

# The Impact of Terrorism on the Tunisian Stock Market

Olfa Errais<sup>#1</sup>, Latifa Ziadi<sup>\*2</sup>,

<sup>#1</sup>LIGUE, ISCAE. University of Manouba, Tunisia

<sup>\*2</sup>ECSTRA, IHEC de Carthage. ISCAE, University of Manouba, Tunisia

<sup>1</sup>olfa.errais@gnet.tn

<sup>2</sup>latifaziadi@yahoo.fr

**Abstract:** Terrorism became a major geopolitical threat for financial markets. This phenomenon increases after the revolutions in Arab world. Terrorism impact is especially important in emerging economies like Tunisia. In fact, fear and uncertainty lead domestic and foreign investors to postpone their projects, causing the drop of stock prices and the issue of nonzero abnormal returns. Using the event study methodology, we aim to investigate the impact of six terrorist attacks occurred between February 2013 and November 2015, on Tunisian equity market behavior. Our results confirm negative effect of terrorist attacks on several sectoral indices. Cumulative abnormal returns are strongly significant within a window of 5 or 10 days. It involves that the Tunisian stock market is not enough resilient in order to absorb negative effect after terrorist attacks.

**Keywords:** Terrorism, Tunisian Stock Market, Sectoral Indices, Abnormal Returns, Event Study.

## I.INTRODUCTION

Stock exchange markets are subject to various extra-financial shocks such as wars, political change and natural catastrophes. Terrorism attacks are also events that affect market behavior and returns. They became a major geopolitical threat for financial markets. It slows down the economic activity, narrows foreign investments and threatens domestic investors. Terrorism has also a psychological impact on investors' behavior in terms of risk aversion and diversification strategy. Consequently, terrorism affects asset prices, returns and index evolutions.

Terrorism is defined as "premeditated, politically-motivated violence perpetrated against noncombatant targets by subnational groups or clandestine agents, usually intended to influence an audience" [1]. It aims to spread fear with social, political, economic and religious objectives and it's extremely unpredictable.

This phenomenon increases around the world, especially after Arab world revolutions. Indeed, terrorist activities have increased by 23% per year [2] between the 9/11 attacks and 2013. In 2014, the number of terrorist attacks reached a big peak of about 13000 events due to conflicts in MENA countries. In 2015, deaths due to terrorism dropped by 12 percent [3].

Terrorism impact is more important in emerging economies like Tunisia, because of political instability, social movements and economic recessions.

In fact, Tunisia became more concerned with terrorism after the revolution even if Ghriba synagogue bombing in 2002 was a very dramatically terror event. Indeed, several Tunisia-based extremist groups emerged since 2011, including Ansar Al Sharia (AST) and Al Queda in The Islamic Maghreb (AQIM). Nevertheless terrorism is not a new disease. It has arisen among poor and young people in urban marginalized areas. Unemployment and the lack of economic and social inclusion policies enhanced the issue of rigid religious and conservative groups.

Terrorism after the Arab spring revolution is deeply consolidated by the geographic proximity with Libya. Consequently, insecurity has grown up and Tunisia became a risky country. It has witnessed since 2011 more than seventy terrorist attacks according to the Global Terrorism Database. After the assassination of two political leaders in 2013, Chokri Belaid and Mohamed Brahmi, the bloodiest attack has happened on July 16, 2014 in Mont Chaambi near Algeria. 14 soldiers were killed and more than 20 were wounded. On March 18, 2015 two gunmen stormed the Bardo Museum in Tunis and killed more than 17 tourists. Later in the same year another terrorist attack occurred in Sousse and targeted tourist on beach. More than 38 tourists were killed and most of them

were British. These terrorist events subsequently harmed tourism sector and has prompted 50% percent cancellation of existing bookings to Tunisia, emptying hotels at the height other summer season. Tunisia's National Tourism Office estimated that about 85-90 percent of the over 800 registered hotels are already experiencing financial difficulties or are in the process of shutting down.

Tunisia has once again faced terrorism on November 2015 with the presidential bus bombing and in 2016 with Ben Garden attack which impeded economic straightness despite government measures to deal with extremism. In fact a new anti terror legislation has been adopted as a part of as counterterrorism strategy on July 2015. However Tunisia needs more struggle against terrorism in order to enhance economic and social development and face unemployment (15%), consumer prices rising (4.9%) and external and fiscal imbalances, as in [4]. Despite a slight positive growth of GDP in 2015 (0.8%), this performance is less than to make a dent in economic challenges and to restore investors confidence. The near outlook seems cloudy unless subsequent corrective measures are implemented.

In line with several studies ([5]-[7]), this paper aims to investigate the effects of terror shocks on Tunisian stock market. It focuses on six specific major terrorist incidents occurred between February 2013 and November 2015.

Using BVMT-Bourse des Valeurs Mobilières de Tunis- data between 2012 and 2015[8], we adopt the event study methodology, as in [5] and [9]. In this sense, we study the impact of these events on seven major sectoral indices.

The paper is organized as follows. Section 2 presents a short review of the relevant literature. Section 3 introduces the data description and the methodology followed by the empirical findings in section 4. Finally, section 5 concludes the paper.

## II. LITERATURE REVIEW

The effects of terrorist acts, whether human or economic, have induced researchers to study the reasons and the consequences of this phenomenon. This interest is developed since the New York 9/11 terrorist attack. Different areas have examined terrorist attacks but in Finance, most research is concentrated to study their effect on financial markets. In fact, terrorism influence revenues, firm benefits and stock prices and disturb the movement of financial capital.

Initially, some researches focus on short term effects of terrorism on financial market, and later others on long term

ones. The emphasis is about the long term. In fact, markets are able to absorb shocks due to the efficiency hypothesis ([10]).

Several studies have been focused to US stock market and the New York 9/11 attack. They consider the importance of the impact of this attack on US financial markets. Few of them expand researches to other countries and throughout time ([5], [11]).

Almost all of them want to know if terrorist attacks are correlated with significant negative abnormal returns. And, if so, how important is the reactions. Most of the papers found significant negative abnormal returns around the events.

Several studies ([5]-[7]) study the relation between stock market behavior and terrorism in both developed and emerging economies.

More proof of terrorism effect on financial markets is provided by impact studies. Reference [5] uses the event study methodology which shows the effects of 14 terrorist/military attacks since 1915 on US capital markets. They also investigate Iraq's invasion of Kuwait and the New York 9/11 terrorist attack on global capital markets. They found that global capital markets are interrelated and bad news expands fast with contagion effects. US capital markets are more resilient than in the past and have better ability to recover and absorb shocks from terrorist attacks than other global capital markets. This is due partly to the better stability of US banking/financial sector that provides enough liquidity to reduce panic and support stability.

Some researches analyze the long-term economic impact of terrorism, as in [12]. They focus on its economic consequences. They use an event-study analysis to show the effect of 75 terrorist attacks between 1995 and 2002 targeted 43 international firms around the world. They observe a negative stock price reaction of - 0.83% around the day of attacks. Furthermore, the effect of terrorist attacks varies according to firm's domicile and the country in which the attack take place. Wealthier Countries and more democratic ones are bound to bigger negative share price reactions.

Reference [7] extends their study to 25 countries over 11 years using diverse methods: event-study, non-parametric and GARCH-EVT methodologies. They examine the effect of terrorism on stocks, bond and commodity markets. They present how the best approach founded, the non-parametric one, can be used by investor's portfolio diversification strategies to face terrorism risk. About 2/3 of terrorist attacks

have significant negative effects on at least one stock market considered. The US one is afflicted by the lowest number of attacks while the Swiss stock market by the highest. The banking industry is the least sensitive by terrorism; however, the insurance and airline sectors are the most sensitive. So, if investors are concerned by the risk, they should hold assets that have little or no negative susceptibility to terrorism risk.

In order to analyze the effects of terror on higher moments of returns, a study uses a time-series framework for a multi-country sample ((Indonesia, Israel, Spain, Thailand, Turkey and UK), as in [13]. The empirical results suggest that, although the response to terror shocks varies across countries, there is evidence of statistically significant causality effects, both in mean and in variance, in all six countries under examination. They also conclude that the impact of terrorist incidents seems to be larger in emerging markets.

Reference [14] shows whether markets' reactions to terrorism have changed through time in regard to the size and the maturity of the UK and Greece markets. The event study methodology as well as the conditional volatility models used does not seem to point to any clear pattern. Both markets appear to react selectively, either in terms of returns or in terms of volatility, to terrorist incidents.

The empirical results of [9] find negative abnormal returns for the great part of sectors in Spanish markets, but not so in UK market. In fact, they investigate the impact of two terrorist attacks - Madrid 2004 and London 2005- on equity sectors by using GARCH model and event study methodology. They find that the financial market return is much faster for UK than for Spain, probably due to the size, liquidity and structure of those two markets.

To study the effect of terrorist impact on global capital markets, reference [15] focus particularly on the interactions between terrorism and trade for 63 countries. They show that stock index of a country faces a significant negative effect when the partner is assaulted by terrorism. When terrorism attack non-trading partner, there's no effect to national stock indices. Moreover, bigger economies are more resilient to terrorism than the small one. Terrorist attacks spread only from a greater trading partner to a smaller one.

Some researchers investigate the case of four European countries-France, Germany, Spain, and Great Britain-that have been the victims of significant terrorist activity, as in reference [16]. Their study addresses the issue of whether attacks have affected in any significant manner stock and

bond markets. Using VAR and GARCH models, they find out that terrorist attacks trigger a flight-to-safety effect primarily in France and Germany and to a smaller degree in Great Britain and Spain.

We conclude that terrorist attacks have large potential to impact negatively financial markets in a short and in a long term. The main challenge is to forecast the financial consequences of this global phenomenon.

### III. HYPOTHESIS DEVELOPMENT and METHODOLOGY

Stock market performance gives us an idea about the predictions of future returns. These attempts may be affected by bad or good news. In fact, bad news could have a negative impact on stock markets and good news will probably affect positively financial markets. Terrorist acts can be considered as bad news because they threaten investor reliance, as in [10]. Consequently, economic activity will slow down and train lower consumption and local or foreign investment activities, with increase of investor's risk aversion, as in [11]. Factors like consumption, investment and confidence may probably impact stock market. This effect may differ from great to poor economies where size, maturity and liquidity of markets are different, as in [14].

Our methodology is based on the hypothesis of the efficiency of capital markets, as in [17]. Reference [18] associate the efficient market hypothesis with the idea of a "random walk" which states that new informations, coming to the market on one day, are immediately reflected in stock prices in the same day. Then tomorrow's price change will reflect only tomorrow's news and will be independent of the price changes today.

In this sense, our empirical analysis is based on event study methodology. Among numerous methods of empirical investigation in economic and finance, event study methodology is very useful to assess market response to social, demographic or environmental changes resulting from an event. Precisely, event studies in the finance literature aim to test market efficiency by investigating abnormal returns on and around the event day. Therefore nonzero abnormal security returns that appear and last after a terrorist event are inconsistent with market efficiency. In fact, efficient markets should be able to absorb price movements and recover the equilibrium.

Consequently, our empirical analysis aim to test two research hypotheses:

H1: Terrorist attacks impact Tunisian stock market behavior.

H2: Terrorist attacks as bad news are associated with negative abnormal returns.

In our study we use both general and sectoral stock indices in order to assess the Tunisian capital market's reaction to six important terrorist attacks happened between 2013 and 2015 as shown in tables 1 and 2. Data are issued from The Tunisian Stock Exchange (BVMT) database.

BVMT is an order-driven market since 1997. At 2015 closing, stock market capitalization came to 17,830 million dinars with 78 listed companies including 26 banking and financial institutions. Continuous trading is the main mode of transacting and it is likely to favor immediate incorporation of new information into securities prices. Continuous transactions are achieved between 9 a.m. and 2 p.m. outside the summer season or Ramadan month. They are concluded between 8:30 a.m. and 12 a.m. between on July and August.

TABLE I  
INDICES DESCRIPTION

	DESCRIPTION
TUNINDEX	Fifty main market capitalization index
TUNINDEX20	Twenty main market capitalization index
INDBQ	Bank sector index
INDAS	Insurance sector index
INDSC	Consumer service sector index
INDIN	Industry sector index
INBMC	Building sector index

TABLE II  
SUMMARY of the TERRORIST EVENTS

EVENT	DESCRIPTION
02/06/2013 Belaid attack	Chokri Belaid, an opposition leader was fatally shot outside his house at 8:45 a.m.
07/25/2013 Brahmi attack	Mohamed Brahmi, an opposition member of the National Constituent Assembly was assassinated outside his home.
07/16/2014 Mont Chaambi attack	By night, Jihadist militants from the Uqba Ibn Nafi Battalion attacked two checkpoints in the Chaambi Mountains killing fourteen Tunisian soldiers and injuring twenty-five.
03/18/2015 Bardo attack	The Bardo National Museum in Tunis was attacked at midday by three militants of The Islamic State of Iraq and the Levant. Twenty-one people, mostly European tourists, were killed at the scene.
06/25/2015 Sousse attack	Thirty-eight people, most of whom were British, were killed in a mass shooting attack occurred at the tourist resort in the city of Sousse at midday.
11/25/2015 Bus attack	Twelve Tunisian presidential guards were killed in a bus bombing in Tunis at 17:00 p.m.

In accordance to the mean adjusted returns approach, as in [5], abnormal return on stock indices are calculated and tested,

as in [19], with the parametric Student's t-test. Significant abnormal returns involve that the terrorist event has an impact on the securities prices. Since terrorist events are bad news, we expect negative variations of the indices.

So daily returns of an index  $j$  on a day  $t$  is calculating by the following formula:

Then daily abnormal returns for an event day are computing as:

Where  $AR_{jt}$  is the abnormal return of the index  $j$  at time  $t$ .

$\mu_j$  is the mean-adjustment factor for daily return and is estimated over 20 previous days. The date of the event is  $t$ . The choice of the date depends on the time at which terrorist act has occurred. Precisely, if the terrorist attack has happened during the opening hours of Tunisian stock exchange, then the date of the event is the date of the attack. If not, the date of the event will be tomorrow's date.

is calculated as follows:

We also consider long term market behavior by investigating cumulative abnormal returns, denoted  $CAR_{jw}$ .  $w$  is the time period and it is often called event window ( $w = 5$  days or 10 days). So we compute the cumulative abnormal returns as follow:

We aim to examine how well the market reacts against bad news since uncertainties could persist and keep stock prices flopping.

#### IV. FINDINGS and DISCUSSION

According to our findings shown in tables III and IV, the terrorist attacks induced nonzero abnormal returns and nonzero cumulative returns. Most of them are negative except

for the presidential bus attack. Improbably, abnormal returns are positive and often significant after the bombing of the presidential bus. As shown in table III, event day AR, 5-days CAR and 10-days CAR are always negative for all stock indices for Belaid and Brahmi attacks. This means that stock returns decreased after these terrorist attacks and the decrease persisted even after 5 or 10 days. Nevertheless, event day AR are not statistically significant unlike 5-days CAR and 10-day CAR which are strongly significant for most of the market and the sectoral indices, except for INDIN and INBMC. On the contrary, 5-days CAR and 10-days CAR are negative and strongly significant for INDIN after Mont Chaambi and Sousse attacks. INBMC exhibits negative abnormal returns but not significant at three occasions. But 5-days (1.52%) and 10-days CAR (-3.1%) are strongly after the terrorist attack on Mont Chaambi.

Table III  
EVENT STUDY RESULTS  
for BELAID, BRAHMI and MONT CHAAMBI ATTACKS

	Belaid (02/06/2013)			Brahmi (07/25/2013)			Mont Chaambi (07/16/2014)		
	Event day AR	5-days CAR	10-days CAR	Event day AR	5-days CAR	10-days CAR	Event day AR	5-days CAR	10-days CAR
<b>TUNINDEX</b>	-3.84%	-2.89%	-4.27%	-1.70%	-1.60%	-2.10%	-0.17%	0.57%	0.09%
<i>t-stat</i>	(-1.27)	(-3.32)**	(-4.52)**	(-0.84)	(-2.17)*	(-3.36)**	(-0.38)	(-1.24)	(-1.45)
<b>TUNINDEX20</b>	-4.10%	-2.96%	-4.29%	-2.01%	-1.88%	-2.37%	-0.91%	-0.45%	-1.23%
<i>t-stat</i>	(-0.81)	(-1.98)	(-2.84)**	(-0.68)	(-1.09)	(-2.41)*	(-2.51)*	(-7.09)**	(-10.2)**
<b>INDBQ</b>	-3.10%	-3.45%	-4.90%	-1.23%	-1.52%	-3.23%	-0.17%	0.96%	0.47%
<i>t-stat</i>	(-2.35)	(-5.23)**	(-6.97)**	(-1.81)	(-5.28)**	(-7.47)**	(0.01)	(-0.21)	(0.51)
<b>INDAS</b>	-4.18%	-1.00%	0.91%	-0.97%	-0.81%	-0.40%	-0.09%	1.81%	2.13%
<i>t-stat</i>	(1.46)	(5.40)**	(10.5)**	(-0.14)	(-0.43)	(-1.05)	(1.61)	(4.42)**	(8.67)**
<b>INDSC</b>	-5.31%	-2.66%	-3.63%	-1.45%	0.45%	4.00%	-0.24%	-1.46%	-2.76%
<i>t-stat</i>	(-1.63)	(-4.23)**	(-6.68)**	(1.25)	(4.27)**	(5.42)**	(-2.56)*	(-5.97)**	(-8.03)**
<b>INDIN</b>	-4.29%	-1.37%	-3.68%	-3.03%	-2.62%	-2.68%	-0.23%	0.77%	-2.81%
<i>t-stat</i>	(0.05)	(0.90)	(0.83)	(0.35)	(1.08)	(1.49)	(-1.51)	(-4.74)**	(-7.04)**
<b>INBMC</b>	-4.52%	-1.50%	-3.68%	-3.32%	-3.10%	-3.21%	-0.35%	1.52%	-3.10%
<i>t-stat</i>	(0.14)	(1.11)	(1.19)	(0.36)	(1.12)	(1.47)	(-1.34)	(-3.96)**	(-5.93)**

\* Statistically significant at 0.05 level \*\* Statistically significant at 0.01 level

Table IV  
EVENT STUDY RESULTS  
for BARDO, SOUSSE and PRESIDENTIAL BUS ATTACKS

Index	Bardo (03/18/2015)			Sousse (06/25/2015)			Presidenti al Bus (11/25/2015)		
	Event day AR	5-days CAR	10-days CAR	Event day AR	5-days CAR	10-days CAR	Event day AR	5-days CAR	10-days CAR
<b>TUNINDEX</b>	-2.63%	-1.99%	-2.22%	-0.44%	-2.60%	-4.89%	0.38%	2.09%	3.19%
<i>t-stat</i>	(-1.08)	(-4.19)**	(-5.48)**	(-3.9)**	(-6.69)**	(-8.79)**	(5.08)**	(7.41)**	(9.16)**
<b>TUNINDEX20</b>	-2.03%	-2.09%	-1.77%	-0.04%	-0.51%	-1.28%	0.38%	1.79%	3.17%
<i>t-stat</i>	(-0.79)	(-2.24)**	(-3.66)**	(0.09)	(-0.39)	(-0.37)	(4.45)**	(7.52)**	(9.20)**
<b>INDBQ</b>	-1.93%	-2.43%	-3.22%	-0.25%	-1.83%	-2.17%	1.59%	4.23%	4.93%
<i>t-stat</i>	(-1.25)	(-3.55)**	(-7.88)**	(-0.84)	(-1.33)	(-1.71)	(4.66)**	(7.79)**	(8.71)**
<b>INDAS</b>	-2.55%	-0.81%	0.25%	-0.24%	-1.00%	-1.48%	0.53%	-1.28%	-3.07%
<i>t-stat</i>	(1.7)	(3.21)*	(4.14)**	(0.18)	(0.87)	(1.12)	(0.08)	(0.30)	(0.33)
<b>INDSC</b>	-1.50%	0.07%	2.18%	0.51%	1.30%	-0.15%	0.15%	0.98%	-0.58%
<i>t-stat</i>	(2.88)**	(4.81)**	(5.24)**	(-0.43)	(-0.21)	(-0.21)	(2.59)*	(5.06)**	(6.87)**
<b>INDIN</b>	-2.94%	0.36%	0.53%	-0.75%	-1.44%	-2.92%	0.06%	3.38%	2.01%
<i>t-stat</i>	(-0.27)	(-0.66)	(-1.46)	(-0.48)	(-2.79)**	(-3.03)**	(3.05)**	(5.15)**	(6.42)**
<b>INBMC</b>	-2.97%	1.09%	1.45%	-0.96%	-1.56%	-5.43%	0.19%	4.59%	3.14%
<i>t-stat</i>	(-0.05)	(0.03)	(-0.04)	(-0.86)	(-3.98)**	(-4.18)**	(2.84)**	(5.08)**	(6.56)**

\* Statistically significant at 0.05 level \*\* Statistically significant at 0.01 level

However, Bardo attack leads TUNINDEX and Industry sector Index (INDIN) to drop respectively by 2.93% and 2.94%. In particular, the first terrorist event, Belaid

assassination, has strongly affected the market behavior. Indeed, TUNINDEX was down 3.84% on the day event but the largest decrease in returns concerned the Consumer Services index (-5.31%). The Bank sector seems to better resist to the terrorist shock (-3.10%) even if negative effects are more important after 10 days (-4.9%). Our result is in accordance with [5]. They state that increased market resilience can be partially explained by a stable banking/financial sector that provides adequate liquidity to promote market stability and minimize panic.

On the other hand, the response of the market to Belaid attack is stronger than its reaction to Sousse event despite the importance and the economic consequences due to the second one. Indeed, all the indices decrease by less than 1% on the day event. However cumulative abnormal returns within 5 days (fig.2) and 10 days (fig.3) windows are more important and statistically significant. TUNINDEX lost 4.89% and industry sector show a decrease about 2,9%. The over reaction to the first event may be explained by investors pessimism about the political and economic situation during 2013.

In fact, due to the poor external demand and the global economic downturn, Tunisian economic growth decreased from 3.6% in 2012 to 2.9% in 2013. Unemployment was about 16% and Inflation reached 5.6 % at the end of the year. The price hikes affected mostly food items (7.8%). Consequently, investors either postponed their projects or withdrawn their capital, depriving the economy of thousands of jobs.

Our results are in accordance with [10]. They compare global market reaction to the September 11 and the Spain attack in 2004. They found that following the September 11 attacks, financial markets demonstrate resilience and a capacity to return to normality quickly, better than after the second attack. They concluded that unlike the events of 9/11, when global economy was downturn, the terrorist attacks in Madrid occurred when the world economy was growing strongly. The market uncertainty was more subsequent in the first case. International investors doubted about American firms to drive the global economy out of recession.

About the analysis of the market response to the presidential bus bombing, our results show that all sectoral indices display positive and significant abnormal returns on the event day except INDAS, the insurance sector index. In particular, Bank sector Index increased by 1.59% while TUNINDEX positive variation was 0.38%. In addition, the

cumulative abnormal returns are positive and significant. The issue of positive abnormal returns has been met in the literature. In fact, [7] highlight significant negative as well as positive impact of terrorist attacks on the aeronautic and defense, pharmaceuticals and biotechnological industries. Oil and gas sector also reveals these two types of impact. In fact, when dealing with terrorism risk, investors should consider diversifying their assets and take part of these sectors that are likely to react positively to terrorist attacks. As in [20], US industries react unevenly to terrorism. Following the 9/11 attack, airline, hotel and leisure industries exhibit negative abnormal returns while water, defense and telecom experienced positive returns.

In our case, positive response to the presidential bus attack in 2015 may be explained by higher stock market's performance in 2015 compared to 2014. In this sense, stock market capitalization came to 17,830 million dinars, up from 17,324 million at the end of 2014. This performance of 2,92% is mainly due to the capital increase for the Tunisian Banking Company and the Banque de l'Habitat. 746 million dinars have been injected to recapitalize the first one, and 110 million for the second one. In addition, the transformation of a leasing company into a universal bank, El Wifack, has drained 120 million dinars. Furthermore, two new listing companies were introduced on the Stock Exchange in June 2015. The main market on the Stock Exchange added the automotive firm: Universal Auto Distributors Holding (UADH).

On the other hand, foreign investors were exceptionally active in 2015. Their transaction volume has subsequently increased. Indeed, foreign investors' holdings reached a pick of 376 million of dinars in 2015 counter to 121 millions in 2014. So, foreign investors' share increased to 25,58% in 2015. There were a higher proportion of strategic participations and financial partnerships, with a view to participating in the development of a number of listed companies, at an international level.

## V. CONCLUSION

Stock exchange markets are subject to various shocks such as wars, political change, natural catastrophes and terrorism. This latest event may affect market behavior and returns, especially in emerging economy like Tunisia. This country became more concerned with terrorism after the revolution. This situation is associated to the emergence of Islamic groups and political instability in Libya.

In this article, we study the effects of terror shocks on Tunisian stock market. We focus on six specific major terrorist incidents occurred between February 2013 and November 2015. Using BVMT data between 2012 and 2015, we adopt the event study methodology to analyze the impact of these events on seven major general and sectoral indices.

Most of the terrorist attacks induced negative effects on the returns of all indices except the latest attack occurred on 11/25/2015. Improbably, abnormal returns are positive and often significant after the bombing of the presidential bus.

In particular, the first terrorist event, Belaid assassination, has strongly affected the market behavior. The Bank sector seems to better resist to the terrorist shock (-3.10%) even if negative effects are more important after 10 days (-4.9%).

On the other hand, the response of the market to Belaid attack is stronger than its reaction to Sousse event despite the importance and the economic consequences due to the second one. This may be explained by investor's pessimism about the political and economic situation during 2013.

Negative abnormal returns confirm our hypothesis about the negative impact of bad news. Precisely 5-days and 10-days negative abnormal returns are statically more significant. It involves that the Tunisian stock market is not enough resilient. The market response to bad events is slowly.

The positive response to the presidential bus attack in 2015 may be explained by higher stock market's performance in 2015 compared to 2014.

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