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Promoting Research

Exchange Rates and GDP: A Bibliometric and Scientific Mapping Study

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Abstract: This study presents a bibliometric and scientific mapping analysis of research on the nexus between exchange rates and Gross Domestic Product (GDP) from 1968 to 2023. Based on 1,799 publications retrieved from Scopus and Web of Science using a structured keyword string, the data were analyzed through R Studio Biblioshiny to examine intellectual foundations, thematic evolution, and collaboration patterns. Results show a significant rise in publications after the 1990s, with leading outlets including Economic Modelling, Applied Economics, and the Journal of International Money and Finance. Influential institutions such as the National Bureau of Economic Research (NBER) and the International Monetary Fund (IMF) dominate contributions, while key scholars include Hsing Y and Aizenman J. Co-citation networks reveal two intellectual pillars: econometric methodology (Engle, Johansen, Blundell, Granger) and macroeconomic-policy debates (Rodrik, Dollar, Edwards). Thematic mapping identifies core areas in exchange rates, inflation, monetary policy, and growth, along with emerging themes in exchange rate regimes, forecasting, reserves, and Sub-Saharan African studies. Thematic evolution traces a shift from purchasing power parity and Dutch disease to capital flows, debt, and COVID-19 shocks. The study consolidates fragmented literature and identifies gaps in forecasting, debt sustainability, and global shock transmission.

1. Introduction

Understanding the relationship between exchange rates and economic growth has long been a central concern in international economics. Exchange rate fluctuations shape GDP growth, trade balances, and sectoral performance, with varying effects across countries and time periods. For instance, exchange rate misalignments have been linked to growth contractions through chronic overvaluation. (Ndhlela, 2012), while currency depreciation has been shown to boost trade balances and manufacturing output in the short run (Choi, 2017) (Babubudjnauth, 2021). Conversely, appreciation and volatility often undermine exports (Jaussaud & Rey, 2012) and can distort GDP measurement when expressed in foreign currency terms (Zhao et al., 2020). These mixed findings reflect the complex and context-dependent nature of the exchange rate–growth nexus.

Recent literature also highlights the interplay between exchange rates and broader macroeconomic indicators. Factors such as inflation, interest rate differentials, trade openness, and capital flows significantly shape currency dynamics (Kia, 2013) (Khan et al., 2019). Evidence suggests that exchange rate returns often embed signals about future GDP growth and inflation (Lima & Terra, 2021) (Jaworski, 2021), while announcement shocks, such as GDP releases, trigger lasting effects in currency and futures markets (Chen & Gau, 2022). These findings underscore the exchange rate's dual role as both a driver and a reflection of macroeconomic performance.

At the same time, global developments have amplified the urgency of understanding these dynamics. The COVID-19 pandemic, trade wars, financial crises, and recent surges in inflation have intensified currency volatility worldwide, reshaping the stability of growth trajectories and the competitiveness of nations. This evolving landscape makes it essential to systematically map the intellectual progress of this field.

Yet, despite extensive research, the literature remains fragmented—spanning themes from purchasing power parity and Dutch disease in earlier decades to more recent emphases on capital flows, exchange rate pass-through, and unemployment. What is missing is an integrated overview that identifies how research in this area has evolved, where the scholarly focus lies today, and which gaps remain. Bibliometric analysis and scientific mapping provide powerful tools to fill this void by combining quantitative insights—such as publication trends, leading authors, and institutional contributions—with qualitative dimensions like co-citation networks, thematic structures, and the evolution of research fronts.

Accordingly, this study applies bibliometric and scientific mapping techniques to analyze the exchange rate–growth literature. The objectives are to: (i) assess the volume and trajectory of publications, (ii) identify influential sources, researchers, institutions, and countries, and (iii) map the intellectual and thematic structure of the field. By doing so, this study contributes both a comprehensive synthesis of past scholarship and a roadmap for future research in an area that remains vital to global economic stability.

2. Review of Literature

The relationship between GDP and exchange rate dynamics has been widely investigated in the literature, with mixed and context-specific findings. Several studies emphasize that fluctuations in the exchange rate significantly affect GDP growth, with a rising exchange rate often associated with declining GDP performance (Yang et al., 2013) (López et al., 2011) (Hsing & Hsieh, 2009). Exchange rate movements also shape trade openness, as measured through the trade-to-GDP ratio, which has been shown to be significantly influenced by the real effective exchange rate (REER) (Bleaney & Tian, 2023). At the micro level, GDP per capita captures the relationship between exchange rate volatility and exports. For instance, (Hsu & Chiang, 2011)found that volatility reduces U.S. exports to high-income partner countries, while simultaneously encouraging exports to low-income partners. Similarly, undervaluation of the domestic currency enhances export competitiveness, thereby fostering national economic growth (Zhu et al., 2022). However, contradictory evidence exists, as (Fincke & Greiner, 2015) reported no significant impact of exchange rate and trade balance on economic growth.

The exchange rate itself is broadly defined as the value of one currency in terms of another, capturing appreciation and depreciation trends. Its behavior is strongly linked to macroeconomic fundamentals. (Khan et al., 2019) highlighted the positive role of GDP and trade balance in influencing exchange rates and stressed the importance of maintaining a stable and less volatile exchange rate through appropriate monetary and fiscal policies. Further, GDP impacts exchange rate movements both in the short and long run (Eslamloueyan & Kia, 2015), while interest rate differentials alongside GDP are important determinants of co-movements in foreign exchange markets across emerging economies (Djemo & Eita, 2024).

3. Research Methodology

The growing body of literature and rapidly increasing research activities have resulted in a vast amount of available studies for researchers to conduct literature reviews and identify research gaps. However, this abundance of literature creates difficulties in identifying the most relevant studies. Over time, new and fresh topics have also emerged**,** contributing to the advancement of existing knowledge and the development of the world. This research has been undertaken to identify and quantify the work conducted in this area during 1968-2023. To achieve the study objective, the bibliometric analysis technique, along with scientific mapping, has been employed**.**

3.1. Data

Data forms the base for conducting research in any of the areas and fields. Data regarding this bibliometric analysis has been collected from the two leading indexing and abstracting databases at the global level, Scopus and Web of Science. The keyword string used on both platforms is as follows:

(“GDP” OR “Gross Domestic Product”) AND (“forex rate” OR “Foreign exchange rate” OR “FX rate” OR “currency exchange rate” OR “exchange rate”).

Search string	Scopus	Web of Science
"GDP" OR "Gross Domestic Product" AND "forex rate" OR "Foreign exchange rate" OR "FX rate" OR " Currency Exchange rate" OR "Exchange rate"	Search field: Article title, Abstract, and Keywords **(Results: 2563)** Category: Economics, Econometrics and Finance; Social Sciences; Business, Management and Accounting **(Results: 2079)** Document type: Articles, Book Chapter, Proceeding Paper **(Results: 1790)** Publication stage: **(Results: 1754)** Language: English **(Results: 1650)**	Search field: Topic Years: 1995-2023 **(Results: 962)** Document type: Articles **(Results: 946)** Category: Economics; Business Finance; Business management; International relations **(Results: 642)**

Figure 1: Workflow of study

Using the above-mentioned keyword string in Scopus provided the researcher with 2563 results, and to make these results suitable and relevant for this study, various category filters, document type filters, publication stage, and language filters were used, which reduced the number of articles to 1650. At the time of applying these filters, articles in Economics, Econometrics and Finance, Social Sciences, and Business, Management and Accounting categories were included only, while the rest of the category items were excluded. The application of the research article filter resulted in the inclusion of different types of documents, such as books, proceedings papers, early access articles, and research articles. These filters resulted in the exclusion of 913 articles from Scopus.

In the Web of Science datafile, the search string provided 962 articles, which were included based on the article category, conference proceedings, book chapters, and early access. In the Web of Science category filter, articles belonging to Economics, Business Finance, Business Management, and International Relations were included, and the rest of the categories were excluded. The last filter was the language filter, where articles in the English language were included, while the rest of the articles were excluded. These filters resulted in the availability of the most relevant literature in the field of exchange rate and Gross Domestic Product, setting a good study base for conducting this research. These exclusion criteria brought the number of articles to be included in this research to 642 documents from Web of Science.

The list of Scopus data and Web of Science data was merged using R Studio, which found 468 duplicate documents in both files. The software also removed some other items. As a final result, 1808 documents were available. These results were again scrutinised for any missing entries or inconsistencies, and 9 entries with missing authors’ names were removed. The final result was 1799 articles. The bibliometric analysis, along with scientific mapping of the available data of 1799 articles, was conducted to draw some interesting and meaningful conclusions.

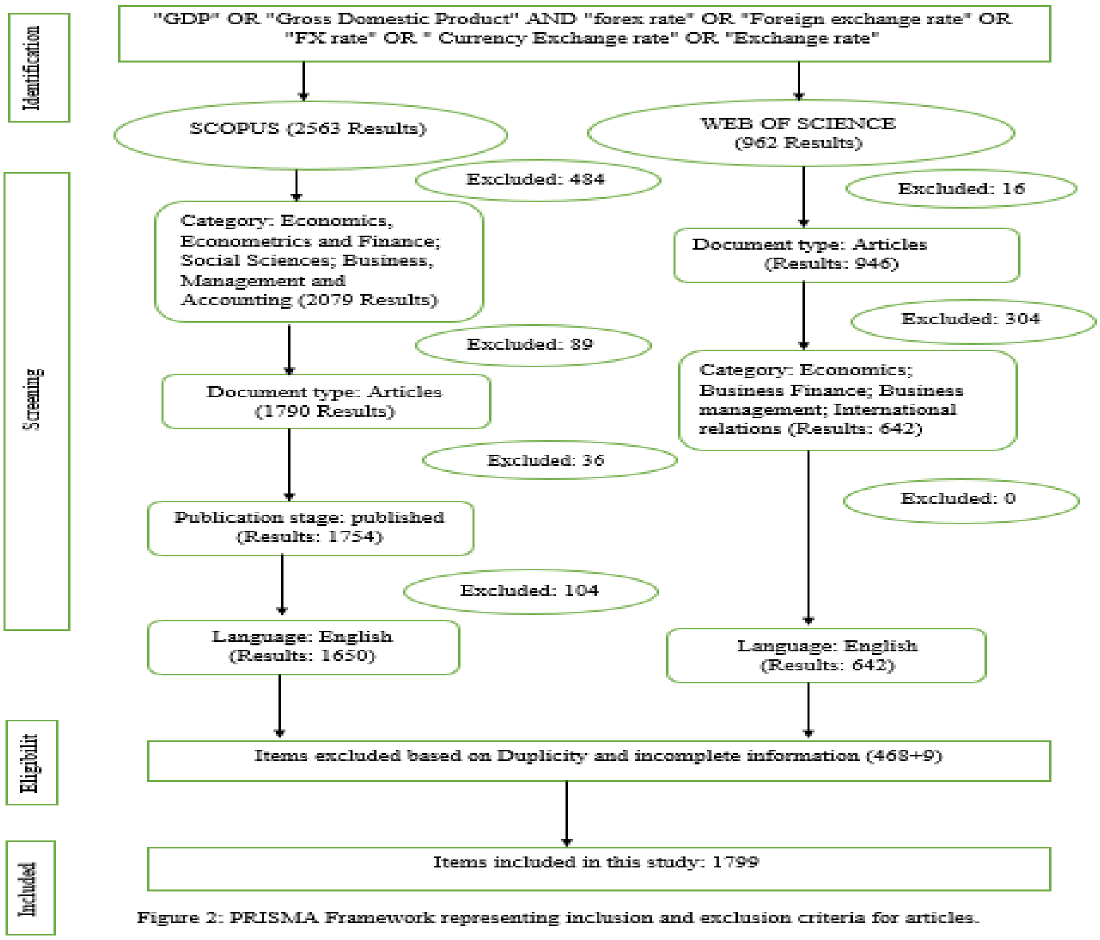

Figure 2: PRISMA Framework representing inclusion and exclusion criteria for articles.

4. Results and Discussion

The collected data were analysed using R Studio Biblioshiny. Using R Studio, both bibliometric and scientific analyses were performed on the data. The analysis conducted through the software and its interpretation are provided in the upcoming sections of this article. Bibliometric analysis is concerned with the quantitative examination of major information such as the number of articles available, their annual growth rate, top authors, top sources, leading institutions, and countries in the research area. Scientific mapping is concerned with formulating intellectual insights from the available data to create the co-word network, thematic analysis, country and institutional collaboration network, and co-citation network of authors and journals.

Bibliometric Analysis

This section will contain the quantitative analysis of the available literature in this area of research. It will include a summary statement, briefing the details of the available literature in terms of their count, sources, authors, and keywords. It will also provide details regarding the most prominent authors, sources, institutions, and countries based on their number of publications, total citations, h-index, and other relevant metrics.

Table 1: Summary table

Description	**Results**
MAIN INFORMATION ABOUT DATA	
Timeline	1968:2023
Sources (Journals, Books, etc)	630
Documents included	1799
Annual Growth Rate %	9.11

Description	Results
Document Average Age	10.3
Average citations per doc	13.38
References	20675
DOCUMENT CONTENTS	
Keywords Plus (ID)	1708
Author's Keywords (DE)	3600
AUTHORS	
Total Authors	3392
Authors of single-authored docs	424
AUTHORS COLLABORATION	
Single-authored documents	486
Co-Authors per Document	2.25
International co-authorships %	10.78
DOCUMENT TYPES	
Article	1753
article; book chapter	1
article; early access	20
article; proceedings paper	25

Source: Author's Compilation.

Table 1 provides some basic details about the list of articles downloaded from Scopus and Web of Science. It shows that the range of articles spans from 1968 to 2023. The articles obtained from both databases total 1,799 from 630 sources, which indicates that, on average, each source has published 2.85 articles. The annual growth rate of articles in this field is 9.11, with the average age of documents being 10.3 years. The average citations per document are 13.38, and the reference lists of the documents are very large, containing 20,675 references. The authors' keywords identified were 3,600, while the keyword plus terms were 1,708. Out of 1,799 documents, 486 are single-authored works written by 424 authors.

4.1. Annual Scientific Production

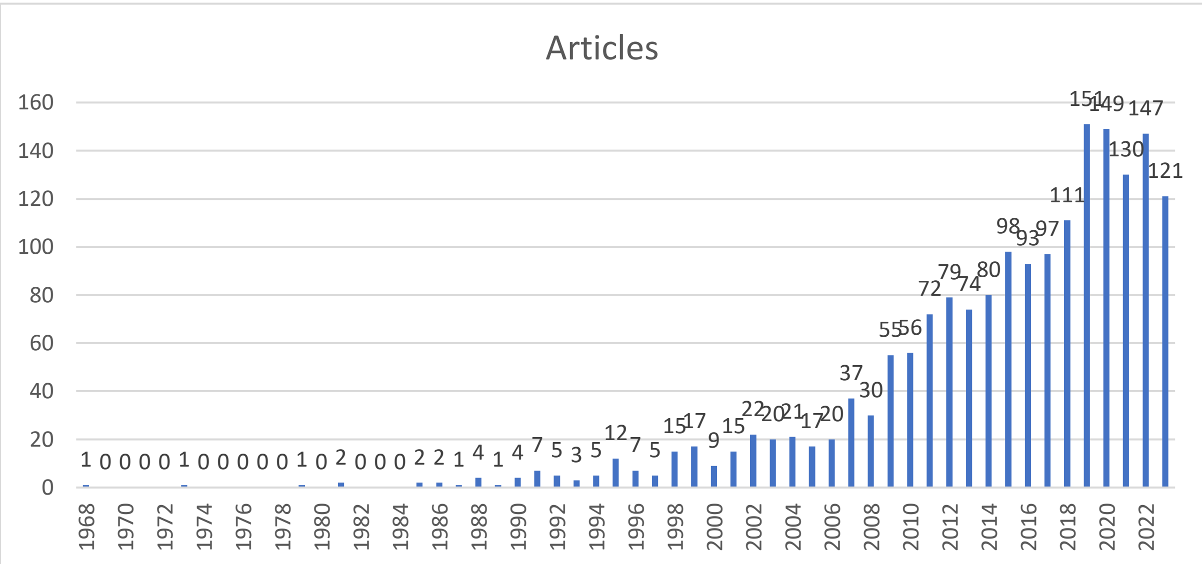

Figure 3: Annual article production

Annual article production during 1968-2023 is represented in the form of a chart in Figure 3. This chart clearly shows an increasing trend in the publication of documents. In the initial years, publications in this field were very few; in some years, there were even 0 publications related to this field. However, after 1990, this research topic took off, and the number of publications increased, reaching the benchmark of 151 publications in 2019, 149 publications in 2020, and 147 in 2022. This increasing number of publications over the past 10 years showcases the growing interest of researchers in this area. This trend could be associated with the collapse of the Bretton Woods System, after which countries gradually started adopting a flexible exchange rate. Along with this, the increasing trade liberalization measures adopted also had a significant impact on the exchange rate, as it could affect the competitiveness of products; therefore, the exchange rate was studied more during that time.

4.2.Average Annual Citations Per Article

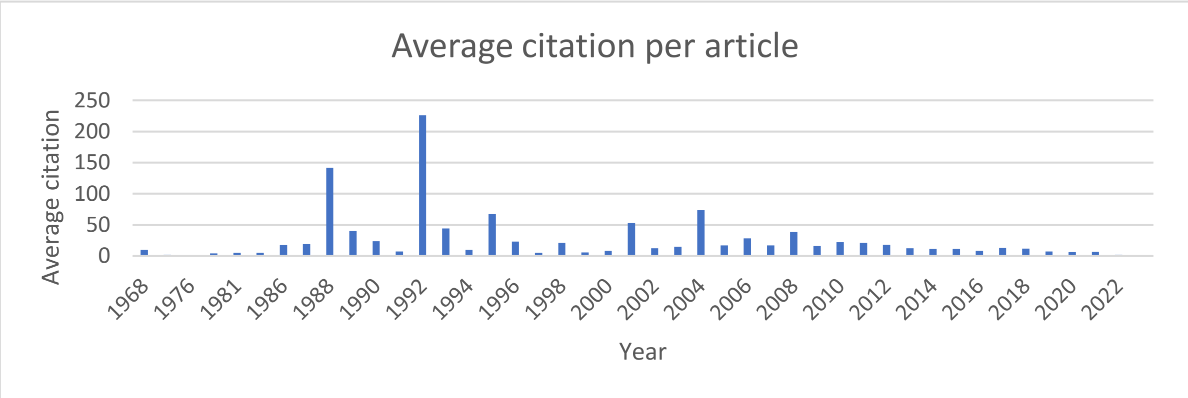

Figure 4: Average citation per article

Figure 3 showcases the annual production of articles, and Figure 4 represents the share of each article in the citations received during a particular year. The average citation for the year 1992 was 226.2, with 5 publications during that year. This means that the total citations received in 1992 were 1,130, which were distributed among the 5 articles using the averaging method, so each article received 226.2 citations on average. In 1988, the average citation per article was 141.75, followed by 73.48 citations in 2004.

4.3.Three-field Plot

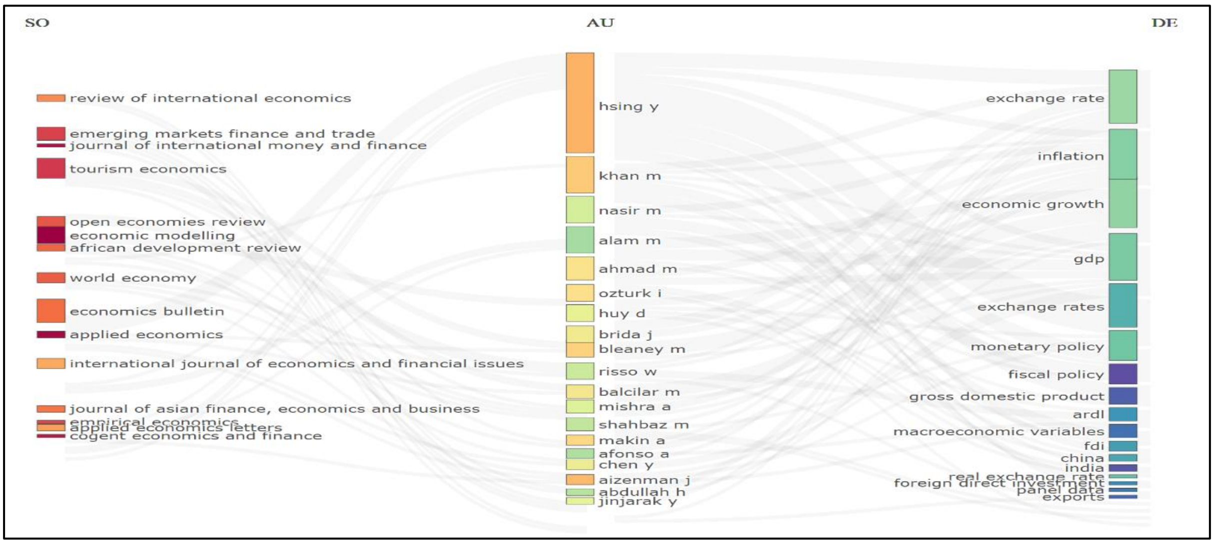

Figure 5: Three-field plots

The three-field plot above depicts three different fields related to articles in one figure. In Figure 5, So stands for Source (Journal), AU stands for Author, and DE stands for Author Keywords. These three different fields are presented in a single chart to illustrate their relationships. The most important author, as per this chart, is Hsing Y, who has published work in the *International Journal of Economics and Business Research, International Journal of Economics and Financial Issues, Journal of Asian Finance, Economics and Business, Applied Economics Letters,* and *Economics Bulletin,* using the keywords inflation, GDP, exchange rates, monetary policy, and fiscal policy. Khan M has also worked on the keywords exchange rate, inflation, GDP, fiscal policy, monetary policy, and others. Hence, this plot highlights the authors who have worked on similar topics and published their papers in the sources depicted above.

4.4. Most Prolific Journal

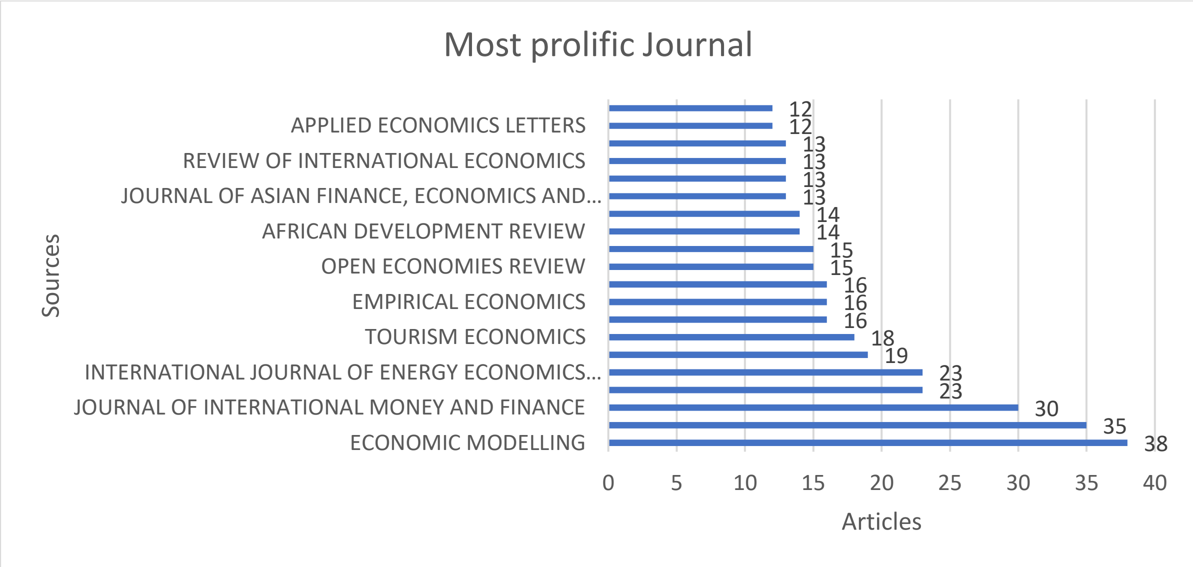

Figure 6: Most prolific Journal

The most prolific Journals having a higher number of publications in the field of exchange rate and Gross Domestic Product have been depicted in Figure 6. It shows that the "Economic Modelling" contributing 2.11% in this area with 38 documents published on this topic, and these are covering vast areas such as determinants of "FDI (Foreign Direct Investment)", Marshal-Lerner Condition and export import flow, how the growth of China and US affects small economies exporting commodity, floating exchange rate regime and their optimal Ness, exchange rate movement, and macroeconomic volatility. The next journal is "Applied Economics", having 35 publications and securing 1.94% area in this field, covering the areas of exchange rate volatility, exchange rate and foreign GDP elasticities, interest rate as driving force for inflation and gross domestic product, fiscal and current account imbalances, trade liberalisation and export response. The "Journal of International Money and Finance" has 30 publications covering 1.66% share and contributing to exchange rate dynamics, exchange rate misalignment and its impact on GDP growth, macroeconomic impact of exchange rate regimes, monetary policy impact on exchange rate, GDP growth and currency valuation and so on. The top 20 sources have been depicted here, which have covered 368 documents out of 1799 (20.45%).

4.5.Most Impactful Journals

Table 2: Most Impactful Journals

Journals	h-index	g-index	m-index	TC	NP
Journal of International Economics	14	19	0.518	1103	19
Journal of International Money and Finance	14	24	0.666	581	30
Tourism Economics	13	18	0.565	1447	18

Journals	h-index	g-index	m-index	TC	NP
Economic Modelling	12	24	0.4	617	38
Applied Economics	11	18	0.354	365	35
World Development	9	13	0.225	313	13
African Development Review	8	14	0.228	227	14
Energy Economics	8	9	0.32	215	9
International Journal of Energy Economics and Policy	8	10	0.727	136	23
Journal of Asian Economics	8	12	0.333	219	12
World Economy	8	11	0.296	143	15
Emerging Markets Finance and Trade	7	14	0.318	201	16
Journal of Policy Modeling	7	12	0.269	196	12
Review of Income and Wealth	7	13	0.122	680	13
Sustainability (Switzerland)	7	10	1	120	16
Cogent Economics and Finance	6	12	0.666	166	23
Empirical Economics	6	10	0.428	104	16
Energy Policy	6	9	0.4	416	9
International Journal of Economics and Financial Issues	6	10	0.428	120	12
International Research Journal of Finance and Economics	6	11	0.375	136	11

Source: Author's compilation.

Table 2 provides a list of the most impactful sources, identified based on their h-index. Along with the h-index, other measures of impact, such as the g-index, m-index, total citations, and the number of publications, are also presented in this table. The h-index is used as the major indicator, based on which these sources are arranged in descending order, making the *Journal of International Economics* the most impactful journal, followed by the *Journal of International Money and Finance.* The *Journal of International Economics* has 19 publications and an h-index of 14, which shows that out of 19 articles from this source, 14 articles have received at least 14 citations. Out of 30 publications in the *Journal of International Money and Finance,* 14 articles have received at least 14 citations. The h-index of *Tourism Economics* is 13, based on 18 publications. *Economic Modelling* and *Applied Economics* rank first and second in terms of the number of publications, but their impact is not as strong as other sources, with 18, 19, and 30 articles, respectively.

4.6. Most Relevant Authors

Table 3: Most relevant authors

Authors	Articles	h_index	g_index	m_index	TC
Hsing Y.	33	6	11	0.285	141
Aizenman J.	9	8	9	0.571	165
Khan M.	8	4	7	0.571	56
Bleaney M.	6	5	6	0.192	70
Makin A.	6	1	1	0.041	4
Ozturk I.	6	4	6	0.235	71
Ahmad M.	5	2	4	0.076	17
Balcilar M.	5	5	5	0.357	200
Brida J.	5	5	5	0.294	450
Chen Y.	5	2	3	0.285	9
Huy D.	5	4	5	0.666	53
Jinjarak Y.	5	4	5	0.363	42

Authors	Articles	h_index	g_index	m_index	TC
Mishra A.	5	3	5	0.3	33
Nasir M.	5	3	5	0.333	81
Risso W.	5	5	5	0.294	450
Shahbaz M.	5	4	5	0.222	180
Abdullah H.	4	2	3	0.181	13
Afonso A.	4	2	3	0.333	12
Alam M.	4	4	4	0.444	28

Source: Author's compilation.

Table 3 combines the most relevant authors and their impact measured through the number of publications and h-index, g-index, and m-index. Based on the number of publications, the most pertinent authors are "Hsing Y", "Aizenman J", and "Khan M", having 33, 9, and 8 publications. In terms of h-index, "Aizenman J" is the most impactful author, having at least 8 citations for 8 of their articles out of 9 articles, while the most relevant author, having 33 publications, scored an h-index of 6 only. Hsing Y has been associated with the work in the direction of short-run determinants of the exchange rate, appreciation and depreciation of the exchange rate and their expansionary and contractionary impact, determinants of government bond yield, and the impact of macroeconomic variables on the stock market. Hence, his work can be associated with the direction of macroeconomic variables and their impact. The author "Aizenman J" is associated with exchange rate, interest rate, international reserve, inflation, economic growth, and volatility of middle-income countries, and fundamental and sovereign risk of emerging markets. "Khan M" worked in the field of macroeconomic determinants of "FDI (Foreign Direct Investment), Balance of payment disequilibrium and its correction, stock return, and macroeconomic directions. Hence, the top three authors of this bibliometric analysis can be associated with the above-mentioned field, and their work can be accessed to gain insights into the above-mentioned areas.

If we look at the total citations, we will find that "Brida J" and "Risso W" scored 450 and "Balcilar M" scored 200. Thus, the above table depicts that, based on the criteria used, the ranking of authors differs. Figure 7 is the representation of the author's work time frame; the horizontal line corresponding to the author's name shows the active involvement of the author in research. Hsing Y worked during 2004-2018 and published 33 papers during this time "Aizenman J" worked 2011-2021 and published 9 papers, and "Khan M" published 9 papers.

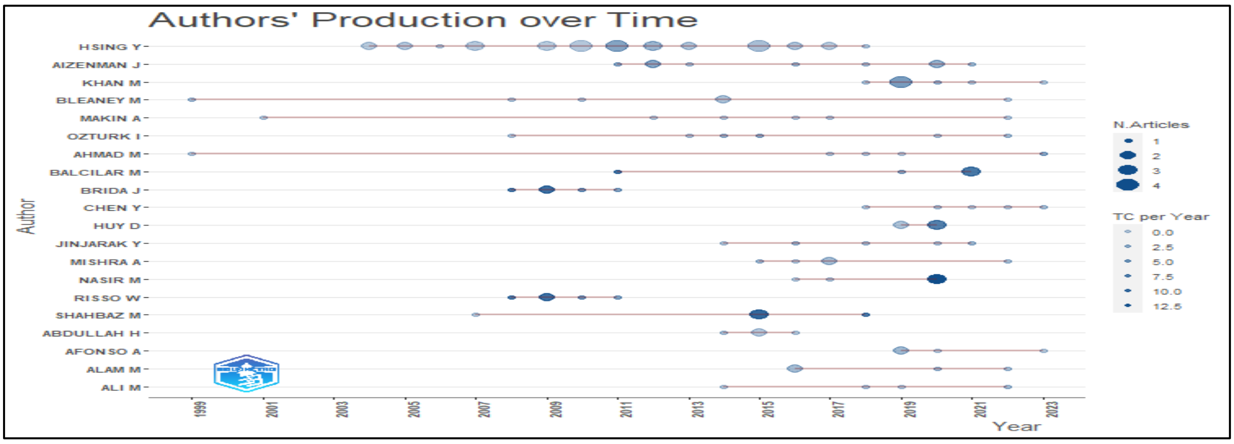

Figure 7: Author's production over time

4.7. Most Prolific Institution

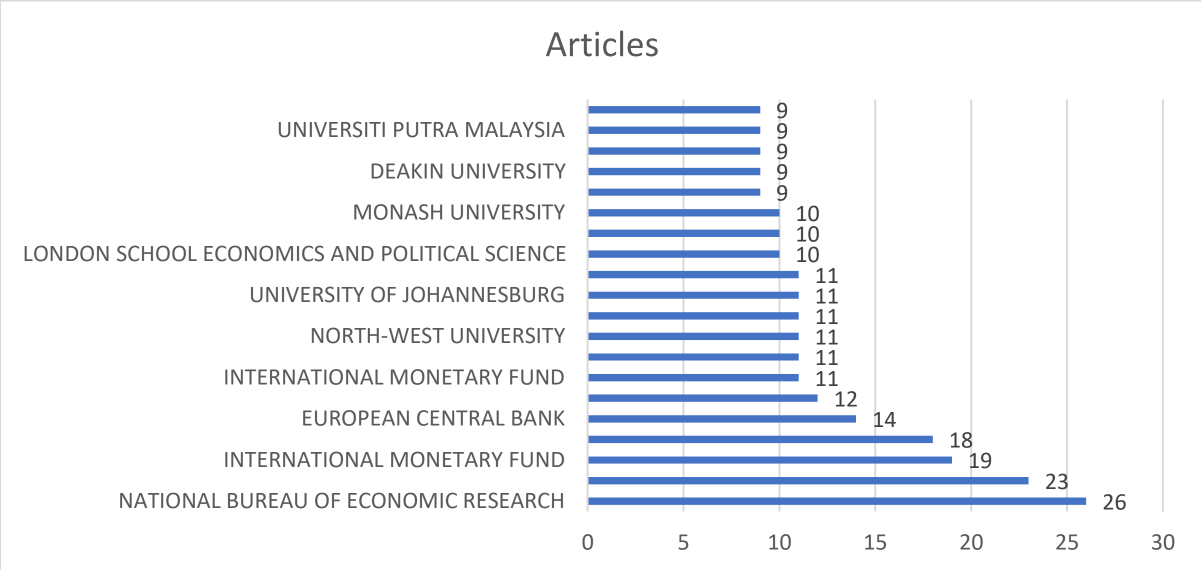

Figure 8: Most prolific institution

Figure 8 is created to show the most prolific institution in terms of the number of publications. The "National Bureau of Economic Research" is associated with 26 publications, followed by the "Southeastern Louisiana University" with 23, the "International Monetary Fund" has 19 publications, and the "World Bank" has deposited 18 publications.

4.7. Most Relevant Countries

Table 4: Most relevant countries

Countries	Frequency	Total Citation
USA	414	5176
China	166	1405
UK	137	994
Germany	95	1002
India	94	518
Turkey	84	520
Nigeria	81	400
Australia	80	667
Malaysia	69	271
Pakistan	69	263
South Africa	59	372
Indonesia	57	79
Brazil	49	150
France	45	538
Italy	43	610
Japan	43	193
Czech Republic	38	149
South Korea	35	130
Portugal	31	315
Iran	26	145

Source: Author's Compilation.

The table shows the regional distribution of publications (Freq) and their total citations (TC) in the field of GDP–exchange rate research. The USA leads overwhelmingly (414 publications; 5,176 citations), followed by China (166; 1,405) and the UK (137; 994). The USA's dominance stems from its long-standing leadership in economic research, availability of extensive datasets, and influential institutions such as the National Bureau of Economic Research (NBER) and the IMF (with U.S. linkages), which have historically shaped global macroeconomic scholarship. China's sharp rise reflects its rapid economic integration post-1990s reforms, WTO accession, and growing policy interest in exchange rate management amid export-led growth, making it a hotspot for both domestic and international researchers. The UK ranks third due to its strong academic tradition in economics, internationally reputed outlets (e.g., *Applied Economics*), and London's role as a global financial hub, which naturally fosters research on exchange rate dynamics and monetary policy. Together, these three nations account for the bulk of influential contributions, driven by a mix of research infrastructure, global economic relevance, and policy imperatives, explaining their surge compared to other regions.

4.8. Most Frequent Keywords

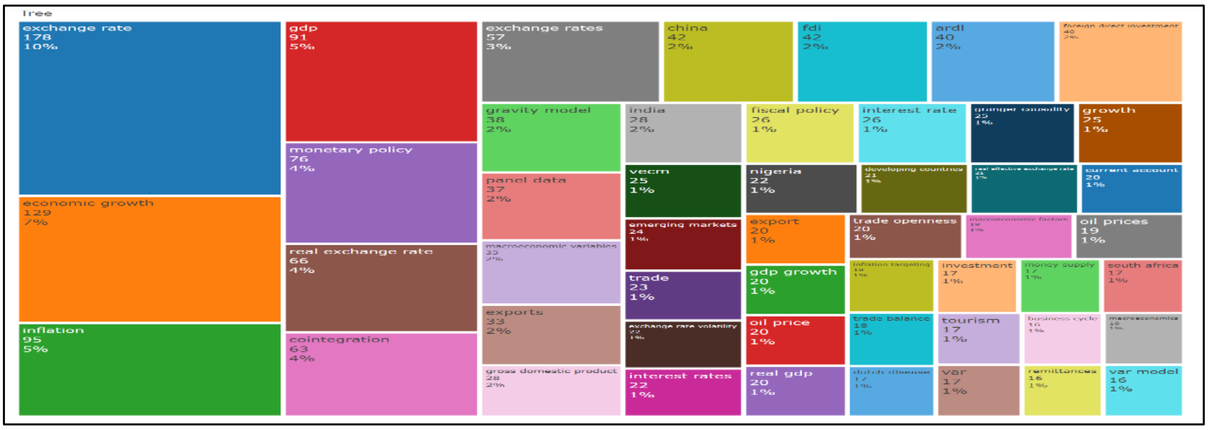

Figure 9: Treemap of most frequent keywords

Figure 9 is the colourful representation of the top 50 most frequent authors' keywords. Author keywords refer to significant words and phrases meticulously chosen by the writers of research work to articulate their fundamental nature. The above treemap shows that the term "exchange rate" has been used 178 times by the researcher in the above selected 1808 documents, "economic growth" 129 times, "inflation" 95 times "GDP" 91 times.

Table 5: Research articles using "GDP" and "exchange rate" pair in keywords

Paper title	Author	Source	Total Citations
Research note the tourism growth nexus in Croatia	(Payne & Mervar, 2010)	Tourism Economics	168
Downscaling and geospatial gridding of socioeconomic projections from the IPCC special report on emissions scenarios SRES	(Gaffin et al., 2004)	Global Environmental Change	130
The role of oil prices and the real exchange rate in Russia's economy a cointegration approach	(Rautava, 2004)	Journal of Comparative Economics	110
Impact of oil price shocks on output inflation and the real exchange rate evidence from selected ASEAN countries	(Basnet & Upadhyaya, 2015)	Applied Economics	69

Paper title	Author	Source	Total Citations
A multiple and partial wavelet analysis of the oil price inflation, exchange rate and economic growth nexus in Saudi Arabia	(Aloui et al., 2018)	Emerging Markets Finance and Trade	66
On the causes and effects of exchange rate volatility on economic growth, evidence from Ghana, trying to understand the PPPs in ICP 2011 why are the results so different	(Alagidede & Ibrahim, 2017)	Journal of African Business American Economic Journal: Macroeconomics	49
Research note tourism and growth in the Caribbean, evidence from a panel error correction model	(Apergis & Payne, 2012)	Tourism Economics	48

Source: Author's compilation.

4.9. Most Relevant Articles

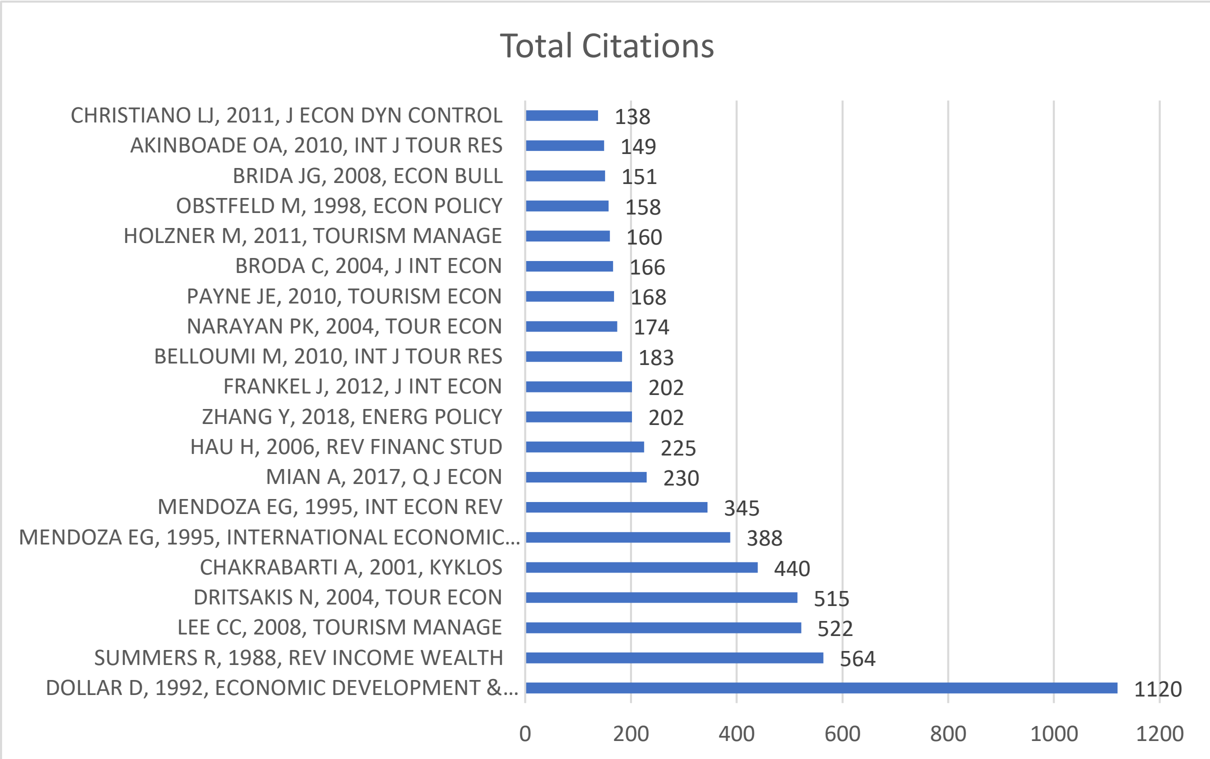

Figure 10: Most relevant articles based on citations

Figure 10 is the graphical representation of the most relevant articles along with their total citations. It represents that the article titled "Outward-Oriented Developing Economies Really Do Grow More Rapidly: Evidence From 95 LDCs, 1976-1985" written by (Dollar, 1992) received 1120 citations, followed by "A New Set of International Comparisons of Real Product and Price Level Estimates For 130 Countries 1950-1985" written by (Summers & Heston, 1988) received 564 citations, "Tourism Development and Economic Growth: A Closer Look At Panels" written by (Lee & Chang, 2008) received 522 citations. The above figure shows that out of 1808 articles top 20 articles have achieved citations of more than 100, only one article has crossed the benchmark of more than 1000 citations (1120 citations), while three articles have crossed the benchmark of 500 citations.

5. Scientific Mapping

This section contains the qualitative analysis of available data through developing various clusters through the co-word network, collaboration network, thematic analysis, and trend topics, along with thematic evolution.

5.1. Co-word Network

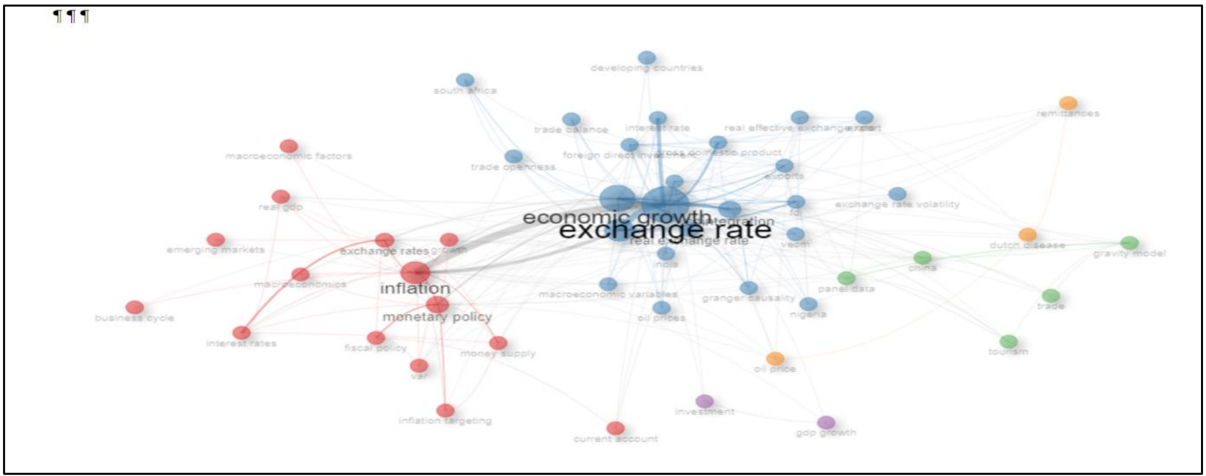

Figure 11: Co-word network

The co-word network in Figure 11 highlights exchange rate and economic growth as the central research themes, forming the backbone of the literature. Surrounding clusters reveal diverse but interconnected areas. The blue cluster emphasises the link between exchange rate volatility, trade, foreign direct investment, and growth in developing economies. The red cluster reflects the role of inflation, monetary and fiscal policy, and interest rates in shaping exchange rate dynamics. The green cluster represents country-specific and regional studies (e.g., China, Nigeria) often employing panel data and econometric tools. The orange cluster points to external shocks, such as oil prices, remittances, and Dutch disease, while the purple cluster highlights investment and current account balances as important growth drivers. Overall, the network demonstrates that research has expanded from a narrow focus on bilateral GDP–exchange rate relationships to a multi-dimensional approach incorporating trade, policy frameworks, external shocks, and country-specific contexts. This evolution reflects the increasing complexity and global relevance of exchange rate–growth dynamics.

5.2. Trend Topics

The trend analysis represented in Figure 12 reveals an evolutionary trajectory in exchange rate research**.** Initial studies (2006–2010) concentrated on parity conditions and currency crises**,** providing theoretical grounding. As econometric techniques advanced, the 2010–2015 phase emphasized volatility modelling and causal linkages through methods like GARCH, VAR, and cointegration. By 2015–2019, the focus shifted toward - notably the role of exchange rates in GDP growth, trade, inflation, and FDI, particularly in emerging economies such as India and China.

More recently, the literature reflects responses to global shocks (COVID-19) and growing interest in regional development (Sub-Saharan Africa)**.** The prominence of *ARDL* and *panel ARDL* underscores the shift towards models that capture both short- and long-run dynamics across multiple countries. Meanwhile, the increasing frequency of terms such as *public debt* and *external debt* signals heightened concern with the sustainability of growth under exchange rate volatility.

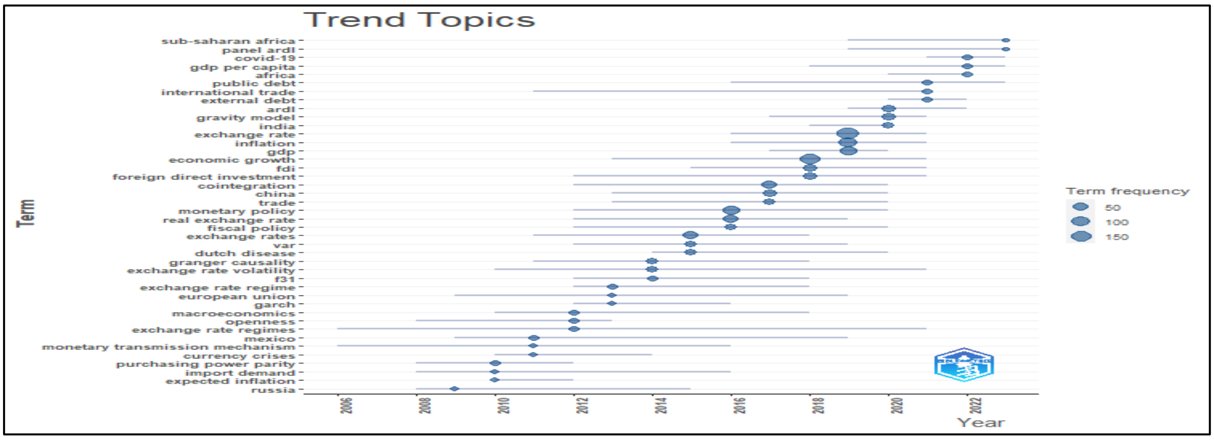

Figure 12: Trend topics.

5.3. Thematic Analysis

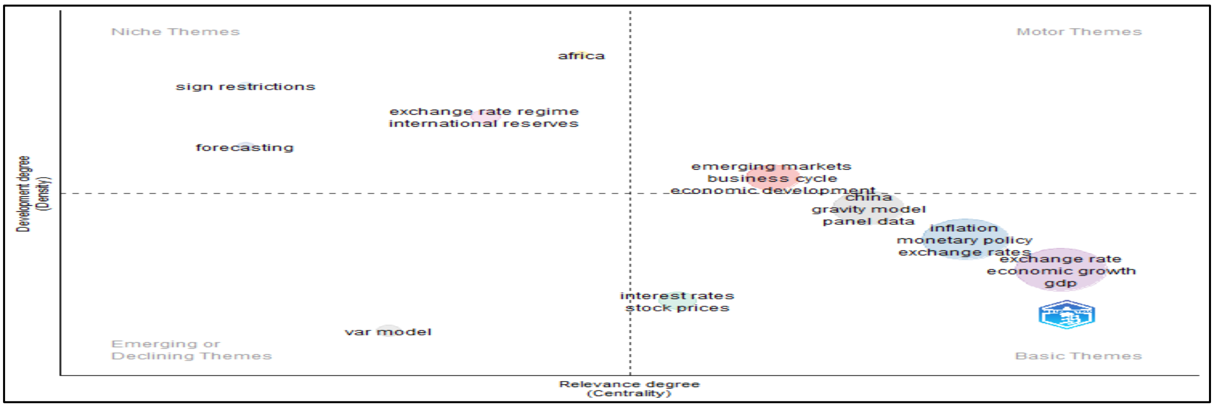

Figure 13: Thematic analysis

The thematic map given in Figure 13, divides the list of documents into four themes based on the criteria of centrality and density. Density is a measure of the development of the topic, and centrality is a measure of the relevance (significance) of the topic. Highly developed and significant topics get placed in the motor themes quadrant which contains only one cluster, the Basic themes quadrant contains the clusters which are highly significant but less developed, the Emerging or declining theme box is based on less significant and less developed clusters containing VAR model topic only, and last but not least Niche themes are highly developed but less significant containing four clusters related to exchange rate regime, international reserve; Sign restriction, Africa, and Forecasting.

5.4. Thematic Evolution

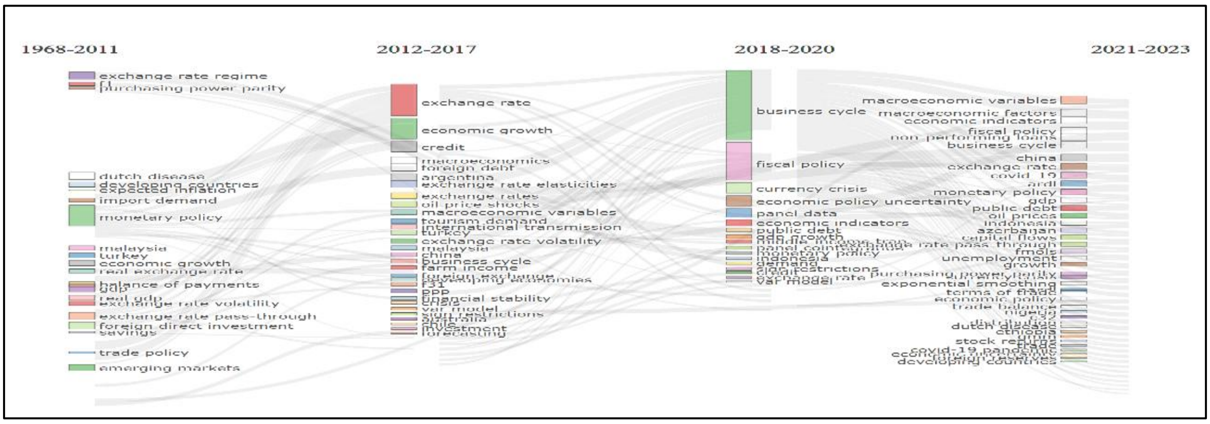

Figure 14: Thematic evolution.

Thematic evolution in Figure 14 depicts how the various themes related to research and connected with a particular topic evolved over the period. This study used the data for 1968-2023 and created this thematic evolution which divided the duration of years into four slices 1968-2011, 2012-2017, 2018-2020, and 2021-2023. In the first slice topics of interest were exchange rate regime, purchasing power parity, import demand, monetary policy, exchange rate volatility, Balance of payment, and trade policy. In the second time slice, topics of interest were exchange rate, economic growth, exchange rate elasticities, macroeconomic variables, tourism demand, and international transmission. In the third time slice, the interest of researchers shifted to the business cycle, currency crisis, fiscal policy, economic policy uncertainty, and middle-income trap. In the last time slice, which is the most recent the research interest was in the following topics economic indicators, non-performing loans, COVID-19, public debt, oil prices, trade balance, stock returns and so on.

5.5. Co-citation Network of Authors and Journal

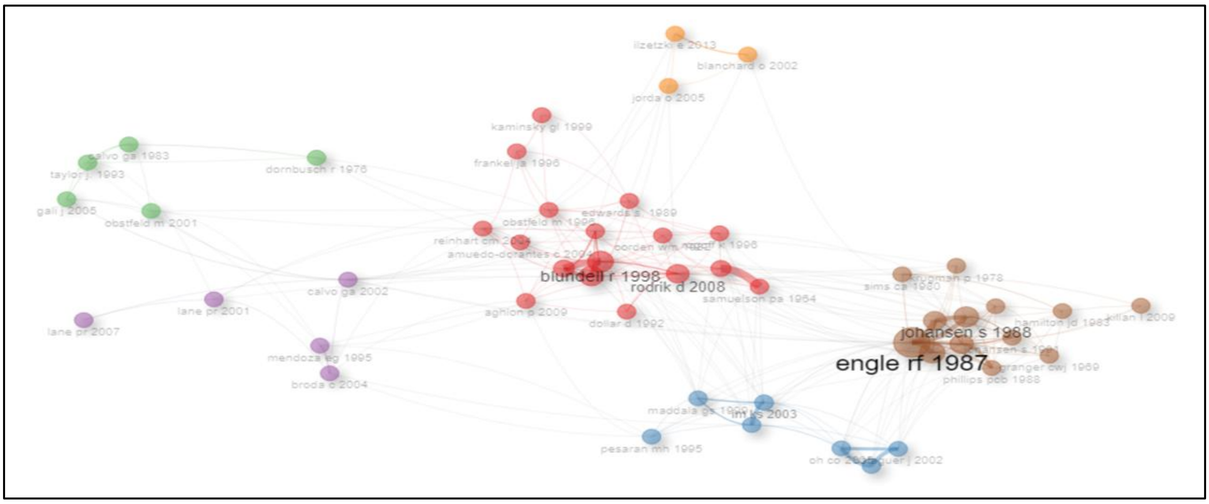

Figure 15: Co-citation network of authors

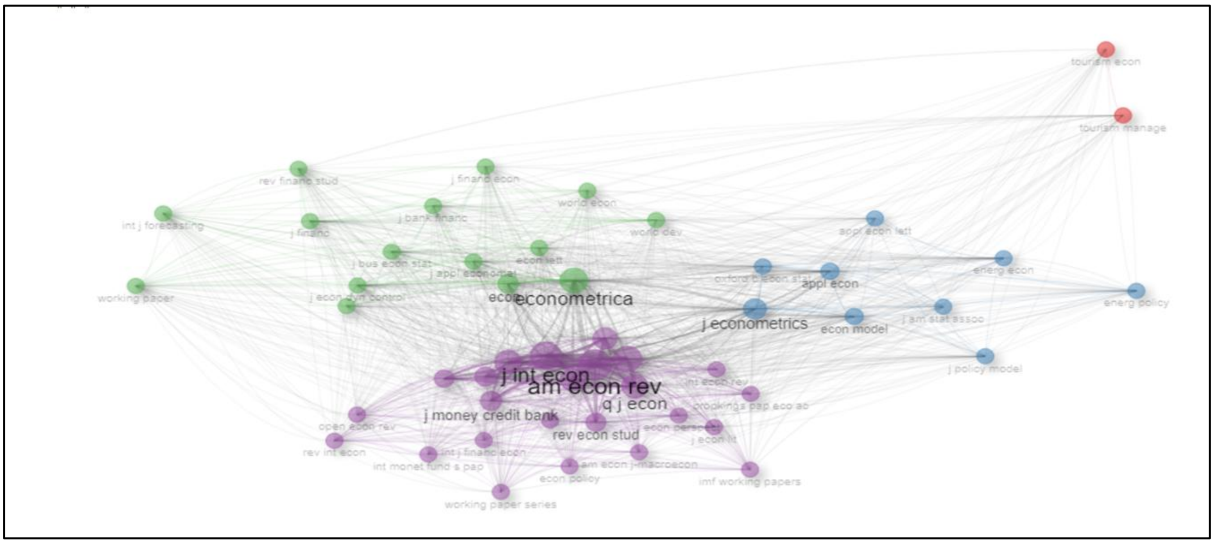

Figure 16: Co-citation network of Journal

The frequency with which two authors are mentioned jointly in other documents is known as co-citation. Citing two authors at the same time in a document gives the idea that the cited documents share some similarities and are related to the same area. Figure 15 shows 6 clusters of authors, which means different authors belonging to a particular cluster must have been cited together in various documents. The co-citation network of authors highlights the intellectual structure of research on exchange rates and GDP. The largest nodes, such as Engle RF (1987), Johansen S (1988), and Blundell R (1998), indicate foundational contributions in econometric modelling, cointegration, and dynamic panel methods that underpin much of the empirical work in this domain. Distinct clusters emerge: one focusing on econometric methodology (Engle, Johansen, Granger, Sims), another on macroeconomic policy and growth (Rodrik, Dollar, Edwards, Blundell), and others addressing monetary policy and crisis dynamics (Calvo, Dornbusch, Taylor) or capital flows in emerging markets (Mendoza, Lane, Broda). The interlinkages between these clusters suggest that exchange rate research has evolved through a dual lens—advancing econometric techniques while applying them to pressing policy questions in international economics.

Just like the authors' co-citation network for journals has also been created in Figure 16, which contains four clusters. The co-citation network of journals reveals the intellectual foundation and thematic diversity of exchange rate research. Core economics outlets such as *Econometrica, Journal of International Economics, American Economic Review, and Quarterly Journal of Economics* occupy central positions, indicating their pivotal role in shaping theoretical and empirical developments. Surrounding these are clusters of finance journals (*Journal of Finance, Review of Financial Studies, Journal of Banking and Finance*), applied and policy-focused journals (*Applied Economics, Energy Economics, Journal of Policy Modeling*), and niche outlets such as *Tourism Economics* and *Tourism Management*. This structure suggests that while the field is anchored in mainstream economics, it has extended into applied domains including finance, energy, and tourism, underscoring its multidisciplinary character.

5.6.Collaboration Network of Authors, Institutions, and Countries

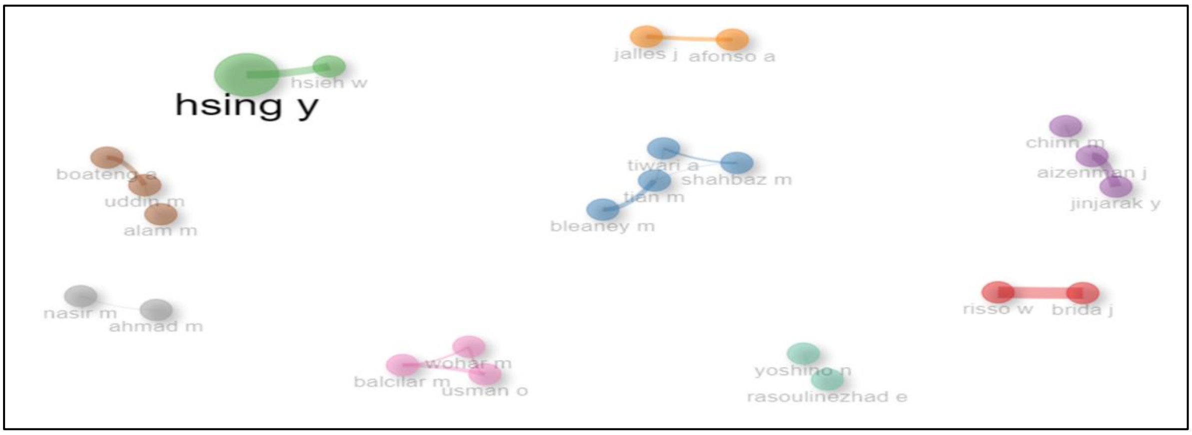

Figure 17: Collaboration network of Authors

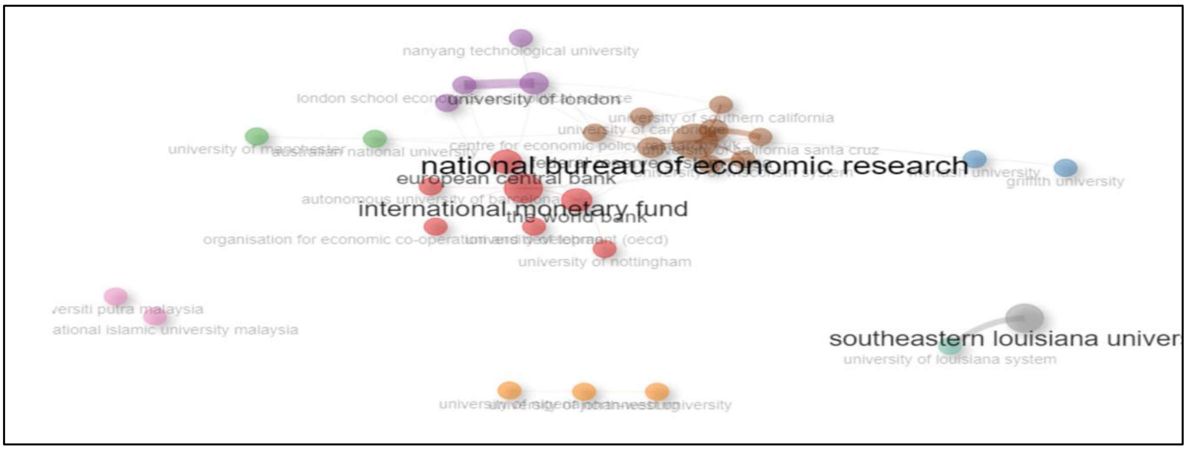

Figure 18: Collaboration network of Institutions

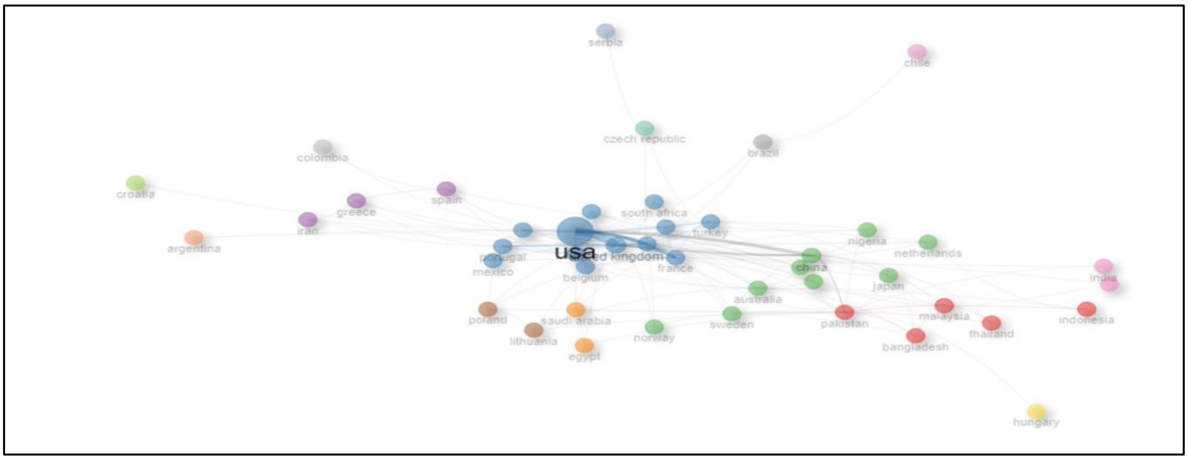

Figure 19: Collaboration network of Countries.

The Collaboration network of authors, institutions, and countries has been provided in Figures 17, 18, and 19, respectively. Authors collaborate to do some research on a common topic which interests all the collaborating parties and put the effort which results in quality paper having the contribution of national and international researchers. The collaboration network of authors gave 9 clusters comprising two or three authors in each cluster. The institutional collaboration network also resulted in 9 clusters providing that one of the clusters is made up of all the leading institutions in the world National Bureau of Economic Research, Federal Reserve System – USA, University of California system, University of Cambridge, University of Wisconsin system, University of Southern California, University of Wisconsin Madison, Centre for economic policy research – UK, University of California Santa Cruz. One other cluster is made up of the International Monetary Fund, the European Central Bank, the World Bank, the University of Nottingham, the University of Tehran, the Autonomous University of Barcelona, and the Organisation for Economic Co-operation and Development (OECD). The network showing the collaboration of countries comprises 15 clusters. The largest cluster at the country level is made up of the USA, the United Kingdom, Germany, Turkey, South Africa, France, Italy, Portugal, Switzerland, Canada, Mexico, New Zealand, and Belgium.

6. Findings and Conclusion

This study provides a comprehensive bibliometric and scientific mapping of research on the exchange rate–GDP nexus over the period 1968–2023. The analysis of 1,799 documents from Scopus and Web of Science highlights the steady growth of scholarly output in this field, particularly after the 1990s, reflecting the increasing global relevance of exchange rate dynamics in shaping economic performance. Journals such as *Economic Modelling, Applied Economics,* and *Journal of International Money and Finance* have emerged as central publication outlets, while authors including Hsing Y and Aizenman J, along with institutions such as the International Monetary Fund and the National Bureau of Economic Research, have played pivotal roles in advancing the field.

The scientific mapping results reveal that dominant themes have centred on exchange rate, economic growth, inflation, monetary policy, and stock prices, whereas emerging and niche themes such as international reserves, exchange rate regimes, and forecasting remain relatively underexplored. Thematic evolution further indicates a shift from earlier concerns with purchasing power parity, Dutch disease, and trade policy toward more contemporary issues involving capital flows, exchange rate pass-through, GDP, and unemployment. Co-citation analyses of authors and journals demonstrate that the intellectual structure of this field is anchored in econometric methodology and macroeconomic theory while extending into applied domains such as finance, energy, and tourism.

Overall, the findings highlight both the maturity and fragmentation of the literature. While the field has established a robust foundation, significant opportunities remain to expand research on underdeveloped themes, strengthen institutional and international collaborations, and adopt integrative methodologies such as systematic literature reviews and meta-analyses. By addressing these gaps, future scholarship can advance the theoretical and empirical understanding of the exchange rate–GDP nexus and provide evidence-based insights to policymakers navigating an increasingly volatile global economic environment.

This current study is merely the quantitative analysis of available literature in the field of exchange rate and Gross Domestic Product. Qualitative insight has been incorporated into this study with the help of scientific mapping, which is not enough to draw the themes of various studies; forming a collaboration network based on different themes such as co-citations, collaboration analysis and thematic analysis. This study can provide a base for future studies conducting meta-analyses in this field. This analysis is based on the sources indexed in Scopus and Web of Science, so documents of good quality published in sources out of the scope of Web of Science and Scopus are out of the scope of this study.

7. Proposed Research Directions

Future research on the GDP–exchange rate nexus should move beyond identifying associations and focus on addressing questions with clear theoretical and policy relevance. First, while existing studies have documented exchange rate volatility and its correlation with growth, relatively little is known about the transmission mechanisms through which shocks to currency markets translate into long-run output dynamics. Filling this gap is critical for developing robust macroeconomic models that guide monetary and exchange rate policy, particularly in emerging markets vulnerable to external shocks.

Second, the literature gives limited attention to the interaction between exchange rate regimes, external debt, and fiscal sustainability. As many developing economies face rising debt burdens, understanding these linkages has strong policy significance for debt management and exchange rate stabilization strategies**,** offering governments evidence-based guidance on designing sustainable macroeconomic frameworks.

Third, the impact of global crises such as COVID-19 and financial contagion episodes remains an emerging field. Analyzing how such shocks alter the exchange rate–growth relationship would enrich crisis management theory and equip policymakers with tools to enhance resilience in an era of heightened uncertainty.

Finally, the rise of advanced econometric methods—such as panel ARDL, machine learning forecasting, and high-frequency data models—provides an opportunity not merely for methodological innovation but for testing the validity of existing theories under new conditions. Doing so can help reconcile competing perspectives on the directionality of the exchange rate–GDP relationship and refine policy prescriptions for both advanced and developing economies. Along with the above-mentioned fields, institutional and scholarly collaboration needs to be strengthened, as the current output is concentrated in a few institutions and the author network remains fragmented; stronger partnerships would enhance the depth, credibility, and policy relevance of findings. Together, these directions would move the field toward greater theoretical maturity, empirical robustness, and practical utility for policymakers.

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