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Foreign Exchange Exposure and Risk Management Strategies: A Bibliometric Analysis of Global Research Trends (2000-2024)

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Abstract

Research on foreign exchange exposure and risk management strategies has begun to show significant growth over the past two decades. This study aims to map the development of global literature related to foreign exchange exposure through a bibliometric analysis of Scopus-indexed publications from 2000 to 2024. The study population consisted of articles, conference papers, and other scientific publications relevant to the topic. All publications were analyzed using VOSviewer software. Research findings based on bibliometric data show a total of 347 different documents. Publications relevant to this topic have shown a consistent upward trend each year, with the highest number of publications occurring in 2024 with 31 articles. The largest number of authors came from the United States, the United Kingdom, and China. The main results of this study show three important findings. First, research on foreign exchange exposure has experienced significant growth since 2008, in line with increasing global market volatility and the need for companies to implement risk mitigation strategies. Second, the bibliometric visualization identifies seven main research topic clusters: (a) measuring exchange rate exposure, (b) market risk and volatility, (c) hedging strategies using derivative instruments, (d) risk management in multinational corporations, (e) global financial market integration, and (f) the impact of exchange rates on corporate performance. Third, analyses of co-authorship, co-occurrence, bibliographic coupling, and co-citation indicate that research collaboration remains concentrated in developed economies, although contributions from developing countries have begun to increase in recent years. Overall, this study provides a comprehensive overview of the evolution, research focus, and direction of global research development related to foreign exchange exposure and risk management strategies in the context of international economic uncertainty.

INTRODUCTION

The era of globalization has integrated the world economy through increased international trade, foreign investment, and global supply chains. This situation demands that multinational corporations (MNCs) create the need for stronger international cooperation to address shared challenges, such as climate change, economic inequality, and the global health crisis (Sudarmanto, E., 2025). However, this also exposes companies to significant foreign exchange (forex) risk exposure due to exchange rate volatility. Foreign exchange exposure is defined as the extent to which a company's value is affected by unexpected exchange rate changes (Adler & Dumas, 1984). Bank Indonesia data (2024) shows that the rupiah exchange rate against the US dollar experienced extreme fluctuations, moving from IDR 14,050 to IDR 16,500 per USD throughout the 2022-2024 period, with daily volatility reaching 2.3%. The volatility of the rupiah exchange rate against the US dollar poses significant risks for companies with foreign exchange exposure (Cristoffel & Wijaya, 2025).

Exchange rate fluctuations triggered by the global financial crisis, political turmoil, and international economic uncertainty have been shown to have a direct impact on company

performance. For example, a weakening domestic currency can increase the debt burden of companies with foreign currency obligations, while an appreciation of the domestic currency can reduce export competitiveness (Rahman et al., 2025). Although foreign exchange risk is inherent in almost all sectors, its impact is particularly pronounced for companies that engage in intensive cross-border transactions, such as the export-import, banking, energy, and global manufacturing sectors (Muftiasa et al., 2023). Therefore, a foreign exchange risk management strategy becomes crucial.

After establishing that exchange rate volatility poses a significant threat, the next crucial step for companies is to accurately identify and measure foreign exchange exposure. Foreign exchange exposure is generally classified into three main categories [Shapiro, 2010]: Transaction Exposure, which relates to the impact of exchange rate changes on fixed contractual cash flows (e.g., receivables or payables in foreign currencies); Translation Exposure, which reflects the impact of exchange rates when consolidating the financial statements of a foreign subsidiary into the parent currency; and Economic Exposure, the broadest, encompassing the effect of exchange rate changes on the present value of all future operating cash flows of the company [Adler & Dumas, 1984]. Measuring this exposure involves sophisticated econometric techniques, such as regression analysis with the Value at Risk (VaR) model to project the maximum potential loss over a given time period [Hull, 2018]. Accuracy in this measurement is vital because it forms the foundation for formulating effective management strategies.

After identifying and quantifying various forms of foreign exchange exposure, a critical question arises: how should companies respond to this uncertainty? Exchange rate fluctuations, which are beyond a company's control, are not a phenomenon to be ignored or simply accepted as an "operating cost" in the global market. Rather, this uncertainty represents a risk that must be actively and strategically managed. This is the essence of foreign exchange risk management. Comprehensive Risk Management, or Enterprise Risk Management (ERM), is a holistic and integrated approach to managing all risks faced by a company, including foreign exchange risk, to achieve its strategic objectives (COSO, 2004). The importance of managing foreign exchange risk extends beyond minimizing losses to optimizing financial opportunities. Multinational corporations, exporters, importers, and financial institutions require a comprehensive strategy to protect their financial interests. Hedging decisions can mitigate the negative impact of rupiah exchange rate risk on profitability and growth opportunities, potentially increasing profitability (Santoso & Rachmawati, 2021). Therefore, foreign exchange risk management strategies, whether through the use of financial derivatives or operational hedging, are key to maintaining business continuity (Muftiasa et al., 2023).

Therefore, this bibliometric analysis is crucial for understanding the evolution of research on foreign exchange risk exposure and risk management strategies. This study not only provides an overview of global research trends but also identifies research gaps that can serve as the basis for further research, particularly in developing countries with high levels of currency volatility (Budianto, 2023).

Based on the importance of this issue, this bibliometric study aims to: 1. Analyze the development of global research on "foreign exchange exposure" and "risk management strategies" based on bibliometric results from the Scopus database. 2. Identify key trends, dominant keywords, and relationships between research topics (such as exchange rate volatility, hedging, financial markets, and profitability) that shape the conceptual structure of this field of study. 3. Determine the most influential research sectors and themes in studies on foreign exchange risk exposure, including the potential shift in research focus from the financial sector to real sectors such as manufacturing and energy.

LITERATURE REVIEW

Purchasing Power Parity (PPP) Theory: According to Ward (2002), PPP theory is a concept that explains that the currency exchange rate between two countries will be equal to the

comparison of the prices of goods and services between the two countries. This means that Purchasing Power Parity (PPP) is an economic theory that explains that the currency exchange rate between two countries will be equal to the comparison of the prices of goods and services between the two countries. Purchasing Power Parity (PPP) theory has several important assumptions that influence the accuracy of predicting currency exchange rates. First, there are no trade barriers, such as tariffs or customs duties, that can affect the flow of goods and services between countries. Second, there are no differences in the quality of goods and services between countries, so that the same goods and services have the same value. Volume 11, No. 02, August 2025 160 Trend … (Kamandanu et al.) Business & Management Bulletin. Third, there are no differences in taxes and subsidies that can affect the prices of goods and services. Fourth, there are no differences in transportation and communication costs that can affect the cost of delivering goods and services. With these assumptions, PPP theory can help predict balanced currency exchange rates between countries (Samuelson, 1964). Exchange Rate Risk Management According to Shapiro (2009), Exchange Rate Risk Management (MRNT) is the process of identifying, analyzing, and managing risks associated with changes in currency exchange rates. Exchange Rate Risk Management (MRNT) is an important process for dealing with uncertainty in the foreign exchange market. The MRNT process involves five strategic steps. First, risk identification is carried out to identify sources of exchange rate risk, such as changes in interest rates, inflation, and monetary policy. Then, a risk analysis is carried out to predict the potential impact on the company's finances. After that, risk measurement is carried out using methods such as Value-at-Risk (VaR) to determine the extent of the risk. Next, strategies such as hedging, diversification, and the use of financial instruments to manage risk are developed. Finally, monitoring and evaluation are carried out to ensure the effectiveness of the MRNT strategy and minimize potential losses. Hedging Strategy According to Philippe Jorion (2007), hedging is a risk management strategy that involves buying or selling financial instruments to reduce or eliminate the risk of loss. There are three main objectives in conducting exchange rate hedging. First, reducing the risk of loss due to changes in exchange rates. This is especially important for companies conducting international transactions, as changes in exchange rates can significantly impact a company's finances. Second, stabilizing revenue or costs associated with foreign exchange transactions. By hedging, companies can predict and control costs or revenue associated with foreign exchange transactions. Third, reducing exchange rate volatility. Exchange rate volatility can significantly impact a company's finances, so reducing it can help improve a company's financial stability. Hedging is a strategy used to reduce risk by buying or selling financial instruments that have a negative correlation with the desired position (C. Hull, 2013).

Risk refers to the potential for loss or destruction. Broadly speaking, risk can be defined as the possibility of an undesirable or undesired outcome. The financial industry generally adheres to the maxim "high risk, high return," which implies that if we desire higher returns, we must accept a greater level of risk. Investment risk can be defined as the potential difference between actual and expected returns. Therefore, in making investment decisions, every investor must strive to minimize the short-term and long-term risks that arise. Every micro- and macroeconomic change will encourage investors to implement strategies that must be implemented to continue generating returns. Probability, occurrence, and loss are the three main aspects of risk. If any of these three components is missing, the risk is considered non-existent. Risk is also defined as uncertainty regarding the object or exposure to risk. Statistically, risk is defined as the volatility of something, such as income, profits, costs, etc. Volatility measures dispersion, which in statistics is measured by variance or standard deviation. The greater the variance or standard deviation, the higher the risk (Indrajaya, Herlina, and Setiadi 2012). Organizations must address organizational risk management, a comprehensive risk management system, to enhance their corporate value. Risk management consists of mission identification, risk and uncertainty assessment, risk financing, and program administration (Putro and Chabachib 2012). The term "risk management" ultimately refers to a method or approach that requires a series of human activities, such as "risk assessment,"

"strategy development," and "risk mitigation by empowering or managing resources," to address the uncertainty that comes with being prepared to face threats.

METHODS

This study uses bibliometric analysis to evaluate and analyze scientific literature related to foreign exchange risk management. This method allows researchers to identify research developments, dominant topic trends, and relevant intellectual maps as a basis for formulating further research directions. The database used is Scopus, based on scientific publications published between 2000 and 2024 in the subject areas of Economics, Econometrics, and Finance, as well as Business, Management, and Accounting.

This study employed several analytical tools, including VOSviewer software. The sampling technique employed was total sampling, where all documents matching the research keywords were extracted from the Scopus repository in CSV format. The keyword network mapping related to foreign exchange risk was performed using the latest version of VOSviewer software. The cleaned data was then used to conduct bibliometric mapping, which included co-authorship analysis, keyword co-occurrence, citation analysis, and bibliographic coupling. Using the keyword "foreign exchange risk" as the unit of analysis, we performed word network map visualization, density visualization, and research theme clustering, illustrating the direction and focus of studies in the foreign exchange risk literature. Keyword co-occurrence analysis was used to identify key concepts frequently used together in foreign exchange risk-related research. Co-authorship analysis also helped map scientific collaborations between authors and institutions. Citation analysis was conducted to identify the most influential and frequently cited documents. VOSviewer output was used to understand the knowledge structure and the evolution of foreign exchange risk research topics over the past three decades.

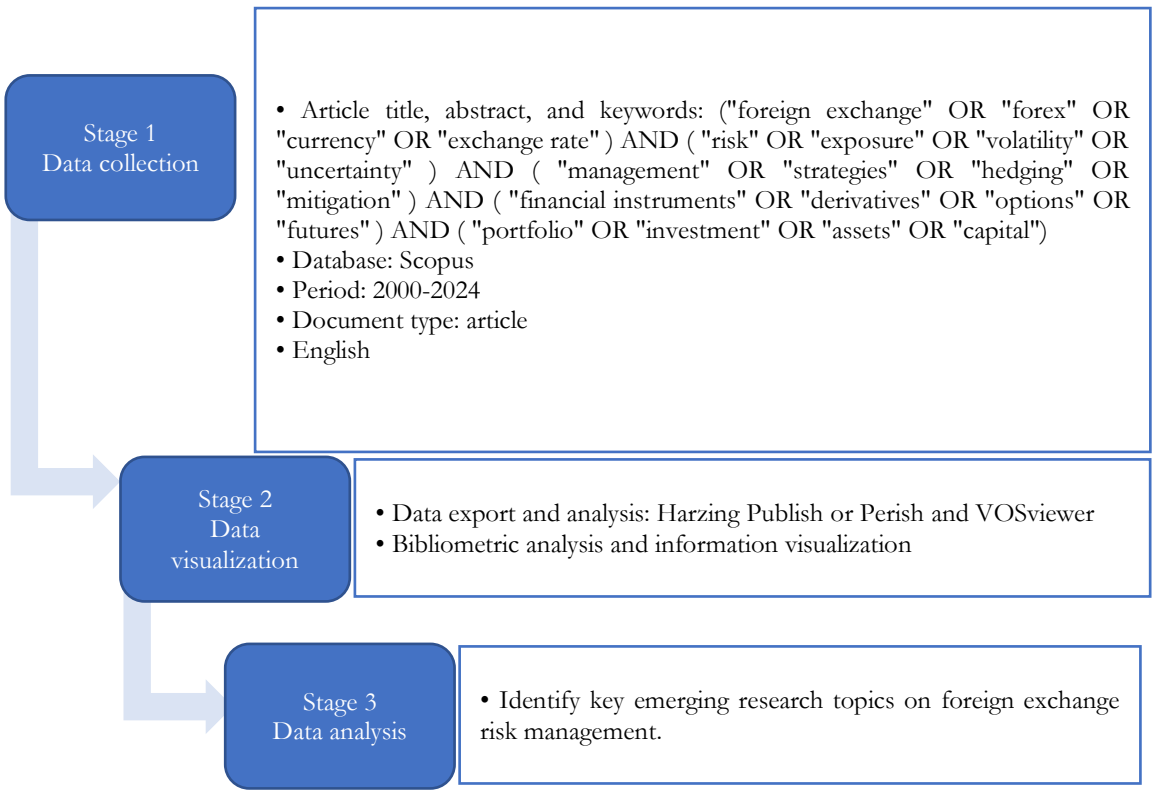

Figure 1. Methodological Stages Applied in This Research

The methodological stages applied in this research are divided into three, as shown in Figure 1. The first stage, or data collection, involves defining search criteria to identify records in the Scopus database and refining the records found. The second stage, or data visualization,

involves exporting CSV documents downloaded from Scopus to VOSviewer software. The third stage, or data analysis, involves analyzing the data to identify key topics discussed in emerging research on Foreign Exchange Risk Management.

RESULTS AND DISCUSSION

Publication Trend

The trend in the number of publications is displayed by grouping the number of publications by year of publication. The publication trend from 2000 to 2024 regarding foreign exchange exposure and risk management strategies can be seen in the figure below.

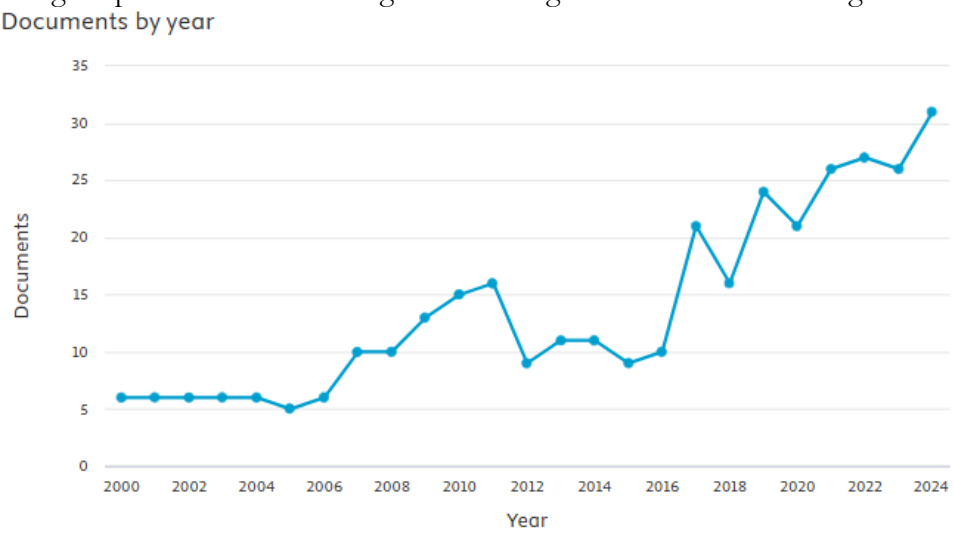

Figure 2. Trend in the Number of Publications

The graph shows the number of publications on the topic of foreign exchange exposure and risk management strategies during the period 2000–2024. The visible pattern illustrates a trend of increasing research development over time, although there were some fluctuations in certain years. During the first six years, the number of publications remained relatively stable at around 5–6 documents per year. This indicates that prior to the mid-2000s, research interest in foreign exchange exposure and risk management was still low. The focus of financial academics during this period was still predominantly on issues of early globalization, market integration, and the recently concluded 1998 economic crisis, so this topic did not receive significant attention. Following the 1997–1998 Asian financial crisis, the international finance literature was dominated by evaluations of systemic vulnerability, crisis transmission between countries (contagion), and monetary policy restructuring to restore stability to integrated markets (Eichengreen, 2003).

Starting in 2007, the number of publications increased to 10 documents per year. This then continued to increase until 2011. In that year, multinational companies began to focus on mitigating exchange rate risk due to the emergence of market instability. Academic research on hedging, exchange rate exposure, and financial derivatives also became increasingly relevant. In the period after 2011, the number of publications decreased temporarily to 8–11 documents per year, but remained at a higher level than in the early 2000s. Issues related to multinational companies, exports and imports, and currency risk continued to attract researchers. The figure indicates that the highest number of publications on foreign exchange exposure and risk management strategies occurred in 2024, with 31 publications. This could be due to increasing global market integration, making exchange rate exposure a major risk for many international companies. Furthermore, geopolitical uncertainties such as global competition and conflict can trigger exchange rate volatility. This is reflected in the projected global trade value reaching a record USD 35 trillion by 2025, an annual increase of 7% (UNCTAD, 2025). Furthermore, strengthening integration is also evident at the regional and sectoral levels, with global service exports growing by 8.3% (UNCTAD, 2024), and increased foreign investment realization in emerging markets like

Indonesia, which recorded 15.9% growth in early 2025 (BKPM, 2025). Factors such as the adoption of new research methods, such as machine learning for exchange rate forecasting, have increased research diversity. Consequently, academic interest in corporate risk management and hedging strategies has also increased.

Overall, research on foreign exchange and risk management has increased fivefold in two decades. This trend indicates that foreign exchange exposure has become a key issue in the international finance literature, particularly following increased global volatility. This reflects the growing interest and attention in foreign exchange exposure research.

Citation Trends

The trend in the number of citations related to this research from 2000 to 2024 is presented in the following table.

Table 1. Citation Trends

TH	TP	TC	NCP	H	G
2024	31	91	19	5	8
2023	26	177	24	7	12
2022	27	224	24	9	14
2021	26	415	20	9	20
2020	21	496	20	11	21
TH	TP	TC	NCP	H	G
2019	24	418	20	9	20
2018	16	514	13	7	16
2017	21	600	20	8	21
2016	10	74	8	5	8
2015	9	107	8	5	9
2014	11	139	9	6	11
2013	11	145	10	6	11
2012	9	1236	9	7	9
2011	16	365	15	10	16
2010	15	291	14	8	15
2009	13	274	11	9	13
2008	10	207	9	7	10
2007	10	282	8	6	10
2006	6	179	6	5	6
2005	5	102	4	4	5
2004	6	157	6	6	6
2003	6	2624	6	6	6
2002	6	35	4	3	5
2001	5	1521	4	4	6
2000	6	350	6	4	6
Total	347				

TP: Total publication; NCP: Number Citation Paper; TC: Total Citation; H: h-indeks; G: g-indeks

Based on the citation table, the years 2000-2006 already had quite high citation rates. This indicates that several articles in those years became primary references in the study of exchange rate exposure. However, the number of studies remained small compared to subsequent years. In 2012, research on foreign exchange exposure became highly relevant due to the sharp increase in exchange rate volatility, triggering numerous citations to previous studies. 2012 recorded a

massively high Total Citation (TC), with 1,236 citations, despite only nine publications (NCP). This indicates the presence of "landmark" or highly influential (high-impact) articles published that year that became primary references in risk management theory.

Then, in 2017, the number of citations returned to high levels, suggesting that studies on hedging and exchange rate risk began to attract attention, leading to a surge in interdisciplinary research in areas such as risk management, corporate finance, and international markets. In the 2017–2021 period, the number of citations remained high (ranging from 415 to 600 citations per year). However, there was a decrease in the TC in 2023–2024 (91–177 citations). This decrease is normal in bibliometric analysis because newer articles require time (a time lag) to be collected and cited by other researchers.

The table above shows that the highest NCP occurred in 2022 and 2023. This indicates that publications in 2022 and 2023 were highly cited by researchers. Overall, the NCP figure consistently increased each year. This indicates that publications are becoming increasingly relevant each year and that researcher interest is increasing each year.

The H-index and G-index values were relatively stable, with a fairly strong trend over the past decade. The highest G-index values were recorded in 2020 (21) and 2021 (20). The high G-index compared to the H-index in these years indicates that several publications had a very high number of citations (high influence), strengthening the scientific basis for foreign exchange hedging and risk mitigation strategies during that period. The consistency of the H-index and G-index values during the 2020–2022 period indicates that research in the modern era is of more even quality and deeply relevant to current international financial management practices.

Trends in Research Collaboration between Countries

Figure 3 illustrates research collaboration between countries on foreign exchange exposure and risk management. The figure limits the number of publications used in the analysis to five.

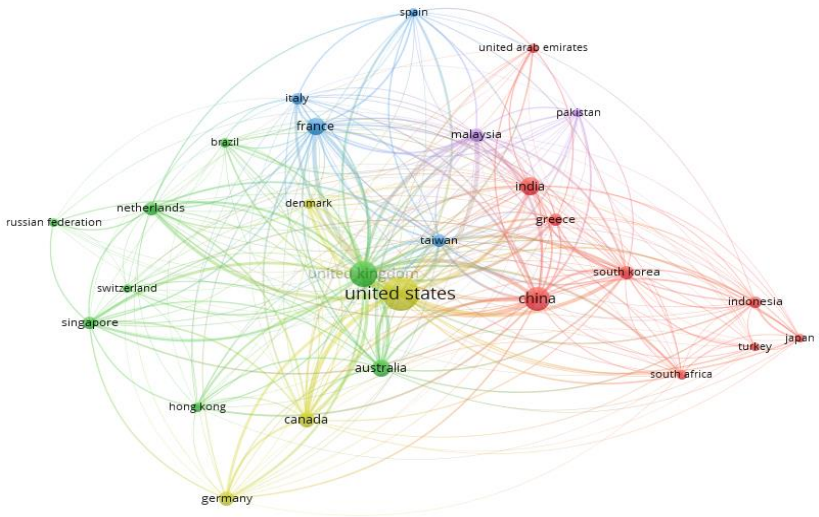

Figure 3. Collaboration between Countries

The figure shows collaboration between countries. This is indicated by the lines connecting the countries. These relationships reflect research collaboration between researchers from various countries. The figure shows several main clusters marked with different colors: red, green, blue, orange, purple, and yellow. These clusters indicate a group of countries with a higher level of collaboration among themselves in the field of foreign exchange exposure and risk management research.

The United States occupies the largest node position, indicating its dominance in document contributions and its role as a key link between countries. The United Kingdom also has strong connectivity, connecting with many European, Asian, and Oceanian countries, demonstrating its

role in global cross-research on financial risk management. China emerges as an important cluster, particularly in relation to Asian countries such as South Korea, Pakistan, Australia, and Hong Kong. This pattern illustrates that the topic of exchange rate exposure is highly relevant for countries with significant international trade activity and capital flows, thus encouraging collaborative research to understand how exchange rate risk affects corporate and financial market stability. The high connectivity within this cluster demonstrates the growing interest of Asian countries in exchange rate volatility, capital market stability, and hedging strategies, particularly given the high dynamics of international trade in the region. Overall, this network map illustrates the global and multidisciplinary nature of foreign exchange exposure, driven by economic interactions between countries and the increasingly complex needs of companies and governments to understand exchange rate risks.

More detailed and clearer information on cross-country research collaboration can be found in the figure below, which provides detailed information and a more detailed mapping of the level of cross-country publication collaboration. This information can provide a deeper understanding of cross-country research collaboration patterns in the field of foreign exchange risk.

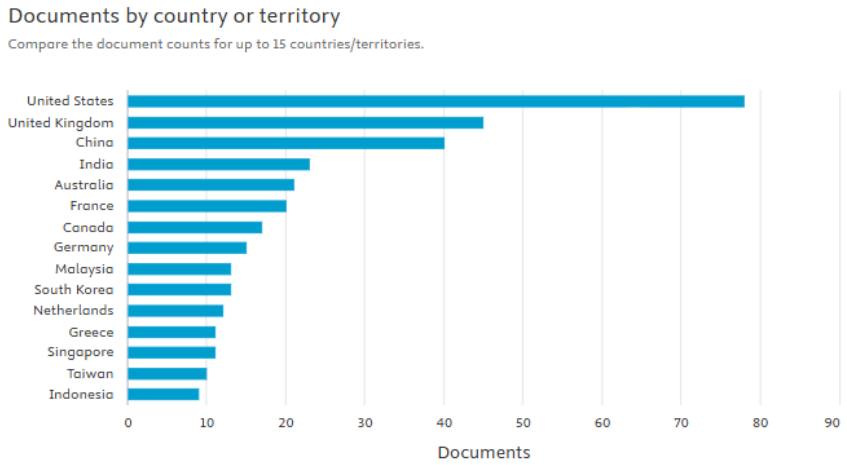

Figure 4. Publications by Country

The figure above shows that the United States is the country with the highest number of publications, with nearly 80 publications. This demonstrates high academic and research productivity in related fields. The United Kingdom and China are followed closely behind. These countries are highly interested in related research topics. Countries such as India, Australia, France, and Germany also make significant contributions, reflecting academic attention to exchange rate volatility and risk mitigation strategies. Meanwhile, ASEAN countries such as Malaysia, Singapore, and Indonesia contribute less, but remain relevant. This is understandable, given that developing countries are beginning to face the complexities of global financial risk, leading to the growth of research related to hedging, transaction exposure, and the impact of exchange rates on firm value. Overall, both visualizations confirm that research on foreign exchange exposure and exchange rate risk management is a rapidly growing multidisciplinary field driven by international economic dynamics, trade openness, and increasing global market volatility. However, Indonesia's low ranking, particularly within the Asian region, indicates that Indonesian academic participation in this field remains limited. This could be due to the limited number of reputable international journals in Indonesia or the ongoing development of an international scientific publication culture. This could present a research opportunity to fill the gap in international publications, particularly in Scopus.

Research Focus

The research focus can be seen in Figure 5. The novelty of the research can be seen in Figure 6. The images displayed are supported by the Vosviewer application with a threshold of 5. This means that the displayed keywords have been used in at least 5 different documents.

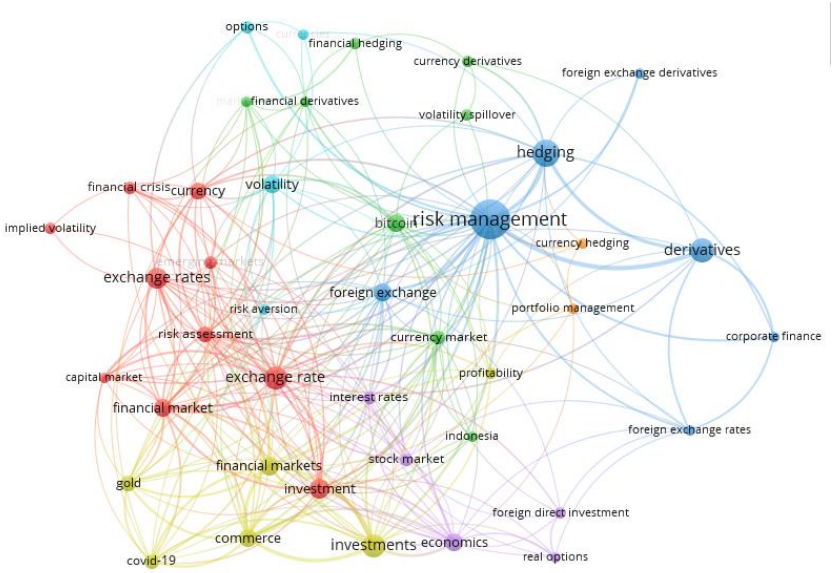

Figure 5. Research Focus

Based on the Scopus database for research on foreign exchange exposure and risk management, there are 55 keywords and 7 clusters. The details are as follows:

Table 2. Keywords by Cluster

Claster	Item	Keyword
1. Red	18 item	Capital market
		Currency
		Emerging markets
		Exchange rate
		Financial market
		Implied volatility
		Investment
		Risk assessment
2. Green	8 item	Bitcoin
		Currency derivatives
		Currency market
		Financial derivatives
		Financial hedging
		Indonesia
		Market risk
		Volatility spillover
3. Dark blue	7 item`	Corporate finance
		Derivatives
		Foreign exchange
		Foreign exchange derivatives
		Foreign exchange rates
		Hedging
		Risk management
4. Yellow	6 item	Commerce
		Covid-19
		Financial markets
		Gold
		Investements

			profitability
5.	Puprle	5 item	Economics
			Foreign direct investments
			Interest rates
			Real options
			Stock market
6.	Light blue	4 item	Currencies
			Options
			Risk aversion
			volatility
7.	Orange	2 item	Currency hedging
			Portofolio management

The keyword map shows that research themes on exchange rate exposure and financial risk management form several key, interrelated clusters. The largest cluster centers on the terms "risk management," "hedging," and "derivatives," indicating that the literature primarily focuses on exchange rate risk management strategies, particularly through the use of hedges such as currency futures, options, and swaps. The relationship of these keywords to "corporate finance," "portfolio management," and "currency hedging" illustrates that research focuses heavily on how companies hedge against currency volatility to safeguard profitability and corporate value.

The second prominent cluster is the keywords "exchange rate," "exchange rates," and "volatility," reflecting a keen interest in exchange rate movement patterns, their determinants, and their impact on financial markets. The association with terms such as "financial crisis," "implied volatility," "risk aversion," and "emerging markets" suggests that research is also focused on understanding how global uncertainty and macroeconomic conditions influence exchange rate volatility. Quantitative methods such as GARCH and quantile regression (shown in the previous map) are frequently used to measure and predict exchange rate volatility.

In addition, terms focused on "investments," "financial markets," and "economics" are found, indicating that exchange rate exposure is relevant not only to companies but also to investors and decision-makers in the capital markets. The association with terms such as "stock market," "profitability," "capital market," and "commerce" indicates that exchange rates are viewed as a significant factor influencing cross-border investment decisions.

Several other terms, such as "bitcoin," "cryptocurrencies," and "covid-19," illustrate more contemporary developments, indicating that research is beginning to examine the impact of digital assets and global events on foreign exchange market dynamics. The word "gold" also appears in a different cluster, indicating the precious metal's role as a safe haven during exchange rate volatility.

Overall, this keyword map confirms the multidisciplinary nature of research on foreign exchange exposure and exchange rate risk management, encompassing corporate, financial market, investor behavior, and global macroeconomic aspects. These findings demonstrate that exchange rate volatility remains a critical issue for economic stability and international business decisions.

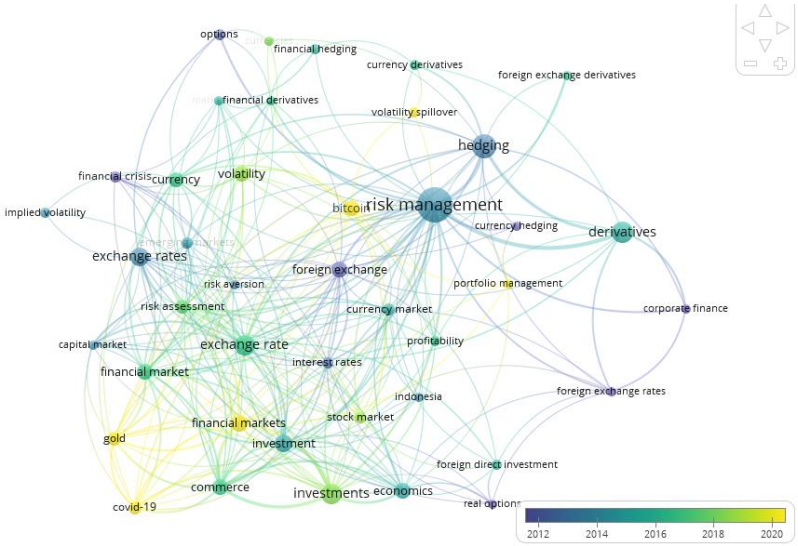

Figure 6. Overlay Visualization

The overlay visualization shows the development of related research between 2012 and 2022. In the context of research on exchange rate exposure and foreign exchange risk management, overlay visualizations typically reveal a shift in research focus from more fundamental topics to more modern and complex issues. Keywords in blue or dark colors represent older or more extensively researched topics, while yellow to bright green colors indicate newer and emerging topics.

In this dataset, keywords such as "exchange rate," "risk management," "foreign exchange," and "hedging" tend to be in darker colors. This indicates that these themes are fundamental to exchange rate research and have been at the core of the literature for many years. These issues reflect early studies on the relationship between exchange rates and volatility, financial markets, and risk mitigation strategies, which have been widely discussed since the development of international finance research.

Meanwhile, keywords such as "volatility spillover," "bitcoin," "cryptocurrencies," "covid-19," "implied volatility," "quantile regression," and "emerging markets" typically appear in brighter colors, indicating that these topics are new research trends. This suggests that the literature is now shifting to more contemporary issues, including the impact of global shocks, the development of digital assets, and more sophisticated volatility prediction models. The appearance of terms like "covid-19" confirms that researchers have adjusted their focus to the extreme dynamics that have occurred in the market over the past few years. Overall, the overlay visualization helps demonstrate that exchange rate research has evolved from fundamental topics like risk management and hedging to more modern issues like digital assets, global volatility, and the dynamics of economic uncertainty. This visualization is crucial for understanding the direction of research developments and identifying opportunities for future researchers to explore emerging niches or themes.

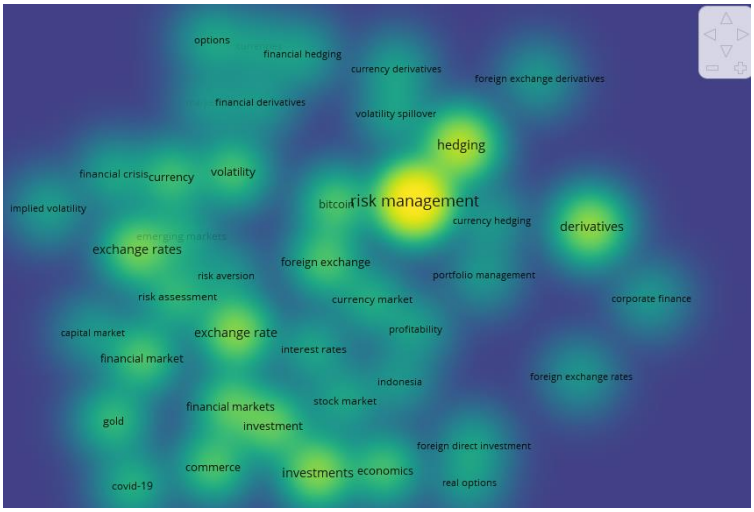

Figure 7. Overlay Density

Density visualization is a display that shows the density or intensity of occurrence of items (keywords, authors, journals, or documents) in a bibliometric map.

Unlike network maps or overlay maps, density maps do not display connection lines but instead use color to indicate the importance or density of an area on the map. The image shows that keywords in yellow have spread, indicating a broader and more diverse research field. Areas in yellow, such as risk management, hedging, and exchange rates, represent central topics within the research field. These keywords appear most frequently and are the primary focus of researchers. However, several blue areas could be explored as interesting research topics, one of which is foreign exchange rates, a topic that is currently trending and has a research gap and requires further investigation.

Research Implications

Research in the field of foreign exchange exposure and risk management has shown increasingly rapid development over the past few years, as evidenced by the high density of key keywords such as risk management, hedging, exchange rates, and derivatives in the density visualization map. The dominant yellow color in this area indicates that these themes are the focus of researchers' attention and serve as the main foundation for foreign exchange exposure studies.

The analysis shows that research on exchange rate risk is heavily dominated by countries with developed financial markets such as the United States, the United Kingdom, China, and European countries. This dominance implies that the theories, models, and approaches to exchange rate risk management used globally are largely derived from the context of developed countries. Researchers in developing countries like Indonesia have a significant opportunity to expand the literature by studying local contexts, such as export-import companies, state-owned enterprises, or MSMEs exposed to exchange rate risk. International collaboration has proven strong and can be leveraged for further research, particularly through university collaborations or joint publications. The large clusters centered on "risk management," "hedging," and "derivatives" indicate that companies worldwide are increasingly relying on hedging instruments to mitigate the risk of exchange rate fluctuations. Derivative instruments such as futures, options, swaps, and currency hedging have become widely discussed and recommended risk management standards. Financial derivative instruments, including futures contracts, options, and swaps, have transformed into a key pillar of modern corporate risk management, enabling companies to hedge against unexpected market exposures (Stulz, 2022). Furthermore, the presence of keywords such as volatility, financial crisis, and emerging markets indicates that global volatility remains a significant threat to corporate stability. Comparative studies show that emerging markets tend to respond more severely to global financial crises than developed markets, confirming that asset price volatility remains a major structural threat to corporate financial resilience in the region

(Adekoya et al., 2024). Research demonstrates the importance of companies having hedging policies that adapt to economic changes.

CONCLUSION

Based on the analyzed data, it can be concluded that research related to risk management is largely dominated by developed countries. Collaborative networks indicate that the United States, the United Kingdom, and China are centers of global publication and collaboration. Developing countries play a role as participants, not leaders, in this research. The primary focus of this research is exchange rate risk management, which highlights that the literature emphasizes risk mitigation strategies through hedging, derivatives, and corporate financial management. Keywords such as volatility, financial crisis, risk aversion, and emerging markets indicate that exchange rate fluctuations remain a highly relevant topic, especially amidst global economic uncertainty. The emergence of terms such as bitcoin, cryptocurrency, and Covid-19 demonstrates that research has evolved to include modern economic phenomena, digital assets, and global shocks. The findings demonstrate a close link between exchange rates and stock markets, investments, macroeconomics, corporate finance, and investor behavior. This means that exchange rate issues are not only a corporate issue but also a national and global economic issue.

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