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HOW DID THE STOCK EXCHANGE RESPOND TO GEOPOLITICAL EVENTS? EVIDENCE FROM THE FORMER YUGOSLAV REPUBLICS

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Abstract: The start of the war in Ukraine on February 24, 2022 had a number of adverse financial impacts on markets and the world economy. Given that there is currently a lack of sufficient empirical evidence on the real effects of the conflict in Ukraine on financial markets, the aim of the paper is to determine the difference between the total market capitalization, before and after the start of the war conflict in Ukraine, on the capital markets of the former Yugoslav republics. To determine the significance of the difference, the Paired Sample t-test was used. The obtained results indicated that the difference between the total market capitalization on the Macedonian Stock Exchange is negative, but not statistically significant, on the Zagreb and Serbian Stock Exchanges it is positive and statistically significant, while on the Sarajevo Stock Exchange, the Montenegro Stock Exchange AD Podgorica and the Ljubljana Stock Exchange this difference is negative and statistically significant. significant. Such findings point to the conclusion that in times of crisis, investors should think about the possibilities of applying different hedging and diversification strategies.

Keywords: Stock Exchange, market capitalization, war conflict in Ukraine, former Yugoslav Republics, Paired Sample t-test

JEL classification: G01, G12, G19

1. Introduction

The onset of the war in Ukraine on February 24, 2022, has had profound and detrimental financial repercussions for global markets and the broader economy. Similar to other so-called "black swan" events - such as terrorist attacks, natural disasters, elections, and financial and health crises - armed conflict represents a significant and disruptive force in the economic domain, as noted in existing academic literature (Yousaf et al., 2022). Global conflicts contribute to increased uncertainty, causing investors to reassess their expectations of a company's profitability, thereby generating fluctuations in stock prices (Choudhry, 2010; Brune et al., 2015; Hudson and Urquhart, 2015). During periods of war, defense spending typically increases, which adversely impacts other economic sectors. Additionally, war can disrupt import and export relations between both participating and non-participating countries (Harrison, 2000), thereby negatively affecting production, profitability, anticipated cash flows, and stock valuations. Empirical evidence from multiple studies indicates that persistent geopolitical tensions decelerate economic activities and may lead to contractions in both national and global economies, contingent on the severity of the conflict (Bloom, 2009; Nikkinen & Vähämaa, 2010; Gupta et al., 2019; Caldara & Iacoviello, 2022). De Wet (2023) further corroborates these findings, highlighting the impact of geopolitical volatility, risks, and shocks -such as armed conflicts, terrorist attacks, and war tensions - on economic activity and financial markets.

The stock market, one of the key pillars of each nation's financial and economic stability, serves as both a catalyst and and a reflection of the health of the global economy (Kumar Verma et al., 2022). According to the authors, while stock markets generally exhibit long-term upward trends, they often experience short-term volatility due to major financial, economic, and geopolitical crises, such as the 2008 financial crisis or the stock market crash induced by the Covid-19 pandemic in 2020. The unexpected health crisis brought about by Covid-19 has spurred a surge in scholarly inquiries into the negative financial impacts of exogenous shocks. Consequently, the response and recovery of various financial markets to the Covid-19-induced shock have been extensively investigated (Đorđević & Stanković, 2022a, b; Srbinoski et al., 2022; Yarovaya et al., 2022).

The EU was Russia's top trading partner in 2020, accounting for 37.3% of all of its international trade in goods (EC, 2022). Russian crude oil, solid fuel, and natural gas made up 27%, 46.7%, and 41.1%, respectively, of the EU's imports (Eurostat, 2022). Increased geopolitical tensions and accompanying sanctions are anticipated to have a severe impact on both the Western and Russian economies because of the interwoven nature of the Russian economy, particularly with European countries, through trade in oil, gas, food, and raw materials (Ahmed et al., 2022). In the short term, the war in Ukraine is anticipated to result in slower economic development and increased prices. In 2023, annual GDP growth is predicted to fall to 2.25 percent globally, 0.5 percent in the US, and 0.2 percent in the Eurozone, significantly less

than those made prior to the outbreak of the Ukrainian War (OECD, 2022). Inflationary pressures began to increase after the Covid-19 outbreak as the world economy began to slowly recover. The war in Ukraine, on the other hand, increased inflationary pressure globally by impacting energy and fuel costs. According to Guénette et al. (2022), global inflation will rise by more than 6% in February 2022, hitting its highest level since 2008. This exceeds estimates in almost every industrialized economy by a significant margin. Due to its heavy reliance on Russia in the energy sector, the EU is particularly vulnerable to a reduction in gas supply through Nord Stream 1 (Guénette et al., 2022). Additionally, given its uneven reliance on gas and the anticipated voluntary 15% reduction in gas usage, the EU is vulnerable to political upheaval due to this fact (The Guardian, 2022). The current political priorities and responses will determine how the war in Ukraine will play out in the long run. Energy efficiency and low-carbon energy generation are being encouraged by policymakers, which is in accordance with the "green" objectives of moving away from fossil fuels and reversing climate change. However, these objectives might be impossible to achieve if policymakers give energy security and availability a higher emphasis on their agenda (Izzeldin et al., 2023).

The ongoing conflict between Russia and Ukraine is distinct in character and vastly dissimilar from previous political unrest and wars. First of all, this great clash upset the world economy and created geopolitical threats. For instance, the geopolitical hazard peaked during the start of the military conflict in Ukraine, according to the geopolitical risk index created by Caldara & Iacoviello (2022). Additionally, this confrontation is probably going to impair trade and financial intermediation, which raises worries about sluggish economic development and rising inflation globally. Because of this, the crisis's effects are both far broader and more profound than those of earlier political disasters (Ahmed et al., 2022).

This work examines how stock markets in former Yugoslavia responded to geopolitical circumstances in light of the topic's current relevance and the fact that the effects of the military conflict in Ukraine on capital market indicators have not yet been thoroughly examined. The aim of the study is to ascertain how the war conflict has affected the total market capitalization of the Stock Exchange in the former Yugoslav republics. The following structure was used to organize the work in order to address the stated research objective. Following the introduction, a brief summary of the literature on the pertinent subject is given in the following section. The research methodology is covered in the third section, and the research findings are provided in the fourth section. The important findings, research gaps, and recommendations for future researchers on this subject are all included in the last part.

2. Literature review

War-related conflicts' effects on capital markets are not new; earlier research has established both their detrimental and beneficial effects. This is supported by the fact

that many authors have attempted to ascertain how war events affect stock market returns in their studies (Harrison, 2000; Leigh et al., 2003; Schneider & Troeger, 2006; Hudson & Urquhart, 2015; Carmignani & Kler, 2018; Kimbrough et al., 2020; Hassan et al., 2022; Sun, 2022), and due to the significant global impact of the war conflict (Boubaker et al., 2022; Boungou & Yatié, 2022; Chortane and Pandei, 2022; Lyócsa & Plíhal, 2022; Umar et al., 2022; Yousaf et al., 2022; Abbassi et al. 2023; Mahran, 2023).

Harrison (2000) notes that military conflicts have an adverse impact on production, profitability, predicted cash flows, and stock prices, as well as import and export linkages between countries at war and those that are not. In order to make an ex-ante assessment of the economic effects of the war with Iraq, Leigh et al. (2003) examined data from the financial market. They found that countries that are heavily dependent on the global economy or that are net oil importers are most likely to experience negative effects. Schneider and Troeger (2006) use time series analysis to examine the effects that political events in three war zones—the conflict between Israel and Palestine, the alliance led by the United States of America against Iraq, and the conflicts in the former Yugoslavia—had on the world financial markets between 1990 and 2000. The aforementioned authors demonstrate that conflicts, if they had any systematic impact at all, significantly impacted interactions in important financial markets in the Western world using daily stock market data. In their study of the effects of World War II on the British stock market, Hudson & Urquhart (2015) found evidence for a negative influence but little support for strong linkages between wartime events and market returns. Using a sample of six events, Hassan et al. (2022) demonstrated the diverse effects of two types of events resulting from Indian border disputes in 2020. The findings demonstrated that the sector indices responded differently to both incidents. While some industries had both positive and negative abnormal returns, others were untouched. The cross-section of abnormal returns demonstrates that more risk and volatility result in larger post-event returns. Carmignani & Kler (2018) claim that local civil strife has a major negative impact on the quality of domestic institutions, the likelihood of internal conflict, and the level of economic integration with the rest of the world. Depending on the frequency/length of the spatial conflict, the damage's monetary value increases with time. In their analysis of the main economic theories of war and conflict, Kimbrough et al. (2020) note that while these theories vary in detail, their conclusions are qualitatively consistent, underlining fundamental similarities between conflict contexts. Sun (2022) notes that prices for all products and services typically increase during times of armed conflict, especially for basic commodities like oil. The author of the paper sought to examine the connections between many significant conflicts and oil prices, as well as the variables that affect oil price changes and the parallels and contrasts between oil price changes in other wars. By comparing and contrasting the first and second Gulf Wars, the author highlights the similarities and differences in the fluctuation of the world oil price and argues that by looking at the effects of this variation, the Russian-Ukrainian War Conflict's oil price fluctuations can be predicted.

Based on an event study methodology to examine the impact of war conflicts in Ukraine, Boubaker et al. (2022) documented heterogeneous impacts on developed and emerging markets and demonstrated that these war conflicts generated negative cumulative abnormal returns for global stock market indices, but with heterogeneous effects. The stock markets of G20+ nations have had similar effects, according to Yousaf et al. (2022). In particular, the aforementioned writers looked at how the start of the conflict between Russia and Ukraine affected the G20+ and other particular stock markets. The majority of stock markets, especially the Russian market, were severely negatively impacted by these military actions, according to an analysis of abnormal returns conducted before and after the "special military operation" of the Russian military forces began on February 24, 2022. The confrontation between Russia and Ukraine had a considerable and detrimental effect on the stock market both on the day of the event and in the days that followed, according to the overall research. Analysis by country revealed that the stock markets of Hungary, Russia, Poland, and Slovakia were the first to react in advance of military actions in Ukraine, showing negative returns even in the days before the event. Australia, France, Germany, India, Italy, Japan, Romania, South Africa, Spain, and Turkey stock markets suffered losses in the days after the invasion, while a regional analysis revealed that the European and Asian regions were the most negatively impacted.

Using daily stock market outcomes for a sample of 94 nations from January 22, 2022, to March 24, 2022. Boungou & Yatié (2022) demonstrated a negative association between the Ukrainian crisis and global stock market performance in 2012. The study's findings by the cited authors show that there was a bigger influence at the commencement of the war conflict, particularly in the first two weeks following February 24, 2022, or after the battle began. In the weeks that followed, the response of the world financial markets was weaker. The results also show that the countries bordering Ukraine and Russia as well as those UN member states that requested a halt to the Russian offensive in Ukraine experienced these consequences to the greatest extent. Similar to these findings, Umar et al. (2022) think that the financial and commodity markets have been greatly impacted by the increase in geopolitical risk in the conflict between Russia and Ukraine. Furthermore, Chortane & Pandei (2022) and Lyócsa & Plhal (2022) offer proof of the extent to which the military fighting affected exchange rates, particularly the Russian ruble. Abbassi et al. (2023) used a sample of 531 G7 companies to analyze the effects of the Russian-Ukrainian war conflict on the G7 stock markets. The results show that the war conflict in Ukraine had varied effects on various markets. Although businesses in Canada and Italy enjoyed positive cumulative effects, businesses in Germany, Italy, and the UK saw negative cumulative returns over the study period. However, the battle had little impact on French and American businesses. War conflict causes negative anomalous returns due to risk exposure and trade dependency. The authors demonstrate how trade dependency and geopolitical uncertainties affect stock values. Mahran (2023) looked into how the turmoil in Ukraine affected how the Egyptian Stock Exchange's sectors were connected. The results demonstrated that

the Egyptian Stock Exchange's sectoral correlation varied over time. In Egypt, the average rate of dynamic interconnectedness between sectors is 73.24%. The average during the Ukraine armed conflict is 85.63%, though. The author also demonstrates how, during times of armed conflict, the transport sector is the most major net transmitter of instability in the other sectors. The financial market's response to company announcements that remain in Russia for two full weeks after the commencement of the war conflict was examined by Tosun & Eragghi (2022). The authors of the study cited above found that businesses that stayed in Russia fared worse than those who fled within two weeks of the start of the war. In their study, Federle et al. (2022) point out that the threat of military escalation to nearby countries increases when war disputes start. The risks of calamity are increasing while the stock market is declining. More negative capital returns will be seen in nations that are closer to the war area. The impact of the Russian-Ukrainian crisis on European stock markets was studied by Ahmad et al. (2022). European stock markets tended to respond poorly to this crisis because of the region's proximity, growing political unpredictability, and the effects of fresh sanctions against Russia. According to the authors, European stocks saw a sizable negative anomalous return on February 21, 2022, the day that Russia recognized the two Ukrainian governments as independent entities. Furthermore, following this event, negative stock price reactions persisted. The severity of stock market responses to the crisis varies widely among industries, nations, and firm sizes. In their study, Kumar et al. (2022) examined how the Russian-Ukrainian War conflict affected the performance of the 20 top Indian enterprises listed on the national stock exchange. They examined these organizations' performance over a five-month period using weekly time series data. They used graphs to try and establish the trend of changes in these companies' performance by calculating the percentage changes in their share prices. The findings showed that, following a fall in performance, they began to improve in the first two weeks after the conflict started.

3. Research methodology

Monthly data for the period from March 2021 to February 2023, taken from the official websites of the stock exchanges, were used to calculate the difference between the total market capitalization (MC) on the stock exchanges of the former Yugoslav republics (Bosnia and Herzegovina - BIH, Croatia - HRV, Montenegro - MNE, North Macedonia - MKD, Serbia – SRB, and Slovenia - SLV), 12 months before and 12 months after the start of the war conflict in Ukraine. A description of the research variable is shown in Table 1.

Table 1. A description of the research's variable

Variable	Description	Sources
Market capitalization	Total capitalization of the Regulated Market and MTP - Monthly data	The Sarajevo Stock Exchange http://www.sase.ba/v1/
		Zagreb Stock Exchange https://zse.hr/
		Montenegro Stock Exchange AD Podgorica https://www.mnse.me/code/navigate.asp?Id=1
		Macedonian Stock Exchange https://www.mse.mk/default.aspx
		Belgrade Stock Exchange https://www.belex.rs/trgovanje/kapitalizacija
		Ljubljana Stock Exchange https://ljse.si/

The fluctuation of the total market capitalization on the stock exchanges of former Yugoslav Republics, for the observed period, is shown in Figure 1.

The Sarajevo Stock Exchange: The lowest value of the total market capitalization, before the start of the war conflict in Ukraine, from March 2021 to February 2022, was recorded in April 2021, in the amount of about KM 5.126 mil, and the highest in October 2021, with slightly more than KM 5.684 mil. The average value of capitalization, for this period, is about KM 5.378 mil. The lowest value of the total market capitalization, after the beginning of the war conflict, in the period from March 2022 to February 2023, was recorded in July 2022 (about 5.685 mil KM), and the highest in April 2022 (about KM 6.041 mil). The average value of the total market capitalization, for this period, is about KM 5.887 mil. From April, 2022, a downward trend is noticeable, until October, of the same year, after which there was a slight increase in the total market capitalization, until the end of the observed period.

Zagreb Stock Exchange: The lowest value of the total market capitalization, before the start of war conflict in Ukraine, from March 2021 to February 2022, was recorded in May 2021, in the amount of about EUR 34.835 mil, and the highest in March 2022, with slightly more than EUR 36.761 million. The average value of capitalization, for this period, amounts to about EUR 35.910 mil. The lowest value of the total market capitalization, after the beginning of the war conflict, in the period from March 2022 to February 2023, was recorded in October 2022 (about EUR 33.820 mil), and the highest in March 2022 (about EUR 35.963 mil). The average value of the total market capitalization, for this period, is around EUR 34.923 mil. From March to October, 2022, after the start of war conflict in Ukraine, with

occasional oscillations (a slight increase was recorded in the July-August period), a downward trend was noticeable, after which there was an accelerated growth of the total market capitalization until the end of the observed period.

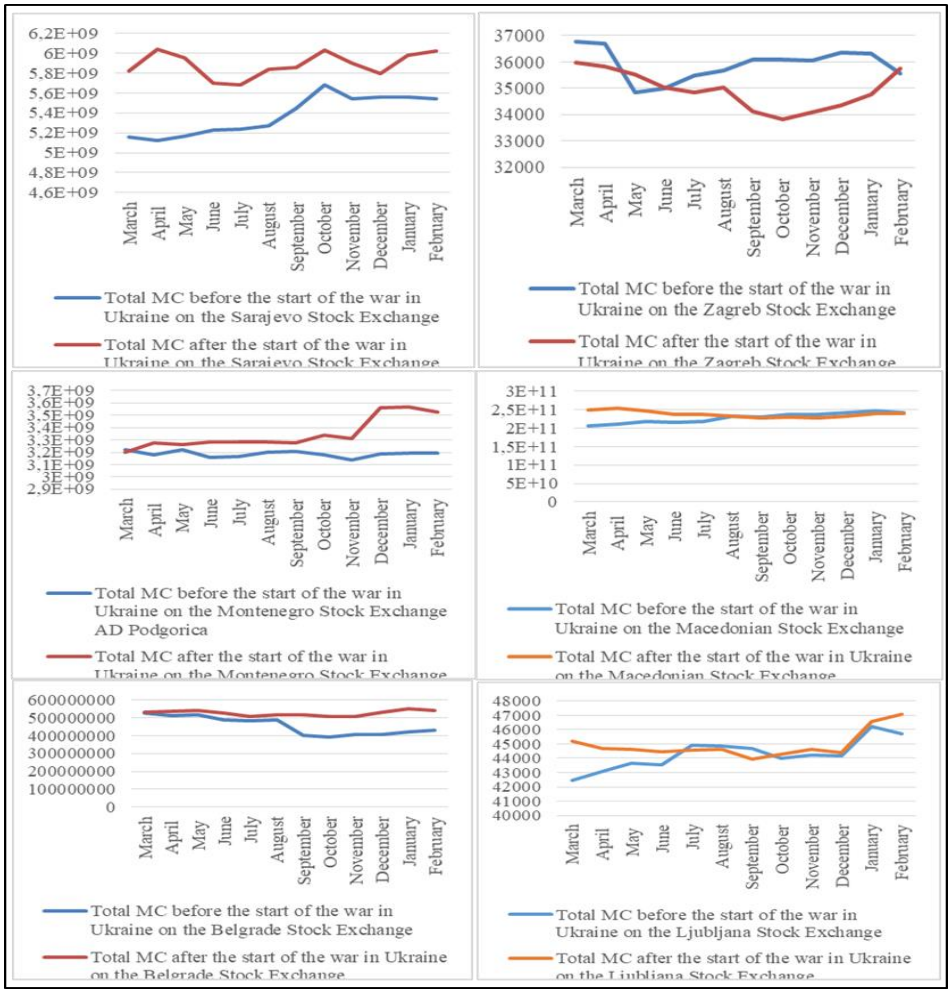
Montenegro Stock Exchange AD Podgorica: The lowest value of the total market capitalization, before the start of the war conflict in Ukraine, from March 2021 to February 2022, was recorded in November 2021, in the amount of about EUR 3.136 mil, and the highest in May 2022, with some more than EUR 3.224 mil. The average value of capitalization, for this period, amounts to about EUR 3.188 mil. The lowest value of the total market capitalization, after the beginning of the war conflict, in the period from March 2022 to February 2023, was recorded in March 2022 (about EUR 3.203 mil), and the highest in January 2022 (about EUR 3.571 mil). The average value of the total market capitalization, for this period, amounts to about EUR 3.348 mil. From March 2022, i.e. after the start of the war conflict in Ukraine, a downward trend was noticeable until October of the same year, after which there was a slight increase in the total market capitalization until October 2022. In the period between March and November 2022, with slight oscillations, an increase in the value of the total market capitalization was recorded, and then, in the period November 2022 - January 2023, there is an accelerated growth, followed by a decrease in the value of the total market capitalization in February 2023.

Macedonian Stock Exchange: The lowest value of the total market capitalization, before the start of the war conflict in Ukraine, from March 2021 to February 2022, was recorded in March 2021, in the amount of about MKD 206.176 mil, and the highest in January 2022, with slightly more than MKD 246.801 mil. The average capitalization value, for this period, is about MKD 228.299 mil. The lowest value of the total market capitalization, after the beginning of the war, in the period from March 2022 to February 2023, was recorded in September 2022 (about MKD 227.228 mil), and the highest in April 2022 (about 254.936 million MKD). The average value of the total market capitalization, for this period, is about MKD 238.269 mil. From April, 2022, a downward trend is noticeable, until October, of the same year, after which, with slight oscillations, there was a slight increase in the total market capitalization, until the end of the observed period.

Belgrade Stock Exchange: Prior to the outbreak of war conflict in Ukraine from March 2021 to February 2022, the total market capitalization ranged from a low of roughly RSD 510 million in November 2021 to a high of just over RSD 550 million in January 2022. For this time period, the average capitalization value is around RSD 527.7 mil. Between March 2022 and February 2023, the total market capitalization ranged from a low of roughly RSD 390 mil in October 2022 to a high of about RSD 530 million in March 2022, following the start of the war. For this time frame, the average market capitalization amounts to roughly RSD 457.5 mil. There is a significant declining trend from March 2022, or after the commencement of the war conflict in Ukraine, until October of that same year, at which point there was a minor increase in the total market capitalization until the end of the studied period.

Ljubljana Stock Exchange: The lowest value of the total market capitalization, before the start of war conflicts in Ukraine, from March 2021 to February 2022, was recorded in March 2021, in the amount of EUR 42.441,30 mil, and the highest in January 2022. in the amount of EUR 46.223,09 mil. The average value of capitalization, for this period, amounts to about EUR 44.294,05 mil. The lowest value of the total market capitalization, after the beginning of the war, in the period from March 2022 to February 2023, was recorded in October 2022 (EUR 33.819,46 mil), and the highest in March 2022 (EUR 35.963,27 mil). The average value of the total market capitalization, for this period, amounts to EUR 44.926,54 mil. From March to September 2022, a downward trend was noticeable, after which the total market capitalization grew, until the end of the observed period.

Figure 1. Total market capitalization before and after the start of war conflicts in Ukraine



Source: Author, based on data from the Stock Exchanges of the former Yugoslav Republics

4. Research results

In order to test the significance of the difference between the total market capitalization, before and after the outbreak of the war in Ukraine, a paired samples t-test was used. The results are shown in Table 2.

The Sarajevo Stock Exchange: the arithmetic mean of the difference between the total market capitalization on the Sarajevo Stock Exchange, before and after the outbreak of the war, amounts to -509240929.3. The standard deviation for the differences is 193664554.4, while the standard error is 55906141.30. The realized value of the t statistic is -9.101, where the achieved level of significance is 0.000. Such results clearly indicate a statistically significant disproportion in the total market capitalization in favor of the period after the start of the war conflict in Ukraine.

Zagreb Stock Exchange: the arithmetic mean of the difference between the total market capitalization on the Zagreb Stock Exchange, before and after the outbreak of the war, amounts to 986.24250. The standard deviation for the differences is 975.05260, while the standard error is 281.47344. The realized value of the t statistic is 3.504, where the achieved level of significance is 0.005. Such results clearly indicate a statistically significant disproportion in the total market capitalization in favor of the period before the start of the war conflict in Ukraine.

Montenegro Stock Exchange AD Podgorica: the arithmetic mean of the difference between the total market capitalization on the Montenegro Stock Exchange AD Podgorica, before and after the outbreak of the war, amounts to -159753502.8. The standard deviation for the differences is 130858415.0, while the standard error is 37775570.55. The realized value of the t statistic is -4.229, where the achieved level of significance is 0.001. Such results clearly indicate a statistically significant disproportion in the total market capitalization in favor of the period after the start of the war conflict in Ukraine.

Macedonian Stock Exchange: the arithmetic mean of the difference between the total market capitalization on the Macedonian Stock Exchange, before and after the outbreak of the war, amounts to -9970255693. The standard deviation for the differences is 20439196065, while the standard error is 5900287675. The realized value of the t statistic is -1.690, where the achieved level of significance is 0.119. The results indicate that the difference between the value of the total market capitalization in the period of one year before and after the start of the war in Ukraine is negative (in favor of the period after), but not statistically significant.

Belgrade Stock Exchange: the arithmetic mean of the difference between the total market capitalization on the Belgrade Stock Exchange, before and after the outbreak of the war, amounts to 70198585,583. The standard deviation for the differences is 49539599.688, while the standard error is 14155643.954. The realized value of the t statistic is 4.959, where the achieved level of significance is 0.000. Such results clearly

indicate a statistically significant disproportion in the total market capitalization in favor of the period before the start of the war conflict in Ukraine.

Ljubljana Stock Exchange: the arithmetic mean of the difference between the total market capitalization on the Ljubljana Stock Exchange, before and after the outbreak of the war, amounts to -632.49083. The standard deviation for the differences is 968.84728, while the standard error is 279.68212. The realized value of the t statistic is -2.261, where the achieved level of significance is 0.045. Such results clearly indicate a statistically significant disproportion in the total market capitalization in favor of the period after the start of the war conflict in Ukraine.

Table 2. Results of Paired Sample t-test

Category	Paired Differences			t	df	Sig.
	Mean	Std. Deviation	Std. Error Mean			
BIH: MC before-MC after	-509240929.3	193664554.4	55906141.30	-9.109	11	.000
HRV: MC before-MC after	986.24250	975.05260	281.47344	3.504	11	.005
MNE: MC before-MC after	-159753502.8	130858415.0	37775570.55	-4.229	11	.001
MKD: MC before-MC after	-9970255693	20439196065	5900287675	-1.690	11	.119
SRB: MC before-MC after	70198585.58	49036589.08	14155643.95	4.959	11	.000
SVN: MC before-MC after	-632.49083	968.84728	279.68212	-2.261	11	.045

5. Conclusion

In order to understand the importance of the difference between the total market capitalization in the capital markets of the former Yugoslav republics before and after the outbreak of the military conflict in Ukraine, research was conducted for this article. The results attained are diverse. The results indicated a bad but not

statistically significant difference on the Macedonian Stock Exchange. Additionally, the findings show that there is a negative difference on the Sarajevo Stock Exchange, the Montenegro Stock Exchange AD Podgorica, and the Ljubljana Stock Exchange at a statistically significant level. This means that, after the beginning of the war conflict in Ukraine, there was an increase in the total market capitalization on these stock exchanges. On the other hand, the results indicate a positive and statistically significant difference between the total market capitalization before and after the beginning of the war in Ukraine on the Zagreb Stock Exchange and Belgrade Stock Exchange, which means that on these exchanges there was a decrease in the value of the total market capitalization in the year after the beginning of the war conflict. The obtained results cannot be compared with the results of other studies, because other studies, as far as the authors know, did not investigate the impact of war conflicts on the indicator used in this paper. However, the results are consistent with the authors' research, which found negative (Umar et al., 2022; Boubaker et al., 2022; Boungou & Yatié, 2022; Ahmad et al., 2022), as well as heterogeneous effects (Hassan et al. al., 2022; Abbassi et al., 2023) of war conflicts on stock markets and, in general, financial markets.

Following the research, certain restrictions are placed inside the work, which might also serve as recommendations for additional study on the subject. The total market capitalisation on the stock markets of the former Yugoslav republics was the only indicator used in this article. Future study may also take into account additional metrics, such stock market indices or the involvement of foreign investors. The research also only considers the entire market value of the stock exchanges in the former Yugoslav republics, whereas future studies might also look at the stock exchanges in other European nations or around the world. Also, this work did not take into account other elements that are constantly present, such as concurrent political occurrences. Future study could take these elements into consideration because changes in stock market indices and stock prices are the result of all concurrent events. In general, not enough research has been done on how the war in Ukraine affects financial volatility. Therefore, one of the major implications of this work is the need for more research on this subject.

For investors, portfolio managers, and regulators in particular, the effect of armed conflicts on stock markets is a crucial subject. According to the study findings presented in the article, the ongoing war is a big source of financial volatility, so it is important for investors to think about putting good diversification and protection measures in place during times of financial crisis.

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KAKO JE BERZA REGOVALA NA GEOPOLITIČKE DOGAĐAJE? DOKAZI IZ BIVŠIH JUGOSLOVENSKIH REPUBLIKA

Apstrakt: Početak ratnog sukoba u Ukrajini 24. februara 2022. godine imao je niz štetnih finansijskih uticaja na tržišta i svetsku ekonomiju. S obzirom na to da trenutno nedostaje dovoljno empirijskih dokaza o stvarnim efektima sukoba u Ukrajini na finansijskom tržištu, cilj rada je utvrđivanje razlike između ukupne tržišne kapitalizacije, ukidanja kapitalizacije tima kapitala bivših jugoslovenskih republika. Za utvrđivanje značaja razlike upotrebljen je t-test uparenih uzoraka. Dobijeni rezultati su pokazali da je razlika između ukupne tržišne kapitalizacije na Makedonskoj berzi negativna, ali ne i statistički značajna, na Zagrebačkoj i Beogradskoj berzi pozitivna i statistički značajna, dok je na Sarajevskoj, AD Podgorica i Ljubljanskoj berzi ova razlika negativna i statistički značajna. Ovakvi nalazi se uključuju na zaključak da u kriznim vremenima investitori treba da razmisle o mogućnostima primene različitih strategija hedžinga i diversifikacije.

Ključne reči: berza, tržišna kapitalizacija, ratni sukob u Ukrajini, bivše jugoslovenske republike, t-test uparenih uzoraka.

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