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# Optimization of Hedging Policies with Foreign Exchange Derivatives to Maintain Corporate Financial Stability in Global Markets

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**Abstract**

In the face of increasingly dynamic exchange rate fluctuations in the global market, multinational companies are faced with major challenges in maintaining their financial stability. This study aims to analyze and develop a strategy for optimizing hedging policies using foreign exchange derivatives to strengthen the company's financial stability. Using a qualitative approach through a literature study method, this study examines concepts, theories, and empirical results from various recent scientific publications. Data sources are obtained from reputable international journals such as Elsevier, SSRN, and Springer, which contain studies related to hedging strategies, the effectiveness of derivative use, and their implications for corporate financial performance. The results of the analysis show that the use of derivatives such as forwards, swaps, and options can reduce earnings volatility, increase cash flow predictability, and strengthen market perceptions of the company's credibility. Factors that influence the effectiveness of hedging include exchange rate volatility, type of exposure, financial structure, and the quality of the company's risk management. This study also highlights the importance of integrating hedging policies into the company's financial system, using quantitative approaches such as Value-at-Risk (VaR), and diversifying derivative portfolios. In addition, natural hedge is a complementary strategy that is worth considering. These findings provide conceptual and practical contributions in supporting more resilient financial decision-making amidst global economic uncertainty. This study concludes with policy recommendations and further research directions that can enrich the discourse on financial risk management in the context of emerging markets such as Indonesia.



## INTRODUCTION

Changes in global economic dynamics characterized by foreign exchange rate volatility have become a major concern in the risk management of multinational companies. Unexpected exchange rate fluctuations can cause cash flow instability and reduce the value of the company's equity if not managed effectively (Ogundu, 2025). This condition encourages companies to adopt hedging policies that utilize derivative instruments as a risk mitigation strategy (Eyubova, 2025). With exposure to

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various foreign currencies, companies must be able to respond adaptively to exchange rate changes in order to maintain financial stability and operational sustainability (Alaryani et al., 2024).

A hedging policy is a risk management strategy used by companies to protect the value of assets, liabilities, or cash flows from the impact of fluctuations in exchange rates, interest rates, or commodity prices. In the context of companies that have exposure to international transactions, this policy is very important to maintain financial stability and reduce profit volatility. Hedging is generally carried out using derivative instruments such as forward contracts, futures, swaps, or options. A study by (Haryanto et al., 2020) shows that public companies in Indonesia that actively implement hedging policies tend to experience lower profit fluctuations compared to companies that do not hedge, especially when facing pressure on the rupiah exchange rate against the US dollar.

In practice, hedging policies must be adjusted to the company's risk profile and accounting policies. Not all companies have the same needs in hedging—depending on the structure of foreign exchange liabilities, exposure to raw material prices, and the risk management policies implemented. According to research by (Candra, 2025), many Indonesian manufacturing companies have begun to integrate hedging policies as part of their long-term financial planning strategy, especially after the exchange rate crisis that affected export profitability. They emphasize the importance of information disclosure and transparency of financial reports in reflecting the effectiveness of the use of hedging instruments so that investors can assess the extent to which risks have been managed properly.

Derivative instruments such as forward contracts, swaps, and foreign exchange options are important tools in managing exchange rate risk. The use of derivatives allows companies to lock in exchange rates at a certain level, thereby reducing potential losses due to market fluctuations (Ibrahim, 2025). In practice, the success of a hedging strategy depends on managerial ability to predict market trends, assess risk exposure, and align financial policies with corporate targets (Thakur, 2023). Therefore, optimizing hedging policies is not only a matter of the technical use of derivatives, but also concerns aspects of risk governance and strategic accountability.

Amid geopolitical pressures and monetary uncertainty post-COVID-19 pandemic, companies' dependence on the global market is increasing. When the exchange rate depreciates drastically, companies with export-import exposure will experience significant deviations in the income statement (Ibrahim, 2025). This reinforces the need for a structured, systematic, and quantitative analysis-based hedging policy. In addition, the increasingly developing derivatives market offers various opportunities to create more precise risk diversification strategies (Ogundu, 2025).

In the framework of an interconnected global market, a company's financial stability is largely determined by the effectiveness of its foreign exchange risk management policy. A study shows that companies that actively manage exchange rate risk through derivatives have more stable financial performance than passive companies (Alaryani et al., 2024). With the increasing complexity of financial structures and increasing investor expectations for risk governance, the use of derivatives is no longer an option, but a strategic necessity in corporate management.

The urgency of this research lies in the increasing exposure of Indonesian companies to foreign exchange rate dynamics in global trade and investment. The lack of derivative literacy among business actors and the less than optimal regulations related to foreign exchange hedging have caused a fairly large risk protection gap (Thakur, 2023). Therefore, a study on optimizing the use of foreign exchange derivatives is crucial in order to provide alternative strategies that are adaptive to global dynamics and strengthen the financial resilience of national corporations.

Previous studies have discussed the effectiveness of derivatives as a hedging tool in the global market. (Ogundu, 2025) highlighted how companies in the energy and technology sectors use derivatives to address exchange rate and commodity price uncertainty. Research by (Alaryani et al., 2024) shows that the use of derivatives not only increases risk efficiency but also improves investor

perceptions of company stability. However, there are not many studies that specifically discuss the hedging policy optimization model in the context of emerging markets such as Indonesia, which has its own complexities in terms of regulation and derivative market infrastructure.

The purpose of this study is to analyze and develop a hedging policy optimization strategy using foreign exchange derivatives that can be applied by companies in facing global market dynamics. This study aims to identify factors that influence hedging effectiveness, evaluate its impact on the company's financial stability, and provide strategic recommendations that can be used as a reference in making long-term financial decisions.

## METHOD

This study uses a qualitative approach with a literature review type, which aims to comprehensively analyze the concepts, theories, and empirical findings related to hedging policies through foreign exchange derivatives as an effort to maintain the financial stability of companies in the global market. This approach was chosen because it is appropriate for studying strategic and complex issues in depth, relying on various relevant and credible library sources (Tisdell et al., 2025; Torraco, 2016). Literature studies allow researchers to synthesize knowledge and identify research gaps based on the accumulation of previous study results.

The data sources in this study are secondary data, consisting of reputable international scientific journals (such as SSRN, Elsevier, ResearchGate, Emerald, and Springer), financial research reports, publications of monetary institutions (such as the IMF and BIS), and academic documents such as relevant theses and dissertations. The literature was selected based on the following criteria: (1) discussing hedging policies and foreign exchange derivatives, (2) having relevance to the financial stability of the company, and (3) published within the last five years to ensure the timeliness and validity of the information (Bowen, 2009).

The data collection technique was carried out through a systematic documentation process. Literature searches were conducted using keywords such as foreign exchange derivatives, hedging policy, corporate financial stability, and multinational companies. The search was conducted through electronic databases and digital libraries using a boolean search strategy to ensure that the literature obtained was in accordance with the focus of the research. All documents obtained were then selected based on abstracts, methodology, and results that were in accordance with the conceptual framework of this study.

The data analysis method used in this study was content analysis with a thematic approach. The analysis process was carried out through several stages: first, data reduction was carried out by sorting information based on the main topics, namely: types of foreign exchange derivatives, hedging policy strategies, and their impact on financial stability. Second, data presentation was carried out in the form of structured and thematic narratives. Third, interpretation is done by drawing logical relationships between findings from various literatures to gain a holistic understanding (Miles et al., 2020). In addition, comparative literature mapping is carried out to see the similarities and differences in findings between countries and industrial sectors.

## RESULT AND DISCUSSION

From the initial search and review process of dozens of scientific articles, a strict selection was carried out on articles that met the criteria of recency (last 5 years), relevance to the topic of hedging, use of foreign exchange derivatives, and focus on the impact on the company's financial stability. This process resulted in 5 selected scientific articles from reputable international journals such as Elsevier, SSRN, Springer, and ResearchGate. These articles became the main basis for compiling literature synthesis and thematic analysis in this study.

**Table 1.** Literature Review

| No | Title | Author | Findings |
|---|---|---|---|
| 1 | Ogundu (2025) | The Strategic Implications of Financial Derivatives in Hedging Corporate Exposure | Derivatives reduce earnings volatility and increase investor confidence |
| 2 | Alaryani et al. (2024) | Foreign Exchange Exposure and Hedging Strategies | Effective hedging improves operational predictability and credit ratings |
| 3 | Ibrahim (2025) | Navigating Financial Risks: Hedging Derivatives in Risk Mitigation | Derivatives protect against sudden FX shifts and support balance sheet stability |
| 4 | Eyubova (2025) | Essence of Modern Banking: Role of Derivatives | Derivatives are tools to enhance liquidity and risk control |
| 5 | Thakur (2023) | Economic Impact: Forex and Indian Stock Market | FX hedging instruments stabilize equity returns in volatile markets |

Based on the results of the review of ten selected scientific articles, it appears that the use of foreign exchange derivatives in hedging policies plays a crucial role in maintaining corporate financial stability amidst global market dynamics. These studies reflect a broad spectrum of approaches—ranging from conceptual theoretical studies, case studies of multinational corporations (MNCs), to quantitative analysis based on regression and market simulation—which collectively provide in-depth insights into optimizing hedging strategies across various industry and regional contexts.

One important contribution comes from a recent study by (Ogundu, 2025) that underlines the strategic implications of using financial derivatives in dealing with global economic volatility. Through empirical and conceptual studies, Ogundu shows that companies that actively use derivatives are able to stabilize cash flow fluctuations and increase investor perceptions of corporate credibility. This study emphasizes that financial stability is not only the result of risk management, but also of market expectations of a company's ability to respond to global turmoil.

Furthermore, (Alaryani et al., 2024) present a case-based study that analyzes hedging strategies in multinational companies from the energy and technology sectors. They show that a structured hedging policy can improve operational predictability and even have an impact on improving a company's credit rating. A successful hedging strategy not only stabilizes the exchange rate and input prices, but also strengthens financial institutions' confidence in the company's financial position.

Meanwhile, (Ibrahim, 2025) through his comprehensive thesis at the University of Padua, examines how derivatives such as forward contracts, swaps, and options are used to reduce market risk and credit risk arising from currency volatility. Ibrahim concluded that companies that have a good risk management system and understand the characteristics of derivatives tend to be more resilient to market volatility. He also highlighted the importance of the role of regulators in creating a transparent and accountable derivatives ecosystem.

(Eyubova, 2025) study broadens the perspective by looking at the role of derivatives in the modern banking system. She argues that derivatives are not only a risk mitigation tool for corporations but also an important element in managing bank liquidity and operational efficiency. Through a descriptive approach, this study provides an overview of how derivatives become an integral part of a resilient and adaptive modern financial architecture.

(Thakur, 2023) study quantitatively evaluates the relationship between foreign exchange market volatility and corporate stock performance in India. She finds that companies that actively

hedge through derivatives show better stock price stability than those that do not hedge. This finding strengthens the argument that hedging has a direct impact on market perception and corporate value, especially in countries with high exchange rate fluctuations.

Overall, these ten literatures provide a solid foundation in formulating strategies for optimizing hedging policies. They not only illustrate the diversity of approaches and practices but also provide in-depth empirical results on how foreign exchange derivatives can maintain corporate financial stability in an uncertain global landscape. These studies also highlight the importance of mature risk governance, policy transparency, and regulatory ecosystem support in strengthening the effectiveness of hedging policies at the corporate level.

## Discussion

### Factors Affecting Hedging Effectiveness

In an increasingly dynamic global economic environment, companies are faced with major challenges related to foreign exchange rate fluctuations. This instability can have a significant impact on the company's financial stability, especially in terms of net income, cash flow, and asset value. Therefore, hedging strategies using foreign exchange derivatives have become one of the main approaches to managing these risks. However, the effectiveness of this strategy is not universal—it depends heavily on various internal and external factors of the company.

One of the most crucial factors is the level of foreign exchange market volatility. As volatility increases, exchange rate risk becomes more unpredictable, making the need for a solid hedging strategy even more urgent. For example, in the context of multinational companies such as Samsung or Toyota, sharp changes in the yen or won exchange rate can significantly reduce profit margins. This is supported by the findings of (Bartram et al., 2011) in the Journal of Financial and Quantitative Analysis, which states that companies operating in markets with high volatility are more likely to adopt derivative strategies to stabilize their financial risks.

In addition, the effectiveness of hedging is also greatly influenced by the type of exchange rate exposure faced by the company. Transactional exposures—such as intercurrency payments in international trade—tend to have a direct impact on cash flows and are more often the target of hedging. Meanwhile, translation exposures, which arise from the conversion of financial statements in foreign currencies, have a long-term impact and are accounting in nature. A study by (Nguyen & Faff, 2003) on companies in Australia revealed that most companies focus more on transactional exposures because of their more tangible implications for operational continuity.

The internal financial structure of a company also plays an important role. Companies with high leverage, or a large debt-to-equity ratio, are more sensitive to exchange rate risk because exchange rate shocks can increase the likelihood of violating debt covenants. Therefore, companies with more complex and risky capital structures tend to be more aggressive in using derivative instruments. (Allayannis & Ofek, 2001) showed in their study that companies with high exposure to foreign currencies and high debt levels consistently showed a higher intensity of derivative use as a form of risk mitigation.

However, even with all the instruments available, the success of a hedging strategy depends heavily on the quality of the company's risk management. The ability of management to understand the types of risks faced, select appropriate derivatives, determine the hedging time horizon, and integrate this information into a sophisticated financial information system is a key requirement for long-term effectiveness. Companies such as General Electric have become classic examples of how digitally integrated risk management systems can ensure that hedging policies support the overall corporate strategy, not just a short-term solution.

## Evaluation of the Impact of Hedging on Financial Stability

Evaluation of the impact of hedging strategies using foreign exchange derivatives shows that this approach can make a real contribution to the financial stability of companies, especially in the context of uncertain global markets. When hedging strategies are implemented properly and integrated into the company's risk management system, the results are not only protection from short-term exchange rate fluctuations, but also create profound long-term strategic benefits.

One of the most obvious impacts of hedging policies is increased net income stability. In a study conducted by (Allayannis & Weston, 2001), they found that companies that actively use foreign exchange derivatives have lower earnings volatility and, ultimately, provide higher stock returns than companies that do not hedge. This shows that hedging is effective in absorbing market shocks and protecting profitability. The study examined more than 400 US companies and concluded that hedging strategies increase company value by around 4.87%.

Furthermore, in terms of cash flow, hedging plays an important role in increasing predictability, especially for companies with exposure to foreign currency transactions. Exchange rate uncertainty can cause cash flow fluctuations that complicate operational planning, debt payments, and investments. By protecting cash flow from the impact of exchange rates, companies can make long-term financial projections more accurately. For example, Procter & Gamble uses a cross-border hedging strategy to secure profit margins on products marketed globally. This allows them to lock in prices and operating costs amid exchange rate fluctuations, especially against the euro and yen, maintaining the stability of the company's liquidity from quarter to quarter.

The subsequent impact of profit and cash flow stability is increased investor confidence and the potential for increasing company value. Investors tend to value stability in financial performance because lower risk is often associated with higher value. Research by (Jin & Jorion, 2006) examined oil and gas companies in the US and found that the use of derivatives not only reduced market exposure, but also increased market confidence and stock valuations.

Finally, an effective hedging strategy also contributes to reducing the risk of bankruptcy. Uncontrolled exchange rate fluctuations can create sudden losses in the balance sheet, especially when the company has obligations in foreign currencies. Without hedging, exchange rate volatility can lead to debt covenant violations and lower the company's credit rating. In the case of the Asian economic crisis in 1997, many companies in Thailand and Indonesia went bankrupt because they did not have a hedging strategy for their foreign currency debt. A study by (Dominguez & Tesar, 2006) showed that companies that hedge in developing countries have better financial performance and are more resilient in facing global market pressures.

## Hedging Policy Optimization Strategy

In facing the challenges of exchange rate volatility in the global market, hedging policy optimization strategy is an important element in the risk management of multinational companies. However, for this strategy to be truly effective and not merely symbolic, companies need to design an approach that is data-based, responsive to market changes, and integrated with the corporate financial system. This optimization includes the integration of advanced quantitative techniques, dynamic adjustment of derivative portfolios, and synergy with natural hedge strategies.

One of the main pillars of modern hedging strategies is the use of quantitative models such as Value-at-Risk (VaR). This model serves to measure the maximum possible loss that can occur in a given period at a certain level of confidence. VaR not only provides companies with a statistical measure of their exposure to exchange rate risk, but also forms the basis for determining the size of the hedging position. For example, in Goldman Sachs' annual report, the company uses VaR to assess the foreign exchange risk of its entire financial portfolio and formulates a hedging policy based on the

resulting risk tolerance threshold. (Jorion, 1997) study strengthens the role of VaR in the context of non-financial companies, showing that VaR can improve the efficiency of risk management and provide strong justification for the hedging strategy taken.

In addition to VaR, companies also need to conduct scenario simulations using approaches such as Monte Carlo simulation and stress testing. With this simulation, companies can predict the results of various possible scenarios of extreme exchange rate fluctuations and understand their impact on cash flow, profit, and balance sheet position. For example, in the airline industry, Southwest Airlines is known to use Monte Carlo simulation to manage oil price and exchange rate risks, helping them anticipate spikes in operating costs and develop adaptive long-term hedging strategies. This strategy has proven successful in maintaining the company's financial stability during the global oil price crisis.

Policy optimization also requires continuous adjustment of the derivative portfolio. Instruments such as currency forwards, options, and swaps must be selected not only based on current exposure, but also on cash flow projections and international market dynamics. A static derivative portfolio can backfire because the foreign exchange market is highly susceptible to political sentiment, global interest rates, and geopolitical turmoil. According to (Makar & Huffman, 1997), flexibility in the composition of a derivative portfolio is positively associated with risk reduction efficiency and increased firm value.

In addition to the use of financial derivatives, companies are also increasingly implementing natural hedge strategies. This is done by aligning revenues and costs in the same currency, or establishing production units in countries with dominant currencies that match revenue exposure. For example, Nestlé implements a “matching currency” policy where they ensure that operating costs in a particular country are covered by revenues in the same local currency. This helps them reduce their dependence on derivative instruments and improve operational efficiency. Natural hedges not only reduce the need for external hedging, but also strengthen a globally oriented business model with naturally distributed risks.

### Strategic Recommendations for Long-Term Decision Making

a. Integration of Hedging Policy in Corporate Finance Strategy: This policy should be part of strategic planning, not just reactive.
b. Foreign Exchange Risk Information System and Training: Real-time monitoring system for hedging positions and exchange rate fluctuations.
c. Diversification of Derivative Instruments: Not relying on only one type of derivative.
d. Periodic Evaluation of Hedging Effectiveness: With metrics such as reduction in income volatility and derivative ROI.

## CONCLUSION

This study confirms that optimizing hedging policies through foreign exchange derivatives is a very important strategic step in maintaining the financial stability of companies, especially amidst the dynamics of the global market full of uncertainty. Derivatives such as forward contracts, options, and swaps have proven effective in stabilizing profits, protecting cash flow, and increasing company value. The effectiveness of this strategy depends on a number of factors, such as the characteristics of exchange rate exposure, the condition of the company's financial structure, the level of market volatility, and managerial capabilities in designing appropriate risk strategies. This study also shows that the use of analytical approaches such as Value-at-Risk (VaR), stress testing, and diversification of derivative portfolios greatly assist companies in managing exposure adaptively. Natural hedge is also an important element that can strengthen the overall strategy organically. Overall, an optimal

hedging strategy must be integrated into a long-term financial planning system and not carried out solely reactively.

Companies are advised to make hedging policies part of their long-term corporate strategy, not just a response to momentary market volatility. Internal training on derivatives and foreign exchange risk for finance teams should be enhanced, along with investment in risk information systems capable of monitoring hedge positions in real time. In addition, companies should diversify derivative instruments and periodically evaluate the effectiveness of hedging strategies with measurable indicators such as reduced cash flow volatility and return on hedging.

Future research could expand the scope by using a quantitative approach based on panel data to empirically test the causal relationship between derivative use and corporate financial performance. Comparative research across sectors or countries could also provide new insights into the effectiveness of hedging strategies in different regulatory contexts and market characteristics. In addition, further exploration of the integration of natural hedges with financial hedges in a hybrid model is worth studying to develop more sustainable and efficient risk management strategies.

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