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Impact of Terrorism, Economic and Noneconomic Factors on PSX

ABSTRACT

This study investigates the impact of economic factors and noneconomic factors on the Pakistan Stock Exchange (PSX) from 2000 to 2017. Noneconomic factors in this study are terrorism and political system while economic factors are foreign exchanges rate, gold prices, and global financial stress. 5 models are developed and run to check the impact of individual factors explicitly. The finding of this study suggests that both economic factors and noneconomic factors have impact on PSX like terrorism significantly diminishes PSX returns. In democratic political system, investor feels confident which positively influences the PSX return. FX movement displayed negative significant relationship with PSX. Due to lack of education about the portfolio management, investors of PSX are not considering gold as risk diversifier. Global financial stress has substantially reduced PSX return confirming integration between PSX and global financial markets.

Keywords: *Terrorism, Political System, Foreign Exchange, Gold Prices, Global Financial Stress*

Impact of Terrorism, Economic and Noneconomic Factors on PSX

The vulnerability of stock market is a crucial issue since the beginning of 21st century, where enormous fluxes observed throughout the world especially in developing economies due to a different kind of economic and noneconomic factors like political crises, economic problems, financial concerns, currency crunches and most obvious one is terrorism. The sudden surge in civilian-based attack observed throughout the world targeting individuals from the various field of life apart from military targets (see figure 1). Such attacks affect the country's national economy and at the same time their spillover effects also observe on the integrated economy (Cherif, 2020; Drakos, 2010;

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Markoulis & Katsikides, 2018; Mohamed, Jebli, & Youssef, 2019) which can be witnessed by decrease in the US investment by 0.2%, resultantly decreasing in demand for import by US. According to IMF direct cost suffered by the US from 9/11 attacks only is about $ 21.6 billion. A human capital loss of $ 40 billion while, property loss ranges between 10 to 13 billion dollars (Makinen, 2002). Due to terrorist incident an average loss of $401 million in market capitalization suffered by US firm which is either increase or decrease due to location and political condition of a country (Karolyi & Martell, 2006).

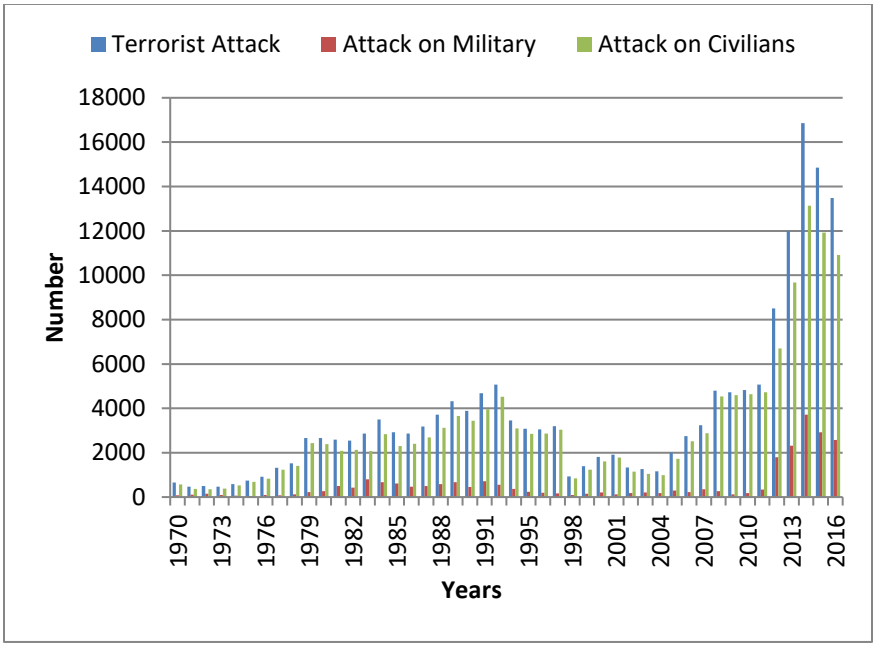

Figure 1: Historical Overview of Classification of Terrorist Attacks in Pakistan
Source: Global Terrorist Database 2017

Furthermore, Krugman (2004) highlights three types of costs associated with terrorism. First, infrastructure damage cost due to terrorist activities. Second, government expenses as counter-terrorism measures. Third, cost bear by common public due to strong counter-terrorism measures e.g. waiting line on security checkpoints. However, several indirect costs associated with terrorism, which have severe impact more than direct costs like risks, exports, production and growth (Brück & Wickström, 2004). Various studies confirm that terrorism reduces country's economic soundness by damaging physical, infrastructure and human resources. (Abadie & Gardeazabal, 2003, 2008; Blomberg, Hess, & Orphanides, 2004; Danzell, Yeh, & Pfannenstiel, 2019;

Eckstein & Tsiddon, 2004; Fareed, Meo, Zulfiqar, Shahzad, & Wang, 2018; Gaibulloev & Sandler, 2008; Malik & Zaman, 2013; Mohamed et al., 2019; Nasir, Ali, & Rehman, 2011; Sandler, 2005; Sandler & Enders, 2008) with increase resource reallocation towards defence-related projects that ultimately increase expenditures (Nasir et al., 2011; Nasir & Shahbaz, 2015). Increase in uncertainty results in reduction in foreign investment and trade-related activities (Christofis, Kollias, Papadamou, & Stagiannis, 2013; Eldor & Melnick, 2004). It hurts investors (foreign and domestic both) confidence which increases capital flight and confirmed negative performance of financial market (Eldor & Melnick, 2004).

Moreover, stock market stability is very important for economic growth and development. Various factors like financial market variations, economic adjustments and surprise events effect (majorly noneconomic in nature) determine stock market (Chaudhry, Roubaud, Akhter, & Shahbaz, 2018; Nelson, 1991). To bring stability in equity market forecasting is the key (Aksoy & Demiralay, 2019; Bekiros, Gupta, & Kyei, 2016). However, due to inbuilt reliance of financial markets, macroeconomic factors, political conditions of a country and financial uncertainty along with the occurrence of unexpected events, effective and efficient forecasting is very difficult.

Covering the surprise factor, impact of terrorism on stock market is examine in various studies like Chen and Siems (2004), Eckstein and Tsiddon (2004), Eldor and Melnick (2004), Johnston and Nedelescu (2006), Sandler and Enders (2008), Arin, Ciferri, and Spagnolo (2008), Karolyi and Martell (2010), Peleg, Regens, Gunter, and Jaffe (2011), Chesney, Reshetar, and Karaman (2011), Kumar and Liu (2013), Christofis et al. (2013), Valls and Chuliá (2014), Aslam, Kang, Mohti, Rafique, and Salman (2015) , E. Apergis and Apergis (2016), Afik, Lahav, and Mandelzweig (2016), Markoulis and Katsikides (2018) and Balcilar, Gupta, Pierdzioch, and Wohar (2018). However, out of these studies few focuses on the developing markets which are mainly affected by terrorism. Studies like King and Wadhwani (1990), Fernandez (2006), Arin et al. (2008), Ferreira and Laux (2009), Walid, Chaker, Masood, and Fry (2011), Aslam (2014),Mnasri and Nechi (2016), Javaid and Kouser (2018), Aksoy and Demiralay (2019) and Zakaria, Jun, and Ahmed (2019) examine the impact of terrorism on stock market. Results confirm the negative impact of terrorist attacks on stock market while increasing the volatility in both developed and emerging economies. But obviously the severity is high in emerging economies.

Similarly, an vibrant political system creates political risks which form bottleneck condition for future investment as well as increase the deinvestment that eventually reduce economic growth and development that is depicted with poor stock market performance (Javaid & Kouser, 2018; Khan, Baig, Usman, Shaique, & Shaikh, 2017; Kobbi & Abdelhedi, 2018; Maura, 1968;

MengYun et al., 2018; Moszoro, 2019; Nazir, Younus, Kaleem, & Anwar, 2014; Pástor & Veronesi, 2013; Ul-Hameed, 2018).

Furthermore, movement in other financial markets like foreign exchange (FX) and gold markets also affect the stock market. (Bala Sani & Hassan, 2018; Fratzscher, Gloede, Menkhoff, Sarno, & Stöhr, 2019; Javaid & Kouser, 2018; Kanas, 1999; Ma & Kao, 1990; Tursoy & Faisal, 2018; Walid et al., 2011). FX movements initiated economic and transaction risk which affect stock market by creating hindrance in current and future investment ventures. Similarly, gold prices movement affects economic health of a country. Increasing gold prices relocate investment towards gold from financial securities (Albalate, Bel, & Elias, 2012; Baur & Lucey, 2010; Fratzscher et al., 2019; Raza, Shahzad, Tiwari, & Shahbaz, 2016).

Besides that Bekaert and Harvey (2003) explain that due to different trade ties, investment portfolios, investor attitude, memorandum of understanding, cultural similarities and strategic business alliances link the economies with an unseen thread that develop a global network. Due to this network whenever there are fluctuations either economic or noneconomic or both in any market (majorly developed one) then its financial influence in the form of either positive or negative stress effect the integrated economies. This stress country's economic and business operations are affected at different pace, which is evident on their stock market (Aboura & van Roye, 2017; Balakrishnan, Danninger, Elekdag, & Tytell, 2014; Cardarelli, Elekdag, & Lall, 2011; Din, Regupathi, Abu-Bakar, Lim, & Ahmed, 2020; Grima & Caruana, 2017; Kocaarslan, Soytas, Sari, & Ugurlu, 2018; Ul Din, Abu-Bakar, & Regupathi, 2017).

A clear research gap is evident from the past researches that there is no comprehensive study to investigate the impact of terrorism, economic and noneconomic factors on stock market of a country specially the emerging economies (Aslam, 2014; Aslam & Kang, 2013; Aslam et al., 2015; Chaudhry et al., 2018; Danzell et al., 2019; Javaid & Kouser, 2018; Markoulis & Katsikides, 2018; MengYun et al., 2018). This paper is going to fill this gap and it is from existing literature in various aspects. Firstly, this study for the first time considered terrorism, economic and noneconomic factors like political system, FX market, gold prices and global financial stress. Secondly, previous studies focus only on common types of terrorist attacks which signify the importance of target and geographical location of attacks only, in both developed and emerging economies along with considering few macroeconomic variables. However, this paper comprehensively considers the new dimension of terrorism based on responsibility of event claimed by an organization [i.e. political parties, religious parties, separatist organization and unknown (unclaimed)]. Thirdly, 5 different regression models explain the

individual contribution of each terrorism type, economic and noneconomic factor in affecting PSX. It helps the policymakers to priorities factors while devising a policy to get profound results.

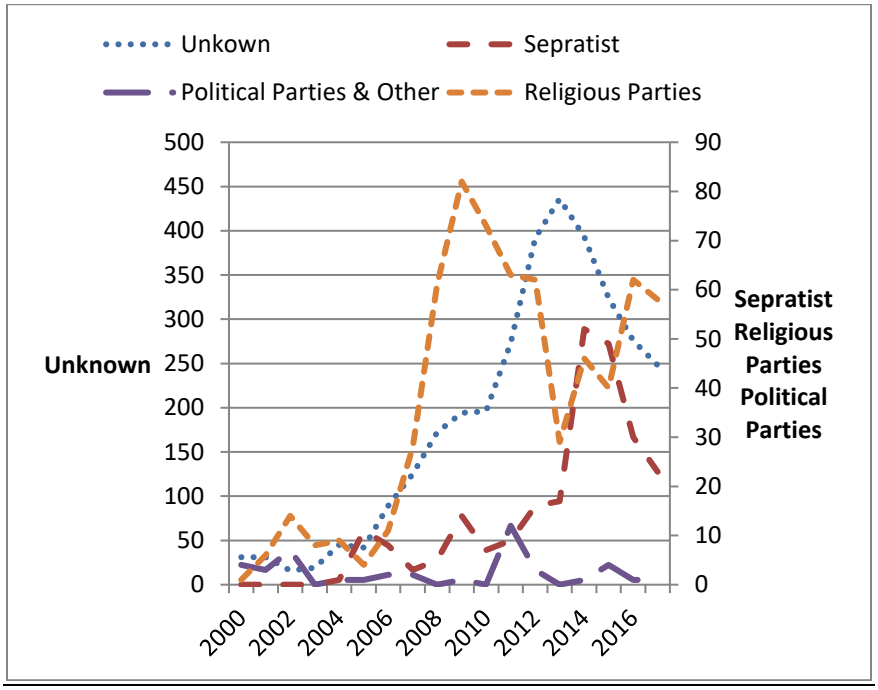

Figure 2: Types of Terrorist Attacks in Pakistan
Source: Global Terrorist Database 2017

Terrorism in Pakistan

With issues like trembling political system, foreign exchange rates, gold prices and global financial stress faced by Pakistan made Pakistan a profound country to be studied for such problem. Moreover, 9/11 attacks all together change the dynamics of the Pakistan's economy. As a frontline state in war against terrorism but severely affected by the terrorist attacks as repercussion. Pakistan is considered as fifth most affected country from terrorism (GTD, 2017). Figure 2 confirmed that different non-state actors [like separatist organization, religious organization, political parties and those who remain in the shadow of anonymity (i.e. unknown)] are actively involved in terrorist activities with increasing pace over the time. It results in almost $102.5 billion with average $42.5 billion loss only in financial market operations

(Fahad, 2015). Each attack on average reduce 0.32% of stock return(Aslam & Kang, 2013). FDI, domestic investment and economic growth is reduced by 0.104 %, 0.039% and 0.002% with increase in terrorism (Zakaria et al., 2019).

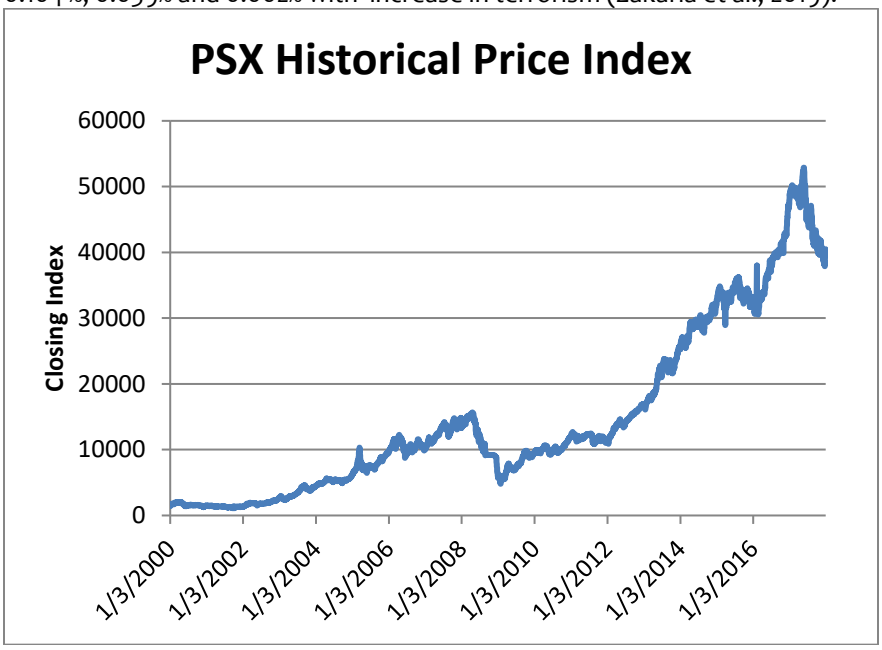

Figure 3: PSX Historical Price Index
Source: www.psx.com

Literature Review

After 9/11 terrorist attack paradigm shift observed globally, specially in research. However, main focus of these studies remain only on developed economies and stock markets. Chen and Siems (2004) confirm negative impact of terrorist attack on US stock market. However, market has built-in mechanism overtime to absorb such shocks. Eldor and Melnick (2004) classify terrorist attacks based on location, target of attack, attack type and target city type to investigate the impact on foreign exchange and capital market of Israel. It is confirmed that suicide attacks, the number of killing and injuries negatively affected the market and terrorism has permanent effect on stock market. While liberalization increases financial markets efficiency (Eldor & Melnick, 2004). Johnston and Nedelescu (2006) use event study approach to investigate the impact of New York (2001) and Madrid (2004) on financial

markets around the globe. Karolyi and Martell (2006) study 75 terrorist attacks on publicly traded firms and confirm that firm suffer $401 million loss due to terrorist attack. Israeli stock market show similar results due to severity and intensity of suicide attacks (Peleg et al., 2011). Kollias, Papadamou, and Stagiannis (2011) claim and proved that terrorism has short live impact on market through sectorial analysis. Kumar and Liu (2013) probe 63 international equity markets due to terrorism using event study and logit model. It is confirmed that 2.5% negative impact on stock return in small economy due terrorism-related spillover from big economy. Ramiah and Graham (2013) explain that for developing economy domestic terrorism has severe negative effect then foreign terrorism.Aslam et al. (2015) study five Asian stock markets and confirm that bombing in any way prove lethal. However, increasing number of deaths and injuries result in the negative movement of stock market. Similar results observed in study by Afik et al. (2016). However, terrorist attack has heterogeneous impact from industry to industry basis like it boast abnormal returns in defense sector firms (E. Apergis & Apergis, 2016, 2017; N. Apergis, Bonato, Gupta, & Kyei, 2017; Balcilar et al., 2018; Hobbs, Schaupp, & Gingrich, 2016; Markoulis & Katsikides, 2018). Furthermore, it is also confirmed that stock markets developed a mechanism over the period of time to absorb these negative effects in an efficient way (Markoulis & Katsikides, 2018).

Terrorism has worse impact on developing economies(Arin et al., 2008). However, least consideration has been given to evaluate the impact of terrorism on these economies. Like in Pakistan, Khokhar (2007) and Asal, Fair, and Shellman (2008) stressed the issue of terrorism. Chughtai (2013), Malik and Zaman (2013), Anwar and Afza (2014) and Hyder, Akram, and Padda (2015) investigate macroeconomic concerns due to terrorism. While, Gul, Hussain, Bangash, and Khattak (2010) use dummy regression analysis and confirm negative impact of terrorism on stock market of Pakistan. Similar results reported by Qaiser, Sohail, Liaqat, and Mumtaz (2012). However, this negative impact of terrorism varies from company to company (Aurangzeb & Dilawer, 2012). A long-run relationship confirm by Alam (2012) between terrorism and PSX using Vector error correction model (VECM). Alam (2012) use annual data of various economic variables along with Terrorism impact factor (TIF). Aslam and Kang (2013) reject Alam (2012) claim using dummy regression analysis on 300 terrorist attacks and confirm short-lived impact of terrorism. However, Arif and Suleman (2014) further extend the research of Alam (2012) and endorse long term association. It is confirmed that severity and intensity of any terrorist incident has potential to fluctuate the stock prices in a different way across the sectors. Similar results observed by Hassan, Mahmood,

Ahmed, and Abbas (2014) using event study approach. MengYun et al. (2018) confirm the negative impact of terrorism and political uncertainty on firm equity premium in Pakistan. FDI, domestic investment and economic growth is reduced by 0.104 %, 0.039% and 0.002% with 1 % increase in terrorism (Zakaria et al., 2019).

Furthermore, problem of political instability has negative impact on the stock market returns and make it more volatile (Diamonte, Liew, & Stevens, 1996). Chan and Wei (1996) confirm that positive political event has positive relationship with stock market. Aggarwal, Inclan, and Leal (1999) evaluate the reason behind major shift in emerging markets returns and confirm that political uncertainty is the root cause. Laverde, Varua, and Garces-Ozanne (2009) claim that political insecurity diminish all kind of market activities including decline in trading volume. Chau, Deesomsak, and Wang (2014) confirm that stock market returns are affected due to political system changes. However, this effect varies from conventional market indices to Islamic market indices basis. In Pakistan, Arzoo (2011) confirm the negative impact of political unrest on PSX returns. However, Nazir et al. (2014) prove that this negative impact was for short term only. Market has developed a mechanism self-mechanism to restore in 15 days after the occurrence of any political event. Similar results is reported by Anwar and Afza (2014). MengYun et al. (2018) ratify that democratic system and government stability increased firm equity premium in PSX.

Moreover, investment in gold consider as a safe haven for investors (Baur & Lucey, 2010). Blose and Shieh (1995) investigate the nature of association between gold prices and stocks of gold mining companies. They find positive association between these two. However, gold is considered as attractive substitute for investors because it protect investor purchasing power so considered as inflation hedging tool (Baur & McDermott, 2010). It is confirmed that increase in gold prices has positive impact on the emerging stock market prices in short-run (Baur & McDermott, 2010). Rejecting the claim that gold as a safe haven for investors specially for emerging economies(Baur & McDermott, 2010). Arouri, Lahiani, and Nguyen (2015) confirmed that gold is risk diversifier for Chinese stock portfolios during the recent global financial crisis confirming the results of Baur and Lucey (2010). Raza et al. (2016) further extended the study of Baur and McDermott (2010) and prove that not just in short-run but in long run also gold is not a diversifier for investors. While, negative relationship both in short and long run flowing from gold prices to stock prices is confirmed by Tursoy and Faisal (2018).

Adoption of floating exchange rate system increases the importance of foreign exchange (FX) market. Ma and Kao (1990) find the relationship flowing from FX to stock market. Changes in FX rates prompt two kinds of exposures i.e. transaction and economic exposures. These exposures directly affect stock market of a country (Ma & Kao, 1990). Abdalla and Murinde (1997) confirm that unstable and vibrant economic policies over time is the reason behind FX changes in emerging economies. However, investors holding portfolios can diversify these risks (Kanas, 2000). This inter-market linkage either in developing or developed economies depends on different factors like trade volume, market rules, FX regimes and portfolio formation (Pan, Fok, & Liu, 2007). Rahman, Sidek, and Tafri (2009) observed relationship flowing from FX rates and Malaysian stock market while Aydemir and Demirhan (2009) study Turkish stock market and endorse a bidirectional relationship. However, in Mexican market only short-run relationship exist flowing from FX market to stock market (Kutty, 2010). Walid et al. (2011) confirm Pan et al. (2007) results after studying four emerging markets and prove asymmetric response of Stock markets due to FX changes. This relationship is regime dependent.

Financial turmoil in developed countries introduce financial stress in financial system which transfer toward emerging economies due to market contagion that effect emerging stock market performance (Mukherjee & Mishra, 2005). Market contagion had two types i.e. Fundamental and investor behaviour-based contagion (Forbes & Rigobon, 2002; Masson, 1998). Former based on trade and financial linkage while letter based on risk attitude of global investors (Bekaert, Ehrmann, Fratzscher, & Mehl, 2014; Forbes & Rigobon, 2002). Cardarelli et al. (2011) prove that financial stress affects the economy in a different way because of interplay between both types of contagion. However, Balakrishnan et al. (2014) ratify that fundamental factors are more important than investor based contagion factors because transmission of financial stress is based on financial links. Those emerging economies with more financial debt from developed economies are more affected due to financial stress then those with less financial debt (Balakrishnan et al., 2014). Kocaarslan et al. (2018) endorse results of Balakrishnan et al. (2014). US and BRIC economies are affected differently from financial stress, oil prices and gold price changes due to financial contagion in these economies.

From the above-mentioned literature, it is clear that a study is required to investigate the how PSX is affected by both economic and noneconomic variables.

Data & Methodology

Augmented multifactor model is used to examine the impact of both economic and noneconomic on the stock market.

$$R_{PSE,t} = \beta_0 + \beta_1 RPT_t + \beta_2 PPT_t + \beta_3 SPT_t + \beta_4 UKT_t + \beta_5 PS_t + \beta_6 FX_t + \beta_7 GR_t + 7FS_t + \in_t \quad (1)$$

$$R_{PSE,t} = ln(SP_t/SP_{t-1}) \quad (2)$$

$$R_{FXt} = \ln(FX_t/FX_{t-1}) \quad (3)$$

$$R_{GPt} = \ln(GP_t/GP_{t-1}) \quad (4)$$

$R_{PSE,t}$ is daily stock return at 't' day. This return is measured using equation 2 of Brown and Warner (1985). SP_t is closing price of stock market at day t while SP_{t-1} is closing price of stock market one day before t day. Time period of the study is from 2000 to 2017 because with start of new millennium a sudden surge is observe in the terrorism in Pakistan (see figure 1). Frequency of data is on daily basis. Pakistan stock market (PSX) index data is collected from PSX historical database. In equation 1, β_0 is intercept while β_1 to $\beta_7$is slope of independent variables.

There are seven independent variables in this study. First is religious organization terrorism (RPT) which get its value 1 when a terrorist attack responsibility claimed by any religious organization and zero otherwise. Second is political party terrorism (PPT) which get its value 1 when a terrorist attack responsibility claimed by any political party and zero otherwise. Third is separatist party terrorism (SPT) which gets its value 1 when a terrorist attack responsibility claimed by any separatist party and zero otherwise. Fourth is unknown terrorist (UKT) which get value 1 when no one claim the responsibility of the attack and zero otherwise. Terrorism related data is collected from is Global Terrorism Database. However, if multiple events take place on a single data in each category then it is treated as single event. Along with that if event take place after market hours i.e. 3:30 pm on any day and on weekends then its effect is considered on next day. Fourth is political system (PS) which gets its value 1when democratic political system restored in Pakistan and zero otherwise.

Fifth is foreign exchange (FX) return, calculated using equation 3. R_{FXt} is FX return on t-day. FX_t is closing foreign exchange price on t-day while FX_{t-1} is closing foreign exchange price on t-1 day. FX data is collected from Business Recorder. Sixth is gold return (GR) is calculated using equation 4. $R_{GP,t}$ is gold return on t-day while GP_t is losing gold price on t-day and GP_{t-1} is closing gold price at one day before t-day. GP data is collected from mercantile exchange.

Last variable is financial stress (FS) collected from global financial stress index (GFSI). It is index measured by Bank of America Merrill Lynch. Its value equal to zero means no financial stress. Any fluctuations either on positive or negative side means more or less financial stress.

Results & Discussion

Descriptive Statistics

Table 1 shows the descriptive statistics of stock return, gold return, FX return and global financial stress. Stock return (PSX) average value is 0.0709%. The return value fluctuates from - 4.810% to 4.953% which show reasonably high variation that is confirmed with 0.013833value of standard deviation. Gold return has average value 0.0308% withstand deviation of 0.011026. It confirms high fluctuations between -9.5962% and 6.8414%. Similarly, FX return has mean value of 0.0163% with standard deviation of 0.003144. However, global financial stress has mean value of 67.72% with highest standard deviation of 4.658704 which confirms very high fluctuation of stress numbers between -5.334000 and 29.32000.

Unit Root Test

Table 2 shows the results of Augmented Dickey-Fuller (ADF) unit root test. It is confirmed that all the variables except global financial stress are stationary at level when tested without trend and intercept, with intercept only and with trend only. However, global financial stress is stationary at 1st difference when tested with intercept only and with trend only.

Table 1
Descriptive Statistics

	Stock Return	Gold Return	FX Return	Global Financial Stress
Mean	0.000709	0.000308	0.000163	0.677211
Median	0.000710	0.000080	2.00E-05	0.679210
Maximum	0.049530	0.068414	0.011280	29.32000
Minimum	-0.048100	-0.095962	-0.010960	-5.334000
Std. Dev.	0.013833	0.011026	0.003144	4.658704

Table 2: Unit Root							
		t-stat	Prob			t-stat	Prob
Stock Return	Intercept	-60.7682	0.0001	**Separatist**	Intercept	-18.1189	0.0000
	Intercept & Trend	-60.8168	0.0000		Intercept & Trend	-65.3189	0.0000
	None	-60.6337	0.0001		None	-16.3746	0.0000
Forex	Intercept	-78.9965	0.0001	**Religious Party**	Intercept	-11.7081	0.0000
	Intercept & Trend	-78.9881	0.0001		Intercept & Trend	-44.6359	0.0000
	None	-78.7676	0.0001		None	-8.68099	0.0000
Gold Return	Intercept	-69.2721	0.0001	**Political Party**	Intercept	-61.008	0.0001
	Intercept & Trend	-69.2759	0.0000		Intercept & Trend	-61.0114	0.0000
	None	-69.2795	0.0001		None	-60.7236	0.0001
Global Financial Stress	Intercept	-2.40877	0.1393	**Unknown**	Intercept	-3.8211	0.0027
	1st Difference Intercept	-72.4841	0.0001		Intercept & Trend	-14.3159	0.0000
	Intercept & Trend	-2.54768	0.3049		None	-2.01362	0.0422
	1st Difference Intercept & Trend	-72.477	0.0001	**Democracy**	Intercept	-68.5055	0.0001
	None	-2.42298	0.0149		Intercept & Trend	-68.5192	0.0000
					None	-68.4982	0.0001

Correlation Analysis

Results from correlation analysis confirmed that negative correlation exits between PSX returns and its determinants except democracy. However significant (at 5%) negative results are confirmed with unknown terrorism, FX returns and global financial stress only. It means whenever there is increase in terrorism specially those terrorist attacks which are unclaimed by anyone at that times PSX return decreases. Figure 2 confirms that out of all four types of terrorist types unknown/unclaimed terrorist attacks are rapidly growing in numbers over the period of times. Similarly, whenever, return in FX market increases at that times investors reallocate their invested capital in FX market from PSX to reap that benefits which results in decrease in PSX returns. However, this negative movement is reduced because normally investors hold portfolios which diversify the negative effect. Furthermore, when there is increase in global financial stress its effects due to market integration phenomena affect the domestic economy of Pakistan. Along with that global financial stress has positive association with political party terrorism and religious party terrorism. While it is negatively associated with democratic form of government and unknown terrorism.

Table 3: Correlation Analysis

	Stock Return	Gold Return	FX Return	Global Financial Stress	Democracy	Political Party Terrorism	Unknown Terrorism	Separatist Terrorism	Religious Party Terrorism
Stock Return	1.000000								
Gold Return	-0.000111	1.000000							
FX Return	-0.03279**	0.004762	1.000000						
Global Financial Stress	-0.05447**	-0.009893	0.03466**	1.000000					
Democracy	0.011930	0.019422	-0.012329	-0.34418***	1.000000				
Political Party Terrorism	-0.017436	0.014012	0.007107	0.03393**	-0.049774**	1.000000			
Unknown Terrorism	-0.02902**	-0.001593	-0.003636	-0.06271**	0.304254**	-0.04012**	1.000000		
Separatist Terrorism	-0.024516	0.002240	0.007945	-0.059899	0.076838**	-0.01316	-0.156687**	1.000000	
Religious Party Terrorism	-0.008844	-0.007849	0.001304	0.09603**	0.109570**	-0.00255**	-0.270888**	-0.05655**	1.000000

Regression Analysis

Table 4 shows the results of regression analysis. Model 1st explain the overall effect of the variables on PSX returns. F statistics is significant with Durbin Watson value is 1.7748 confirming no problem of autocorrelation. Variance inflation factor (VIF) confirms no multicollinearity problem in the model. Figure 4 shows that residuals distribution. Jarque-Bera statistics confirm the normality of residuals. It is confirmed that generally all types of terrorism reduce PSX returns except political party terrorism (PPT). However, political party's militancy is quite active in recent past specially in big cities of Pakistan. Because to secure their image these parties never claim the responsibility of any event or hire contractors (sleeper cell professionals). This is the reason PPT has insignificant impact on the PSX return.

Model 2 only shows the impact of four types of terrorism on PSX return. Both separatist and unclaimed terrorist attacks significantly reduce PSX return. Model 3 is extension of model 2 with inclusion of gold return which shows insignificant impact on the PSX return. However, Model 4 and 5 confirm that FX fluctuations and GFS both significantly reduce PSX return. All variables appear with anticipated signs with highly significant F-statistics confirming model fitness.

Discussion of Results

Religious party terrorism significantly reduces PSX performance. It covers sectarian violence. Workers of these organizations attach religious sentiments even with the violent practices and consider it as a source to get heaven in the life hereafter. Separatist parties practicing violent activities also have negative significant effect on PSX returns. It is quite evident in Balochistan province of Pakistan where several separatist organizations developed an independent army to enforce their agenda. They use whatever possible way to create hurdle in various business operations that hurt overall economy of the country as depicted by PSX negative performance. However, when no one claims the responsibility of violent activity then it has significant negative impact on the PSX return. It rejects the organizational approach of terrorism, which claims that terrorist work like an business firm with an objective to position in the mind of people (Özdamar, 2008). In this case no one knows who performed these attacks, how much they are capable off, what are their objectives and how to counter them? All these needs answer while increasing trend in unclaimed attacks further intensifies its effect in future. Magnitude of terrorism types show that separatist terrorist attacks prove lethal from all others while unclaimed terrorism comes at second place. The mean reduction in PSX due to separatist terrorism is about 0.00292 while

unclaimed terrorist attack reduces average PSX return by 0.00152. Religious party terrorism comes at third place with PSX mean reduction by 0.00142.

PSX performance displays a significant positive reaction against inception of democratic form of government in Pakistan. Investors believe that elected people devices public friendly policies which increase investment, jobs and businesses along with growth and development activities. As a results of which commencement of democratic form of government improves PSX performance (Lehkonen & Heimonen, 2015; Nazir et al., 2014). However, FX market returns has significant negative impact on PSX returns. It confirms the linkage between these two financial markets. Investor hold portfolios so the effect of these fluctuations is reduced. However, no linkage proved between PSX and gold market and it is also confirmed that investment in gold is not risk diversifier in Pakistan (Raza et al., 2016). GFS has significant negative impact on PSX returns. It means that Pakistan's economy is linked with global financial markets. If any event takes place globally which has either direct or indirect effect on global financial markets then its contagion effect will be observed on PSX as well (Balakrishnan et al., 2014; Cardarelli et al., 2011; Kocaarslan et al., 2018). Government needs to device such policy implication to protect investor and economy by attracting and retaining current and potential investors.

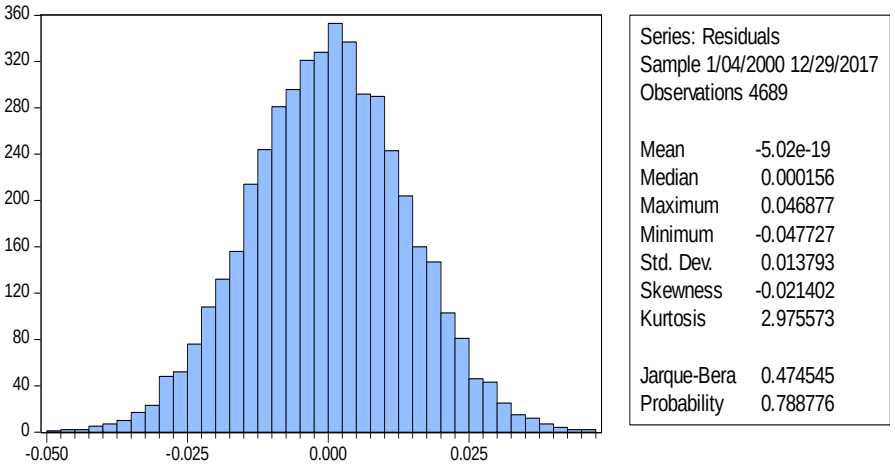

Figure 4: Residual Normality Test

Variable	Model 1	VIF	Model 2	Model 3	Model 4	Model 5
C	0.00113** (2.17755)	----------	0.00139*** (4.60842)	0.00139*** (4.60915)	0.00141*** (4.68229)	0.00141*** (4.67805)
Political Party Terrorism	-0.003436 (-1.23926)	1.00726	-0.00372 (-1.34029)	-0.00371 (-1.33836)	-0.00367 (-1.32285)	-0.00364 (-1.31433)
Unknown Terrorism	-0.00152** (-3.2894)	1.295613	-0.00113** (-2.63623)	-0.00113** (-2.63648)	-0.00113** (-2.64580)	-0.00115** (-2.68295)
Separatist Terrorism	-0.00292** (-2.45224)	1.063580	-0.00257** (-2.17927)	-0.00257** (-2.17968)	-0.00255** (-2.16290)	-0.00252** (-2.13836)
Religious Party Terrorism	-0.00142* (-1.88921)	1.150607	-0.00098 (-1.3370)	-0.00105 (-1.42709)	-0.00104 (-1.42414)	-0.00106 (-1.43923)
Gold Return	0.000644 (0.03498)	1.002330		-0.00020 (-0.01130)	7.12E-05 (0.00387)	0.00161 (0.08777)
Forex	-0.13949** (-2.17448)	1.000956			-0.14264** (-2.22415)	-0.14133** (-2.20257)
GFS	-0.00113** (-2.18028)	1.003206				-0.00113** (-2.17755)
Democracy	0.00130** (2.15183)	1.184445				
R-squared	0.005547	----------	0.002479	0.002503	0.003560	0.004563
Adjusted R-squared	0.003847	----------	0.001628	0.001439	0.002284	0.003074
F-statistic	3.26298	----------	2.913728	2.351961	2.789689	3.065255
Prob(F-statistic)	0.001031	----------	0.020214	0.038396	0.010388	0.003197
DW stat	1.774826	----------	1.764218	1.763577	1.764911	1.772431

Note: Values in parentheses are t statistics.

, **, Indicates 10%, 5% and 1% significant level**

Conclusion

This paper quantifies the impact of economic and noneconomic factors on the PSX return during the past 18 years from January 2000 to December 2017 on daily basis. Noneconomic variables consider in this study are four types of terrorism and political system while economic variables are further divided into domestic economic variables like foreign exchanges and domestic gold prices and international economic variable like global financial stress. Results confirm that terrorism significantly reduces PSX returns while democratic political system increases the return. Increase in FX rate significantly reduces PSX return which confirms the linkage between the markets. However, no link exists between gold market and PSX and gold should not consider as risk diversifier for investor in Pakistan. Moreover, investor's education about portfolio management is helpful in shaping these associations. GFS has significant negative impact on PSX return, which confirms the linkage between PSX with global financial markets. However, government should devise such policy by modifying strategic alliances that should reduce this negative effect.

References

Abadie, A., & Gardeazabal, J. (2003). The economic costs of conflict: A case study of the Basque Country. *American economic review*, 113-132.

Abadie, A., & Gardeazabal, J. (2008). Terrorism and the world economy. *European Economic Review, 52*(1), 1-27.

Abdalla, I. S., & Murinde, V. (1997). Exchange rate and stock price interactions in emerging financial markets: evidence on India, Korea, Pakistan and the Philippines. *Applied financial economics, 7*(1), 25-35.

Aboura, S., & van Roye, B. (2017). Financial stress and economic dynamics: The case of France. *International Economics, 149*, 57-73.

Afik, Z., Lahav, Y., & Mandelzweig, L. (2016). The inverse of a terror event? Stock market response to pro-active action. *Studies in Economics and Finance, 33*(1), 91-105.

Aggarwal, R., Inclan, C., & Leal, R. (1999). Volatility in emerging stock markets. *Journal of Financial and Quantitative Analysis, 34*(1), 33-55.

Aksoy, M., & Demiralay, S. (2019). The effects of terrorism on Turkish financial markets. *Defence and Peace Economics, 30*(6), 733-755.

Alam, A. (2012). Terrorism and stock market development: causality evidence from Pakistan. *Journal of Financial Crime, 20*(1), 116-128.

Albalate, D., Bel, G., & Elias, F. (2012). Institutional determinants of military spending. *Journal of Comparative Economics, 40*(2), 279-290.

Anwar, Z., & Afza, T. (2014). Impact of Terrorism, Gas Shortage and Political Instability on FDI Inflows in Pakistan. *Sci. Int.(Lahore), 26*(1), 507-511.

Apergis, E., & Apergis, N. (2016). The 11/13 Paris terrorist attacks and stock prices: The case of the international defense industry. *Finance Research Letters, 17*, 186-192.

Apergis, E., & Apergis, N. (2017). The impact of 11/13 Paris terrorist attacks on stock prices: evidence from the international defence industry. *Applied Economics Letters, 24*(1), 45-48.

Apergis, N., Bonato, M., Gupta, R., & Kyei, C. (2017). Does geopolitical risks predict stock returns and volatility of leading defense companies? Evidence from a nonparametric approach. *Defence and Peace Economics*, 1-13.

Arif, I., & Suleman, T. (2014). *Terrorism and Stock Market Linkages: An Empirical Study from Pakistan*: University Library of Munich, Germany.

Arin, K. P., Ciferri, D., & Spagnolo, N. (2008). The price of terror: The effects of terrorism on stock market returns and volatility. *Economics Letters, 101*(3), 164-167.

Arouri, M. E. H., Lahiani, A., & Nguyen, D. K. (2015). World gold prices and stock returns in China: insights for hedging and diversification strategies. *Economic Modelling, 44*, 273-282.

Arzoo, S. (2011). Political Instability & its Impact on Karachi Stock Exchange (Impact on Trading Volume and Trading Value, 2011).

Asal, V., Fair, C. C., & Shellman, S. (2008). Consenting to a child's decision to join a jihad: Insights from a survey of militant families in Pakistan. *Studies in Conflict & Terrorism, 31*(11), 973-994.

Aslam, F. (2014). How Terrorist Attacks Affect the Volatility of the Pakistani Stock Market? *남아시아연구, 19*(3), 151-181.

Aslam, F., & Kang, H.-G. (2013). How different terrorist attacks affect stock markets. *Defence and Peace Economics, 26*(6), 634-648.

Aslam, F., Kang, H.-G., Mohti, W., Rafique, A., & Salman, A. (2015). THE IMPACT OF TERRORISM ON FINANCIAL MARKETS: EVIDENCE FROM ASIA. *The Singapore Economic Review*, 1550111.

Aurangzeb, C., & Dilawer, T. (2012). Impact of Terrorism on Stock Returns: Evidence From Pakistan. *Universal Journal of Management and Social Sciences, 2*(8), 73-85.

Aydemir, O., & Demirhan, E. (2009). The relationship between stock prices and exchange rates: Evidence from Turkey. *International Research Journal of Finance and Economics, 23*(2), 207-215.

Bala Sani, A., & Hassan, A. (2018). Exchange rate and stock market interactions: Evidence from Nigeria. *Arabian Journal of Business and Management Review, 8*(1), 334.

Balakrishnan, R., Danninger, S., Elekdag, S., & Tytell, I. (2014). The transmission of financial stress from advanced to emerging economies. *Emerging Markets Finance and Trade, 47*(sup2), 40-68.

Balcilar, M., Gupta, R., Pierdzioch, C., & Wohar, M. E. (2018). Terror attacks and stock-market fluctuations: evidence based on a nonparametric causality-in-quantiles test for the G7 countries. *The European Journal of Finance, 24*(4), 333-346.

Baur, D. G., & Lucey, B. M. (2010). Is gold a hedge or a safe haven? An analysis of stocks, bonds and gold. *Financial Review, 45*(2), 217-229.

Baur, D. G., & McDermott, T. K. (2010). Is gold a safe haven? International evidence. *Journal of Banking & Finance, 34*(8), 1886-1898.

Bekaert, G., Ehrmann, M., Fratzscher, M., & Mehl, A. (2014). The global crisis and equity market contagion. *The Journal of Finance, 69*(6), 2597-2649.

Bekaert, G., & Harvey, C. R. (2003). *Market integration and contagion*: National Bureau of Economic Research.

Bekiros, S., Gupta, R., & Kyei, C. (2016). On economic uncertainty, stock market predictability and nonlinear spillover effects. *The North American journal of economics and finance, 36*, 184-191.

Blomberg, S. B., Hess, G. D., & Orphanides, A. (2004). The macroeconomic consequences of terrorism. *Journal of Monetary Economics, 51*(5), 1007-1032.

Blose, L. E., & Shieh, J. C. (1995). The impact of gold price on the value of gold mining stock. *Review of Financial Economics, 4*(2), 125-139.

Brown, S. J., & Warner, J. B. (1985). Using daily stock returns: The case of event studies. *Journal of financial economics, 14*(1), 3-31.

Brück, T., & Wickström, B.-A. (2004). The economic consequences of terror: guest editors' introduction. *European Journal of Political Economy, 20*(2), 293-300.

Cardarelli, R., Elekdag, S., & Lall, S. (2011). Financial stress and economic contractions. *Journal of Financial Stability, 7*(2), 78-97.

Chan, Y.-c., & Wei, K. J. (1996). Political risk and stock price volatility: the case of Hong Kong. *Pacific-Basin Finance Journal, 4*(2-3), 259-275.

Chau, F., Deesomsak, R., & Wang, J. (2014). Political uncertainty and stock market volatility in the Middle East and North African (MENA) countries. *Journal of International Financial Markets, Institutions and Money, 28*, 1-19.

Chaudhry, N., Roubaud, D., Akhter, W., & Shahbaz, M. (2018). Impact of terrorism on stock markets: Empirical evidence from the SAARC region. *Finance Research Letters, 26*, 230-234.

Chen, A. H., & Siems, T. F. (2004). The effects of terrorism on global capital markets. *European journal of political economy, 20*(2), 349-366.

Cherif, M. (2020). Institutional and macroeconomic determinants of stock market development in MENA region: New results from a panel data analysis. *International Journal of Banking and Finance, 7*(1), 139-159.

Chesney, M., Reshetar, G., & Karaman, M. (2011). The impact of terrorism on financial markets: An empirical study. *Journal of Banking & Finance, 35*(2), 253-267.

Christofis, N., Kollias, C., Papadamou, S., & Stagiannis, A. (2013). Istanbul Stock Market's reaction to terrorist attacks. *Doğuş Üniversitesi Dergisi, 14*(2), 153-164.

Chughtai, M. W. (2013). The Impact of Rising Terrorism and Military Operations on Socio-Economic Culture of Federally Administered Tribal Areas (FATA) of Pakistan.

Danzell, O. E., Yeh, Y.-Y., & Pfannenstiel, M. (2019). Determinants of domestic terrorism: An examination of ethnic polarization and economic development. *Terrorism and political violence, 31*(3), 536-558.

Diamonte, R. L., Liew, J. M., & Stevens, R. L. (1996). Political risk in emerging and developed markets. *Financial Analysts Journal*, 71-76.

Din, S. M. U., Regupathi, A., Abu-Bakar, A., Lim, C.-C., & Ahmed, Z. (2020). Insurance-growth nexus: a comparative analysis with multiple insurance proxies. *Economic Research-Ekonomska Istraživanja, 33*(1), 604-622.

Drakos, K. (2010). Terrorism activity, investor sentiment, and stock returns. *Review of Financial Economics, 19*(3), 128-135.

Eckstein, Z., & Tsiddon, D. (2004). Macroeconomic consequences of terror: theory and the case of Israel. *Journal of Monetary Economics, 51*(5), 971-1002.

Eldor, R., & Melnick, R. (2004). Financial markets and terrorism. *European Journal of Political Economy, 20*(2), 367-386.

Fahad, S. (2015). Economic Terrorism & Its Impact on Pakistan. *Economic Review* Retrieved 27, 2016, from http://www.stratagem.pk/economic-review/economic-terrorism-its-impact-on-pakistan/

Fareed, Z., Meo, M. S., Zulfiqar, B., Shahzad, F., & Wang, N. (2018). Nexus of tourism, terrorism, and economic growth in Thailand: new evidence from asymmetric ARDL cointegration approach. *Asia Pacific Journal of Tourism Research, 23*(12), 1129-1141.

Fernandez, V. (2006). The impact of major global events on volatility shifts: Evidence from the Asian crisis and 9/11. *Economic Systems, 30*(1), 79-97.

Ferreira, M. A., & Laux, P. A. (2009). Portfolio flows, volatility and growth. *Journal of International Money and Finance, 28*(2), 271-292.

Forbes, K. J., & Rigobon, R. (2002). No contagion, only interdependence: measuring stock market comovements. *The journal of Finance, 57*(5), 2223-2261.

Fratzscher, M., Gloede, O., Menkhoff, L., Sarno, L., & Stöhr, T. (2019). When is foreign exchange intervention effective? Evidence from 33 countries. *American Economic Journal: Macroeconomics, 11*(1), 132-156.

Gaibulloev, K., & Sandler, T. (2008). Growth consequences of terrorism in Western Europe. *Kyklos, 61*(3), 411-424.

Grima, S., & Caruana, L. (2017). *The Effect of the Financial Crisis on Emerging Markets. A comparative analysis of the stock market situation before and after.* Paper presented at the DIEM: Dubrovnik International Economic Meeting.

GTD, I. o. E. P. (2017). National Consortium for the Study of Terrorism and Responses to Terrorism (START) http://www.start.umd.edu/gtd

Gul, T., Hussain, A., Bangash, S., & Khattak, S. W. (2010). Impact of terrorism on the financial markets of Pakistan. *European Journal of Social Sciences, 18*(1), 98-108.

Hassan, S. A., Mahmood, A., Ahmed, A., & Abbas, S. F. (2014). Impact of Terrorism on Karachi Stock Exchange: Pakistan.

Hobbs, J., Schaupp, L. C., & Gingrich, J. (2016). Terrorism, militarism, and stock returns. *Journal of Financial Crime, 23*(1), 70-86.

Hyder, S., Akram, N., & Padda, I. U. H. (2015). Impact of terrorism on economic development in Pakistan. *Pakistan Business Review, 839*.

Javaid, M. E., & Kouser, S. (2018). Impact of Terrorism, Political System and Exchange Rate Fluctuations on Stock Market Volatility. *Iranian Journal of Management Studies*.

Johnston, B. R., & Nedelescu, O. M. (2006). The impact of terrorism on financial markets. *Journal of Financial Crime, 13*(1), 7-25.

Kanas, A. (1999). A note on the long-run benefits from international equity diversification for a UK investor diversifying in the US equity market. *Applied Economics Letters, 6*(1), 49-53.

Kanas, A. (2000). Volatility spillovers between stock returns and exchange rate changes: International evidence. *Journal of Business Finance & Accounting, 27*(3-4), 447-467.

Karolyi, G. A., & Martell, R. (2006). Terrorism and the stock market. *Available at SSRN 823465*.

Karolyi, G. A., & Martell, R. (2010). Terrorism and the stock market. *International Review of Applied Financial Issues and Economics, 2*(2), 285.

Khan, S., Baig, N., Usman, M., Shaique, M., & Shaikh, R. (2017). Stock Market Dynamics in Pakistan: What Do Political Events and Budget Announcements Disclose?

Khokhar, M. (2007). Reforming militant madaris in Pakistan. *Studies in Conflict & Terrorism, 30*(4), 353-365.

King, M. A., & Wadhwani, S. (1990). Transmission of volatility between stock markets. *Review of Financial Studies, 3*(1), 5-33.

Kobbi, H., & Abdelhedi, M. (2018). The Effect of Political Instability and Terrorism on Tunisian Financial Market. *IUP Journal of Applied Economics, 17*(1).

Kocaarslan, B., Soytas, U., Sari, R., & Ugurlu, E. (2018). The Changing Role of Financial Stress, Oil Price, and Gold Price in Financial Contagion among US and BRIC Markets. *International Review of Finance*.

Kollias, C., Papadamou, S., & Stagiannis, A. (2011). Terrorism and capital markets: The effects of the Madrid and London bomb attacks. *International Review of Economics & Finance, 20*(4), 532-541.

Krugman, P. (2004). The Costs of Terrorism: What do we know? *Nexus of Terrorism and WMDs: Developing a Consensus, Princeton University*.

Kumar, S., & Liu, J. (2013). Impact of terrorism on international stock markets. *The Journal of Applied Business and Economics, 14*(4), 42.

Kutty, G. (2010). The relationship between exchange rates and stock prices: the case of Mexico. *North American Journal of Finance and Banking Research, 4*(4), 1.

Laverde, J. C. F., Varua, M. E., & Garces-Ozanne, A. (2009). Understanding crime, political uncertainty and stock market returns. *World Economics, 10*(2), 109-116.

Lehkonen, H., & Heimonen, K. (2015). Democracy, political risks and stock market performance. *Journal of International Money and Finance, 59*, 77-99.

Ma, C. K., & Kao, G. W. (1990). On exchange rate changes and stock price reactions. *Journal of Business Finance & Accounting, 17*(3), 441-449.

Makinen, G. (2002). *The Economic Effects of 9/11: A Retrospective Assessment*: Congressional Research Service.

Malik, Z., & Zaman, K. (2013). Macroeconomic consequences of terrorism in Pakistan. *Journal of Policy Modeling, 35*(6), 1103-1123.

Markoulis, S., & Katsikides, S. (2018). The Effect of Terrorism on Stock Markets: Evidence from the 21st Century. *Terrorism and Political Violence*, 1-23.

Masson, M. P. R. (1998). *Contagion: Monsoonal effects, spillovers, and jumps between multiple equilibria*: International Monetary Fund.

Maura, J. R. (1968). Terrorism in Barcelona and its impact on Spanish politics 1904-1909. *Past & Present*(41), 130-183.

MengYun, W., Imran, M., Zakaria, M., Linrong, Z., Farooq, M. U., & Muhammad, S. K. (2018). Impact of terrorism and political instability on equity premium: Evidence from Pakistan. *Physica A: Statistical Mechanics and its Applications, 492*, 1753-1762.

Mnasri, A., & Nechi, S. (2016). Impact of terrorist attacks on stock market volatility in emerging markets. *Emerging Markets Review, 28*, 184-202.

Mohamed, H., Jebli, M. B., & Youssef, S. B. (2019). Renewable and fossil energy, terrorism, economic growth, and trade: Evidence from France. *Renewable energy, 139*, 459-467.

Moszoro, M. W. (2019). The Party Politics of Stock-Market Investing. *Available at SSRN 2811350*.

Mukherjee, D., & Mishra, R. (2005). Stock market interlinkages: a study of Indian and world equity markets. *Indian Journal of Commerce, 58*(1).

Nasir, M., Ali, A., & Rehman, F. U. (2011). Determinants of terrorism: a panel data analysis of selected South Asian countries. *The Singapore Economic Review, 56*(02), 175-187.

Nasir, M., & Shahbaz, M. (2015). War on terror: Do military measures matter? Empirical analysis of post 9/11 period in Pakistan. *Quality & Quantity, 49*(5), 1969-1984.

Nazir, M. S., Younus, H., Kaleem, A., & Anwar, Z. (2014). Impact of political events on stock market returns: empirical evidence from Pakistan. *Journal of Economic and Administrative Sciences, 30*(1), 60-78.

Nelson, D. B. (1991). Conditional heteroskedasticity in asset returns: A new approach. *Econometrica: Journal of the Econometric Society*, 347-370.

Özdamar, Ö. (2008). Theorizing terrorist behavior: Major approaches and their characteristics. *Defence Against Terrorism Review, 1*(2), 89-101.

Pan, M.-S., Fok, R. C.-W., & Liu, Y. A. (2007). Dynamic linkages between exchange rates and stock prices: Evidence from East Asian markets. *International Review of Economics & Finance, 16*(4), 503-520.

Pástor, Ľ., & Veronesi, P. (2013). Political uncertainty and risk premia. *Journal of Financial Economics, 110*(3), 520-545.

Peleg, K., Regens, J. L., Gunter, J. T., & Jaffe, D. H. (2011). The normalisation of terror: the response of Israel's stock market to long periods of terrorism. *Disasters, 35*(1), 268-283.

Qaiser, I., Sohail, N., Liaqat, M., & Mumtaz, A. (2012). Impact of Terrorism on Forex Market and Karachi Stock Exchange: Evidence from Pakistan. *European Journal of Business and Management, 4*(19), 124-128.

Rahman, A. A., Sidek, N. Z. M., & Tafri, F. H. (2009). Macroeconomic determinants of Malaysian stock market. *African Journal of Business Management, 3*(3), 95.

Ramiah, V., & Graham, M. (2013). The impact of domestic and international terrorism on equity markets: evidence from Indonesia. *International Journal of Accounting & Information Management, 21*(1), 91-107.

Raza, N., Shahzad, S. J. H., Tiwari, A. K., & Shahbaz, M. (2016). Asymmetric impact of gold, oil prices and their volatilities on stock prices of emerging markets. *Resources Policy, 49*, 290-301.

Sandler, T. (2005). Collective versus unilateral responses to terrorism *Policy Challenges and Political Responses* (pp. 75-93): Springer.

Sandler, T., & Enders, W. (2008). Economic consequences of terrorism in developed and developing countries. *Terrorism, economic development, and political openness, 17*.

Tursoy, T., & Faisal, F. (2018). The impact of gold and crude oil prices on stock market in Turkey: Empirical evidences from ARDL bounds test and combined cointegration. *Resources Policy, 55*, 49-54.

Ul-Hameed, W. (2018). Impact of political influences on stock returns. *International Journal Of Multidisciplinary Scientific Publication, 1*(01), 1-5.

Ul Din, S. M., Abu-Bakar, A., & Regupathi, A. (2017). Does insurance promote economic growth: A comparative study of developed and emerging/developing economies. *Cogent Economics & Finance, 5*(1), 1390029.

Valls, N., & Chuliá, H. (2014). *Volatility Transmission between the stock and Currency Markets in Emerging Asia: the Impact of the Global Financial Crisis*: University of Barcelona, Research Institute of Applied Economics.

Walid, C., Chaker, A., Masood, O., & Fry, J. (2011). Stock market volatility and exchange rates in emerging countries: A Markov-state switching approach. *Emerging Markets Review, 12*(3), 272-292.

Zakaria, M., Jun, W., & Ahmed, H. (2019). Effect of terrorism on economic growth in Pakistan: an empirical analysis. *Economic research-Ekonomska istraživanja, 32*(1), 1794-1812.