Dean&Francis
ISSN 2959-6130

Exchange Risk Management of Multinational Enterprises under the China-US Trade War: Case of Yutong Packaging

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Abstract:
After the outbreak of the China-US trade war in 2018, tariffs and exchange rate fluctuations increased the uncertainty of transaction costs for multinational enterprises, making foreign exchange risk management a critical issue for companies to cope with the impact. Yutong Packaging Technology is one of the world's largest producers of premium paper packaging. As its customers are spread all over the world, the China-US trade war is certain to expose the company to exchange risk. This paper uses Yutong Packaging as a case study and finds that under the environment of the China-US trade war, Yutong Packaging effectively avoided exchange rate risk through foreign exchange hedging operations, buffered the impact of foreign exchange losses on profits, and ensured the stability of profits from overseas businesses. This study enriches the practical application of risk management and financial strategy theories and provides feasible foreign exchange risk management approaches for export-oriented multinational enterprises.

Keywords: China-US Trade War; Multinational Enterprises; Foreign Exchange Hedging; Exchange Rate Risk; Yutong Technology; Risk Management

1. Introduction

In July 2018, the Trump administration officially imposed tariffs on approximately $34 billion worth of Chinese goods, and China responded with equivalent tariffs on the same day. This marked the official escalation of China-US trade friction into a trade war [1]. As a hallmark of economic globalization, multinational enterprises are clearly among the most affected entities.

In the context of the China-US trade war, multinational enterprises need to make reasonable strategic adjustments based on both internal and external developments to mitigate potential risks in the future [2]. Tariffs and exchange rates, as two of the most important economic factors in international trade, represent significant transaction costs that multinational enterprises cannot overlook [1]. The escalation of the China-US trade war implies an intensification of uncertainty in transaction costs. From a risk management perspective, multinational enterprises can choose relevant financial derivative products to mini-

ISSN 2959-6130

mize the uncertainty of potential future costs.
Shenzhen Yutong Packaging Technology Co., Ltd. (short as "Yutong Technology"), as a typical multinational enterprise, has a global business footprint, with operations in regions such as Asia and South America. Since 2018, the company has implemented measures such as foreign exchange hedging to manage future exchange rate risks.

The definition of foreign exchange risk exposure is the starting point for the study of foreign exchange hedging. Toerien pointed out that the use of derivatives adds value to the valuation of companies in emerging markets, while also highlighting the importance of disclosure timing in financial statements [3]. Bae et al. emphasized that hedging instruments must match the characteristics of foreign exchange exposure [4]; Ji and Wei found that the use of currency derivatives significantly enhances a company's Tobin's Q, confirming the value-creating role of foreign exchange hedging [5].

The implementation of hedging operations by multinational companies is influenced by multiple factors. Han and Laing noted that companies with higher degrees of multinationality are more inclined to use foreign exchange derivatives to manage corporate risk [6]. Likitwongkajon and Vithessonthi used Swiss companies as a sample and pointed out that the degree of internationalization is positively correlated with performance volatility, but hedging measures such as foreign exchange hedging cannot completely guarantee the mitigation of corporate risk [7]. Zhang found that the proportion of exports, the degree of internationalization, and the fluctuation of the RMB exchange rate are key drivers of foreign exchange exposure, with export-oriented industries such as packaging and electronics being more exposed to foreign exchange risk [8]. Ekta Sikarwar discovered that the higher the board's supervision of risk management activities such as foreign exchange hedging, the lower the business risk and the higher the efficiency [9].

External shocks can exacerbate exchange rate fluctuations and influence the demand for hedging. Allayannis and Ofek studied the 1992 European Exchange Rate Mechanism crisis and found that external exchange rate risks prompted companies to increase their hedging investments [10]. Gordon et al. proposed that trade conflicts, through tariff fluctuations, amplify transaction exposure, while policy uncertainty leads to exchange rate volatility, increasing economic exposure through a dual path, thereby intensifying risks [11]. Evangelos Salachas discovered that geopolitical risks can cause fluctuations in stock and asset prices, thereby driving companies to seek more hedging tools to hedge against potential risks [12].

After the outbreak of the China-US trade war in 2018, Lin found that export companies using foreign exchange derivatives had 18%-22% lower net profit volatility and 25% higher cash flow stability [13]; From a strategic perspective, suggested that in the context of the trade war, foreign exchange hedging should be integrated into the company's overall financial strategy, combining overseas operations and cash flow, and strengthening cooperation with banks [14].

Clearly, the financial strategy and financial management tools of companies have been extensively studied and theorized globally. Theories related to corporate risk management have also been systematically researched. However, under the current global context of the China-US trade war, existing theories are often limited to specific periods and cannot fully address the current trade environment of the China-US trade war. Therefore, this paper uses Yutong Technology as a case study to analyze the company's financial and financial management strategies, exploring how Chinese companies can use financial tools such as foreign exchange hedging for risk management in the global context of the China-US trade war. This paper aims to enrich the practical application of risk management and financial strategy theories and provide feasible coping strategies for multinational companies facing similar situations.

2. Case Study of Yutong Packaging's Foreign Exchange Hedging

2.1 Analysis of the Reasons for Foreign Exchange Hedging

Since the outbreak of the China-US trade war in 2018, the economies of both China and the United States, as well as the global economy, have been impacted. As a multinational company with a high proportion of export business, Yutong Technology primarily conducts foreign exchange settlements in US dollars, Hong Kong dollars, euros, and other currencies. One of the main purposes of Yutong Technology's foreign exchange hedging operations is to mitigate exchange rate risks, reduce foreign exchange losses, control operational risks, prevent adverse effects caused by large exchange rate fluctuations on the company's production and operations, and ensure the stability of profits from its overseas business.

In addition, Yutong Technology has subsidiaries in countries and regions such as Hong Kong, Vietnam, and India. By consistently conducting foreign exchange hedging, the company can optimize its foreign exchange fund management, match the multi-currency settlement needs, and improve the efficiency of its capital circulation.

2.2 Specific Practices of Foreign Exchange Hedging

Yutong Technology's foreign exchange hedging operations involve a stable range of financial instruments, including forward foreign exchange contracts, foreign exchange swaps, currency swaps, foreign exchange options, and combination products. The currencies involved in these transactions remain consistent, primarily US dollars, euros, and Hong Kong dollars, which align with the currencies used for settlements with its overseas subsidiaries and customers.

In terms of business scale, the company's hedging transaction amounts initially fluctuated but then stabilized, with an overall upward trend (as shown in Table 1). Additionally, Yutong Technology's foreign exchange hedging operations are clearly funded through internal self-owned funds. Each period's foreign exchange hedging business must undergo review and approval by the board of directors. In 2023, the company also added margin constraints to avoid excessive fund usage, further improving the rigor and risk control of its operations.

Table 1. Hedging Data of Yutong Technology Since 2018

Actual Execution Year/ Specific Date	Hedging Transaction Limit (Million $)	Exceeds 50% of Net Assets	Actual Overseas Revenue (￥Billion)	Proportion of Operating Revenue	Remarks
2018.1.1-2018.4.19	330	No	48	57.03%	The expansion of international trade and foreign investment financing has led to the original limit being insufficient to meet actual demand.
2018.4.20-2019.3.21	600	Yes			
2019.3.22.-2020.3.22	500	No	13	13.80%	
2020.4.24-2020.10.29	200	No	18	15.79%	With the recovery of overseas business and the expansion of foreign exchange income and expenditure, it is necessary to increase the limit to cover the risk exposure.
2020.10.29-2021.4.25	600	Yes			
2021.4.26-2022.4.24	600	No	22	15.42%	
2022.4.25-2023.4.24	600	No	32	19.74%	
2023.4.25-2024.4.24	600	No	37	24.48%	The sum of the trading margin and option premium must be ≤ 50% of the most recent audited net profit.
2024.4.25-2025.4.24	600	No	50	29.71%	
2025.4.25-2026.4.25	600	No	/	/	

*The new hedging limit exceeding 50% of net assets requires approval from the shareholders' meeting. If shareholders agree to increase the limit, the latest limit can be used.

*2023: The upper limit for trading margin + option premium ≤ 56,150 (50% of 2022 net profit of 112,300 million RMB)

*2024: The upper limit for trading margin + option premium ≤ 61,200 (50% of 2023 net profit of 122,400 million RMB)

2.3 Analysis of the Effects of Foreign Exchange Hedging

The effectiveness of Yutong Technology's foreign exchange hedging operations can be directly reflected through financial data. Specific financial indicators are shown in Table 2. It is evident that Yutong Technology's foreign exchange hedging operations have played a significant role in risk hedging, profit stability, business adaptation, and management improvement. These operations are essential risk control measures. In 2018, when the company conducted forward foreign exchange transactions, the fair value changes due to exchange rate fluctuations resulted in a loss of 4.3million RMB. However, the exchange gain amounted to 8.4 million RMB, indicating that the hedging activities partially offset the exchange rate loss. In 2021, the hedging business led to an exchange gain of 62.3 million RMB, and investment income from the forward foreign exchange settlements reached 105

ISSN 2959-6130

million RMB, demonstrating the protective effect of hedging on the company's profits. In extreme years such as 2022 and 2023, the exchange losses from forward foreign exchange settlements amounted to -152 million RMB and -5.9605 million RMB, respectively. However, the fair value changes due to the revaluation of hedging instruments (64.9 million RMB and 30.7 million RMB) helped buffer the impact of the exchange losses on profits. Without the hedging operations, the profit and loss statement would have been far worse, confirming that hedging is indeed a necessary risk management tool.

Table 2. Hedging Data of Yutong Technology Since 2018

Year	Financial Indicators	Amount (￥million)	Proportion of Total Profit	Explanation for the Cause
2018	Exchange gains and losses	8	/	/
	Fair value changes gains and losses	-4	-0.38%	the company's forward foreign exchange transactions.
2019	Exchange gains and losses	17	/	/
	Fair value changes gains and losses	6	0.51%	the company's forward foreign exchange transactions and the accrual of financial product income.
2020	Exchange gains and losses	118	/	/
	Investment income	38	2.91%	the company's purchase of principal-protected financial products and the delivery income from forward foreign exchange transactions on receivables.
	Fair value changes gains and losses	57	4.29%	the company's forward foreign exchange transactions, the revaluation of undelivered portions at the end of the period, and the accrual of unrealized financial product income.
2021	Exchange gains and losses	62	/	/
	Investment income	105	8.73%	the company's forward foreign exchange transaction delivery income.
	Fair value changes gains and losses	-28	-2.34%	the company's forward foreign exchange transactions, the revaluation of undelivered portions at the end of the period.
2022	Exchange gains and losses	-152	/	/
	Investment income	-90	-5.01%	the loss from the delivery of matured forward foreign exchange transactions.
	Fair value changes gains and losses	64	3.60%	the revaluation gains from forward foreign exchange transactions at the end of the period and investment income from equity instruments.
2023	Exchange gains and losses	-59	/	/
	Investment income	-102	-5.80%	the loss from the delivery of matured forward foreign exchange transactions.
	Fair value changes gains and losses	30	1.73%	financial product income and revaluation gains from forward foreign exchange transactions at the end of the period.

Year	Financial Indicators	Amount (￥mil-lion)	Proportion of Total Profit	Explanation for the Cause
2024	Exchange gains and loss-es	-87	/	/
	Investment income	-137	-7.92%	the investment loss from the disposal of long-term equity investments and the loss from the delivery of matured forward foreign exchange transactions.
	Fair value changes gains and losses	25	1.49%	the increase in financial product income.

3. Discussion and Insights

3.1 Risk Analysis of Yutong Technology's Foreign Exchange Hedging Operations

Yutong Technology faces various risks in the process of conducting foreign exchange hedging, as outlined below:

First, exchange rate fluctuation risk may lead to foreign exchange losses. If exchange rates fluctuate significantly, the forward exchange rates quoted by financial institutions may differ from the company's actual settlement rates. This discrepancy is the core market risk in hedging operations.

Second, customer or supplier default risk arises from the possibility that customers may delay payments, or payments to suppliers may not be received on time. If payments are not recovered within the predicted timeframe, it could result in delayed forward foreign exchange settlements and lead to losses. This risk is directly linked to the performance and creditworthiness of the company's upstream and downstream partners, introducing uncertainty.

Next, foreign revenue forecasting risk is another challenge. Yutong Technology's hedging amounts are based on forecasts of overseas business volumes for the year. In actual execution, customers or suppliers may adjust orders, causing inaccuracies in the forecasted inflows and outflows. This can result in settlement risks, and when the overseas business scale is large, the impact of forecasting deviations is magnified.

Finally, internal control risk arises from the highly specialized nature of foreign exchange hedging. If internal control systems are not well-developed or poorly executed, operational risks could emerge. Although the company has safeguards in place, such as board reviews for hedging operations, continuous improvement of team expertise is necessary to avoid these risks.

3.2 Insights for Foreign Exchange Risk Management in Multinational Enterprises

Based on Yutong Technology's foreign exchange hedging practices and risk analysis, multinational enterprises should focus on the following aspects when conducting foreign exchange hedging in the context of the China-US trade war:

Firstly, in product selection, enterprises should choose stable and suitable hedging instruments and currencies based on their business characteristics and the types of settlement currencies they use. For instance, Yutong Technology focuses on forward foreign exchange contracts, foreign exchange swaps, etc., and locks in currencies such as the US dollar, euro, and Hong Kong dollar, which align closely with the settlement needs of its overseas business. This effectively reduces the risk of misalignment between the hedging instruments and the actual business requirements. For companies engaged in both import and export operations, they could also consider the "forward + options" combination strategy proposed by Xin Rong, which balances "risk hedging + income retention."

Secondly, in limit management, hedging limits should be dynamically adjusted based on the scale of overseas business, and a risk constraint mechanism should be established. Yutong Technology adjusts its limits in accordance with the expansion of international trade business and the growth of overseas revenue. After 2021, the hedging limit has remained stable at USD 60 million. In 2023, the company added the constraint that "the sum of trading margin + option premium must be ≤ 50% of the most recent audited net profit," ensuring risk coverage while preventing excessive capital occupation. This model can serve as a reference for other companies.

Thirdly, in risk control, a comprehensive risk prevention and control system should be established. On one hand, to address exchange rate fluctuation risks, companies can strengthen cooperation with financial institutions to improve their ability to predict exchange rate trends. On the other hand, to mitigate default and forecasting risks, companies can optimize upstream and downstream cooperation agreements, establish dynamic tracking mechanisms for customer orders, and enhance the accuracy of payment forecasts. At the same time, companies should continue to improve internal control systems and provide professional training to the hedging operations team to reduce operational risks.

Finally, in policy response, companies should actively

ISSN 2959-6130

leverage national policies supporting the foreign exchange derivatives market. Since 2018, the central bank has implemented policies to increase the use of foreign exchange derivatives by enterprises. Companies can fully utilize these policy advantages to expand their selection of hedging instruments, reduce transaction costs, and especially help small and medium-sized enterprises make up for their disadvantages in using derivative tools.

4. Conclusion

This paper, set against the backdrop of the China-US trade war, focuses on foreign exchange risk management in Chinese multinational enterprises, using Shenzhen Yutong Packaging Technology Co., Ltd. as a case study. It analyzes the reasons behind, specific practices of, and effects from the company's foreign exchange hedging operations, and discusses the risks involved as well as insights for other enterprises. The research finds that Yutong Technology, through its foreign exchange hedging operations, effectively mitigated exchange rate risks, buffered the impact of foreign exchange losses on profits, and ensured the stability of profits from its overseas business. The company's experiences in product selection, limit management, and internal control mechanisms validate the effectiveness of foreign exchange hedging as a risk management tool for multinational enterprises. Additionally, the study also identifies the risks faced by enterprises in such operations, including exchange rate fluctuations, default, forecasting, and internal control risks, providing practical insights for risk management.

The significance of this study lies in its exploration of foreign exchange risk management in the context of the China-US trade war, using the real-world case of Yutong Technology. It enriches the practical application of risk management and financial strategy theories and provides feasible foreign exchange risk management approaches for multinational companies with situations similar to Yutong Technology's (especially export-oriented industries such as packaging, electronics, and machinery). Future research could further expand in the following directions: First, broaden the scope of case studies to compare the differences in foreign exchange hedging strategies among multinational enterprises across different industries, extracting more industry-specific recommendations. Second, conduct in-depth research into the practical applications of combination hedging tools, such as "forward + options," to provide more refined guidance on improving hedging efficiency. Third, combine changes in global economic policies (such as adjustments to exchange rate systems or shifts in trade policies) to analyze their dynamic impacts on multinational enterprises' foreign exchange hedging strategies, thereby enhancing the timeliness and adaptability of the research.

References

[1] Zhou Jingtong, Wu Dan. New Developments, Significance, and Impact of the RMB Foreign Exchange Derivatives Market. Financial Market Research, 2023, (10): 58-71.

[2] Xu Yiwen. Research on the Development and Countermeasures of the Chinese Foreign Exchange Derivatives Market. Small and Medium Enterprise Management and Technology (Early Edition), 2021, (10): 91-93.

[3] Toerien F E, Hall J H, Brümmer L. The derivatives debate: do derivatives disclosures add value during difficult times?. International Journal of Emerging Markets, 2025, 20(13): 181-200.

[4] Ji P, Wei L. Hedging with derivatives to increase firm value. Finance Research Letters, 2023, 55: 103981.

[5] Han X, Laing E. Enterprise Risk Management and Foreign Currency Derivatives Usage. International Review of Economics & Finance, 2025: 104518.

[6] Likitwongkajon N, Vithessonthi C. Internationalization, foreign exchange exposure and firm risk. International Review of Financial Analysis, 2022, 83: 102334.

[7] Zhang Yangshuzhen. Research on Foreign Exchange Risk Exposure of Chinese Multinational Corporations and Its Influencing Factors. Southwest University of Finance and Economics, 2019.

[8] Bae S C, Kwon T H, Park R S. Managing exchange rate exposure with hedging activities: New approach and evidence. International Review of Economics & Finance, 2018, 53: 133-150.

[9] Salachas E, Kouretas G P, Laopodis N T, et al. Stock market spillovers of global risks and hedging opportunities. European Journal of Political Economy, 2024, 83: 102533.

[10] Sikarwar E. Board attributes, hedging activities and exchange rate risk: Multi-country firm-level evidence. Economic Modelling, 2022, 110: 105800.

[11] Allayannis G, Ofek E. Exchange rate exposure, hedging, and the use of foreign currency derivative. Journal of international money and finance, 2001, 20(2): 273-296.

[12] Gordon L A, Loeb M P, Tseng C Y. Enterprise risk management and firm performance: A contingency perspective. Journal of accounting and public policy, 2009, 28(4): 301-327.

[13] Lin Ping. Research on Exchange Rate Risk Management Strategies for Chinese Export Enterprises under the Background of the Trade War. Xiamen University, 2021.

[14] Yang Jialin. Research on the Optimization of Corporate Financial Strategies under the Background of the China-US Trade War. Zhongnan University of Economics and Law, 2019.