fact that firms with improved governance are less likely to use derivatives for speculation instead of hedging. As the study is conducted in the emerging markets, the paper notes that the presence of weak corporate governance can lead to agency problems, which cause derivatives to act as tools of risk-neglect.

Overall, the findings from both studies undermine the argument that corporate hedging, in all forms, is universally linked to higher firm value. Alternatively, the results support a framework in which the effectiveness of corporate hedging depends on the risk exposure, quality of corporate governance, and market conditions (Geyer-Klingeberg et al., 2021; Butt et al., 2022). Therefore, it is important to acknowledge the limitations of corporate hedging and establish the financial risk management strategy on the terms mentioned.

5 Conclusions

This thesis investigates the value impact of corporate hedging on non-financial firms. The demand for the study arises from the extensive but mixed evidence regarding the performance of corporate hedging that has been gathered over the past couple of decades. Additionally, the thesis explains the determinants of corporate hedging while presenting the theoretical framework for the reasons why hedging should have a positive impact on firm value. This includes key financial theories such as the Modigliani-Miller irrelevance theory and agency theory. Furthermore, the thesis reviews empirical evidence on the relationship between corporate hedging and firm value, including both supporting and opposing perspectives on the hypothesis driven by significant previous studies.

While a substantial portion of the literature suggests that corporate hedging has a positive impact, multiple comprehensive studies show otherwise. However, the empirical evidence covered in the thesis gives enough support to the first hypothesis that corporate hedging can create additional firm value (Allayannis & Weston, 2001; Bachiller et al., 2021; Bessler et al., 2019). In particular, the studies support the fact that value creation derives mainly from the ability of hedging to reduce the probability of underinvestment problems by stabilizing internal cash flow, leading to more profitable investment opportunities. Additionally, hedging can minimize financial exposure to trouble even in times of increased market volatility.

However, the evidence also reveals that value impact between different derivative instruments used in hedging is heterogeneous. Most notably, interest rate and commodity price derivatives are found to produce substantially weaker or even negative valuation effects (Geyer-Klingeberg et al., 2021). On the other hand, even the empirical studies that mainly oppose the value creation of corporate hedging show support for the performance of foreign exchange derivatives. These are continuously found to be the most effective hedging tool across multiple time periods and financial markets

(Allayannis et al., 2001; Bessler et al., 2019; Ji & Wei, 2023). Therefore, the second hypothesis of this thesis is also supported.

Contrary views also demonstrate that positive hedging premiums can decrease significantly if methodological biases, publication effects, and corporate governance variables are considered (Geyer-Klingeberg et al., 2021; Butt et al., 2022). Evidence indicates that ineffective corporate governance can lead to managerial actions done in self-interest, which can reduce or even remove the benefits of corporate hedging if derivative instruments are used in a speculative way (Geyer-Klingeberg et al., 2021). Therefore, the relationship between firm value and corporate hedging is not only influenced by the efficiency of hedging itself, but rather by the quality of governance and managerial incentives, which creates a demand for more extensive research.

The thesis also finds that the effectiveness of corporate hedging is closely tied to both financial and geographical environments. Hedging is found to perform best in emerging or less developed financial markets, where market friction is more severe. Conversely, highly developed financial markets limit the value impact of corporate hedging with lower market friction (Geyer-Klingeberg et al., 2021).

Since the thesis is a literature review, certain limitations must be highlighted. The thesis covers multiple empirical studies across different countries, financial markets, and time periods, which makes it challenging to generalize. Furthermore, the heterogeneity in how hedging and firm value are measured across studies makes direct comparisons between studies difficult. Finally, publication bias may affect the results shown in this thesis, as studies reporting significant findings are more likely to be published.

Concluding the findings of this thesis, it is important to note that the empirical evidence reviewed differs in methodology, time period, environmental focus, and measurement of hedging performance. This alone provides an explanation for the discordance found in the literature covering the topic. Therefore, while the presented evidence provides

support for both hypotheses that hedging can create additional value and foreign exchange derivatives are the best instrument of doing so, the context of specific firm characteristics and financial market conditions should always be considered. Finally, it must be noted that further empirical research is necessary to evaluate the circumstances under which hedging can create the maximum additional value.

6 References

Akron, S. (2019). The optimal derivative-based corporate hedging strategies under equity-linked managerial compensation. *Emerging markets review, 41*, 100631. https://doi.org/10.1016/j.ememar.2019.100631

Allayannis, G., Ihrig, J., & Weston, J. P. (2001). Exchange-rate hedging: Financial versus operational strategies. *The American economic review, 91*(2), 391.

Allayannis, G., & Weston, J. P. (2001). The use of foreign currency derivatives and firm market value. *The Review of Financial Studies*, 14(1), 243–276. https://doi.org/10.1093/rfs/14.1.243

Aretz, K., & Bartram, S. M. (2010). CORPORATE HEDGING AND SHAREHOLDER VALUE. *The Journal of Financial Research, 33*(4), 317-371. https://doi.org/10.1111/j.1475-6803.2010.01278.x

Bachiller, P., Boubaker, S., & Mefteh-Wali, S. (2021). Financial derivatives and firm value: What have we learned? *Finance research letters*, 39, 101573. https://doi.org/10.1016/j.frl.2020.101573

Bank for International Settlements. (2025). Triennial Central Bank Survey: Preliminary results for foreign exchange and OTC derivatives markets in 2025. Retrieved 2026-3-10 https://www.bis.org/press/p250930.htm

Barbi, M., Febo, V., & Massimiliani, I. (2024). CFO pay convexity, risk taking and corporate hedging. *European financial management : the journal of the European Financial Management Association, 30*(3), 1545-1586. https://doi.org/10.1111/eufm.12455

Bessler, W., Conlon, T., & Huan, X. (2019). Does corporate hedging enhance shareholder value? A meta-analysis. *International Review of Financial Analysis*, 61, 222–232. https://doi.org/10.1016/j.irfa.2018.11.010

Butt, A. A., Rizavi, S. S., Nazir, M. S., & Shahzad, A. (2022). Corporate derivatives use and firm value: Conditional role of corporate governance. *South Asian Journal of Business Studies, 13*(2), 262-281. https://doi.org/10.1108/SAJBS-02-2021-0059

Campello, M., Graham, J. R., & Harvey, C. R. (2010). The real effects of financial constraints: Evidence from a financial crisis. *Journal of financial economics, 97*(3), 470-487. https://doi.org/10.1016/j.jfineco.2010.02.009

Campello, M., Lin, C., Ma, Y., & Zou, H. (2011). The real and financial implications of corporate hedging. *The Journal of Finance, 66*(5), 1615–1647. https://doi.org/10.1111/j.1540-6261.2011.01683.x

Conley, D. M. (2002). When Genius Failed: The Rise and Fall of Long-Term Capital Management. *Agribusiness, 18*(1), 129-130. https://www.proquest.com/scholarly-journals/when-genius-failed-rise-fall-long-term-capital/docview/197418890/se-2

Custódio, C., Ferreira, M. A., & Garcia-Appendini, E. (2023). Indirect Costs of Financial Distress. *Review of Finance, 27*(6), 2233–2270. https://doi.org/10.1093/rof/rfad014

Froot, K. A., Scharfstein, D. S., & Stein, J. C. (1993). Risk Management: Coordinating Corporate Investment and Financing Policies. *The Journal of finance (New York), 48*(5), 1629. https://doi.org/10.2307/2329062

Geyer-Klingeberg, J., Hang, M., & Rathgeber, A. (2021). Corporate financial hedging and firm value: A meta-analysis. *The European journal of finance, 27*(6), 461–485. https://doi.org/10.1080/1351847X.2020.1816559

Graham, J. R., & Harvey, C. R. (2001). The theory and practice of corporate finance: Evidence from the field. *Journal of Financial Economics*, *60*(2–3), 187–243. https://doi.org/10.1016/S0304-405X(01)00044-7

Hull, J. (2022). *Options, futures, and other derivatives* (Eleventh edition. Global edition.). Pearson Education.

Ji, P., & Wei, L. (2023). Hedging with derivatives to increase firm value. *Finance research letters, 55*, 103981. https://doi.org/10.1016/j.frl.2023.103981

Lee, K. (2019). The Usage of Derivatives in Corporate Financial Risk Management and Firm Performance. *International journal of business, 24*(2), 113–131.

Lowenstein, R. (2001). *When genius failed: The rise and fall of Long-Term Capital Management*. Fourth Estate.

MacKay, P., & Moeller, S. B. (2007). The value of corporate risk management. *The Journal of Finance*, 62(3), 1379–1419. https://doi.org/10.1111/j.1540-6261.2007.01239.x

Mian, S. L. (1996). Evidence on Corporate Hedging Policy. *Journal of financial and quantitative analysis, 31*(3), 419-439. https://doi.org/10.2307/2331399

Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *The American Economic Review, 48*(3), 261–297. http://www.jstor.org/stable/1809766

Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. Journal of Financial Economics, 13(2), 187-221. https://doi.org/10.1016/0304-405X(84)90023-0

Nance, D. R., Smith, C. W., Jr., & Smithson, C. W. (1993). On the determinants of corporate hedging. *The Journal of Finance, 48*(1), 267–284 https://doi.org/10.1111/j.1540-6261.1993.tb04709.x

Shleifer, A., & Vishny, R. W. (1986). Large Shareholders and Corporate Control. *The Journal of political economy, 94*(3), 461-488. https://doi.org/10.1086/261385

Smith, C. W., & Stulz, R. M. (1985). The determinants of firms' hedging policies. *Journal of Financial and Quantitative Analysis*, *20*(4), 391–405. https://doi.org/10.2307/2330757