The Impact of Behavioral Factors and War on Decision Making under Political Conflict: Evidence from Palestine

Article *in* Research Journal of Finance and Accounting · August 2018

3 authors, including:

Zuhair Barhamzaid
Palestine Technical University- Kadoorie
2 PUBLICATIONS   **1** CITATION

Antonio Alleyne
Dongbei University of Finance and Economics
20 PUBLICATIONS   **37** CITATIONS

Some of the authors of this publication are also working on these related projects:

Project   IFRS and conditional conservatism View project

Project   I am current working on a tourism research paper View project

The Impact of Behavioral Factors and War on Decision Making under Political Conflict: Evidence from Palestine

Zuhair A. A. Barhamzaid[1*] Xian-Zhi Zhang[1] Antonio Alleyne[2]

School of Accounting, Dongbei University of Finance and Economics, Sha He kou District, Dalian 116025, China

College of International Economics and Trade, Dongbei University of Finance and Economics, Sha He kou District, Dalian 116025, China

* E-mail of the corresponding author: zuhair_zid@yahoo.com

Abstract:

The purpose of this study is to investigate the impact of behavioral factors and war on decision making under political conflict. We consider the impact of irrational factors (overconfidence, optimism, pessimism), and war on decision making in such unique case. Investigating the period 2008 to 2016, covering 2,185 stock-day observations, we find that all factors, excluding overconfidence, experience a significant impact on decision making. More specifically, optimism significantly increases the volume of trade (as a proxy for decision making), whereas, pessimism and war have significant adverse effects on the variation of financial markets under political conflict.

Keywords: Decision making; overconfidence; optimism; pessimism; war; political conflict.

1. Introduction

Traditional finance assumes that financial markets, including individuals and institutions, are rational, meaning that they make unbiased decisions to maximize their utility (Baker, & Nofsinger, 2010). According to the efficient securities market theory, the prices of securities in financial markets reflect all available information that is publicly known. It suggests that investors will react quickly to new information. However, the hypothesis of the efficient securities market theory has been examined, and various pieces of evidence suggest that financial markets may not be as efficient as originally believed, implying that investors are likely irrational (Scott, 2009). In both developed and emerging countries, the hypotheses of efficient markets and the concept of rational expectation have failed to justify trade returns and volume patterns (Dhaoui, 2015). This has resulted in limited reliance on the information derived from the market structure.

It is necessary to suggest new factors to explain the conduct of capital markets. In this respect, behavioral finance offers some clarity regarding individuals' decisions choices (Oprean, 2014). Though a relatively new perspective on the pattern of finance, behavioral finance tries to explain individuals' economic decisions, beyond the traditional theories of securities markets, by combining behavioral and cognitive psychological theory with traditional economic and finance theories. The key to this school of thought is that information structures and market-outcomes are not the only factors to impact investment decision making. It adds the characteristics of market participants as factors that systematically play an important role in investment decision-making process (Baker, & Nofsinger, 2010).

Most finance studies focus on developed markets, with very little consideration for the application on pre-emerging markets (Luong, & Ha, 2011). More importantly, according to the authors, financial markets operating under political conflict are not considered as in the more developed and other developing countries. Financial markets under situations of political turmoil are unique and rare cases of investigation. An adequate example is the Palestine Exchange (PEX), which operates despite the brinkmanship between Palestine and Israel, and the occurrences of many wars[1].

Established in 1995, PEX is considered as the first and only financial market in Palestine. Moreover, it is the first and only fully-automated financial exchange in the Arab world that is publicly traded; and fully owned by the private sector. As of October 2017, PEX housed 48 listed companies with a market capitalization of

---

[1]The first war, after opining Palestine exchange (PEX), was started from 27-12-2008 to 18-01-2009. The second was started from 14-11-2012 to 21-11-2012. The third was started from 80-07-2014 to 26-08-2014.

approximately USD $3.8 trillion. The main economic sectors in the PEX are banking and financial services, insurance, investments, industry, and services.[1]

This study is important because it can help investors who seek a better understanding of investment in financial markets in the presence of political conflict before making their decisions, leading to better strategic decision-making. Further, it provides insight into future financial market trend due to the role of behavioral factors and war within similar financial markets. Therefore the results of this paper can benefit the investment decision making as well as the regulation of financial markets working under political conflict.

The present study is expected to extend the literature in finance studies as it deals with a rare case of financial markets that operate under political conflict and have a special situation which is not commonly found in other normal financial markets in the world. By applying this study on PEX, the best example of pre-emerging markets that works under political conflict, the authors try to investigate the impact of behavioral factors (overconfidence, optimism, pessimism), and war on decision making under political conflict.

The rest of this paper as follows: Section 2 reviews the relevant literature and develops the hypotheses. Section 3 describes the data, followed by the study's design in section 4. Section 5 discusses the findings. Additional robustness tests are addressed in section 6. The final section presents a brief conclusion.

2. Review of literature and hypotheses developments

2.1. Overconfidence

Overconfidence seems to be a general behave of human reaction. Extra confidence makes individuals feel good and moves them to do things they might not otherwise have done. Possibly, it may lead them to irrational decisions (Baker, & Nofsinger, 2010). Psychological theory suggests that persons overestimate the precision of information they collect themselves. Therefore, overconfident investors will underreact to new information that is not collected by themselves (Scott, 2009). Additionally, overconfident investors are often too confident about their judgments (Pompian, 2006). Further, overconfidence plays a critical role in managerial acquisition decision (Billett, & Qian, 2008). On the other hand, a stream of research about market efficiency investigates whether price changes could be forecasted using past returns (Lewellen, 2004). In this regard, confident investors increase the volume of their transactions when returns go up. They overestimate their judgment capabilities and undervalue the risk. Hence they act persistently and, as a result, the volume of trade will be increased. More specifically, if the returns of a given security on previous day, R_{t-1}, are positive, the overconfident investor is expected to react quickly in the present day and then heavy transaction is expected in that day, but if the returns of a given security on previous day are negative, the overconfident investor is not expected to trade in the present day. Accordingly, the behavior of overconfidence can be described as in equation (1) (Oprean, 2014; Oprean, & Tanasescu, 2014).

$$if: R_{t-1} \geq 0 \rightarrow there\ will\ be\ transactions$$
$$if: R_{t-1} < 0 \rightarrow there\ will\ be\ no\ transactions$$
(1)

Clearly, the behaviour of overconfidence is positively associated with volume of trade (as a proxy of decision making). Therefore, we state our first hypothesis in the alternative form with positive direction as follows:

H1: Overconfidence has a positive impact on trading volume.

2.2. Optimism

Optimism bias is inconsistent with the independence of decision weights and payoffs found in models of choice, which works under uncertainty and risk; i.e. expected utility theory, subjective expected utility, and prospect theory (Bracha, & Brown, 2012). The psychology literature documents an extensive tendency in all individuals to be optimistic on the subject of their abilities and their future. Additionally, developing literature in economics and finance confirms that biases of optimism extend to organizations' senior executives and CEOs and have an economically significant effect on corporate decisions, activities, and consequences (Otto, 2014). Optimism can be defined as positive expectations about future events. However, it is different from "overconfidence" about skills or estimations (Jacobsen, Lee, Marquering, & Zhang, 2014). Collecting data from more than 1000 entrepreneurs in Kenya, Burundi, and Indonesia, Wood, Bradley, & Artz (2015) investigate the impact of optimism on entrepreneurial outcomes. Their results support the notion that optimism plays an important role in

---

[1] These information are obtained from the website of PEX: http://www.pex.ps/PSEWebSite/English/AboutPSE.aspx?TabIndex=0

business growth. The study by Jarboui, Forget, & Boujelbene (2014) provide strong evidence of the negative influence of CEOs' optimism bias on transport firms' technical efficiency, concluding that managerial optimism reduces transport firms' technical efficiency. Creating a novel measure of optimism, the findings of Puri, & Robinson (2007) suggest a positive relationship between optimism positive beliefs about future economic circumstances and with psychometric tests of optimism. Furthermore, they demonstrate that optimism is connected with many work/life choices: more optimistic persons work harder, invest more in individual stocks, and save more. However, they argue that moderate optimists show rational financial behaviour, though extreme optimists show financial behaviour that is not prudent. Jacobsen, et al. (2014) explore gender differences in optimism and asset allocation. They address that women tend to be considerably less optimistic than men. Their findings are not limited to economic or financial aspects. According to their results, men are more optimistic than women in several other aspects of life as well. In the opinion of Dhaoui (2015), optimism occurs when, on the previous day, investors reach a certain set degree of earnings, and then investors aggressively increase the volume of their transactions. On the other hand, if the obtained returns are lower than that degree of returns, investors' behaviour is expected to be normal or they might decide to delay trading. The minimum degree of return that might cause optimism depends on the value of summation of the average returns and its standard deviation that calculated over the entire period under consideration, $\bar{R} + \sigma$. Hence, optimistic investors are expected to trade aggressively when the returns of the preceding day, R_{t-1}, are equal to or greater than that degree. Otherwise, they will reject trading. Accordingly, the behavior of optimism can be described as in equation (2) (Oprean, 2014; Oprean, & Tanasescu, 2014).

$$if: R_{t-1} \geq \bar{R} + \sigma \rightarrow there\ will\ be\ transactions$$
$$if: R_{t-1} < \bar{R} + \sigma \rightarrow there\ will\ be\ no\ transactions$$
(2)

Apparently, the phenomenon of optimism is positively associated with decision making, which in turn it is expected to increase the volume of trade when it is the case. Therefore, we state our second hypothesis in the alternative form with a positive direction.

H2: Optimism has a positive impact on trading volume.

2.3. Pessimism

Conlin et al. (2015) study the association between personality characters and financial market participation. They claim that the traits to be substantial predictors of financial market participation. In particular, exploratory moodiness, extravagance, romanticism, and dependency have huge effects. As noted by Dhaoui, & Khraief (2014), investor's emotion plays a significant role in explaining the trading intensity and market trend variations. Their results reveal that pessimistic emotion has a significant impact on French financial market trend. Furthermore, they suggest that the effect of pessimism on asset returns exceeds that of optimism as a direct indicator of investor's opinions. More specifically, indirect indicators of agent emotion represent more smoothed effects on these two market components. Their results show that incorporating psychological elements in macro-financial models leads to better regulation and control of the key drivers of the markets. An analysis of the expectations in a unique environment is given by Dickinson, & Oxoby (2011). They point out that behaviorally and economically important spillover effects (e.g., pessimism regarding one's initial conditions) might have spillover effects on individual's future labour market outcomes. Pessimism occurs when investors obtain losses on the preceding day, which in turn pessimistic investors tend to decrease their trading volume or get out from trading when their losses reach a certain set degree of return. But when they achieve better results than that degree, their reaction is expected to be normal (Oprean, 2014; Oprean, & Tanasescu, 2014). The minimum loss degree which caused by pessimists is equal the average returns minus its standard deviation computed over the whole period under investigation, $\bar{R} - \sigma$. Therefore, when pessimistic investors' losses in the prior period, R_{t-1}, is greater than that computed value, they will not trade, but if their losses are less than the said value, they will continue in trading. Accordingly, the behavior of Pessimism can be described as in equation (3) (Dhaoui, 2015).

$$if: R_{t-1} > \bar{R} - \sigma \rightarrow there\ will\ be\ transactions$$
$$if: R_{t-1} \leq \bar{R} - \sigma \rightarrow there\ will\ be\ no\ transactions$$
(3)

In close, investors with pessimistic emotion play a negative role in the financial market and their behaviour tends to decrease the trading volume when they achieve results less than the level they target it. Thus, we put our third hypothesis in the alternative form with negative direction as follows:

H3: Pessimism has a negative impact on trading volume.

2.4. War

Many studies investigate the impact of war on financial markets around the world. The study by Rigobon, & Sack (2005) analyze the risk associated with the war in Iraq on various US financial variables. They find that the risk of war in Iraq has a significant influence on many US financial variables. They conclude that the increases in war risk cause a fall in the yields of treasury and equity prices, an increase in oil prices, a widening of corporate yield spreads, and a drop in the value of US currency. Using a sample period from January 2000 to June 2006, Fernandez (2008) studies how the influence of the political instability in the Middle East, after the invasion of Iraq, on the financial markets volatility around the world. They find that political instability in the Middle East has the greatest influence on the volatility of financial markets around the beginning of war on Iraq, and also developed financial markets are affected as well. Examining the consequence of World War Two (WWII) on the British stock market, Hudson, & Urquhart (2015) fail to find strong and significant links between war events and market returns, although their results support the negativity effect of war on between them. Using the top 30 companies by market capitalization listed on Colombo Stock Exchange over the period 1998 to 2003, Abeysekera (2011) investigates the influence of current-period intellectual capital disclosure on earnings and current annual stock return during a civil-war period in Sri Lanka. He finds that companies do not include the current period intellectual capital disclosure in the current stock return. Moreover, he notes that the increase in the current-period intellectual capital disclosure practice does not influence earnings included in the current stock return. However, his findings provide insights into the intellectual capital disclosure activity and its impact on stock return in a civil-war environment. The study by Amihud, & Wohl (2004) explore the association between the expectations of Saddam Hussein's fall from power and stock prices, exchange rates, and oil prices. They discover that, during the war, an increase in the probability of Saddam's fall, which also reveals a speedy end to the war, is positively and significantly related with share prices, reinforced the dollar and a drop in oil prices. Moreover, they suggest that the higher probability of Saddam's fall, prior to the war, would have led to a fall in stock prices.

In summary, the prior debate support the view that war is expected to have a negative impact on financial market decision making. Hence, we put the final hypothesis in the alternative form with negative direction as follows:

H4: War has a negative impact on trading volume.

3. Data

The population of the current study includes all investors in PEX. The collected data covers the period from 2008 to 2016. We collect data on trading volume manually from the website of Palestine Exchange[1] and data on closing price, to compute the market returns, is obtained from the website of Investing.com[2]. Following the elimination of records with missing data, the sample totalled 2185 stock-day observations. Table 1 provides some descriptive statistics about the data.

As shown in Table 1, the number of all observations is 2185 observations. The minimum value of volume is approximately 10.2, a maximum of 17.4, and an average value of 13.1. Overconfidence shows a minimum value of -0.00897, and a maximum value of 0.009091. The mean value of optimism variable stood at 0.001405, a minimum of zero and a maximum value is 0.085514. Pessimism variable has a mean value of -0.00121, a minimum of -0.08337, and a high of zero. The mean vale of war variable is about 0.012821, a low of zero, and a high of 1.

Table 1: Descriptive statistics

Variable	N	Mean	Std. Deviation	Minimum	Maximum
Trading (Log of volume)	2185	13.12722	0.918223	10.23538	17.44358
Overconfidence	2185	-0.00015	0.003543	-0.00897	0.009091
Optimism	2185	0.001405	0.00569	0	0.085514
Pessimism	2185	-0.00121	0.005807	-0.08337	0
War	2185	0.012821	0.112525	0	1

Notes: This table summarizes some descriptive statistics of the study variables.

---

[1] www.pex.ps.

[2] https://www.investing.com/indices/ple-historical-data.

4. Study design

The authors use the following model described in equation (4) to examine the influence of behavioral factors and war on decision making under political conflict.

$$ln\ volume_t = \beta_0 + \beta_1\ Overconfidence_t + \beta_2 Optimism_t + \ \beta_3 Pessimism_t + \beta_2 War_t + e_t \qquad (4)$$

where $ln\ volume_t$ represents the natural logarithm of the trading volume in $time_t$. $Overconfidence_t$ represents the returns expected by overconfident investors in $time_t$ considering the returns they realize in $time_{t-1}$. The proxy of overconfidence takes the value of R_{t-1} providing that $(\bar{R} - \sigma) < R_{t-1} < (\bar{R} + \sigma),$[1] where $\bar{R}$ is the average of return and σ is its standard deviation for the whole period under investigation. $Optimism_t$ represents the returns expected by optimistic investors in $time_t$ considering the return they realize in $time_{t-1}$. The proxy of optimism takes the value of R_{t-1} when $R_{t-1} \geq (\bar{R} + \sigma)$, and zero otherwise. $Pessimism_t$ represents the returns expected by pessimistic investors in $time_t$ considering the return they realize in $time_{t-1}$. The proxy of pessimism takes the value of R_{t-1} when $R_{t-1} \leq (\bar{R} - \sigma)$, and zero otherwise. War_t represents the presence of war in $time_t$, which equals one when the war is the case,[2] and zero otherwise. e_t represents the error term in $time_t$.

The impact of an independent variable on decision making in financial markets under political conflict is captured by its coefficient, β. A significantly negative (positive) value of β reveals that the related independent variable with that β decreases (increases) the trading volume in such markets, which implies a significant impact on decision making under political conflict.

5. Results

Using the Augmented Dickey–Fuller (ADF) test, we start by testing the stationary of dependent and independent variables. The null hypothesis for this test states that the tested variable contains a unit root, indicating that the said variable is not stationary. The outcomes of ADF test are presented in Table 2.

Results in Table 2 show that all variables are stationary since t-statistic for each variable is significant at less than 1%. Therefore, we can reject the null hypothesis that each variable contains a unit root and continue to estimate our regression. We also test several assumptions related to the classical linear regression model, namely assumption of no perfect multicollinearity between the independent variables, homoscedasticity assumption of the disturbance terms, no autocorrelation and normality assumption of the disturbance term. In order to mitigate homoscedasticity and autocorrelation, standard errors are adjusted using the Newey–West procedure (HAC method).[3]

Table 2: ADF test for stationary

Variables	t-statistic	p-value
Trading volume	-20.164[***]	0.0000
Overconfidence	-32.455[***]	0.0000
Optimism	-27.564[***]	0.0000
Pessimism	-25.245[***]	0.0000
War	-11.517[***]	0.0000

Notes: This table summarizes the outcomes of ADF test of the stationary of dependent and independent variables.. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

---

[1] The greater value of R_{t-1} within this interval, from $(\bar{R} - \sigma)$ to $(\bar{R} + \sigma)$, the greater degree of overconfidence, and vice versa. If R_{t-1} is equal or exceeds $(\bar{R} + \sigma)$ the return will be positively abnormal and this situation generates the emotions of optimism. On the other hand, if R_{t-1} is equal to or less than $(\bar{R} - \sigma)$ the return will be negatively abnormal and this situation generates the emotions of pessimism.

[2] The periods of war are three. First: from 27-12-2008 to 18-1-2009. Second: from 14-11-2012 to 21-11-2012. Third: from 8-7-2014 to 26-8-2014.

[3] In large samples, one can use the Newey–West procedure (HAC method) to correct OLS standard errors not only in cases of autocorrelation problem but also in situations of heteroscedasticity, for the HAC method can handle both problems, unlike the White method, which was designed specifically for heteroscedasticity problem (Gujarati, 2004).

Table 3 shows the main results of our regressions. At the first place, our results exhibit that trading volume is greatly and positively affected by optimistic behaviour when the return in the previous day becomes positively abnormal, as optimism emotions have the greatest positive and significant coefficient, 32.287. In this regard, investors react positively following profit made. Their extreme reaction leads to a significant increase in the volume of securities traded in financial markets. Whereas, the coefficient of pessimism is significantly negative, -11.502, suggesting that pessimism significantly decreases the volume of trading when the return in the previous day becomes negatively abnormal. Regarding the overconfidence phenomenon, it looks like that this behaviour is positive associated with trading volume but without any statistical significance since its *t*-statistic is about 0.850. Finally, war has a significant and negative impact on trading, suggesting that investors significantly decrease their sharing in trading under war.

Table 3: Regression summary

Trading volume	Expected signs	Coefficients.	t-statistic	P-value
Overconfidence	+	4.727	0.850	0.198
Optimism	+	32.287***	7.310	0.000
Pessimism	-	-11.502***	-3.870	0.000
War	-	-0.879***	-8.030	0.000
Constant	?	13.080***	557.450	0.000
Observations	2185			
F-statistic	27.08***			
R-squared	0.0522			

Notes: This table summarizes the estimated results to test the impact of behavioral factors and war on decision making under political conflict. The OLS standard errors are corrected for heteroscedasticity and first-order order autocorrelation using the Newey–West procedure. The reported p-values are based on two-tailed significance levels and on one-tailed levels when the prediction is directional. *, **, *** indicates statistically significant at 10%, 5%, and 1% respectively.

6. Robustness tests

6.1. Results using narrower time windows

The current study includes years from 2008 to 2016 (9 years). In order to reduce the likelihood of other factors confounding our results, we reestimate the main model over 7 narrower time windows (2008-2009, 2008-2010, 2008-2011, 2008-2012, 2008-2013, 2008-2014, 2008-2015). Almost, the obtained results are qualitatively similar in all columns. Although pessimism factor is not significant in column (1) for the period from 2008-2009, it can be noted that pessimism variable has negative impact as we predict, see Table 4.

Table 4: Results using narrower time windows

Trading volume	Expected signs	(1) T08_09	(2) T08_10	(3) T08_11	(4) T08_12	(5) T08_13	(6) T08_14	(7) T08_15
Overconfidence	+	2.7	2.6	0.2	3.0	3.8	5.9	6.8
		(0.401)	(0.382)	(0.491)	(0.336)	(0.278)	(0.165)	(0.119)
Optimism	+	18.1***	20.1***	23.2***	26.6***	29.9***	30.3***	32.3***
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Pessimism	-	-2.7	-5.7**	-7.3***	-9.8***	-10.3***	-10.6***	-12.0***
		(0.187)	(0.033)	(0.009)	(0.001)	(0.001)	(0.000)	(0.000)
War	-	-0.9***	-0.9***	-0.8***	-0.9***	-0.9***	-0.9***	-0.9***
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Constant	?	13.5***	13.4***	13.3***	13.2***	13.2***	13.1***	13.1***
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Observations		481	728	974	1221	1462	1703	1946
Adj. R^2		0.0547	0.0496	0.0498	0.0556	0.0586	0.0618	0.0574
F-statistic		6.96***	7.95***	9.33***	14.27***	15.26***	27.16***	27.35***
Prob > F		0.000	0.000	0.000	0.000	0.000	0.000	0.000

Notes: As a robustness test, this table shows the estimated results, using narrower time windows, to test the impact of behavioral factors and war on decision making under political conflict. The narrower time windows include 7 different periods (2008-2009, 2008-2010, 2008-2011, 2008-2012, 2008-2013, 2008-2014 and 2008-2015). The OLS standard errors are corrected for heteroscedasticity and first-order order autocorrelation using the Newey–West procedure (HAC method). The reported p-values are based on two-tailed significance levels and on one-tailed levels when the prediction is directional. *, **, *** indicates statistically significant at 10%, 5%, and 1% respectively.

6.2. Results calculating $\bar{R} + \sigma$ and $\bar{R} - \sigma$ based on past period

In the construction of optimism, pessimism variables, the authors rely on past and future knowledge in order to construct the said variables. For example, The current paper assumes that optimistic investors are expected to trade aggressively when the returns of the past day, R_{t-1}, are equal or higher than the summation of the average returns and standard deviation, $\bar{R} + \sigma$, that calculated over the entire period. However, when taking the decision one cannot know the future, only the past. Therefore, the authors compare R_{t-1} with $\bar{R} + \sigma$ and $\bar{R} - \sigma$ that calculated over past period (2008-2015), see column (8) of Table 5. At the same time, we redo this procedure using 7 past periods (2008-2009, 2008-2010, 2008-2011, 2008-2012, 2008-2013, 2008-2014, 2008-2015) to control for the likelihood of other factors confounding our results, see columns from (1) to (7) of Table 5. More specifically, we rerun our main model over 8 different time windows (2008-2009, 2008-2010, 2008-2011, 2008-2012, 2008-2013, 2008-2014, 2008-2015 and 2008-2016), where $\bar{R} + \sigma$ and $\bar{R} - \sigma$ are calculated over the whole past period for every estimation. For example, column (1) in Table 5 represents the estimation results for the period from 2008 to 2009, calculating $\bar{R} + \sigma$ and $\bar{R} - \sigma$ based on the past period (2008); column (2) represents the estimation results for the period from 2008 to 2010, calculating $\bar{R} + \sigma$ and $\bar{R} - \sigma$ based on the past period (from 2008 to 2009), etc. As shown in column (8) of Table 5, the estimated results are unaffected. Almost, the rest columns show the same results confirming that our results are not affected by other factors. Although pessimism factor is not significant in column (1) and (2), it can be seen that pessimism variable is still negative as predicted.

Table 5: Results calculating $\bar{R} + \sigma$ and $\bar{R} - \sigma$ based on past period

Trading volume	Expected signs	(1) T08_09	(2) T08_10	(3) T08_11	(4) T08_12	(5) T08_13	(6) T08_14	(7) T08_15	(8) T08_16
Overconfidence	+	4.4	3.4	2.9	2.8	2.2	5.8	6.8	5.8
		(0.210)	(0.257)	(0.279)	(0.314)	(0.348)	(0.141)	(0.105)	(0.143)
Optimism	+	16.5***	19.4***	22.7***	26.1***	29.8***	29.7***	31.9***	31.7***
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Pessimism	-	-0.4	-3.6	-6.3**	-8.4***	-8.8***	-9.6***	-11.2***	-11.1***
		(0.452)	(0.120)	(0.022)	(0.003)	(0.002)	(0.001)	(0.000)	(0.000)
War	-	-0.8***	-0.8***	-0.8***	-0.9***	-0.9***	-0.9***	-0.9***	-0.9***
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Constant	?	13.5***	13.4***	13.3***	13.2***	13.2***	13.1***	13.1***	13.1***
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Observations		481	728	974	1221	1462	1703	1946	2183
Adj. R^2		0.0459	0.0427	0.0455	0.0511	0.0551	0.0584	0.0549	0.0487
F-statistic		7.09***	7.67***	9.00***	13.78***	14.31***	26.24***	26.53***	26.66***
Prob > F		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Notes: As a robustness test, this table shows the estimated results, calculating $\bar{R} + \sigma$ and $\bar{R} - \sigma$ based on past period, to test the impact of behavioral factors and war on decision making under political conflict. The different time windows include 8 different periods (2008-2009, 2008-2010, 2008-2011, 2008-2012, 2008-2013, 2008-2014, 2008-2015 and 2008-2016). The OLS standard errors are corrected for heteroscedasticity and first-order order autocorrelation using the Newey–West procedure (HAC method). The reported p-values are based on two-tailed significance levels and on one-tailed levels when the prediction is directional. *, **, *** indicates statistically significant at 10%, 5%, and 1% respectively.

7. Conclusion

The current study aims to investigate the role of overconfidence, optimism, pessimism, and war on decision making in Palestine, where political conflict is present. The results of this study show that, under political conflict, optimism and pessimism are the suitable factors to explain the variation in trading when the return becomes abnormal, meaning that investors behave irrationally under such unusual environment. Consistent with Amihud and Wohl (2004), Rigobon and Sack (2005), and Hudson and Urquhart (2015), our study confirms the negative impact of war on decision making. In addition, war and pessimism represent the case of risk aversion since investors react negatively under war and when the return becomes negatively not normal. This study can help investors who seek a better understanding of investment in such financial markets before making their decisions. It implicates that, under war and pessimism, the volume of trade is expected to be reduced significantly. Therefore, we recommend investors to avoid trading during these conditions. On the contrary, investors are strongly recommended to trade when situations become more optimistic. In other words, our findings emphasize that investors must take into account war and the feeling of others decision makers as fundamental factors having influence on the market behavior under political conflict. Further, our findings

indicate that regulation body shall keep an eye on the role of behavioral factors and war on financial markets under political conflict in order to guarantee better supervision and control the main drivers of such financial markets. The present study is expected to extend the literature of behavioral finance as it support the notion that behavioral biases can play a considerable role in determining the decision-making strategies on one hand, and as it deals with a rare case of financial markets that operate under political conflict and have a special situation which is not commonly found in other normal financial markets in the world on the other hand. One limit of this study is that other behavioral factors (e.g., loss aversion, herding effect, and representativeness) are not considered in the current study. Another limitation is that our model only includes behavioral variables and war ignoring other explanatory variables that may have impact on trading volume. However, these limitations can be investigated in future research. In addition, the authors also recommend investigating the contribution of behavioral factors to explain the variation in trading volume in other countries suffering from instability.

References

Abeysekera, I. (2011). Civil war, stock return, and intellectual capital disclosure in Sri Lanka. Advances in Accounting, 27(2), 331-337.

Amihud, Y., & Wohl, A. (2004). Political news and stock prices: The case of Saddam Hussein contracts. Journal of Banking & Finance, 28(5), 1185-1200.

Baker, H. K., & Nofsinger, J. R. (2010). *Behavioral finance: investors, corporations, and markets*: John Wiley & Sons.

Billett, M. T., & Qian, Y. (2008). Are Overconfident CEOs Born or Made? Evidence of Self-Attribution Bias from Frequent Acquirers. *Management Science, 54*(6), 1037-1051.

Bracha, A., & Brown, D. J. (2012). Affective decision making: A theory of optimism bias. *Games and Economic Behavior, 75*(1), 67-80.

Conlin, A., Kyröläinen, P., Kaakinen, M., Järvelin, M.-R., Perttunen, J., & Svento, R. (2015). Personality traits and stock market participation. *Journal of Empirical Finance, 33*(Supplement C), 34-50.

Dhaoui, A. (2015). What Does Matter in Economy Today: When Human Psychology Drives Financial Markets. *Arab Economic and Business Journal, 10*(1), 39-47.

Dhaoui, A., & Khraief, N. (2014). Sensitivity of trading intensity to optimistic and pessimistic beliefs: Evidence from the French stock market. *Arab Economic and Business Journal, 9*(2), 115-132.

Dickinson, D. L., & Oxoby, R. J. (2011). Cognitive dissonance, pessimism, and behavioral spillover effects. *Journal of Economic Psychology, 32*(3), 295-306.

Fernandez, V. (2008). The war on terror and its impact on the long-term volatility of financial markets. *International Review of Financial Analysis, 17*(1), 1-26.

Gujarati, D. (2004). *Basic Econometrics* (Fourth ed.) New York: The McGraw–Hill Companies.

Hudson, R., & Urquhart, A. (2015). War and stock markets: The effect of World War Two on the British stock market. *International Review of Financial Analysis, 40*, 166-177.

Jacobsen, B., Lee, J. B., Marquering, W., & Zhang, C. Y. (2014). Gender differences in optimism and asset allocation. *Journal of Economic Behavior & Organization, 107*(Part B), 630-651.

Jarboui, S., Forget, P., & Boujelbene, Y. (2014). Transport firms' inefficiency and managerial optimism: A stochastic frontier analysis. *Journal of Behavioral and Experimental Finance, 3*, 41-51.

Lewellen, J. (2004). Predicting returns with financial ratios. *Journal of Financial Economics, 74*(2), 209-235.

Luong, L. P., & Ha, D. T. T. (2011). Behavioral Factors Influencing Individual Investors' Decision-Making and Performance A Survey At The Ho Chi Minh Stock Exchange (Master dissertation). Umeå University, Sweden.

Oprean, C. (2014). Effects of Behavioural Factors on Human Financial Decisions. *Procedia Economics and Finance, 16*, 458-463.

Oprean, C., & Tanasescu, C. (2014). Effects of Behavioural Finance on Emerging Capital Markets. *Procedia Economics and Finance, 15*, 1710-1716.

Otto, C. A. (2014). CEO optimism and incentive compensation. *Journal of Financial Economics, 114*(2), 366-404.

Pompian, M. (2006). Behavioral Finance and Wealth Management – How to Build Optimal Portfolios That Account for Investor Biases Hoboken, New Jersey: John Wiley & Sons.

Puri, M., & Robinson, D. T. (2007). Optimism and economic choice. *Journal of Financial Economics, 86*(1), 71-99.

Rigobon, R., & Sack, B. (2005). The effects of war risk on US financial markets. *Journal of Banking & Finance, 29*(7), 1769-1789.

Scott, W. R. (2009). *Financial Accounting Theory* (fifth ed.) Toronto: Pearson Prentice Hall.

Wood, M. S., Bradley, S. W., & Artz, K. (2015). Roots, reasons, and resources: Situated optimism and firm growth in subsistence economies. *Journal of Business Research, 68*(1), 127-136.