

## NOT JUST EMPTY RHETORIC: THE ECONOMIC COST OF WARMONGERING IN A POST-CONFLICT ENVIRONMENT

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## Abstract

The post-conflict literature is consistent in reporting that wars leave a painful and lasting legacy on those that experience it directly. This article aims to contribute to this broad body of literature by exploring how threats of possible new conflict affect the generation born after the war in Bosnia and Herzegovina. Our study relies on primary data collected through a controlled experiment amongst business students at three universities dominated by three different ethnicities across the country. The students were exposed to a tailored, yet fictional media report discussing the possibility of a new war. The outcomes from our Structural Equation Model reveal that the threat of a new conflict is associated with lower entrepreneurial intentions of business students and mediated by greater risk aversion. As a result, we provide evidence that the permanent warmongering in a post-conflict context, which is often a regular occurrence in such environments, cannot be dismissed as just empty rhetoric. Rather, it can potentially have severe economic consequences that might hamper economic development and prospects in the medium and long run.

Keywords: Economic effects of war; risk; entrepreneurship; economic psychology; Bosnia and Herzegovina

JEL classification: D74, D81, D91, L26

## 1. Introduction

With the ongoing wars and armed conflicts in Ukraine, Myanmar, Yemen, South Sudan and other parts of the world, it is important to remind ourselves that conflicts leave a deep and lasting legacy in every society going way beyond killings, suffering and physical destruction (Conzo and Salustri 2019). Indeed, there is almost no aspect of life that remains untouched by it. Among many other social, political and psychological effects, those that directly experience violent conflicts have been shown to also have lower economic performance (Kešeljević and Spruk 2021), educational outcomes (Efendic, Kovac and Shapiro 2022), levels of trust (Kijewski and Freitag 2016; Ali, Khan and Meo 2020), hope (Bar-Tal 2007), collective action tendencies (Bellows and Miguel 2009), prosocial behaviour (Efendic 2020) and willingness to

take risks (Bucciol and Zarri 2015; Bellucci, Fuochi and Conzo 2020; Muminovic and Efendic 2022). Moreover, war-time experiences continue to be felt long after the war has formally ended, often making it a transgenerational trauma (Schwab 2010; Slone and Mann 2016).

Building upon these different bodies of literature, we discuss how threats of a possible new conflict in

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Bosnia and Herzegovina (BiH) impact individuals that did not experience the war directly i.e. those born after the signing of the Dayton Peace Agreement (DPA) in 1995, which formally ended the war. While the literature on the consequences of conflict exposure is indeed rich, there is limited research dedicated to the post-war generation that lives in constant fear of a new conflict generated in the public discourse. The novelty of our research is that we go beyond the actual exposure to the last war and instead focus on the prospects of a new conflict and its impact on the younger generation.

Concretely, we explore whether media reports discussing the possibility of a new conflict affect economic intentions of business students from across the country coming from three dominant ethnic groups involved in the previous war. Through a controlled experiment, we investigate whether such reports and the resulting anxieties lower students' entrepreneurial intentions by making them less willing to take risks. This is relevant, since low levels of risk-willingness mean that individuals will not pursue high-return activities such as entrepreneurship, with negative effects for economic growth (Raghunathan and Pham 1999; Dohmen et al. 2012; Nieß and Biemann 2014; Jakiela and Ozier 2019). Our focus is on entrepreneurship since its creativity and innovativeness provides an important source of employment and economic development, potentially enhancing the future prospects of the country (Lawrence et al. 2008). Unsurprisingly, it has also been shown to depend on the actual environment in which it is taking place (Pfeifer et al. 2021; Potts et al. 2021). As a result, we aim to provide a new lens through which certain phenomena could be better appreciated and understood, such as the country's relative underdevelopment of its private sector (OECD 2021), as well preference of young people for low-risk jobs in the public sector (Turčilo et al. 2019). As such, we would be the first to demonstrate that negative rhetoric to which people in BiH are regularly exposed has concert economic consequences, which means that such narratives could no longer be dismissed as just empty talk.

This article is structured as follows: In Section 2, we begin with a brief discussion on the Bosnian War and the context for our research. Section 3 provides a literature review outlining the importance of emotions for economic behaviour and decision-making, focusing on risk and entrepreneurial intentions. In section 4, we discuss our procedure, data, measurement of variables, and proposed methodology. In section 5, we report the results of our pilot as well as main study. Section 6 points to the limitations of our experiments, while Section 7 concludes.

## 2. Context for The Research – BiH's Post-Conflict Environment

The Bosnian War (1992-1995) remains the most traumatic experience in the country's recent history. With the death of around 100,000 people and displacement of over two million more, its demographic consequences continue to be felt to this day (Tokaca, 2012; Kadušić and Suljić 2018; Halilovich et al. 2018). The war was marked by targeted violence against civilians, systematic rape, concentration camps, ethnic cleansing, crimes against humanity and the first genocide on European soil since the end of the Second World War (Nettelfield and Wagner 2015). Overall, only a small fraction of BiH's population remained untouched by the conflict, which painfully revealed that yesterday's friends and neighbours could become enemies capable of committing inconceivable atrocities (Mooren and Kleber 2001).

With most of the country devastated, the conflict also left a deep and long-lasting impact on its economy. Despite the initial recovery, BIH's GDP in 1997 was only half of what it was prior to the conflict (IMF, 1998), while the overall picture remained bleak even 20 years after the peace agreement (Kešeljević and Spruk 2021). Aside from the physical destruction, it also led to the erosion of BiH's human and social capital (Efendic et al. 2015; Efendic and Pugh 2018; Efendic, Kovac and Shapiro 2022; Muminovic and Efendic 2022) impeding the country's future economic prospects.

While much of the situation has improved over the last 25 years, the conflict continues to play a significant role in the public discourse and consciousness. The DPA was undoubtedly successful in putting an end to the fighting between the country's three main ethnic groups (Bosniaks, Serbs and Croats), yet at the same time it recognised and institutionalised the concept of "constituent people". The strengthened and continued "ethnicisation", in turn, helped perpetuate wartime divisions rather than the emergence of a common in-group identity that could have facilitated the reconciliation process (Leonard et al. 2016). As Whitt and Wilson (2007, p. 656) have noted "in a post-conflict environment, ethnicity is likely to remain the most credible marker separating individuals. In societies where ethnicity is a highly salient marker, it can divide people and lead them to behave positively toward their own ingroup and negatively toward an out-group." As a result, and to this day, the country remains in a state of frozen conflict (Perry 2018) in which the threat of a new war is an ever-present possibility. According to a recent report by the European Commission (2021), the post-conflict environment is still not conducive to

reconciliation as the legacies of the war have yet to be overcome, while the denial of genocide remains a regular occurrence (Parent 2016; Halilovich 2021). What is even more worrying is the fact that recent international reports warn that warmongering and secessionist rhetoric have seriously intensified, causing insecurities amongst the population (Mijatović 2021; OHR 2022). The impact of the constant fear in society is well illustrated by the following statement from a study conducted in BiH by Parent (2022, p. 10):

"Fear blinds the mind. It does not allow us to make informed decisions. We choose our leaders out of fear. There are all kinds of decisions we take out of fear ... fear of not having enough money to survive, fear for our children ... fear of the Other. You do things you would not do normally, but you do them out of fear."

Given that the psychological cost of fear might even exceed physical harm (Metcalfe et al., 2011) and having in mind that it may led to counterproductive economic behaviours (Dalton, Nhung and Rüschenpöhler 2020), we set out to explore whether they have systematically negative consequences for business intentions of the country's port-war generation. Indeed, it seems reasonable to expect that frequent media exposure to the traumatic experience of a war in BiH will lead people to exaggerate its reoccurrence and consequently affect their economic behaviour.

## 3. Literature Review

# **3.1. The effect of emotions on risk and entrepreneurship**

Emotions play a crucial role in our judgement, decision making and behaviour (Loewenstein and Lerner 2003). Yet, until not too long ago, economists were mostly focused on higher-level cognitive processes, overlooking the importance of emotions and thus providing an incomplete picture of entrepreneurship (Hayton and Cholakova 2012). In general, the study of experiences and the feelings they elicit were generally neglected in social sciences as they were seen as an unpredictable and erratic source of human behaviour (Lerner et al. 2015).

Nevertheless, it is by now well established that emotions are a powerful driver of decision-making, impacting the way we see the world and perceive reality (Zadra and Clore 2011; Welpe et al. 2012). In the words of Bechara and Damasio (2005, p. 363) "prior emotional events, influence future economic choices." What is more, emotions play a crucial role and are truly necessary for rational decision-making. People with an otherwise normal intellect, but with impaired emotional reactions are unable to make beneficial and advantageous economic decisions (Reimann and Bechara 2010).

In this research, we are particularly interested in fear since it is a distinctively negative emotion characterised by high uncertainty and low feelings of personal control due to which we tend to perceive reality differently (Whitson and Galinsky 2008). As a result, fear has a particular impact on the way in which we process information, make decisions and can lead to sub-optimal economic outcomes (Dunn and Schweitzer 2005; Erhardt et al. 2021). For instance, fearful people tend to systematically opt for the less risky option even as more uncertain option might be more rewarding (Wake, Wormwood and Satpute 2020).

Concretely and importantly for this investigation, we start by noting that entrepreneurship is a highly unpredictable endeavour associated with significant uncertainties in which people have to navigate the world without prior knowledge or experiences (Cacciotti and Hayton 2015). In such a volatile and ambiguous environment, emotions and our attitudes towards risk play a crucial role (Lawrence et al. 2008; Mickiewicz and Rebmann 2020). For instance, they impact all relevant aspects of entrepreneurship such as attention, creativity, evaluation, cognition and interaction with other people (Baron 2008). Furthermore, they influence the way in which potential entrepreneurs feel about specific opportunities and ideas and whether they are willing to actually pursue them (Hayton and Cholakova 2012).

In addition to that, emotions also play a crucial role in the way we evaluate risk. Unlike the longstanding economic belief that individuals evaluate risk rationally and statistically, it has been shown that fear plays a significant role in its assessment differing from other negative emotions (Bechara and Damasio 2005; Welpe et al. 2012; Lerner et al. 2015; Slovic 2018; Hertwig, Wulff and Mata 2018; Dalton, Nhung and Rüschenpöhler 2020; Kassas, Palma and Porter 2022). For instance, according to the affect heuristic (Slovic et al. 2004), people judge risk as being higher and benefit to be lower, if they have a negative feeling towards an activity. The sense of uncertainty and lack of control mentioned previously induce temporarily higher levels of risk aversion and lead individuals to make less risky choices (Lerner and Keltner 2001; Schildberg-Hörisch 2018). Overall, there is broad scientific evidence on the relationship between fear and greater risk aversion and the effect is considered small-to-medium in strength (for instance, see the meta-analysis conducted by Wake, Wormwood and Satpute 2020).

## 3.2. The effect of risk on entrepreneurship

Risk-taking presents a crucial aspect of human behaviour and economic decision-making (Dohmen et al. 2011; Frey et al. 2017; Schildberg-Hörisch 2018; Hanaoka, Shigeoka and Watanabe 2018). As stated before, economists long believed that people evaluate risk rationally by carefully considering and weighting alternative probabilities (Bechara and Damasio 2005; Slovic 2018). Psychologists, on the other side, highlighted the importance of emotions for risk assessment (Lerner and Keltner 2001; Gilad and Kliger 2008; Ralph et al. 2018). Indeed, when emotions and our cognitive deliberations differ, it is our emotions that often exert a more powerful influence on our behaviour (Loewenstein et al., 2001; Hayton & Cholakova, 2012), which is why we have methodologically embraced the psychological way of looking at risk. Most importantly for our research, it has been shown to impact our occupational choices (Brown et al. 2019) as those more willing to take risks are also more likely to start their own business and choose more challenging occupations (Raghunathan and Pham 1999; Dohmen et al. 2012; Nieß and Biemann 2014; Jakiela and Ozier 2019).

Concerning the actual relationship between risk and entrepreneurship, research conducted in the Netherlands by Cramer et al. (2002) suggests the individual degree of risk aversion does indeed discourage entrepreneurship, although the authors express reservations concerning the causality of their findings. However, longitudinal data from Norway allowed Hvide and Panos (2014) to conclude that risk seeking individuals are indeed more likely to become entrepreneurs and set up a firm. Further, conducting a "lab-in-the field-experiment", Koudstaal, Sloof and Van Praag (2016) also found that entrepreneurs indeed perceive themselves as more risk seeking compared to other groups such as managers and employees, although the effect seems actually to be driven by their greater willingness to risk losses. Overall, Welpe et al. (2012) have shown that fear is associated with higher risk perception, making us less likely to take advantage of entrepreneurial opportunities.

To summarise, the separate impact of fear on risktaking and entrepreneurship, as well as importance of risk-taking for entrepreneurship is well established in the literature. Yet, by tying these links together, we are the first to consider them jointly in a model and thus explore how fears of a new war impact entrepreneurial intentions of business students across BiH, with risk as a potential mediator. Based on the findings in the literature, we can state the following hypotheses, whose visual representation is shown in Figure 1.

**Hypothesis 1a:** There is a negative direct effect of fears of a new war on entrepreneurial intentions. **Hypothesis 1b:** There is an indirect negative effect of fears of a new war on entrepreneurial intentions and the effect is mediated by lower risk willingness.

In Appendix 1, we discuss methods for experimentally inducing fear, which is important for our experiment.





## 4. Methodology

In order to test our hypotheses, we conducted a controlled experiment to investigate whether the threat of another possible war is impacting economic decisions even of those people who could not have experienced it firsthand i.e. those born after the signing of the DPA in 1995. More specifically, through a mediation analysis and using a Structural Equation Model (SEM), we explore whether the threat is affecting students' entrepreneurial intentions by lowering their risk willingness. According to lacobucci, Saldanha and Deng (2007), SEM is the superior methodology when testing for mediation, amongst other things, because it allows for the simultaneous estimation of the direct and indirect paths while statistically controlling for the other.

We take advantage of the *medsem* package in STATA, which has been developed by Mehmetoglu (2018) and which allows us to perform such simultaneous estimation. It helps us to quantify the indirect effect of our independent variable (*treatment*) on our dependent variable (*entintentions*) through our proposed mediator *genrisk*.

#### 4.1. Participants and procedure

Our data was collected through an in-class questionnaire from aspiring entrepreneurs that were born after 1995. Specifically, we ran the study on undergraduate students pursuing a business degree in 2022, taking courses in entrepreneurship and who are about to graduate thus facing important career decisions. Indeed, a review of the literature by Kerr, Kerr and Xu (2018) found that research of entrepreneurship is often conducted with university students studying business. Overall, students make a good sample when exploring the roots of entrepreneurship as they offer a variety of different traits, attitudes and experiences (Krueger, Reilly and Carsrud 2000; Welpe et al. 2012).

Consequently, experiments using a betweensubjects design were conducted from 26 April until 31 May 2022. A total of 146 students were randomly assigned to either the control (n=74) or the treatment group (n=72) and asked to complete the paper-and-pencil survey. This is an appropriate sample size for our population of business students needed for medium-sized effect. To ensure relevant ethnic representation of our sample, which is important in a country like BiH given that the three dominant ethnic groups were not equally exposed to the conflict (Efendic, Kovac and Shapiro 2022), we surveyed students in three major cities across BiH, which are predominantly represented by the three main ethnic groups: University of Mostar, Faculty of Economics (predominantly attended by ethnic Croats), University of Sarajevo, School of Economics and Business (predominantly attended by ethnic Bosniaks) and University of East Sarajevo, Faculty of Economics Pale (predominantly attended by ethnic Serbs). Overall, our sample included 46 percent of Bosniaks, 23 percent of Serbs and 25 percent of ethnic Croats. Just two students declared themselves as belonging to neither of the three dominant ethnic groups, while 7 completely refused to answer this question. Compared to the BiH's general population consisting of 50 percent Bosniaks, 31 percent Serbs and 15 percent Croats according to the 2013 Census, Serbs are thus slightly under, while Croats are somewhat overrepresented.

We got in touch with professors from the three universities and asked them to suggest an undergraduate group that is most likely to include future entrepreneurs based on the courses they chose to study. We conducted the experiments in person on the number of participants who showed up for class that day. All students agreed to take the survey and no candidate withdrew from the study. At the beginning, participants signed the consent forms, were thanked for their participation and provided with the necessary instructions. It was made clear to the subjects that their participation was fully voluntary, that they could withdraw from the study at any point without having to provide a reason and that their privacy and anonymity was guaranteed. No personal information was saved. Random assignment of students to the control and treatment groups ensured that whatever individuals differences they might have (such as abilities, attitudes and values) were controlled for. Upon completion, participants were debriefed and thanked. Most importantly, it was made clear that the article they read (see below) was made up for the purpose of this study and completely fictional.

In the treatment condition, people were primed with threats of a new war by first reading an excerpt from a fictional article that was developed for the purpose of this analysis. All institutions and persons were completely made up and the full text can be seen is Appendix 2.

To make this even more trustworthy and in line with Dunn and Schweitzer (2005), we used different fonts and formats for the two questionnaires and adjusted the instructions given to respondents stating that they were pooled by two different researchers as in Gilad and Kliger (2008). After reading the media report, we also included two questions aimed to blur the focus on war in order to slightly minimise potential experimenter demand effects. A pre-test was conducted to determine whether it was indeed successful in eliciting the desired emotion of fear and the results are presented in the subsequent section. Subjects then responded to the questions of interest including risk, entrepreneurial intentions, as well as other relevant controls described below. The control group simply answered the questions of interest, without looking at any news. We expected that the salience of existential threat such as mortality and uncertainty would lead students to experience negative affect and ultimately influence their behaviour (Reiss et al. 2021).

## 4.2. Measurement of main variables

When it comes to measuring risk, there are two main approaches – economic and psychological. The first is based on revealed preferences and captured by asking various lottery questions, either hypothetical or with actual money involved (Eckel and Grossman 2008; Kim and Lee 2014; Schildberg-Hörisch 2018; Kassas, Palma and Porter 2022). The second is based on self-reports obtained through questionnaires (Hertwig, Wulff and Mata 2018). Overall, Frey et al. (2017), Dohmen et al. (2017) and Mata et al. (2018) have found that self-reports are in general better at measuring risk and that that the specific question below offers the best prediction of risky behaviour across contexts:

How do you see yourself: are you generally a person who is fully prepared to take risks or do you try to avoid taking risks? Please tick a box on the scale, where the value 0 means: 'not at all willing to take risks' and the value 10 means: 'very willing to take risks.'

Entrepreneurial intentions, on the other side, have been shown to provide the best predictive validity of entrepreneurship and to be superior to attitudes, situational or individual characteristics (Krueger, Reilly and Carsrud, 2000).

Consequently, to measure entrepreneurial intentions, a 7-point Likert-type scale with 4 items was used as proposed by Liñán and Chen (2009). Building on Ajzen's theory of planned behaviour, the authors developed a scale that has been shown to generally adequate across cultural environments. The questions were slightly adjusted to correspond to our student sample as in Izquierdo and Buelens (2011). Cronbach's alpha was computed for the four items and revealed good internal consistency of the scale ( $\alpha$ =0.895).

We also asked several other questions relevant for entrepreneurship such as gender, parental education, household income and place of living (Kerr, Kerr and Xu 2018). For instance, individuals from wealthy families might be willing to take greater risks simply because they have the financial safety net of the family (Hvide and Panos 2014). While not the direct subject of this investigation, these questions were nonetheless important in order to establish that our experimental randomization was indeed successful and that there were no major differences between our treatment and control groups that could explain the results of our manipulation. There is no variability when it comes to age and education, so these questions were not included.

Finally, it worth mentioning other possible variables that are relevant for entrepreneurship and which might mediate the effect between fear and entrepreneurial intentions. A review of the literature since 2000 conducted by Kerr, Kerr and Xu (2018) identified several potential variables such as openness, entrepreneurial self-efficacy, need for achievement and locus of control. Of these, however, only locus of control qualifies as a potential mediator if one takes into account the criteria developed by Baron and Kenny (1986) and the fact that the emotion of fear is closely tied to feelings of control (Whitson and Galinsky 2008). In short, it refers to the belief that one is able to influence his/her life and is not merely at the mercy of fate and the environment. Hence, we also measured locus of control as part of our sensitivity analysis using the four-item scale developed by Kovaleva (2012). Unfortunately, however, the scale turned out to have a rather poor internal consistency ( $\alpha$ =0.376). Descriptive statistics of all variables used in our investigation are provided in Table 1.

## 5. Results

## 5.1. Results of the pilot study

Before conducting the actual study, we ran a pilot in order to test whether our chosen method described above was indeed successful in inducing fear. During the first weeks of April 2022, a total of 71 undergraduate students in economics were randomly assigned to the control and treatment group. In the control group, students (n=34) filled out The Discrete Emotions Questionnaire developed by Harmon-Jones, Bastian and Harmon-Jones (2016). In the treatment group, students (n=37) first read the article about the alleged threat of a new war in BiH described above before filling out the questionnaire inquiring about their current state of emotions. The students who first read about the possible breakout of a new war reported significant higher levels of fear (M=4.52, SD=0.24)

Variable	Explanation of the variables	Number of observations	Mean
treatment	Dummy variable designating whether participants were exposed to threats of a new war by first reading the fictional media report before fill- ing out the questionnaire: treatment=0 if belonging to the control group; treatment=1 if belonging to the treatment group	146	0.49
genrisk	Self-reported willingness to take general risks from 0- not at all willing to take risks to 10-very willing to take risks	145	6.28
entinentions	Four-item self-reported measure assessing to what extent students ex- press entrepreneurial intentions from 1-not at all to 7-completely	146	6.72
locusofcontrol	Four-item self-reported measure assessing to what extent students be- lieve that they are able to influence their lives on a 5-point scale with higher values indicating belief in greater control	146	3.83
gender	Gender: male=1; female=0	146	0.31
urban	Type of area: urban=1; rural=0	146	0.76
houseincome	One-item measures asking students which phrase comes closest to their feelings about their household's income these days from 0-finding it very difficult on present income to 4- living comfortably on present income	146	3.55
parentaleduc	Highest level of education attained by parents from 1- none to 6-PhD	146	3.61
bosniak	Ethnic identity: Bosniak=1; Croat=0; Serb=0; Others=0	139	0.48
serb	Ethnic identity: Serb=1; Bosniak=0; Croat=0; Others=0	139	0.24
croat	Ethnic identity: Croat=1; Bosniak=0; Serb=0; Others=0	139	0.26

#### Table 1. Descriptive statistics of variables used in the empirical investigation

Table 2	. Results for	<b>SEM</b> estimates	for	genrisk
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Direct effects	Coeff.	SE	Z	P> z	95%	% CI
Path c (treatment on entinentions)	-0.007	0.235	-0.03	0.976	-0.468	0.453
Path b ( <i>genrisk</i> on entinentions)	0.153	0.060	2.56	0.010	0.036	0.269
Path a ( <i>treatment</i> on <i>genrsik</i> )	-1.120	0.314	-3.56	0.000	-1.736	-0.504

than the control group (M=1.86, SD=0.16), t(69)=-9.04, p=0.000. We were thus able to conclude that our manipulation was indeed effective in inducing fear and proceeded to our main study. Unfortunately, it also induced other emotions such as anger and sadness, which is a limitation of the study discussed at the end.

#### 5.2. Results of The Main Empirical Analysis

We begin our empirical analysis with the first conventional step in which we test whether our randomisation was successful by conducting a *t-test* of our control variables i.e. exploring the equality of the means of our treatment and control sample. The obtained results indicate that we do not have enough evidence to reject the null hypothesis that there is no statistically significant difference between our control and treatment groups when it comes to gender (p=0.44), household income (p=0.14), area of living (p=0.38) and parental education (p=0.98). Consequently, we are provided with enough evidence to conclude that our randomisation was indeed successful.

Next, we begin by testing the direct effects using the *sem* command in STATA. First of all, we find no direct effect of our independent variable (*treatment*) on the dependent variable (*entintentions*) (p=0.976) and thus do not have enough evidence to support hypothesis 1a. However, as shown in Table 2, we find a significant negative direct effect of *treatment* on

Estimates	Sobel	Monte Carlo
Indirect effect	-0.171	-0.177
SE	0.082	0.090
Z	-2.081	-1.974
P> z	0.037	0.048
Cl	-0.032 , -0.010	-0.400 , -0.047

Table 3. Significance testing of indirect effect of treatment on entrepreneurial intentions through genera	al risk

genrisk (a=-1.12; p=0.000), as well as genrisk on entintentions (b=0.153; p=0.010). However, according to Zhao, Lynch and Chen (2010), mediation is actually measured by the existence and size of the indirect effect (a x b), not by the lack of the direct effect, meaning that there is no need to identify a statistically significant direct effect to establish mediation.

Consequently, we estimate the indirect effect using the procedure put forward by Mehmetoglu (2018) and find that there is indeed a negative and significant indirect effect (axb=-0.255; p=0.037; CI [-0.495, -0.015]). The effect is statistically significant when considering the Sobel, as well as Monte Carlo test (see Table 3). Our finding remains robust even when we use the bootstrapping procedure proposed in SPSS as proposed by Hayes (2018). Concretely, we demonstrate that threats of a new war lower students' entrepreneurial intentions by making them more risk averse.

Further, determining the effect size of our mediation, Kenny (2016) suggests to examine completely standardised coefficients for dichotomous independent variables, as is the case in our analysis. Our standardised effect size is -0.061 (p=0.031), which points to a medium-sized effect.

Finally, since we have no direct effect (path *c*), but a mediated indirect effect of *axb*, according to the criteria established by Zhao, Lynch and Chen (2010), we have indirect-only mediation, which also mean that it is unlikely that we have another omitted mediator. Consequently, to test for the robustness of this finding, we ran a separate model between threats of a new war and entrepreneurial intentions, but with locus of control as a potential mediator for reasons described above, but find neither a statistically significant direct (p=0.553) nor indirect effect (p=0.675).

## 6. Limitations of The Study

The main limitation of our empirical analysis pertains to a highly selective sample, as well as our chosen method to induce the desired emotion. The fact that we only included business students raises questions about the generalisability of our results and should be extended to include a broader population in future research. Further, and as discussed in the methodology section, we developed a fictional article reporting the possibility of a new conflict in BiH with the aim of eliciting fear. Our pilot study revealed that it was indeed successful in triggering the desired emotion. However, additional t-tests, also revealed that it made the treatment groups both angrier and sadder than the control group. Thus, we cannot definitively say whether our observed effects were driven by fear, or whether their lack was due to the fact that some students experienced fear, while others felt anger. As previously noted, this is relevant since the various negative emotions are not the same when it comes to processing information and making decisions (Dunn and Schweitzer 2005; Whitson and Galinsky 2008; Cacciotti and Hayton 2015; Erhardt et al. 2021; Kassas, Palma and Porter 2022). Future research could therefore use a method that exclusively triggers fearful emotions as suggested by Hewig et al. (2005) and see whether it leads to different results. However, since our manipulation decreased risk-willingness, we have at least some prove that the effect was indeed driven by fear and not another negative emotion, since anger would have made respondents more risk-seeking (Lerner and Keltner 2001). Still, the question remains whether any stimulus able to induce fear without specifically mentioning the war would ultimately alter the propensity to take risks and produce similar results. The inclusion of a third treatment group (non warrelated article eliciting fear) in future research would help answer the question whether our observed effects are indeed driven by threats of a new war and not just fear.

With regards to our finding that threats of a new war had no direct effect on students' entrepreneurial intentions, it is worth noting that the objective probability of a new war in BiH is impossible to calculate and thus primarily dependent on subjective assessments. So, whether people decide to take risks or not depends on whether it can be calculated or not, as well as the extent to which the outcome is under their control and belief in their abilities (Macko and Tyszka 2009). As a result, students might express a willingness to start their own business simply because they overestimated the chance of their future success due to higher self-confidence of self-efficacy. Future research should therefore explore whether the effect is moderated by other variables relevant for entrepreneurship such as entrepreneurial efficacy and need for achievement (Kerr, Kerr and Xu 2018).

The timing of measuring risk has also been shown to affect its respective level. For instance, a recent study conducted by Kassas, Palma and Porter (2022) has shown that induced emotions in the laboratory can wane quickly, even within a minute, which is particularly relevant since we were exploring temporary states of fear (Cacciotti and Hayton. 2015). Consequently, the authors urge researchers to measure risk immediately after the manipulation, which is exactly what we did. Aside from two brief questions following the fictional media article, we skipped any intermediate task and proceeded right to the relevant questions. Indeed, the questions concerning risk were asked first. However, it is plausible that, by the time respondents reached the questions about entrepreneurial intentions, the emotional effect of our article was diluted, which could explain the direct effect of fear on risk, but not on students' entrepreneurial intentions.

Concerning our finding that threats of a new war impact students' risk attitudes, one could object to the proposed measure of risk. Overall, risk is notoriously difficult to capture as has already been discussed. As noted by Koudstaal, Sloof and Van Praag (2016), there is more to risk and uncertainty than risk aversion alone as it encompasses a mixture of what economists refer to as risk, loss and uncertainty aversion. Our finding that threats of a new war impact students' risk attitudes is based on questionnaires and self-reported data, hence it is not possible to say whether and how they translate into actual economic behaviour (Cesarini et al. 2010). Another open question is the duration of our observed effect, although Lerner et al. (2003) found that it can last for months. Nevertheless, a longitudinal study of our sample would provide important information on how long elevated levels of risk aversion last and which real-life decisions are actually affected by it.

Finally, a larger sample size and longitudinal data would be needed to establish whether there is indeed a significant difference when it comes to the effect that fears of a new conflict have on the three main ethnic groups. This is particularly relevant since the effect of fear depends on the environment and context in which a particular individual is living (Cacciotti and Hayton, 2015) and which is arguably not the same when it comes to BiH's different ethnic groups.

## 7. Conclusion

Wars and the adverse consequences to which they lead present a highly relevant prism through which economic outcomes can be analysed and understood. Here, we took another step and explored how threats of a new conflict impact those individuals that were born after the Bosnian War, investigating whether these have concrete economic consequences observed through individual entrepreneurial aspirations. We rely on primary data from a controlled experiment and use a Structural Equation Model. What we find is that threats of a new war lower students' entrepreneurial intentions by making them less willing to take risks. As a result, we showed that warmongering has concrete consequences and thus can no longer be dismissed as just empty rhetoric. While the prospect of a new war and instability on such a grand scale might be exaggerated in probabilistic terms, it is nevertheless clear that it exhibits a strong influence on people.

Although our experiment is based on a fictional article specifically developed for the purpose of this study with the aim of inducing the desired emotion, it was nevertheless designed to be as close as possible to real-life media reports that citizens are regularly exposed to. One might argue that threats of a new war would impact risk-willingness and entrepreneurial intentions in any other country and that might indeed be the case. However, as noted in the introduction, BiH is specific in a way that these threats are a regular occurrence and thus more consequential, particularly since their frequency has increased in recent years. Nevertheless, a few additional points should be made:

First of all, we find no direct effect of threats of a new war on students' entrepreneurial intentions. As a possible explanation, it is plausible that business students — by virtue of choosing this field of study — have such strong preferences to one day become entrepreneurs that they remain unaffected by such negative stimuli. Put simply, the selection process has been done before they entered their studies. As Krueger, Reilly and Carsrud (2000) have noted, much of our behaviour is planned and the decisions to become an entrepreneur seems to be a good example of this. If so, this would be an encouraging sign for a country like BiH, as it shows that these intentions cannot be affected by situational stimuli.

Nevertheless, threats of a new war do impact entrepreneurial intentions indirectly by making students less willing to take risks, which is the main contribution of our study. Future research should explore how this aversion to take risks translates into other domains of economic decision-making. For instance, it would be interesting to investigate whether it could help explain the underdevelopment of BiH's stock market and preference for jobs in the public sector, as well as the absence of public protests in the country. Another interesting question to be explored is how news of a possible new conflict would affect other, non-business-related students that do not a priori have a strong preference to become entrepreneurs. Would we observe the same effect amongst law or electrical engineering students considering whether to one day set up their own law firms or launch a startup? These are promising avenues for future research.

Thirdly, it is possible that fears of a new war do not equally affect the three ethnic groups. While such threats seem to have no effect on entrepreneurial intentions of Serb and Croat students, they approach a statistically significant effect when it comes to Bosniak students. Given that many Croat citizens have EU citizenship, while many Serb citizens have Serbian citizenship, they could more easily become entrepreneurs in the neighbouring countries regardless of what is actually happening in BiH. Another study limited to Bosniaks and conducted on a greater sample would be needed to test whether fears of a new conflict have detrimental economic consequences for the country's dominant ethnic group, which would be an important finding in itself.

Finally, there a few important consequences and proposals that emerge from our findings. The International Community should be more careful in dismissing warmongering as just empty rhetoric and become less lenient towards politicians that jeopardise peace, even if it is just declaratively. Concerning the educational sector, particularly in business schools, a greater emphasis should be put on the importance of emotions for entrepreneurship. Amongst other things, students should be made aware that their economic decision-making is not impervious to negative emotions and understand that the flow of information to which they are exposed on a daily basis impacts their risk-taking behaviour. Lastly, the media also has a particularly important role to play given that the psychological costs of increased fear, anxiety and stress are significant and might even exceed the physical harm as previously discussed. While the triggering of negative emotions is likely to increase readership, web traffic and revenues, they should nevertheless understand that their negative reporting has real-life economic consequences impeding risk-taking, which ultimately hurts the whole of society.

#### **Disclosure Statement**

The author reports there are no competing interests to declare.

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## Appendix 1

## Methods for Experimentally Inducing Emotions

Since we hypothesise that threats of a new war affect students' intentions by triggering fear, it is worth discussing how these emotions can be induced in the first place, particularly since one cannot experimentally manipulate trauma. Our aim is actually twofold. First, we wish to increase the salience of a possible conflict and as a result its perceived likelihood (Tversky and Kahneman 1973; Kahneman 2003), which has been shown to impact information processing, thoughts and behaviour (Lerner 2003; Hewig et al. 2005; Gilad and Kliger 2008; Weingarten et al. 2016). Secondly, our aim is for the manipulation to trigger fearful emotions, which is something that we test as part of our pilot study described above.

In the social sciences, emotion induction procedures are essential for testing hypotheses and the one proposed in the literature on entrepreneurship is to have subject first read various media excerpts (Hayton and Cholakova 2012; Cacciotti and Hayton 2015). A recent meta-analysis of such procedures conducted by Joseph et al. (2020) has shown that this is indeed an effective method and above average successful in eliciting the desired emotion. Consequently, in exploring whether the threat of a new war affects students' risk attitudes and entrepreneurial intentions, we exposed halve of them to a fictional, yet realistic media article discussing the imminence of a new war, which is presented in more detail in Appendix 2 below.

## **Appendix 2**

# Full text of the fictional article developed to induce the desired emotion

"At the beginning of this month, the famous Oslo Centre for Peace Studies published its final report on the state in BiH. The Report was written by a Commission, which consisted of some of the world's leading experts in the fields of international relations, security and humanitarian law.

The experts expressed deep concern with the current situation deeming that the outbreak of a new war in Bosnia and Hercegovina in the following period is quite a real possibility, particularly considering the current events in Ukraine. Furthermore, according to a model developed in cooperation with the Munich Institute of Technology, it is estimated that new conflict would lead to significant human and material losses. On the occasion of publishing the Report, the Head of the Commission Céline Roux stated the following: 'Even before the War in Ukraine, we saw that things in Bosnia and Herzegovina were moving in the wrong direction. With the current geopolitical situation, it seems that the outbreak of a new war is just a matter of time, whose consequences would be unfathomable.' She thus called upon the mobilisation of all possible efforts, both local and international, in order to prevent a new war in Bosnia and Herzegovina.

What is particularly worrisome is the fact the Oslo Centre for Peace study rightly predicted the War in Ukraine already in July last year, we well as the Syrian Civil War in 2011."