

Review

From Short-Term Risk to Long-Term Strategic Challenges: Reviewing the Consequences of Geopolitics and COVID-19 on Economic Performance [†]

Goshu Desalegn ^{1,2,*}, Anita Tangl ³ and Maria Fekete-Farkas ⁴

¹ Doctoral School of Economics and Regional Sciences, Hungarian University of Agriculture and Life Sciences, 2100 Godollo, Hungary

² Department of Accounting and Finance, Kotebe University of Education, Addis Ababa P.O. Box 16417, Ethiopia

³ MNB Research Centre, John Von Neumann University, 6000 Kecskemét, Hungary

⁴ Institute of Agricultural and Food Economics, Hungarian University of Agriculture and Life Sciences, Szent István, 2100 Godollo, Hungary

* Correspondence: deresa.goshu.desalegn@phd.uni-mate.hu

[†] This manuscript is dedicated to my late father Desalegn Deresa.

Abstract: The COVID-19 crisis and the war between Russia and Ukraine affects the world economy badly. The western countries' economic sanctions on Russia and the Russian government's reverse sanctions on western countries create pressure on the world economy. This study was conducted to investigate how the economic performance is responding to COVID-19 and the geopolitical crisis of the era. In doing so, both theoretical and numerical data reviews have been performed. The objective of the study is to investigate the short-term risks and long-term strategic challenges of the crisis. The study used a bibliometric approach with the help of RStudio software. The Web of Science database was used for extracting the resources in line with the grey literature from the Google Search engine. A total of 895 documents were utilized in this bibliometric analysis. At the same time, secondary panel data extracted from the international monetary fund (IMF) for a period of 4 years (2019–2022) were utilized for reviewing numerical implications. The purposive sampling technique is used for data selection and main economic variables. The findings of the study imply that countries over the world registered less economic growth, high inflation rate, and high government debt in 2022 compared to the fiscal period of 2019–2021. The emerging economies and developing countries of Europe were badly affected by the crisis as the level of inflation rate hit 27 percent and the economic growth of the region registered a negative 2.9 percent. The study also found rising interest rates, exchange rate volatility, risk of stagflation, and rising energy prices are the short-term risks to economies. The issue of sustainable development goals and green aspects, risk of hyperinflation, and risk of economic recession are the long-term strategic challenges or risks to economies. Bailout and debt relief were found to be necessary for those countries badly affected by the crisis. Policymakers should facilitate financial policies and should switch from general assistance to targeted support of viable enterprises.

Keywords: COVID-19; geopolitics; economic performance



check for updates

Citation: Desalegn, G.; Tangl, A.; Fekete-Farkas, M. From Short-Term Risk to Long-Term Strategic Challenges: Reviewing the Consequences of Geopolitics and COVID-19 on Economic Performance. *Sustainability* **2022**, *14*, 14455. <https://doi.org/10.3390/su142114455>

Academic Editors: Samuel Asumadu-Sarkodie and Jacob Arie Jordaan

Received: 5 October 2022

Accepted: 31 October 2022

Published: 3 November 2022

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

It would be a great question to investigate “Does COVID-19 and the geopolitical crisis of the era suggest that we need a new way of thinking about economics and the economy”? The question would certainly take to Keynes' theory of 1936 from *The General Theory of Employment, Interest, and Money*. This theory developed and changed the way people thought about economics [1].

The same is true today, not just in response to the COVID-19 crisis but to the era of seemingly multiple crises [2]. As evidence, the Southeast Asian economic crisis in 1997

collapsed currency values, stock markets, and other asset values in many Southeast Asian countries [3]. The 2007–2008 global financial crisis created the first global recession. The subprime mortgage crisis that resulted from 2007 to 2008 created a financial crisis that affected the United States and other countries in the world. At the same time, the pandemics such as smallpox, SARS, and currently COVID-19, and the rising concern about carbon emissions are those factors among others affecting the economy badly. Now the question is not about why there are such crises but it is all about what new thinking is needed. What lessons can be taken from the past crises?

As a result of the COVID-19 outbreak, there have been numerous negative effects on human life all over the world [4]. The ruthlessness of the pandemic is changing the focus of academics' attention away from economic activity and onto human life [5] (p. 19). People's health is actually of utmost importance and saving lives must come first. However, economic forces continue to be important. Even knowing how much to invest for protection must depend in part on economic considerations [6]. If more consideration was given to economic activities in a bid to fight the pandemic and other crises, fewer lives would have been lost. Furthermore, an uneconomical way of fighting the pandemic and other crises will create many short-term risks and long-term strategic challenges and will lead to an economic recession that will typically result in greater death rates (through a deterioration in physical and mental health, a rise in suicides, and so forth). The pandemic creates many economic challenges for both developed and developing countries [7], as a result, many countries are facing structural breakdowns in macro-economic variables [8]. The level of government debt stayed high and increased [9], unemployment hit a peak [10], economic growth declined, volatility in exchange rates were observed, and the level of trade, tourism, hospitality, manufacturing, transport, and so on decreased for all countries. Therefore, the economy, economics, and economic policy remain important to prepare the rest of world on the way forward [11].

Apart from the COVID-19 pandemic, the war between Russia and Ukraine takes the level of crisis even further. The study conducted by [12] shows that the Russia–Ukraine war hit Germany's economy and the European Economic Area as a second major shock following the coronavirus pandemic. More specifically, the study highlights the risk of geopolitical disruptions and how they are forcing the German economy's business models to adjust. The crisis added another challenge to global economies by harming growth and putting upward pressure on inflation when inflation was already at high levels in different countries [13]. It also brings significant escalation in energy prices due to Russia being one of the world's largest oil producers and energy exporters. Furthermore, it is also reported that both COVID-19 and the geopolitical crisis increased the price of food and oil prices. As the result, 71 million people have faced poverty [14].

The political risk and uncertainty drive up savings ratios and makes firms more reluctant to invest, this could also slow inward foreign direct investment. Restrictions on exports would increase the reliance on money printing to finance the war, which leads to increasing upside inflation risks. New lenders will be wary and those anticipating loan payments will be anxious, share prices have decreased as risk premia on some European banks have increased [15]. The collective impact of the crisis creates high pressure on different countries' economies and politics. Particularly, the war caused Russia's GDP to decline by 1.5% in 2022 and 2.6% in 2023 (compared to base) as forecasted by the IMF [16]. The country's currency (RUB) was devaluated dramatically at the beginning of the war. However, changing currency payments from USD to RUB for major Russian exports helps the currency of the country to recover [16]. This is mainly related to the increase in Russian energy exports. On the other hand, the economic condition of emerging and developing Europe was affected badly as a result of the conflict [16]. The 2022 GDP registers a negative 2.9 percent compared to the base year. Inflation hit 27 percent and energy price increased dramatically [16]. The war has different implications across the regions. Those countries highly dependent on Russian energy (the Czech Republic, Germany, Hungary, Italy, and

the Slovak Republic) are affected badly. As a result, it is shown the effect of increasing energy and food prices.

Apart from energy imports, Belarus is one of the countries highly affected by this war; the country has the largest trading partners (representing about 60 percent and 50 percent of total imports and exports of goods and services, respectively) with Russia and Ukraine. The war brings downside risks to Belarus' economic outlook. Moldova is also another country highly affected by this war through its close economic and financial links to Belarus, Russia, and Ukraine. Apart from European countries, North African countries are also highly affected by this war as the region imports about 30% of its grain from Ukraine [16].

Global food markets are at risk as prices for wheat, corn, and barley have reached 10-year highs as a result of the war. This is mainly related to decreased Ukraine agricultural activities. The country was the largest supplier to the World Food Programme (40 percent of total wheat supplies) and it could potentially affect vulnerable populations in Afghanistan, sub-Saharan Africa, and Yemen. As a result, the combination of the COVID-19 crisis and unrest from the war between Russia and Ukraine may result in food insecurity across the globe.

Regarding the impact of COVID-19 and the Russia–Ukraine conflict on economic performance. Few studies [13,14,17–21] were conducted to investigate the impacts from different perspectives. The majority of the study's findings imply that the economic performance has been badly affected initially as a result of the coronavirus and recently as the result of the conflicts. However, those conducted studies do not properly mention the short-term risk that requires immediate action from concerned stakeholders as well as the necessary preparation for long-term strategical challenges. At the same time, those conducted studies did not present the consequences of COVID-19 and geopolitical crises on economic performance of different regions at the same time as a majority of the studies are conducted on specific countries. Accounting for those research gaps, the study on hand is novel in providing profound new empirical evidence supported by previously conducted studies on different issues and established theories by summarizing under a single concept to provide awareness on the way forward to overcome short-term risks and prepare for long-term challenges. More specifically, the study contributes to the existing literature by providing policy recommendation on those indicators identified as long-term challenges (sustainable development goals, green aspects of the world, and digitalization). Based on this reality, the study on hand is motivated to investigate the impact of COVID-19 and geopolitical crises on the economic performance of regions across the world. At the same time, it attempts to investigate the short-term risks and long-term strategic challenges of the crises. In doing so, both theoretical and empirical data are reviewed using a bibliometric approach to investigate how far scholars contribute to this study area. This study has an impact in assisting future studies to consider the status of each country in terms of economic performance during a crisis.

2. Literature Review

The outbreak of COVID-19 introduced a variety of restrictions on social, economic, and political activities of human life and is now recognized as one of the most pressing challenges and largest tragedies of the century after the Second World War [22]. Based on this reality, the majority of scholars across the globe have given wide consideration on ways to overcome the pandemic. Several studies were conducted to investigate the medical aspects of the pandemic. However, there are some focuses shifted to the social, economic, and sustainability effects.

According to [23], the outbreak of coronavirus affected several political, economic, and social activities. As a result, the majority of countries have been affected by these crises. Different regions of the world's economies have gone through a difficult period in terms of economic, social, and political activities. It is argued that the pandemic has created more fear and insecurity for people across the world. The level of losing jobs and incomes increased during the crisis. The governments' statewide lockdowns also led to an increase

in domestic violence and child abuse complaints [24]. Regarding economic activity, the flow of tourism, aviation, agriculture, construction, retail, hotels, textile, gems/jewelry, fast-moving consumer goods (FMCG), manufacturing, and start-ups were dramatically decreased, which resulted in large income losses [24].

The crisis is likely to leave every corner of the world suffering, as pandemic circumstances relax and the economic fallout becomes apparent with widespread civil unrest and social tensions [21]. Thus, COVID-19 will act as a conflict multiplier for parts of the globe where tensions are already high. Besides, irrespective of countries' economic power, the current trend of economic injection through fiscal and monetary policies that many countries are adopting to support consumers and businesses is challenging to reverse and is expected to hamper development for years and increase the likelihood of sovereign debt crises. Hence, the outbreak of the COVID-19 pandemic has had an unprecedented shock to the global economy [25]. Scholars argued that a novel coronavirus is not only a global public health issue but also has severe effects on the environment, economy, and economics. More specifically, when it comes to the energy market, it distorts the energy market in a dramatic way as the surplus of oil causes price to fall [11].

The study conducted by [26] investigates how the health crisis translated into an economic crisis during the COVID-19 era. The study highlights two main reasons for the global economic crisis as the result of the coronavirus. The first reason is down to social distancing, which led to the shutdown of financial markets, corporate offices, businesses, and events. Second, the exponential rate at which the virus was spreading and the heightened uncertainty about how bad the situation could become led to a flight to safety in consumption and investment among consumers, investors, and international trade partners. More specifically, the studies conducted across different countries show the same implications on the impact of COVID-19 on economic performance. As evidence, the study conducted by [4,6,10,24,25,27–30] summarizes that the COVID-19 pandemic has mainly affected the economic activities of transportation, tourism, trade, health, and other sectors.

Apart from the impact of COVID-19, the war between Russia and Ukraine has taken the level of economic crisis to different levels. According to [21], as a result of the Russia–Ukraine conflict, the economies of most countries are threatened by damage. The effects on the individual EU countries differ depending on their exposure to the Russian and Ukrainian markets. Ukraine is not a major trading partner of different countries. However, Russia has a greater influence that can distort the world economy. The conflict between the two countries increases the price of products and services across the globe. As a result, energy prices hit high and financial markets lose confidence in trading [17]. Most of the agricultural products imported from Russia and Ukraine have hit high prices.

According to [16], Russian and Ukrainian wheat exports are about a quarter of the global total. There are also significant exports of corn and other coarse grains, with Ukraine and Russia accounting for nearly a fifth of global exports. About 80 percent of the exports of sunflower oil are accounted for by Ukraine and Russia [25]. As a result, the conflict between the two countries affects the world economy badly. Additionally, the war increases tension in neighboring countries and provokes them to raise military expenses that will result in significant financial requirements. For instance, NATO EU nations that are most vulnerable to the crisis have increased military expenditures in response to the pressure. Those countries outside of NATO, countries such as Sweden, Finland, and several Eastern European countries are also likely to drive a significant acceleration in defense spending in response to the Russia–Ukraine crisis [17]. The reaction of the stock market was immediate to the conflict as the stock markets of Hungary, Russia, Poland, and Slovakia first react to the anticipation of the military actions in Ukraine, showing negative returns in pre-event days. However, the stock markets of Australia, France, Germany, India, Italy, Japan, Romania, South Africa, Spain, and Turkey were adversely affected in the post-invasion days [18] (p. 20). Hence, it is argued that the conflict emerges from unexpected economic, social, and political activities across the globe.

3. Methodology and Material Used

The study specifically aims to investigate the consequences of COVID-19 and the geopolitical crisis on economic performance with reference to short-term risk and long-term strategical challenges by referring both to previously conducted studies and numerical data published on the study area. The scientific approaches of systematization, comparison, generalization, analysis, and synthesis were used. Other studies also used the same approach [31]. Bibliometric science is used in this to analyze all previously published documents.

3.1. Search Strategy

The study developed a search strategy to identify the relevant literature on the specific study to investigate changes in the study area. This search strategy was mainly from the Web of Science database. The rationale for using this database is that it is considered the widest and most recommended source by previous studies. At the same time, the grey literature is also used by searching the Google Search engine. After keywords are identified, the study extracted the resource using keywords of the Russia and Ukraine war (Topic) or COVID-19 (Topic) and economic performance (Topic) and 2022 or 2021 or 2020 or 2019 (Publication Years) and Review Article or Early Access (Exclude–Document Types) and Enriched Cited References and English (Languages).

3.2. Inclusion and Exclusion Criteria

The study established criteria for including and excluding articles for review in the proposed study. In doing so, those studies written in the English language are included and others excluded. Those documents presented as articles proceeding finalized journals are included and other types of documents and articles in the press are excluded.

3.3. Sample Size

Generally, 1289 documents were discovered through the Web of Science database (1216) and the Google Search engine (73); after screening those relevant studies under the scope of the review, 895 studies were acknowledged for the review. Figure 1 shows the methodological approach used in selecting documents extracted from the databases.

Based on the scientific approach, those documents are extracted from the selected databases. RStudio version 3.5.3 (<https://rstudio.com/products/rstudio/download/>, accessed on 28 September 2022), the free open-source software, was used for data analysis. To conduct this specific review, the study used the Bibliometric package (<http://www.bibliometrix.org>, version 3.0.1, accessed on 28 September 2022).

Regarding numerical data, trends in the data were taken into account for selected macroeconomic variables and a qualitative approach is used for unquantified variables. Qualitative trend analysis (QTA) represents a technique of how to deal with rare events that cannot be described using numerical data sets because these are not available or are incomplete [32]. Many shallow knowledge items are available just as verbal descriptions based on trends: decreasing, constant, or increasing [33]. For instance, if an effective treatment of COVID-19 were found, then a sharp increase in GDP can be expected [34]. Furthermore, secondary panel data were extracted from the IMF databases.

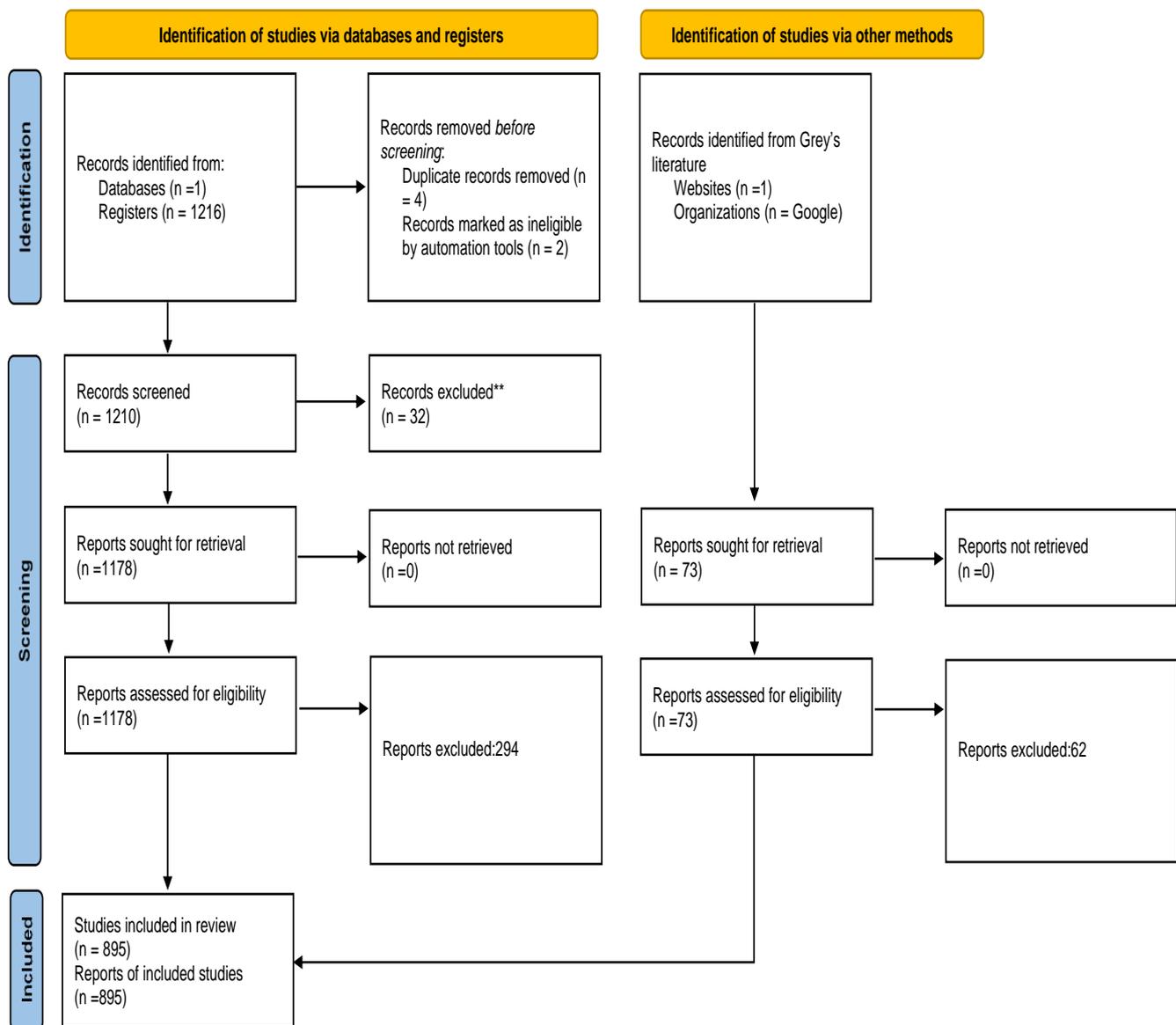


Figure 1. Study selection process flowchart.

3.4. Sampling Techniques

The study used the purposive sampling technique for data collection and variable selection. The rationale behind selecting purposive sampling is based on the research objective, which was conducted to see the economic performance response during the COVID-19 and geopolitical crisis (2019–2022). This period was selected purposely as the COVID-19 outbreak emerged in 2019. The data for 2022 are used based on IMF economic forecasts for all countries. The variables that were selected are based on the impact they have on economic pressure. The study used a secondary source of data to investigate the study on hand. The data for variables are collected from (International Monetary Fund and World Bank) databases. Other important information is also conducted from secondary sources of data such as articles, websites, magazines, newspapers, and the internet.

3.5. Data Analysis

A Microsoft Excel spreadsheet was used to crosscheck the authors' names, the titles of the documents, the keywords, and the abstract of the study. The Zotero reference manager was used to ensure that citations and documents were properly accounted for throughout the process. The following section discusses the overall findings of the study.

4. Results

The review is shaped by gathering resources from the database chosen for this study.

After all criteria were met, 895 studies were used for the final discussion. The following section discusses both the document and the numerical analysis of the study.

4.1. General Information

Table 1 below provides general information on the content of the study. The documents were collected for those studies conducted between 2019 and 2022. This period is selected purposely as the COVID-19 outbreak emerged in 2019.

Table 1. Main information about data.

Timespan	2019:2022
Sources (Journals, Books, etc.)	551
Documents	895
DOCUMENT CONTENTS	
Author's Keywords (DE)	3351
AUTHORS	
Authors	2660
Authors of single-authored docs	194
AUTHORS COLLABORATION	
Single-authored docs	199
Co-Authors per Doc	3.19
International co-authorships %	33.52
DOCUMENT TYPES	
article	881
article; book chapter	9
article; data paper	3
article; proceedings paper	2

Source: compiled by authors 2022.

As seen in Table 1, 895 documents written by 2660 authors were used in this study to review the study on hand. From the total 895 documents, 194 are written by single authors. The remaining documents are written in collaboration with different authors from the same as well as different countries. The result implies that co-authors per document is 3.19 percent, which supposes that there is an average of at least three co-authors on each document. International co-authorship is found to be 33.5 percent. The majority of documents used in this study are journal articles with a frequency of 881. The second largest number of documents used are book chapters.

4.2. Publication Trend

As discussed in the methodology section, the study on hand used data ranged from 2019–2022. Throughout the study period, as per the data collected, 895 documents were published and made available for the readers. In 2019, the total number of documents published was 33. This year was remembered for the COVID-19 outbreak, when the majority of people were unaware of the virus and what was going on across the world. Hence, the number of academic contributions during that year was not significant compared to others. In 2020, the number of academic contributions was increased dramatically as it reached 144. This year was known as the worst economic performance for all countries across the world; the world economic growth declined as the result of lockdowns. As a result, a lot of scholars turned their attention to study and investigate the impact of COVID-19.

In 2021, the number of publications was increased highly and reached 350 publications. Furthermore, 2022 is the year in which highest number of publications have been published. Up to when this study has been conducted (September 2022), there were 368 documents published. Overall, the result of the data extracted from the Web of Science shows that the number of studies conducted on the study area are increasing from time to time. The following Table 2 shows the publication trend over time.

Table 2. Annual scientific production.

Year of Publications	Documents Published
2019	33
2020	144
2021	350
2022	368

4.3. Annual Sources Dynamics

Regarding source contribution, the study is interested in identifying the top five leading journals in publishing the issue of the study area. At the same time, the study investigates the annual source dynamics; it is helpful to know that journals are still attracting a number of scientific publications on the study area. The result of the extracted data shows that the journal of *Sustainability* (Switzerland), *Economic Analysis and Policy*, and *Frontiers in Psychology* were the leading journals in contributing more research publications to academic life during the years of 2019–2021 on the specific study area. However, in 2022, the journal of resource policy and financial letters have gained popularity in publishing scientific research related to the study area. This could be happening mainly as the result of the Russia–Ukraine war and the accumulated impact of COVID-19 on economies. The Russia–Ukraine war creates a new way of thinking to diversify the usage of natural resources and attracts the attention of scholars to study the issue. At the same time, the war and COVID-19 crisis have damaged economies badly and motivated scholars to study financial and economical solutions for the combined crisis. Figure 2 shows annual occurrences of the journals in publishing scientific studies.

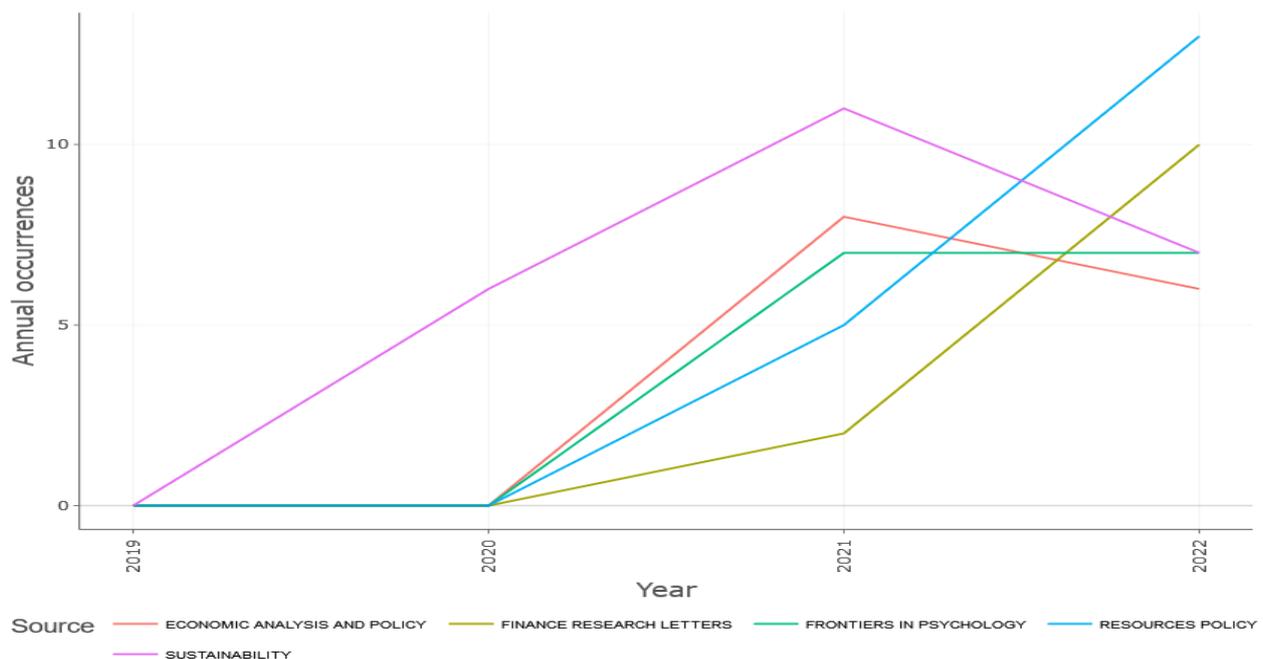


Figure 2. Annual sources dynamics.

4.4. Keywords Analysis

Keywords analysis is used in this study to investigate those words repeatedly used regarding COVID-19 and the Russia–Ukraine war. The result of keyword analysis implies that, among the documents used in this study, the majority of the studies used the keywords COVID-19, Russia, Ukraine, COVID-19 pandemic, pandemic, and so on. The result further implies that, among the top ten keywords used in this study, economic performance is not found in the top ten keywords. This implies that the number of academic research conducted on economic performance in line with COVID-19 and the Russia–Ukraine war is less compared to other topics. Hence, further attention needs to be given to this area. Figure 3 shows the keywords repeatedly used.

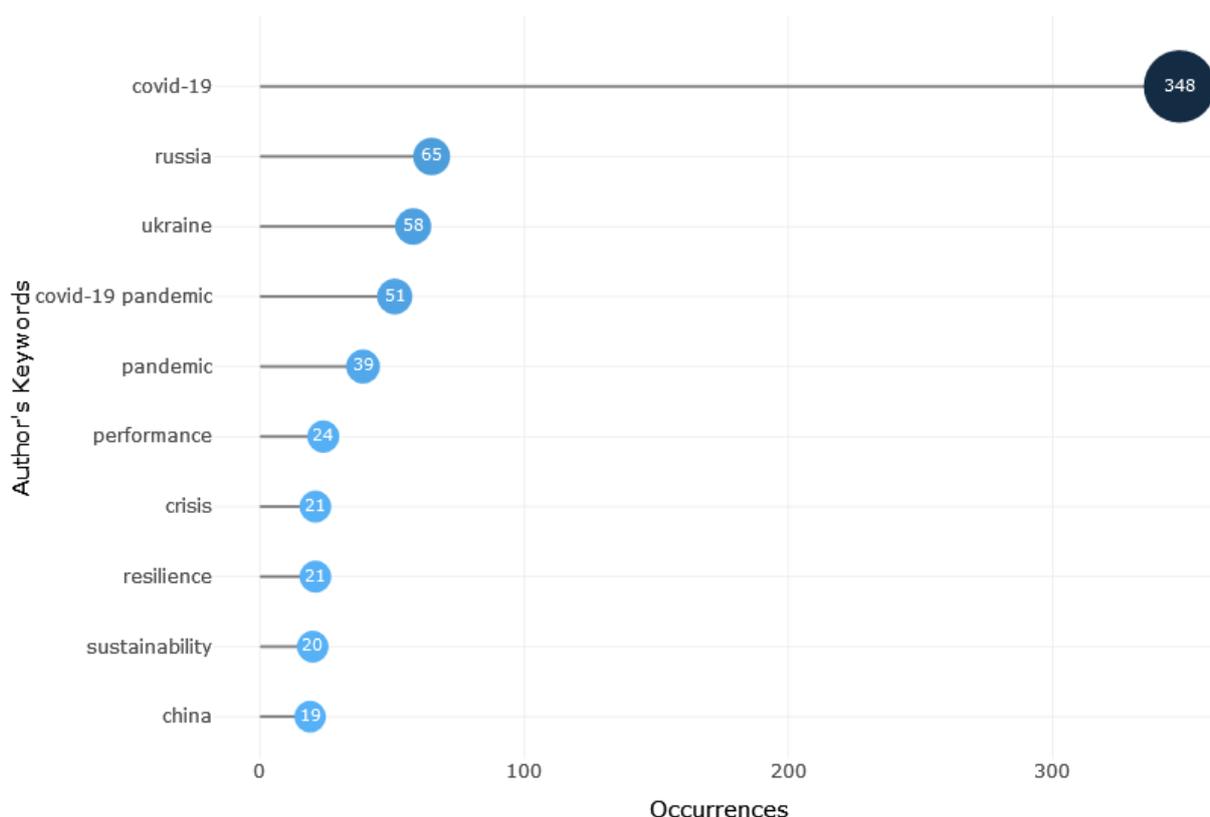


Figure 3. Frequency of repeatedly used words.

4.5. Citation Analysis

By measuring the number of times an author, article, or publication has been cited by other works, citation analysis is a technique for evaluating the relative importance or impact of those individuals. It is most helpful in assessing the influence of a given work by identifying which other authors used it as a source for their own work or cited it in their papers. Hence, we employed citation analysis to investigate the impact of individual authors as well as countries. Figure 4 shows how many times specific authors and countries are cited in the field of study area.

As seen in Figure 4, the study is interested in ranking those top ten authors mostly cited in the study area. As a result, the study conducted by Tirachini A., 2020 was the most cited document with a citation frequency of 202. Another study conducted by Hepburn C., 2020 is the second most cited document in the study area. The details of all citation results for authors can be referred to in Figure 4 above. Regarding the most cited country on the study area, China is leading the rest of the world by scoring a citation frequency of 1093. The United States of America ranked in the second place behind China with a citation frequency of 938. The details of the citation analysis for countries are presented in Figure 5.

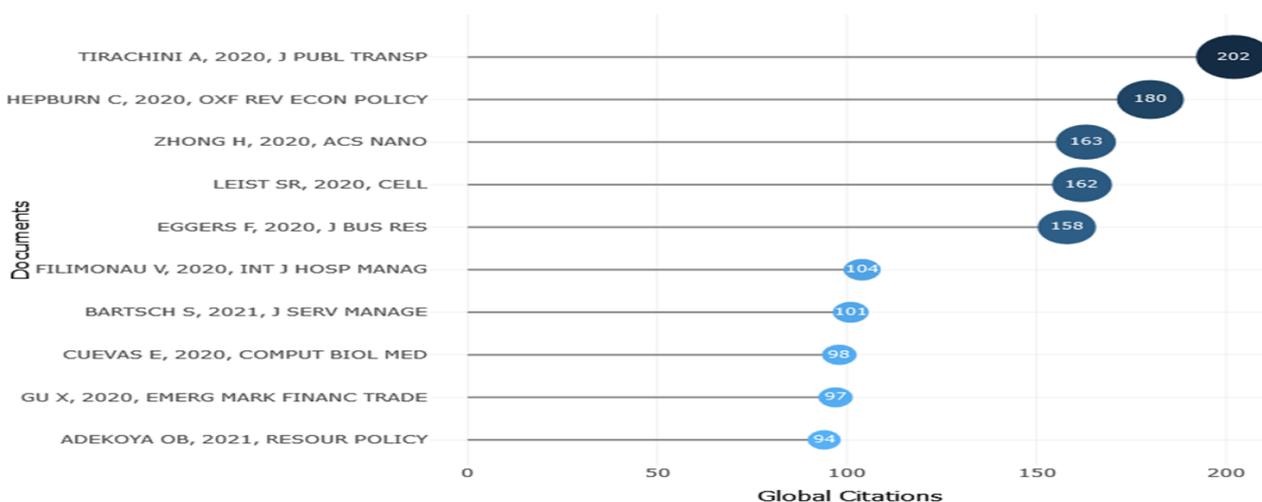


Figure 4. Citation frequency by author.

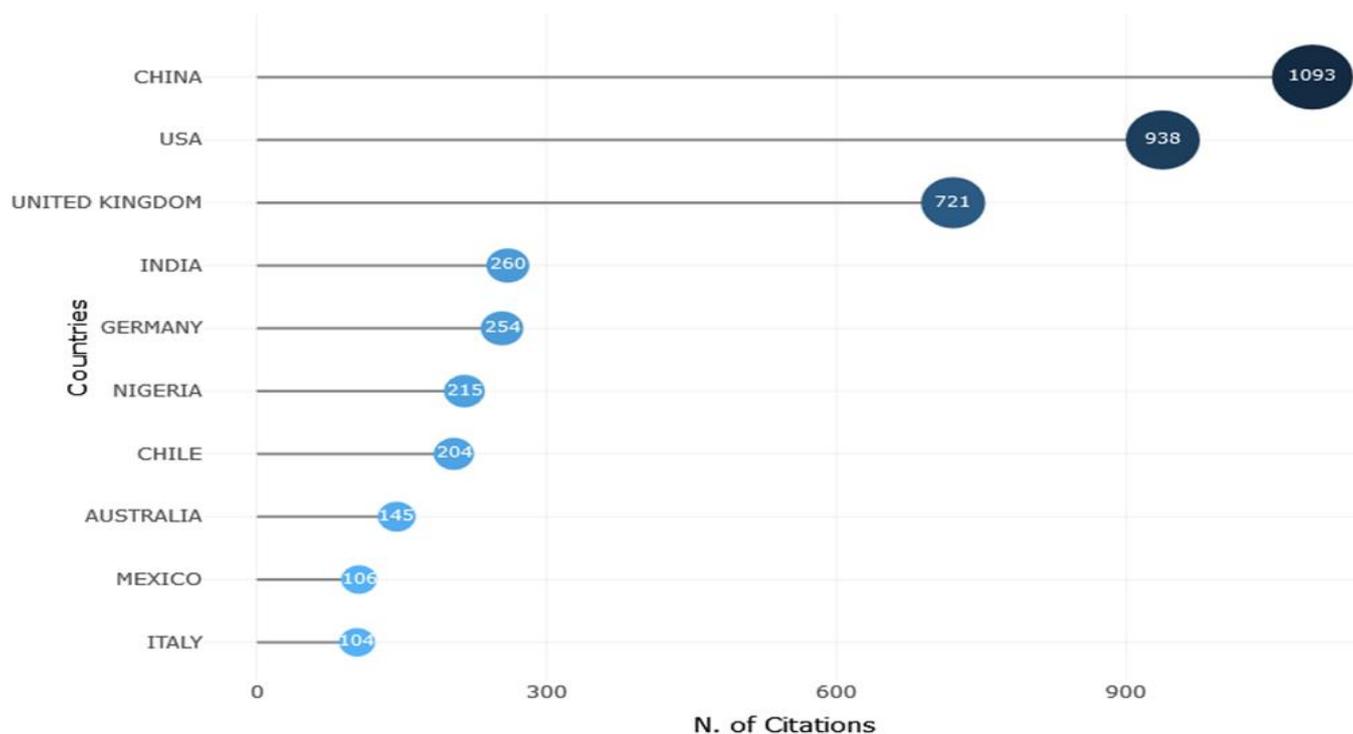


Figure 5. Citation frequency by country.

In addition to scoring the highest number of citations in the study area, the majority of corresponding authors who wrote many manuscripts are also from China. Among the 855 documents used in this study, 122 of the documents were written by corresponding authors based China. Corresponding authors also collaborated with different scholars across the world. The result of the extracted data showed 71 intra-country collaborations and 51 inter country collaborations. The details of the corresponding author collaboration result is presented in Figure 6.

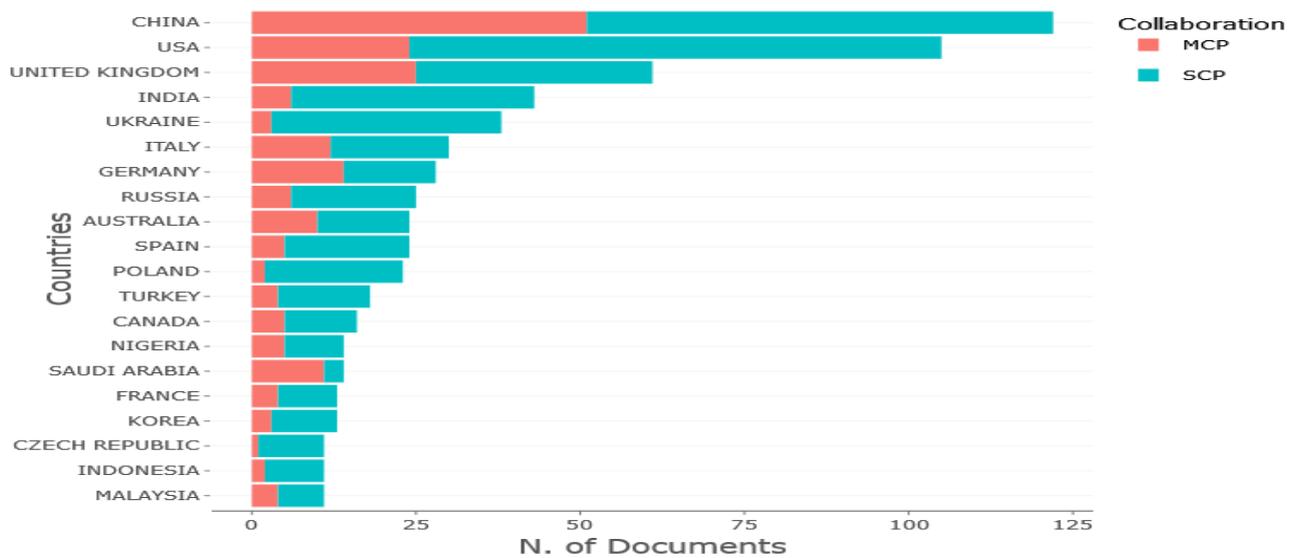


Figure 6. Frequency of corresponding authors by country. Note: MCP-inter country collaboration: SCP-intra country collaboration.

Furthermore, Figure 7 shows a collaboration network across the globe. The networking is marked by red and blue colors. The blue color represents those countries that contributed to the study area, whereas the red color shows a collaboration network among those countries. As can be evidenced from the map, except some part of Asia, South and North America, all continent across the world have created collaborations in producing scientific publications in the study area. Hence, scholars from these continents shall investigate the reasons and come up with findings that help others to learn from them. Figure 7 shows collaboration map among all continents.

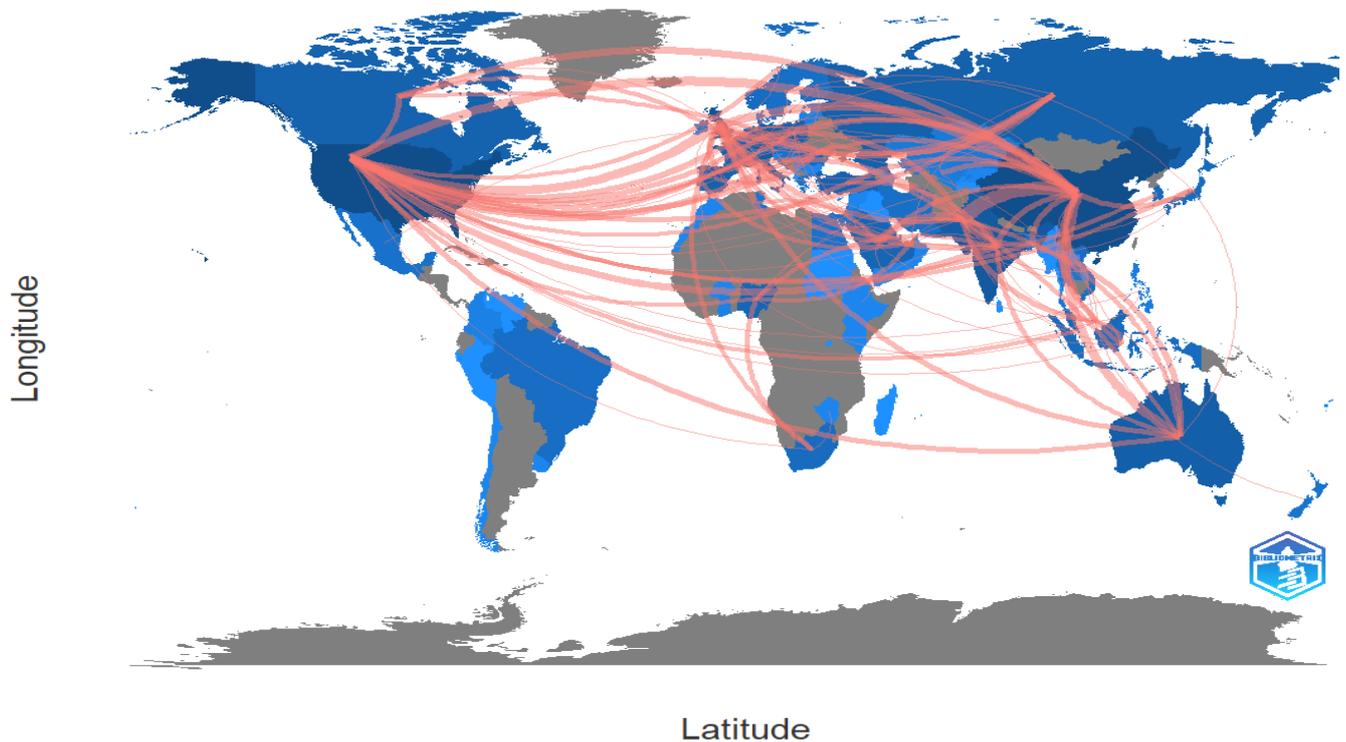


Figure 7. Collaboration map on scientific publication.

4.6. Review of Numerical Data

4.6.1. Gross Domestic Product

According to data extracted from the IMF database and presented in Figure 8, 2020 was the worst for economic performance for all countries across the world; world economic growth was estimated as a negative 3 percent change, which is much less than 2019. Countries such as the major advanced economies (G7), the European Union, Latin America, and Caribbean countries registered the worst economic records of the era. This could be due to the spread of COVID-19 and the correction measurements taken to protect people through lockdowns. Besides, 2021 was the greatest year of economic recovery during the COVID-19 era. The world economy registered a growth of 6.1 percent in 2021 [16]. The majority of developed and developing countries recovered during this year. However, the recent IMF forecast of regional outlooks implies that the growth level registered in 2021 will be not repeated in 2022, as far as the forecasted result shows there will be 3.6 percent growth in the year 2022. The war between Russia and Ukraine plays a significant role in the downward registration of economic performance in 2022. More specifically, emerging and developing European countries are expected to register the worst economic record after 2020 as far IMF predicted a negative 2.9 percent economic decline. Despite the COVID-19 crisis and the Russia–Ukraine war, the IMF forecasts positive economic growth for the majority of countries across the world except for the emerging and developing countries of Europe. Figure 9 shows the specific IMF forecast for the economic growth of 2022 for all continents.

As seen in Figure 9, even countries in Latin America, the Caribbean, Africa, and the Middle East are projected to register positive economic growth. The Latin American and Caribbean continent, which suffered the highest economic decline in 2020, is expected to register a growth of 2.5 percent. Hence, this could raise the question of why only the emerging and developing European countries are expected to register negative economic growth. This result is highly an indication of how the European continent (especially the emerging economies) was affected by the war between Russia and Ukraine. According to an IMF report of 2020, in the periods of two months since the outbreak of the war, about 5 million people, mostly women and children, have fled Ukraine and a further 7 million are estimated to be displaced internally. The refugee inflow into Europe has already exceeded that from Syria in 2015–2016 [14]. Countries that share borders with Ukraine, especially Poland but also Hungary, Moldova, Romania, and the Slovak Republic, are hosting most of these refugees and this could also be an additional factor that distorts the economic performance of the countries [13].

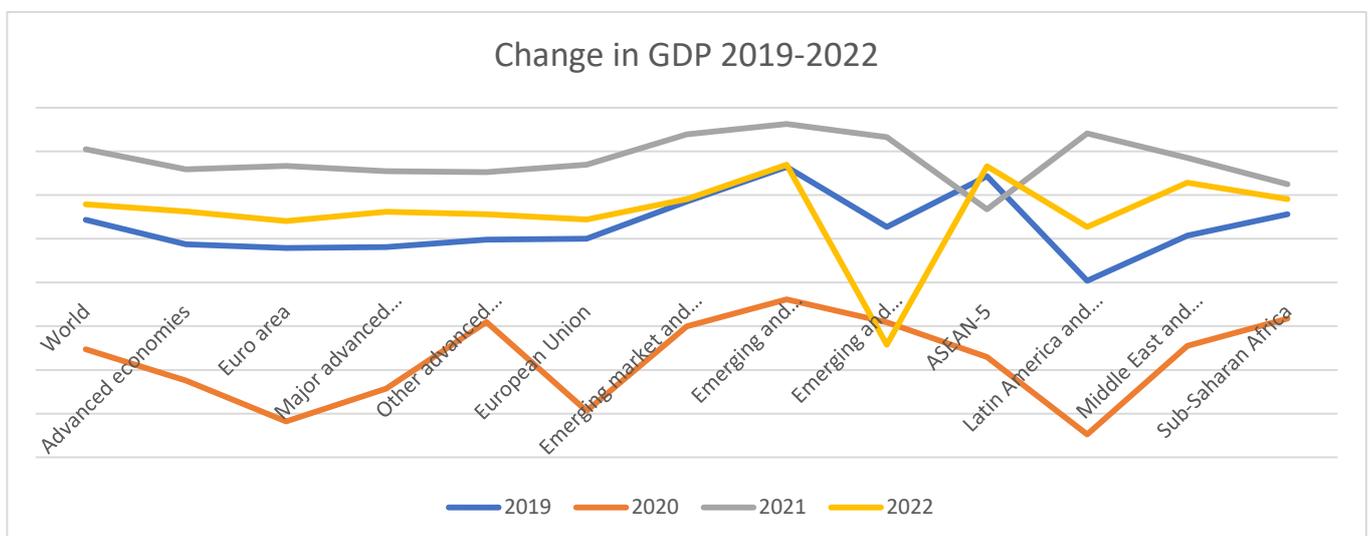


Figure 8. Economic performance during the COVID-19 era for all continents. Source: IMF 2022.

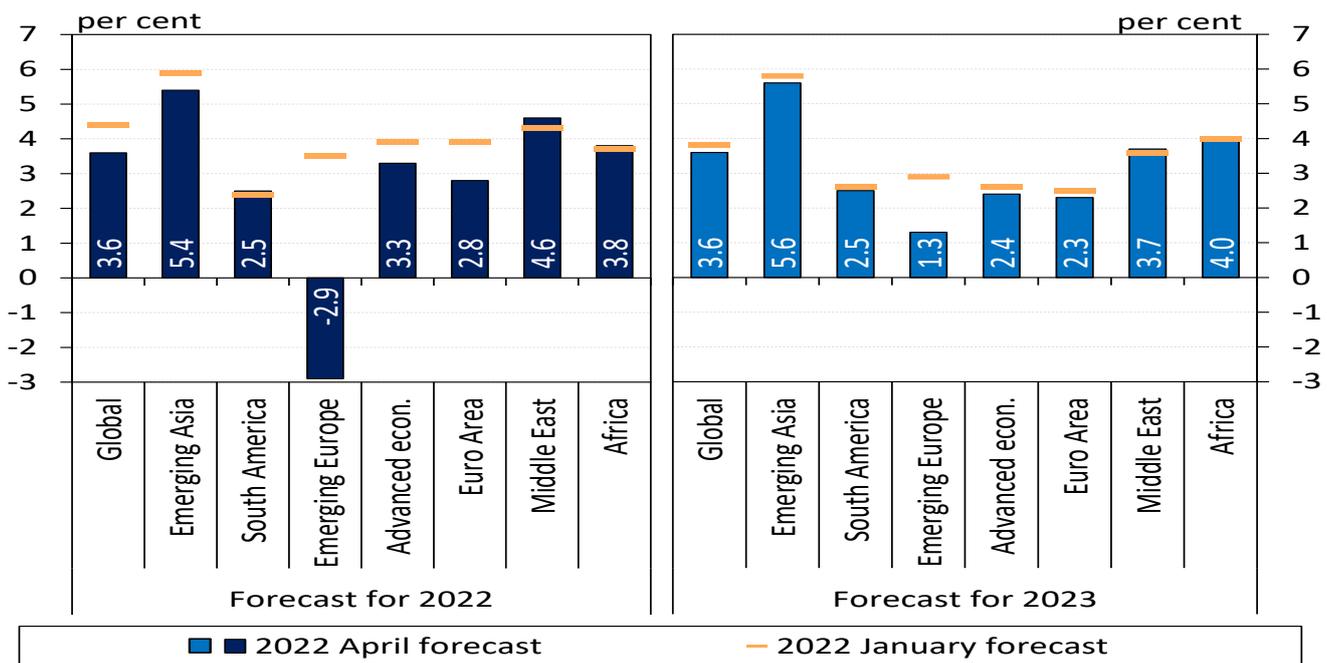


Figure 9. Economic performance of 2022 for all continents. Source: IMF, 2022.

4.6.2. Inflation

As seen in Figure 10, the inflation rate in the world reaches the highest percentage registering 7.4 percent in the year 2022 [16]. It seems that inflation is highly increased in all continents of the world. The IMF data report implies that the emerging and developing countries of Europe registered the highest and worst inflation rate increment in 2022 with a 27 percent inflation rate. Sub-Saharan Africa, the Middle East, and Central Asia, as well as Latin America and the Caribbean, emerging markets, and developing economies, also registered the highest rate of inflation. The increment level of inflation in 2022 is suppressed compared to other years during the COVID-19 era. Even in 2020, the economic performance of the entire world declined and the inflation rate was not as high as in 2022. This result implies how the Russia–Ukraine war contributed a significant effect to the rise in inflation in Europe and the rest of the world. The war-induced commodity price increases and broadening price pressures have led to the 2022 inflation increment. So far, some European countries and the rest of the world have used monetary policy measures to address inflationary pressures. Policymakers across the region have reacted decisively by tightening monetary policy and implementing measures to soften the blow of higher food and energy prices on the most vulnerable—thus mitigating the risks of social unrest. However, the crisis is still unrest.

4.6.3. Forex Reserves

In general, the Forex reserve level has multiple implications throughout the crisis. As evidenced in 2022, the advanced economies, major advanced economies, and other advanced economies have declined the level of Forex reserves compared to the preceding years of 2020 and 2021. However, emerging economies, the Middle East and Central Asia, and sub-Saharan Africa have increased the level of forex reserves compared to the preceding years of 2020 and 2021. It is believed that an increase in forex reserves increases the pressure on foreign exchange resulting in financial regulation and controlling difficulties. Therefore, for advanced economies, those currencies trading USD and EUR, increasing the level of forex reserves creates unnecessary currency competition. This scenario has been observed practically in most developing economies as USD became stronger than ever compared to their domestic currencies. As the majority of foreign trades are transacted by USD, the value of it became strong across the globe. However, this scenario forces different

countries to look for alternatives as Russia has by setting the RUB as the world trading currency with Russian partners. Currently, it is also observed that the Indian National Bank has announced to use INR as an alternative international trading currency with Indian partners; the emergence of such alternatives creates the opportunity for poor and developing economies but puts pressure on the USD. One pioneer example of the era is the decision of the Bank of Israel to unveil a new strategy for forex reserves. Under a new strategy for its more than USD 200 billion of reserves. The bank reduced the share of USD and increased the portfolio’s allocations to the AUD, CAD, CNY, and JPY. Besides, an increase in foreign exchange reserves is beneficial for maintaining national and corporate reputations abroad, promoting global trade and investment, lowering domestic enterprise financing costs, and preventing and resolving international financial risk. The following Figure 11 of the study shows the level of forex reserves of different economies.

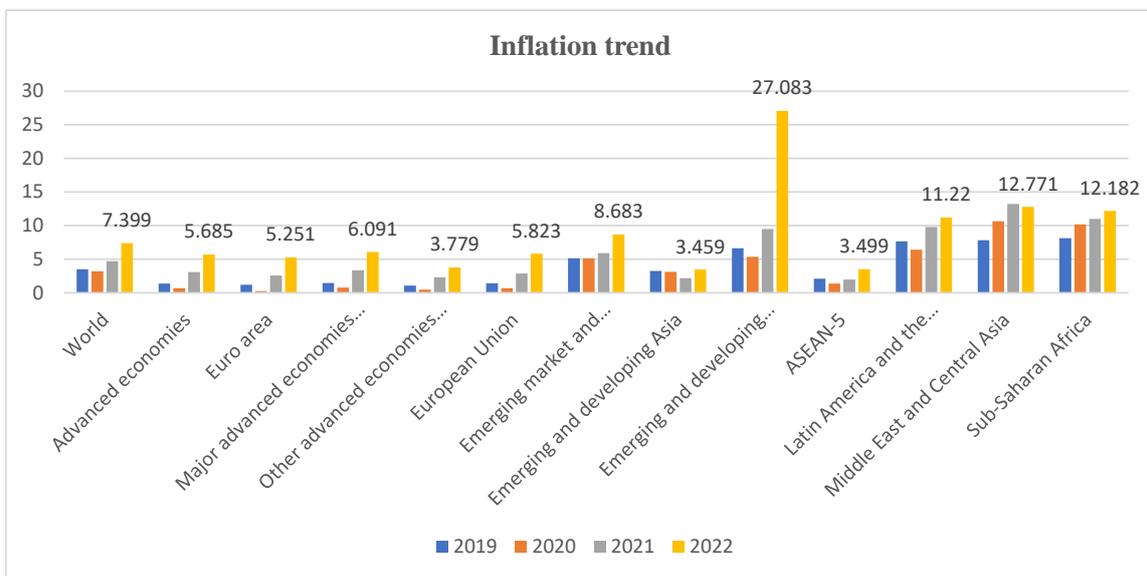


Figure 10. Inflation trend over time for all continents. Source: IMF 2022.

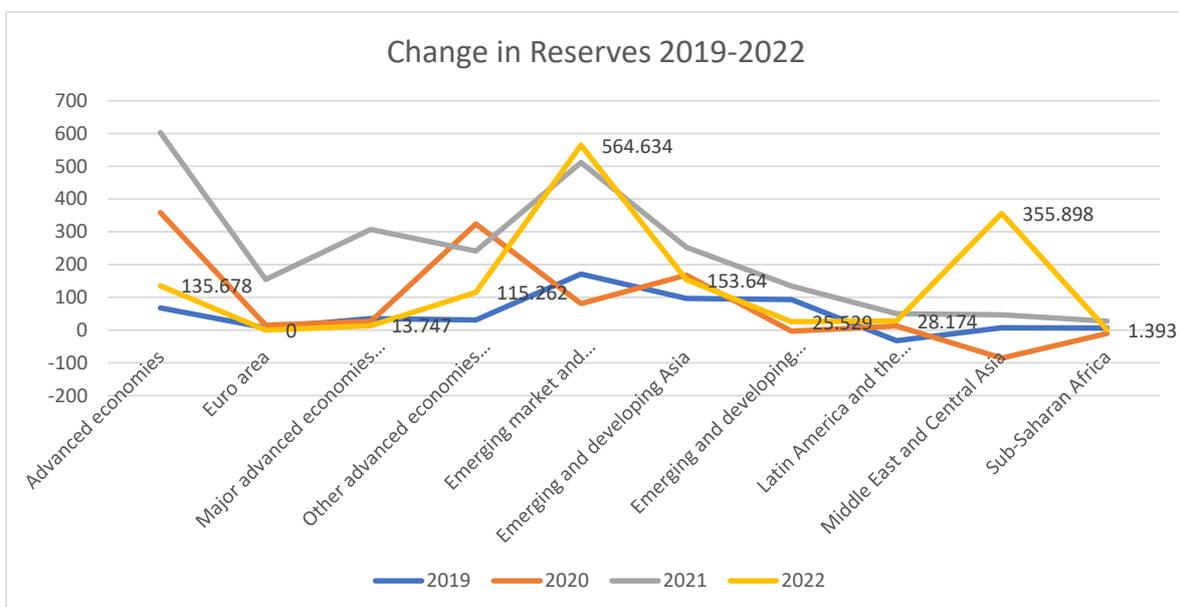


Figure 11. Level of forex reserves over time for all continents. Source: IMF, 2022.

4.6.4. Government Debt

It was surprisingly observed that the level of government debt in 2022 for the majority of African, Asian, and Middle Eastern countries increased at the highest rate compared to the preceding years of 2020 and 2021. The governments and policymakers were forced to increase the level of government debt as they have no alternative strategy to fight the impact of COVID-19 by providing vaccinations, food for the poor during the crisis, and providing direct support to different sectors of the economy to boost the performance. Apart from the COVID-19 crisis, the Russia–Ukraine war has badly affected the continents by distorting the prices of food and energy across the world, which indirectly increases the cost of imports. The data from the IMF show that in countries such as Cape Verde, Ghana, Namibia, Sri Lanka, and Brunei government debts hit a peak and they almost became equal to the gross domestic products of the countries or, in some of them, were greater. This could be a dangerous signal for all countries, especially for those countries with the highest government debts. If current debt trends in some countries continue, increasing the public-debt burden means higher interest costs, which divert resources from education, health care, and infrastructure. Apart from that, an increase in government debt decreases the international reputation of the countries and decreases the inward foreign direct investment, increases domestic capital flight, and creates instability in the exchange rate. These economic factors have a direct effect on the society’s cost of living, unemployment, and tax structure that leads governments and policymakers to think about measurement through fiscal and monetary policies. The reaction of considering these two policies to correct economic performance will shift economic crises into political crises and create unrest crises in the countries. More specifically, policy correction was serious during this economic crisis. For example, in Asian and Middle Eastern countries, it was reported that the region had faced some economic challenges when fighting pandemic waves with weak vaccination progress that resulted in rising inflation, which has contributed to declining monetary policy space and added to the difficulties posed by limited fiscal policy space. Hence, serious economic policy corrections are needed in a bid for looking to another alternative strategy. The following Figures 12 and 13 of the study shows the level of government debt for different economies

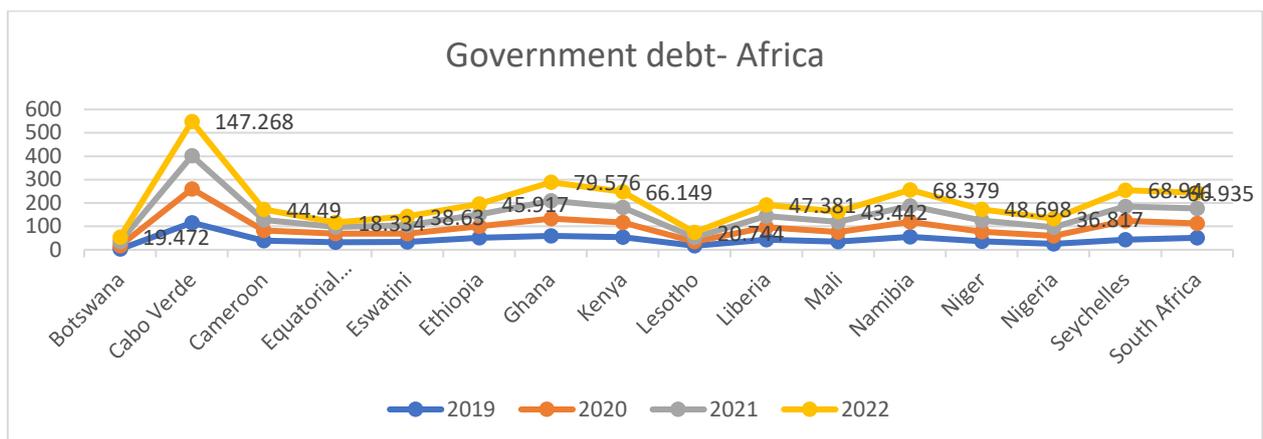


Figure 12. Level of African countries’ government debts as a percentage of GDP. Source: IMF, 2022.

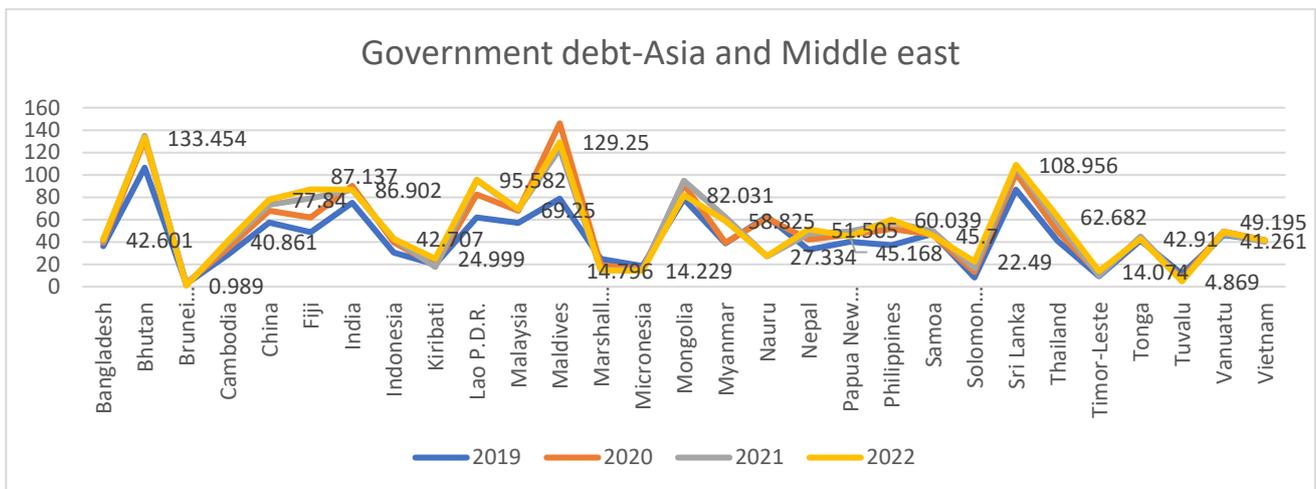


Figure 13. Level of Asia and Middle East countries' government debts as a percentage of GDP. Source: IMF, 2022.

5. Discussion

The following section discusses the short-term risks and long-term strategical challenges expected because of the crises. In doing so, the study takes into account the numerical data presented and the theoretical background of previously conducted studies on the issue.

5.1. Short-Term Risks

Risk of stagflation: Stagflation can be defined in different ways under different scenarios. However, the main idea of stagflation is to describe the economy that has slow growth with relatively high unemployment, which is at the same time accompanied by rising prices (i.e., inflation) [35]. Stagflation can alternatively be defined as a period of inflation combined with a decline in the gross domestic product (GDP). As observed from the data provided by IMF, there could still be an estimated rate of decline in gross domestic product and an increase in inflation rates across the world. The combination of these two variables will put the world at a short-term risk of stagflation. The risk of stagflation can lead policymakers to think about share economies instead of wage economies as the share economies significantly improve the unemployment–inflation tradeoff (stagflation). However, it also argued that the widespread introduction of share contracts is unlikely to improve macroeconomic performance.

Risk of interest rate: The other disadvantage of the crisis is the raising levels of interest rates. An increased inflation rate directly affects the levels of interest rates. As observed during the study period, most emerging and developing countries have corrected their level of interest to control the market. The Hungarian National Bank corrected the interest rate at the beginning of July 2022 by increasing the interest rate from 7.75 to 9.75 percent, the Bank of Canada increased by 1 percent, and the banks of Korea and New Zealand corrected the interest rate by 0.5 percent. The aim of raising interest rates is to slow down the economy by making borrowing more expensive [36]. In turn, consumers, investors, and businesses are limited in investing [37], which result in a decrease in the money supply on the market. Furthermore, raising interest rates increase interest expenses for borrowers [38]. Hence, the willingness to borrow will decrease. However, a decrease in borrowing will make an investment and businesses pause and rise in the unemployment rate [39]. Additionally, raising interest rates causes the export to be less competitive and makes imports cheaper. The government cost of debt will raise immediately. Using this policy is only recommendable for those countries highly dependent on imports [40]. Apart from interest rate increments, some countries such as the United Kingdom followed different strategies to tackle the impact of the crisis. They decided to manage through cash transfers. The transferred cash decided to distribute directly to the society based

on installment payments. The effectiveness of both strategies is yet to be seen based on the market response to the crisis.

The volatility of the exchange rate: One of the most surprising issues during the crisis was the reaction of local currencies to USD across the globe. Changes in economic policies related to interest rates and inflation created an immediate response to the exchange rate [41]. During the crisis, especially after the beginning of the Russia–Ukraine war, the response of local currencies in developing economies was immediate. The reason for the volatility in the dollar/local currency exchange rates is the fluctuation in the volume of exports, fluctuation of the interest rates, fluctuation in the inflation rate, and so on [42]. As the western partners, including the USA, put sanctions on Russia for not trading with her; some European countries shifted their face to the USA as a trading partner. As a result, on 11 July 2022, the USD level became equal to the EUR for the first time in 20 years. The INR, IDR, and HUF registered at historic exchange rate levels. The fluctuation of the exchange rate is seemingly happening in microseconds across the globe with the highest rate of variation. The USD is getting stronger than ever compared to other currencies as it is used as a world trading currency. However, countries such as China, Russia, and India are putting pressure on the USD by introducing their local currency as international trading currencies. This could create another alternative for different countries to manage the volatility of their domestic currency against the USD by creating a portfolio as Israel has done. Besides, the volatility of the exchange rate creates additional pressure on the domestic inflation rate by importing abroad inflation [43]. This scenario is highly observed in those countries mainly dependent on imports, as the consumers are forced to pay the highest price for the same commodity sold for the lowest price in another country.

Rising energy prices: The protracted war in Ukraine and the sanctions imposed on Russia by the European Union have led to a dramatic increase in energy prices across Europe, which has caused an energy crisis in a large part of the continent. Different reports such as *vg.hu* show that the electricity prices in Europe have risen 515 percent in just over a year, while gas prices have increased 650 percent in the same period through early July. The explosion of energy prices due to the war not only led to a drastic increase in inflation, but also to enormous uncertainty, which has a significant negative impact on foreign exchange rates.

5.2. Long-Term Strategic Challenges

Sustainable development goals and green aspects: The three pillars (economic, environmental, and social) of the Sustainable Development Goals (SDGs) represent our most ambitious development agenda ever, setting the vision, framework, and targets for the transition to a sustainable and resilient society. The global socioeconomic and financial systems face unprecedented challenges because of climate change and environmental deterioration [44]. Our existing modes of production and consumption lead to unsustainable levels of greenhouse gas (GHG) emissions as well as other environmental consequences that go beyond what our ecosystems can absorb and recycle [45]. As the clock is running, with just over a decade left to achieve the SDGs, a major push is needed to achieve the sustainable development goals.

Climate finance has emerged as one of the greatest toolkits to overcome the issue [46]. A key focus is on putting in place new mechanisms at global, regional and country levels to increase climate finance. Countries emerged to devote some part of their budget to green investments after the 2015 Paris agreement. Since that, there has been progress regarding the financing of green projects. However, as a result of the COVID-19 outbreak, the financing level for green investment decreased by 25 percent in 2019 [47]. This number slowly increased to a huge amount of the green finance gap [48]. According to a recent 2021 report published by [49], the current investments in green projects found not enough to achieve the objective of sustainable development goals of green aspects, and a USD 133 billion financing gap is expected by 2030 and a 4.1 trillion financing gap is expected by 2050. It calls on all stakeholders to enhance the level of green finance for green investments. However,

the current geopolitical and COVID-19 crisis seems major concern in the transition to low-carbon energy. Therefore, how do countries obtain sufficient finances to fill the required green investment? Do country leaders prioritize financing green aspects by putting aside the economic crisis? Does the current economic activity respond to the planned target positively? This is the main question of the era. Hence, the impact of COVID-19 and geopolitics create long-term strategic challenges for green aspects.

Risk of Hyperinflation: Accumulated stagflation has the capability of leading the economy to hyperinflation. Hyperinflation can happen when the prices of goods and services rapidly increase and become out of control [50]. Theoretically, the economic pieces of the literature suggest an inflation rate that hits 50 percent for continuous years could be considered hyperinflation. Based on this fact, what we have observed in emerging and developing countries of Europe implies a risk of hyperinflation. The region has registered negative economic performances and the highest rates of inflation of any continent in the world. If the current Russia–Ukraine war keeps going, the political crisis of the region can have a different shape as interventions from different countries are expected; this could raise the level of economic crises even more as most of both Russia and Ukraine’s trading partners are in the European region. The extended time of conflict will lead to a decline in productivity and create unexpected pay rises for several goods and services. By accounting for this scenario, it is a decisive time for policymakers to develop new strategies that could tackle the problem. Stopping the war would be the immediate solution to human, economic, and social crises; however, in the long run, alternative strategies should be developed for the countries in this region to lift them from dependence on Russia and Ukraine.

Risk of economic recession: The ongoing COVID-19 pandemic and geopolitical crisis are likely to have a profound impact on economic productivity. As the crises continue, there is the possibility of a slowdown in general economic activities especially in emerging and developing European countries as observed in 2022. This situation is likely to force governments to increase the level of government debt to inject the economy, resulting in a higher inflation rate, creating many unbalanced macro-economic variables and providing signs of economic recessions. These could lead consumers to spend less, which means businesses earn less. In response, they produce less and cut wages or lay off workers. This can lead cash-strapped consumers to spend even less, so the recession feeds on itself. At the same time, the level of inflation will hit high as a result of a shortage of goods and services. The policymakers should investigate the current economic scenario of their countries to avoid economic recession. Necessary measurements policies shall take on time by using both fiscal and monetary policy economic toolkits.

6. Conclusions

The ongoing COVID-19 pandemic and the supposedly quickening speed of climate change highlight the need for greater international cooperation and collaboration. However, the current geopolitical crisis puts pressure on this international collaboration. The war between Russia and Ukraine opens a door to divide the world into different political and economic interests. Western countries including the United States of America blame Russia for attacking Ukraine and imposing different economic sanctions on Russia. However, the Russian government responded to the sanctions with relative economic sanctions on western countries. The sanctions between the western countries and Russia badly affect the economy of the world in different ways. This study was conducted to investigate how the economic performance is responding to COVID-19 and the geopolitical crisis. In doing so, the study purposively investigated a trend analysis of some macroeconomic variables and examined the short-term risk and long-term strategical challenges of the crisis. Generally, the study highlighted the overall trends in research publication on the study area and investigated both short- and long-term challenges of economic performance. It also provided information on the most contributing countries, journals, and authors from around the world using bibliometric analysis. Collaboration among countries were specifically investigated. As a result, except for some parts of Asia and South and North

America, all continents across the world have created collaborations in producing scientific publications in the study area. The geographic distribution of scientific studies collected in terms of countries that participated in producing scientific publications on the study area is also investigated. The trends in publications show that the study area has been attracting academic scholars in the past few years. The scholars from China, the United States of America, and the United Kingdom are leading the rest of the world by producing more scientific publications in the study area. This implies that the war between Russia and Ukraine is a concern of those countries as well. The result of the key word analysis suggests that COVID-19 and crisis are used many times in those published documents. At the same time, country names such as Russia, Ukraine, and China were the keywords used most in those published documents. As a result of the COVID-19 outbreak that first emerged in China, the majority of academic scholars investigated the issue using China keywords, on the other hand, the conflict between Russia and Ukraine has attracted scholars to study the consequence of this crisis from different perspectives. Hence, those three countries are the main players that frequently appear in the current scientific publications. Previously conducted studies are highly focused on health, social, and sustainability aspects of the crisis. However, less studies are conducted to consider the economic consequence of the crisis. As a result, this study focuses on the economic perspectives of the crisis.

The findings of the study imply that, as a result of the combined crisis in 2022, countries over the world are expected to register less economic growth compared to the fiscal period of 2021 [17]. The emerging economies and developing countries of Europe were badly affected by the crisis as the inflation rate hit 27 percent compared to 7.4 percent for the world [18]. The economic growth of the region has registered a negative 2.9 percent, which implies negative growth. The change in forex reserves for 2022 declined for major advanced economies and euro-area countries, whereas it increased for the rest of the world [18]. The level of government debt hitting the peak in 2022 compared to 2019–2021 for the majority of the countries and especially for those countries such as Sri-Lanka, Ghana, Cape Verde, Namibia, and Brunei. Increments in the interest rate and volatility of exchange rates are observed in many countries across the world [16].

The USD had parity with EUR for the first time in 20 years. Energy prices dramatically increased in the world and especially in Europe [26]. The study also found that interest rates, exchange rate volatility, risk of stagflation, and rising energy prices are the short-term risks to the economy. However, for the issue of sustainable development goals and green aspects, the risk of hyperinflation and risk of economic recession represent the long-term strategic challenges or risks for the economies. As the war keeps going, the economic burden on households will shift into a political crisis and create a violation. Hence, searching for an economic solution to the economic crises is required across the world.

Based on these findings, the study recommends that all stakeholders look forward to better strategies that would reduce the burden of economic crises. More specifically, except for the emerging and developing European countries, international financial institutions such as the IMF and World Bank in line with the rest of the western countries should provide a bailout to the emerging and developing European countries as they were badly affected by the war. Debt relief time is highly needed for those countries badly affected by those crises. At the continental and country level, it is better to make sure that necessary capital and labor reallocations are not hampered by financial policy and should switch from general assistance to targeted support of viable enterprises. Supply side policies should promote inclusive growth through a variety of means, such as progressive tax [51] reforms and growth-friendly initiatives that step up the economy and climate change adaptation and mitigation [17].

Multilateral measures must be adopted to address the humanitarian catastrophe, reduce the pandemic, manage financial distress, maintain global liquidity, and reduce further economic disintegration. For those countries with the lowest government debt and highest inflation rates compared to the others, raising interest rates in the case of higher inflation can slow down the crisis for a short-term period and improving policy frameworks

and productivity will be important for long-term stability. For those countries with high government debt, raising interest rates complicates the management of already high debt levels and an escalation of the war could further tighten financial conditions in the region. In this context, an inclusive fiscal consolidation strategy would maintain support for the vulnerable while helping to rebuild buffers.

The other important point is improving energy security, as the EU is looking for a common solution to the effect of increasing energy prices and providing support to reduce energy dependency on Russia [16]. In the short term, the shortage of energy imports can be filled by looking for alternative suppliers as some countries have already started (Bulgaria, Germany, Italy). Furthermore, delaying the phase-out of nuclear and coal-based electricity generation plants can minimize the risk (Belgium, Italy). Each country shall implement the fast changes in technology using alternative (renewable) energy.

Future studies should be conducted to find a way of advancing technology for renewable energies. Researchers, policymakers, and different experts shall call for a range of immediate and medium-term policies to overcome the crisis. Finally, the findings and recommendations of the study are provided based on the regional data extracted from the IMF database [16]. Hence, the study is limited to regional comparison and investigation. Interested authors can use this study as a benchmark and investigate the issue at the country level to produce with more specific results.

Author Contributions: Conceptualization, G.D., A.T. and M.F.-F.; investigation, resources, and data curation, A.T., G.D. and M.F.-F.; methodology G.D.; analysis, G.D.; original draft preparation, validation, G.D., M.F.-F. and A.T.; supervision, M.F.-F. Additionally, A.T.; project administration, and funding acquisition, A.T. and M.F.-F. All authors have read and agreed to the published version of the manuscript.

Funding: The Article Processing Charge funded by the Hungarian University of Agriculture and Life Science, Doctoral School of Economic and Regional Sciences.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: The data can be available from request goshudasalegn@gmail.com.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. Blanchard, O.; Galí, J. Labor Markets and Monetary Policy: A New Keynesian Model with Unemployment. *Am. Econ. J. Macroecon.* **2010**, *2*, 1–30. [[CrossRef](#)]
2. Sahin, T.; Ozen, G. The effect of COVID-19 pandemic on turkish well trained cyclist's pre-competition anxiety level. *Человек. Спорт. Медицина* **2022**, *22*, 110–120.
3. Ahmad, S.; Akbar, S.; Kodwani, D.; Halari, A.; Shah, S.Z. Compliance or non-compliance during financial crisis: Does it matter? *Int. J. Finance Econ.* **2021**, 1–19. [[CrossRef](#)]
4. AbdelMaksoud, K.M.; Hathout, H.M.; Albagoury, S.H. The socio-economic impact of COVID-19 on the petroleum sector in Egypt: A descriptive analysis. *Int. J. Soc. Econ.* **2021**, *0688*, 1411567.
5. Aghababaei, S.; Bashirian, S.; Soltanian, A.; Refaei, M.; Omidi, T.; Ghelichkhani, S.; Soltani, F. Perceived risk and protective behaviors regarding COVID-19 among Iranian pregnant women. *Middle East Fertil. Soc. J.* **2020**, *25*, 1–9. [[CrossRef](#)]
6. Al-Najjar, H.; Al-Rousan, N.; Al-Najjar, D.; Assous, H.F.; Al-Najjar, D. Impact of COVID-19 pandemic virus on G8 countries' financial indices based on artificial neural network. *J. Chin. Econ. Foreign Trade Stud.* **2021**, *14*, 89–103. [[CrossRef](#)]
7. Alam, M. Economic Effects of Covid-19 on the Indian Carpet Industry. *TEXTILE* **2021**, *20*, 331–341. [[CrossRef](#)]
8. De la Fuente-Mella, H.; Rubilar, R.; Chahuán-Jiménez, K.; Leiva, V. Modeling COVID-19 Cases Statistically and Evaluating Their Effect on the Economy of Countries. *Mathematics* **2021**, *9*, 1558. [[CrossRef](#)]
9. Bai, M.; Ho, L. Corporate social performance and firm debt levels: Impacts of the COVID-19 pandemic and institutional environments. *Finance Res. Lett.* **2022**, *47*, 102968. [[CrossRef](#)]
10. Alessa, A.A.; Alotaibie, T.M.; Elmoez, Z.; Alhamad, H.E. Impact of COVID-19 on entrepreneurship and consumer behaviour: A case study in Saudi Arabia. *J. Asian Financ. Econ. Bus.* **2021**, *8*, 201–210.
11. Michie, J. The COVID-19 crisis—and the future of the economy and economics. *Int. Rev. Appl. Econ.* **2020**, *34*, 301–303. [[CrossRef](#)]
12. Bulmer, S. Germany, the Eurozone crisis and the COVID-19 pandemic: Failing forward or moving on? *Comp. Eur. Politics* **2022**, *20*, 166–183. [[CrossRef](#)]

13. Uwishema, O.; Sujanamulk, B.; Abbass, M.; Fawaz, R.; Javed, A.; Aboudib, K.; Onyeaka, H. Russia-Ukraine conflict and COVID-19: A double burden for Ukraine's healthcare system and a concern for global citizens. *Postgrad. Med. J.* **2022**, *98*, 569–571. [[CrossRef](#)] [[PubMed](#)]
14. Armitage, R. Battlefronts in Ukraine: Russian invasion and COVID-19. *Br. J. Gen. Pr.* **2022**, *72*, 334. [[CrossRef](#)] [[PubMed](#)]
15. Andribet, P.; Baumgartner, M.; Garot, J.-M.; Members of the Air. Reinventing European air traffic control based on the COVID-19 pandemic experience. *Util. Policy* **2022**, *75*, 101343. [[CrossRef](#)] [[PubMed](#)]
16. International Monetary Fund. Regional Economic Outlook, April 2022: Europe. 2022. Available online: <https://www.imf.org/en/Publications/REO/EU/Issues/2022/04/20/regional-economic-outlook-for-europe-april-2022> (accessed on 10 September 2022).
17. Liadze, I.; Macchiarelli, C.; Mortimer-Lee, P.; Juanino, P.S. *The Economic Costs of the Russia-Ukraine Conflict*; NIESR Policy Paper; NIESR: London, UK, 2022; p. 32.
18. Yousaf, I.; Patel, R.; Yarovaya, L. The Reaction of G20+ Stock Markets to the Russia-Ukraine Conflict. Available at SSRN 2022. Available online: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4069555 (accessed on 8 September 2022).
19. Birbirenko, S.; Telecommunications, O.N.A.O.; Zhadanova, Y.; Banket, N. Influence of pandemic of coronavirus infection COVID-19 on economic resilience of Ukrainian enterprises. *Econ. Ann.-XXI* **2020**, *183*, 66–78. [[CrossRef](#)]
20. Choudhary, O.P.; Saied, A.A.; Priyanka; Ali, R.K.; Maulud, S.Q. Russo-Ukrainian war: An unexpected event during the COVID-19 pandemic. *Travel Med. Infect. Dis.* **2022**, *48*, 102346. [[CrossRef](#)]
21. Havlik, P. *Economic Consequences of the Ukraine Conflict (No. 14)*; Policy Notes and Reports; The Vienna Institute for International Economic Studies (wiiw): Vienna, Austria, 2014.
22. Gautam, S.; Hens, L. COVID-19: Impact by and on the environment, health and economy. *Environ. Dev. Sustain.* **2020**, *22*, 4953–4954. [[CrossRef](#)]
23. Karabulut, G.; Bilgin, M.H.; Demir, E.; Doker, A.C. How pandemics affect tourism: International evidence. *Ann. Tour. Res.* **2020**, *84*, 102991. [[CrossRef](#)]
24. Debata, B.; Patnaik, P.; Mishra, A. COVID-19 pandemic! It's impact on people, economy, and environment. *J. Public Aff.* **2020**, *20*, e2372.
25. Dev, S.M.; Sengupta, R. *COVID-19: Impact on the Indian Economy*; Indira Gandhi Institute of Development Research: Mumbai, India, 2020.
26. Ozili, P.K.; Arun, T. Spillover of COVID-19: Impact on the Global Economy. SSRN 3562570. 2020. Available online: <https://econpapers.repec.org/paper/pramprapa/99317.htm> (accessed on 8 September 2022).
27. Susilawati, S.; Falefi, R.; Purwoko, A. Impact of COVID-19's Pandemic on the Economy of Indonesia. *BIRCI-J. Humanit. Soc. Sci.* **2020**, *3*, 1147–1156. [[CrossRef](#)]
28. Abhari, S.; Jalali, A.; Jaafar, M.; Tajaddini, R. The impact of COVID-19 pandemic on small businesses in tourism and hospitality industry in Malaysia. *J. Res. Mark. Entrep.* **2021**, *24*, 75–91. [[CrossRef](#)]
29. Achim, M.V.; Safta, I.L.; Văidean, V.L.; Mureșan, G.M.; Borlea, N.S. The impact of covid-19 on financial management: Evidence from Romania. *Econ. Res.-Ekon. Istraživanja* **2021**, *35*, 1807–1832. [[CrossRef](#)]
30. Ameer, W.; Chau, K.Y.; Mumtaz, N.; Irfan, M.; Mumtaz, A. Modeling COVID-19 Impact on Consumption and Mo-bility in Europe: A Legacy Toward Sustainable Business Performance. *Front. Psychol.* **2022**, *13*, 1–13.
31. Stukalo, N.; Simakhova, A. Social and economic effects of the war conflict in Ukraine for Europe. *Geopolit. Under Glob.* **2018**, *2*, 11–18. [[CrossRef](#)]
32. Villez, K. Qualitative path estimation: A fast and reliable algorithm for qualitative trend analysis. *AIChE J.* **2015**, *61*, 1535–1546. [[CrossRef](#)]
33. Yan, X.; Zhou, Y.; Wen, Y.; Chai, X. Qualitative and Quantitative Integrated Modeling for Stochastic Simulation and Optimization. *J. Appl. Math.* **2013**, *2013*, 831273. [[CrossRef](#)]
34. Zinecker, M.; Doubravský, K.; Balcerzak, A.P.; Pietrzak, M.B.; Dohnal, M. The COVID-19 disease and policy response to mitigate the economic impact in the EU. *Technol. Econ. Dev. Econ.* **2021**, *27*, 742–762. [[CrossRef](#)]
35. Yong, H.A.; Yeoh, B. Exchange rate, foreign direct investment, inflation and export performance in Malaysia. In Proceedings of the 2nd Africa-Asia Dialogue Network (AADN) International Conference on Advances in Business Management and Electronic Commerce Research, Ganzhou, China, 27–29 November 2020; pp. 1–5.
36. Bikker, J.A.; Vervliet, T.M. Bank profitability and risk-taking under low interest rates. *Int. J. Finance Econ.* **2018**, *23*, 3–18. [[CrossRef](#)]
37. Caballero-Montes, T.; Godfroid, C.; Labie, M. Are interest rate caps a relevant tool to cool down overheating mi-crofinance markets? *Strateg. Chang.* **2021**, *30*, 319–330. [[CrossRef](#)]
38. Chen, S.; Huang, Z.; Drakeford, B.M.; Failler, P. Lending Interest Rate, Loaning Scale, and Government Subsidy Scale in Green Innovation. *Energies* **2019**, *12*, 4431. [[CrossRef](#)]
39. Hull, J.; White, A. Pricing Interest-Rate-Derivative Securities. *Rev. Financ. Stud.* **1990**, *3*, 573–592. [[CrossRef](#)]
40. Abu-Ghunmi, D.; Larkin, C. The economic opportunity cost for countries located in crisis zones: Evidence from the Middle East. *Res. Int. Bus. Financ.* **2016**, *36*, 532–542. [[CrossRef](#)]
41. Asseery, A.; Peel, D. The effects of exchange rate volatility on exports: Some new estimates. *Econ. Lett.* **1991**, *37*, 173–177. [[CrossRef](#)]
42. Adjasi, C.; Harvey, S.K.; Agyapong, D.A. Effect of exchange rate volatility on the Ghana stock exchange. *Afr. J. Account. Econ. Financ. Bank. Res.* **2008**, *3*, 28–47.

43. Desalegn, G. Does Exchange Rate Matters for Foreign Direct Investment Inflow to Ethiopia? *Res. J. Financ. Account.* **2019**, *11*, 35–47.
44. Abbas, M.G.; Wang, Z.; Bashir, S.; Iqbal, W.; Ullah, H. Nexus between energy policy and environmental performance in China: The moderating role of green finance adopted firms. *Environ. Sci. Pollut. Res.* **2021**, *28*, 63263–63277. [[CrossRef](#)]
45. Rokhmawati, A. The nexus among green investment, foreign ownership, export, greenhouse gas emissions, and competitiveness. *Energy Strat. Rev.* **2021**, *37*, 100679. [[CrossRef](#)]
46. Aglietta, M.; Hourcade, J.-C.; Jaeger, C.; Fabert, B.P. Financing transition in an adverse context: Climate finance beyond carbon finance. *Int. Environ. Agreem. Politics Law Econ.* **2015**, *15*, 403–420. [[CrossRef](#)]
47. Amighini, A.; Giudici, P.; Ruet, J. Green finance: An empirical analysis of the Green Climate Fund portfolio structure. *J. Clean. Prod.* **2022**, *350*, 131383. [[CrossRef](#)]
48. Desalegn, G.; Fekete-Farkas, M.; Tangl, A. The Effect of Monetary Policy and Private Investment on Green Finance: Evidence from Hungary. *J. Risk Financ. Manag.* **2022**, *15*, 117. [[CrossRef](#)]
49. UNEP. State of Finance for Nature. 2021. Available online: <https://www.unep.org/resources/state-finance-nature> (accessed on 24 June 2022).
50. Sosvilla-Rivero, S.; Ramos-Herrera, M.D.C. Inflation, real economic growth and unemployment expectations: An empirical analysis based on the ECB survey of professional forecasters. *Appl. Econ.* **2018**, *50*, 4540–4555. [[CrossRef](#)]
51. Cseh, B.; Varga, J. Taxation and Humans in the Age of the Fourth Industrial Revolution—Financial and Ethical Comments. *Acta Univ. Sapientiae Eur. Reg. Stud.* **2020**, *17*, 103–117. [[CrossRef](#)]