



International Journal of Diplomacy and Economy

ISSN online: 2049-0895 - ISSN print: 2049-0887 https://www.inderscience.com/ijdipe

Economic policy uncertainty and stock market performance: evidence from the Middle East

Muhammadriyaj Faniband, Salim Shamsher

DOI: <u>10.1504/IJDIPE.2023.10057639</u>

Article History:

Received:	02 March 2023
Last revised:	03 April 2023
Accepted:	09 April 2023
Published online:	01 March 2024

Economic policy uncertainty and stock market performance: evidence from the Middle East

Muhammadriyaj Faniband*

Christ Academy Institute for Advanced Studies, Bangalore, India Email: riyajfaniband@gmail.com *Corresponding author

Salim Shamsher

Karnavati University, Gandhinagar, Gujarat, India Email: salim.shamsher@gmail.com

Abstract: This paper examines the impact of Economic Policy Uncertainty (EPU) in the top 15 economies on the stock market of 9 Middle East countries using a monthly data set from January 2004 to May 2021. The results based on the quantile regression approach show that EPU in China and Spain has a substantial impact on Turkey, EPU in India on UAE, and EPU in Spain and UK on Bahrain and Cyprus across all the quantiles. The other set of results indicate a mixed impact on Middle East countries. The impact of EPU is heterogeneous across stock markets in the Middle East. The results derived from our study would be of substantial utility for multiple stakeholders namely investors, portfolio managers and policy makers for the adoption of efficient decisions and to make better asset allocation.

Keywords: economic policy uncertainty; stock market; Middle East; quantile regression; emerging markets.

Reference to this paper should be made as follows: Faniband, M. and Shamsher, S. (2024) 'Economic policy uncertainty and stock market performance: evidence from the Middle East', *Int. J. Diplomacy and Economy*, Vol. 10, No. 1, pp.5–38.

Biographical notes: Muhammadriyaj Faniband currently works as an Assistant Professor at Christ Academy Institute for Advanced Studies, Bengaluru, India. He is a Commerce Graduate and holds MPhil and MCom degree in Commerce. Currently, he is pursuing PhD degree in the area of Financial Markets. His research interests include asset pricing, advanced econometrics, corporate finance and banking. He has published articles in reputed international journals. He is also the peer reviewer for various Scopus, Web of Science and ABDC Journals. He was the awardee of 'Avishkar Research Fellowship' which is given to top two research work across the Commerce, Management and Law discipline in Maharashtra state (India) each year.

Salim Shamsher currently serving as a Professor & Dean in the School of Business at Karnavati University, previously served as an Associate Dean at Narsee Monjee Institute of Management Studies (NMIMS), Navi Mumbai, earlier served as the Dean – School of Finance and Officiating Dean in the School of Life-Long Learning at Galgotias University. His areas of teaching and research interests include commodity markets, international finance, behavioural finance and accounting. He holds a Masters and Bachelor's degree in Accounting and Business Management from University of Pune with a Doctoral in Finance Coupled with a Post-Graduate Diploma in Finance from Symbiosis Institute of Business Management, Pune.

1 Introduction

Economic Policy Uncertainty (EPU) represents the risk posed to any economy due to instability in policy and regulatory frameworks. This is a form of systematic risk and it tends to increase the cost of capital in any economy thereby disfavouring investment. The increasing interconnectedness between economies promoted due to globalisation and liberalisation has made examining this phenomenon of EPU and its implications, much more pertinent. Several empirical investigations have been done to study the mutual dealing between EPU and stock markets (Arouri et al., 2016; Balcilar et al., 2019; Chen et al., 2017; Istiak and Alam, 2020; Li et al., 2016). However, no attention has been paid to examining the consequences of global EPU on stock markets in Middle East countries. Middle East economies have made several reforms in their economy and their financial base is also different from their economy (Naceur et al., 2007). The Middle East has come out into view as the primary energy source in the world and as an essential component of the constancy of the global economy (Luft, 2009). The Middle East countries have different economic structures because some countries such as Kuwait, Saudi Arabia and UAE and rely on the export of only oil and oil-related products to a great extent, while others have an extremely diverse economic system; Cyprus, Israel and Turkey. Since equity markets are often correlated with internal factors in general and external factors in particular especially uncertainty in other countries, it is important to investigate how the Middle East countries' stock markets are sensitive to the EPU in the top 15 economies in the world. Therefore, we employ the EPU index which considers the uncertainty about various government policies such as fiscal, regulatory or monetary policy (Baker et al., 2016).

Under this background, we analyse to discover the effects of Economic Policy Uncertainty (EPU) in the top 15 countries by Gross Domestic Product (GDP) on stock markets in Middle East countries using the Quantile Regression (QR) approach.

More specifically, our paper searches for the answers to the following unanswered questions:

- 1 Does the EPU of the top 15 economies affect the stock markets in the Middle East?
- 2 Do the stock markets in the Middle East go down significantly due to the increase in EPU?

We address these questions because economic policy uncertainty can have significant effects on the stock markets of Middle East countries. This is because the region is heavily influenced by global economic conditions and also because of the geopolitical factors that are often at play. In addition, Middle East countries are often affected by political instability and conflicts, which can also contribute to economic policy uncertainty. These factors can lead to a lack of predictability and stability in the markets, which can lead to reduced investment and a decline in stock prices.

Our study can be useful for global investors in several ways: First, investors can use the findings of our study to make informed decisions about investing in the Middle East stock markets. Based on our results, investors may choose to avoid investing in the region or adjust their investment strategies accordingly. Second, investors can better prepare for periods of heightened volatility and adjust their risk management strategies accordingly. Third, investors may choose to include Middle East stocks in their portfolio to reduce overall risk.

In this paper, we summarise the review of past studies in Section 2. The data points and a set of variables are presented in Section 3. The method followed in this paper is mentioned in Section 4. The output and discussion are given in Section 5. We conclude in Section 6.

2 Previous research

Several studies examine the effects of EPU on stock markets. (Škrinjarić and Orloví, 2020) examine how the EPU shocks affect stock market returns of Central and Eastern European markets using Vector Autoregression (VAR). Czech Republic, Lithuania, Slovenia and Poland react significantly to EPU compared to other countries. (Li et al., 2016) notice the weak association between EPU and stock return for China and India using Bootstrap Rolling Window Approach. Alqahtani et al. (2017) also noticed that the European policy uncertainty has a negative but insignificant impact on Gulf Cooperation Council (GCC) countries.

One group of studies specifically investigates the impact of US EPU on stock markets. A recent study was done by Youssef et al. (2021) considers the EPU of badly affected COVID-19 countries and examines the linkages between stock indices and EPU using the time-varying VAR. They show the substantial positive impact of EPU on total dynamic spillover. On the other hand, the results of Arouri et al. (2016), Fiti and Hadhri, (2019), Istiak and Alam (2020) found the negative influence of US EPU on stock markets. Arouri et al. (2016) revealed that increase in US EPU significantly reduces the stock return between 1900 and 2014. Abdullah (2020) and Istiak and Alam (2020) studied the impact of US EPU on GCC using linear and nonlinear structural VAR models and regression, respectively. Both these studies find that all the GCC countries' stock market index goes down due to unexpected increase in the US EPU. The study was done by Ftiti and Hadhri (2019) detected the causal relationship between US EPU and Islamic stock market return using the ensemble empirical mode decomposition technique.

Balcilar et al. (2019) analysed the role of inland and global (China, the European Area, Japan and the USA) EPU to predict volatility and stock return of Hong Kong, Malaysia, and South Korea. Hoque et al. (2019) noticed the impact of global EPU on stock prices in Malaysia using the factor augmented VAR approach. The overall results of Phan et al. (2018) indicated that the EPU index of 16 countries can be used to predict stock excess return. Zhang et al. (2019) investigated the impact of Chinese and USA EPU impact on global markets. Although China is more influential now, the USA is still dominant in all the markets. Chen et al. (2017) detected a negative relationship between expected future return of Chinese stock market and Chinese EPU.

The impact of factors other than EPU on the stock markets of the Middle East and Islamic equities has also been studied in the previous literature. Since Kuwait, Oman, Saudi Arabia, Egypt and Jordan follow elastic exchange rates and more independent monetary policy, the prices of these countries react significantly (short term) to these factors (Abouwafia and Chambers, 2015). Panda et al. (2019) studied the short-term and long-term interdependency and volatility spillover between Africa and Middle East region stock markets. Misman et al. (2020) finds the significant impact of the general election on the Malaysia stock market performance. Kabir Hassan et al. (2003) explored the impact of country, financial and economic risks on stock market volatility, predictability and portfolio diversification of ten Middle East and Africa during 1984-1999 using the GARCH-M model. These factors significantly influence stock volatility and predictability. Chau et al. (2014) used the multivariate GARCH model to study how the 'Arab Spring' have influenced the stock markets in Middle East and North Africa. The conventional and Islamic stock market indices react heterogeneously. Ziaei (2018) concluded that Islamic equities significantly react to the US unconventional monetary policy shocks using the VAR model. Ajmi et al. (2014) used linear heteroscedasticityrobust and nonlinear causality tests and display that the Islamic equity market reacts to external shock (e.g., different regions, sources, etc.) There is causality between the Islamic market and the European and the Asian stock markets and the Brent oil market.

Few studies show the impact of macroeconomic and company-specific factors on the stock market (Chellaswamy et al., 2020, 2021; Faniband and Marulkar, 2020; Jareño et al., 2016). Justinek (2023b) discussed the war between Russia and Ukraine and its possible impact on global economy and uncertainty. Further, Justinek (2022, 2023a) pointed out the various economic and geopolitical issues that will affect the global economy.

Against this background, this paper investigates the impact of EPU in the top 15 countries by GDP on stock markets in the Middle East.

3 Data and variables

As noted earlier, we study the impact of EPU on stock markets in the Middle East. We select the EPU index of Australia, Brazil, Canada, China, France, Germany, India, Italy, Japan, Korea, Netherlands, Russia, Spain, UK and USA. For China, we consider the Hybrid EPU index. Initially, we decided to choose the top 20 economies by GDP. However, we take only 15 countries as the EPU index data for 20 economies are not available. The data of the EPU index are collected from the website of policyuncertainty.com. We have specifically selected a sample of 9 countries' stock markets in the Middle East, namely, Bahrain (BHSEASI Index), Cyprus (CYSMMAPA Index), Israel (TA-35 Index), Jordan (JOSMGNFF Index), Oman (MSM30 Index), Qatar (DSM Index), Saudi Arabia (TASI), Turkey (XU100 Index) and UAE (ADSMI Index) because the data of other middle east counties are not available for the chosen study period. The stock indices data are retrieved from the Bloomberg Terminal. We cover the monthly period from January 2004 to May 2021. The duration of the data set was different for the chosen indices. Therefore, we consider the period only till May 2021. Moreover, to maintain uniformity in the data set, the daily data of stock indices are converted into monthly data.

Table 1 indicates the descriptive statistics and unit root results of independent variables. The mean values of all countries are more than the values of the median. Thus, these variables are turned (skewed) on the right. Moreover, the kurtosis value for all the variables is more than the baseline value which is equal to 3 which reveals the state of heavy tails in comparison with the Gaussian distribution (leptokurtic distributions). The Jarque-Bera (JB) test strongly rejects the hypothesis of normality for all the variables. All the variables under investigations found to be stationary at level. Table 2 shows the descriptive statistics and unit root results of dependent variables results. All the dependent variables have no unit root at level. Figure 1 depicts the performance of stock indices in Middle East.



Figure 1 Historical time series of stock market performance

M. Faniband an	nd ,	<i>S. S</i>	Sha	ms	her	•							
Descriptive st	atis	stics	s an	d u	nit	roo	t re	sul	ts fo	or e	xpl	ana	tory
	NS	0.32	-1.50	107.65	-91.89	28.78	0.32	4.11	14.12^{***}	-3.961***	-4.852***	0.986	209
	UK	0.48	0.22	76.29	-91.20	29.23	-0.04	3.08	0.12^{***}	-2.020^{***}	-4.145***	1.243	209
	Spain	0.22	-1.32	62.43	-41.94	16.65	0.64	4.50	33.55***	-4.220^{***}	-4.052***	0.998	209
	Russia	0.50	-1.32	145.30	-153.22	56.82	0.02	2.99	0.01^{***}	-3.792***	-5.436^{***}	1.356	209
	therlands	0.06	0.42	168.16	-111.86	37.40	0.39	4.57	26.89 ^{***}	3.515***	7.676***	0.283	209

Particular	Australia	Brazil	Canada	China	France	Germany	India	Italy	Japan	Korea	Netherlands	Russia	Spain
Mean	0.52	-0.06	0.58	0.65	0.49	0.51	-0.01	-0.21	0.04	0.06	0.06	0.50	0.22
Median	-0.21	0.91	-1.49	-0.36	0.34	1.02	2.62	-0.84	0.46	0.25	0.42	-1.32	-1.32
Maximum	125.20	142.42	74.05	114.45	113.36	123.94	113.31	105.66	64.22	115.55	168.16	145.30	62.43
Minimum	-166.78	-133.04	-66.91	-120.92	-100.00	-89.01	-155.65	-89.63	-64.12	-80.11	-111.86	-153.22	-41.94
Std. Dev.	39.60	48.86	26.57	37.11	35.39	38.21	40.27	33.52	19.69	32.06	37.40	56.82	16.65
Skewness	-0.09	0.03	0.26	0.04	0.09	0.25	-0.19	0.05	-0.16	0.24	0.39	0.02	0.64
Kurtosis	4.13	3.23	3.11	3.43	3.44	3.03	3.91	3.68	4.03	3.96	4.57	2.99	4.50
Jarque-Bera	11.41***	0.48^{***}	2.39***	1.63^{***}	1.96^{***}	2.24***	8.40***	4.03***	10.10^{***}	9.94***	26.89***	0.01***	33.55**
ADF	-6.387***	-6.185^{***}	-2.837^{**}	-2.130^{***}	-4.344***	-4.671	-3.040^{***}	-4.523***	-5.590^{***}	-5.804^{***}	-3.515***	-3.792***	-4.220^{*}
ЪР	-6.496	-6.083^{***}	-3.397**	-3.768***	-5.591^{***}	-5.851***	-6.267^{***}	-7.754***	-5.427***	-5.748***	-7.676***	-5.436^{***}	-4.052*
KPSS	0.448	0.896	1.425	1.287	1.390	1.326	0.280	0.664	0.474	0.765	0.283	1.356	0.998
Observations	209	209	209	209	209	209	209	209	209	209	209	209	209

Table 1 planatory variables De

10

4 Methodology

The standard Ordinary Least Square (OLS) regression studies the impact of one or more independent variables x on the conditional mean of a dependent variable y. However, it does not help in modelling the data with heterogeneous conditional distributions. In order to overcome this problem, we use QR approach. Koenker and Bassett, (1978) introduces QR methodology which is used to study the effects of x on the conditional quantiles of y instead of only the conditional mean of y. The quantiles describe the distribution of the dependent variable. The dependent variable is continuous with zeros or too many repeated values. The best-known quantile is the median that is 0.5 quantile. The quantile coefficients can be significantly different from zero. One can model the data with heterogeneous conditional distributions. Moreover, the median regression is more robust to outliers than the OLS. The QR is widely used in the previous studies related to finance (Chellaswamy et al., 2020; Faniband, 2021; Guo et al., 2018; Jareño et al., 2016).

In the case of this paper, QR helps finding complex dependence structure during increase and decrease in EPU or the extreme EPU as it can go beyond median.

The following equation describes the quantile regression.

$$y_i = x_i' \beta_q + e_i \tag{1}$$

where β_q is the vector of unknown parameters associated with the q-th quantile.

The quantile regression minimises $\sum_{i} q |e_i| + \sum_{i} (1-q)|e_i|$, a sum that gives the

asymmetric penalties $q|e_i| + \sum_i$ for underprediction and $(1-q)|e_i|$ for overprediction.

The q-th quantile regression estimators $\hat{\beta}_q$ minimises over β_q the objective function.

$$Q(\beta_{q}) = \sum_{i:y_{i} \ge x_{i}^{\prime}\beta}^{N} q |y_{i} - x_{i}^{\prime}\beta_{q}| + \sum_{i:y_{i} < x_{i}^{\prime}\beta}^{N} (1 - q) |y_{i} - x_{i}^{\prime}\beta_{q}|$$
(2)

where 0 < q < 1.

The following equation is the basic model of this empirical study:

$$SP_{it} = \alpha_{i} + \beta_{1}As_{t} + \beta_{2}Br_{t} + \beta_{3}Ca_{t} + \beta_{4}Ch_{t} + \beta_{5}Fr_{t} + \beta_{6}Gr_{t} + \beta_{7}In_{t} + \beta_{8}It_{t} + \beta_{9}Ja_{t} + \beta_{10}SK_{t} + \beta_{11}Nl_{t} + \beta_{12}Rs_{t} + \beta_{13}Sp_{t} + \beta_{14}UK_{t} + \beta_{15}USA_{t} + \varepsilon_{it}$$
(3)

5 Empirical results and discussion

We summaries the output of the impact of 15 countries' EPU on stock markets in Middle East from Tables 2 to 10 using QR methodology.

	Bahrain	Cyprus	Israel	Jordan	Oman	Qatar	Saudi Arabia	Turkey	UAE
Mean	-0.05	-1.37	0.58	-0.02	0.05	0.33	0.24	0.93	0.21
Median	0.07	-0.71	1.12	-0.32	0.16	0.50	0.99	1.48	-0.16
Maximum	9.25	36.38	10.91	14.98	16.24	25.96	17.90	20.58	33.41
Minimum	-20.65	-49.99	-20.08	-24.86	-31.32	-29.60	-29.78	-26.29	-40.38
Std. Dev.	3.58	11.62	4.76	4.53	5.11	7.55	7.51	7.60	9.73
Skewness	-1.21	-0.51	-1.00	-0.61	-1.23	-0.43	-0.75	-0.39	-0.32
Kurtosis	8.86	5.61	5.45	8.75	10.66	5.58	4.68	3.61	6.26
JB	334.87***	65.42***	83.53***	288.03***	539.07***	61.51***	42.16^{***}	8.23***	91.79***
ADF	-9.63***	-11.65^{***}	-12.97^{***}	-10.77^{***}	-6.87***	-13.17^{***}	-12.20^{***}	-14.06^{***}	-7.16^{***}
KPSS	0.12	0.20	0.12	0.11	0.29	0.10	0.09	0.08	0.13
Note: $**p < 0.05$	and $***p < 0.01$.								

Descriptive statistics and unit root results for dependent variables

< 0.01.
d_{***}
and
0.05
> d**
ite:

Table 2

5.1 EPU-Bahrain

The results of impact of EPU on BHSEASI index of Bahrain are documented in Table 3. The sign of coefficients changes from one economy to another in nearly all quantiles. It should be pointed out that the EPU in Spain and UK have a substantial impact on Bahrain as the coefficients are significant across the different quantiles. Moreover, the BHSEASI moves inversely to these countries' EPU as it has a negative sign. Thus, increases in EPU would result in decreases in the stock market index. It is noted that the changes EPU in Korea has a significant and negative impact in lower quantiles whereas the coefficients are insignificant in middle and higher quantiles. These outputs are consistent with Abdullah (2020); Arouri et al. (2016) and Istiak and Alam (2020).

We find that the EPU in Australia has a significant and positive impact for 0.1, 0.6 and higher quantiles. It is surprising that an increase in EPU in Australia is good news for the investors because BHSEASI goes up. We identify Canada, China, France, Germany, India, Italy, Netherlands and Russia as the countries that barely influence the stock market index of Bahrain. Canada has a significant and negative impact only at end quantiles which indicates that only extreme EPU in Canada influences Bahrain. Italy has a significant impact only in higher quantiles and the impact is absent in bottom and middle which shows the asymmetric dependence, having bottom tail independence and higher tail dependence. The EPU in Netherlands has a significant and negative impact at 0.2, 0.6 and higher quantiles. Further, India shows the significant and negative impact at 0.1 and 0.3 quantiles. The changes in the EPU in the Russia and China affect Bahrain only in a single quantile.

We notice that Brazil, Japan and USA are the economies that do not affect Bahrain because the coefficients are insignificant. Interestingly, our result is different from Istiak and Alam (2020) who find that the US EPU has a significant impact on Bahrain.

5.2 EPU-Cyprus

Table 4 indicates the results of the relationship between EPU and Cyprus. The results of Spain and UK are similar to Bahrain. The EPU in these two economies have a significant and negative impact on Cyprus's CYSMMAPA Index. For Canada, the impact is negative and significant for the bottom and middle quantiles, whereas for the higher quantiles we notice no significant impact. This connotes asymmetric dependence, that is bottom tail dependence and higher tail independence. In contrast, for Italy, the independence is found in the bottom tail and dependence in the higher tail. Further, the USA has a significant and positive impact only at the bottom and 0.4 quantiles which shows asymmetric dependence. This result found to be inconsistent with Arouri et al. (2016), Ftiti and Hadhri (2019) and Istiak and Alam (2020).

Table 3Output for Bahrain

Variables	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
Australia	0.92**	0.69	0.65	0.60	1.00	1.86*	2.88**	3.65***	5.19***
	(0.42)	(0.51)	(09.0)	(0.78)	(0.93)	(0.98)	(1.22)	(1.24)	(1.28)
Brazil	-0.12	-0.20	0.17	0.14	-0.08	-0.25	-0.15	-0.60	-0.63
	(0.17)	(0.21)	(0.25)	(0.32)	(0.38)	(0.40)	(0.50)	(0.51)	(0.52)
Canada	-0.27	-0.28	-0.07	-0.26	-0.57	-0.37	-0.76	-1.28*	-1.45*
	(0.25)	(0.32)	(0.37)	(0.48)	(0.57)	(09.0)	(0.75)	(0.76)	(0.78)
China	0.27	0.37	0.48*	0.16	0.03	-0.04	-0.01	0.56	0.82
	(0.19)	(0.23)	(0.27)	(0.35)	(0.42)	(0.44)	(0.55)	(0.56)	(0.58)
France	-0.26	-0.35	-0.52	-0.92*	-1.08*	-0.86	-0.78	-0.91	-0.23
	(0.25)	(0.31)	(0.37)	(0.47)	(0.56)	(0.59)	(0.74)	(0.75)	(0.77)
Germany	-0.17	0.19	0.12	0.74	1.84^{**}	1.48*	1.43	2.30**	1.57
	(0.33)	(0.41)	(0.48)	(0.62)	(0.73)	(0.77)	(0.96)	(0.98)	(1.01)
India	-0.86**	-0.78	-0.97*	-0.92	-1.01	-1.22	-0.85	-0.18	0.86
	(0.40)	(0.49)	(0.58)	(0.75)	(0.89)	(0.94)	(1.17)	(1.19)	(1.23)
Italy	-0.90**	-0.63	-1.01	-1.11	-1.50	-1.65	-2.86**	-3.29**	-3.45**
	(0.43)	(0.53)	(0.63)	(0.81)	(0.96)	(1.01)	(1.27)	(1.29)	(1.33)
Japan	-0.11	-0.65	-0.45	-0.25	-0.39	-0.30	-2.11	0.49	-1.48
	(0.65)	(0.80)	(0.94)	(1.21)	(1.45)	(1.52)	(1.90)	(1.93)	(1.99)

Table 3

Variables	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
Korea	0.73**	0.73**	0.68*	0.35	0.06	-0.03	0.45	-0.19	-0.12
	(0.28)	(0.35)	(0.41)	(0.53)	(0.63)	(0.66)	(0.82)	(0.84)	(0.86)
Netherlar	-0.60 abr	-1.02*	-0.43	-0.72	-1.16	-2.03**	-2.39*	-3.13**	-3.04**
	(0.44)	(0.54)	(0.63)	(0.82)	(0.97)	(1.02)	(1.28)	(1.30)	(1.34)
Russia	0.27*	0.20	0.04	0.10	0.31	0.34	0.33	0.24	0.66
	(0.16)	(0.20)	(0.24)	(0.30)	(0.36)	(0.38)	(0.48)	(0.48)	(0.50)
Spain	-2.50***	-2.55***	-2.23**	-2.90^{**}	-4.43***	-5.34***	-4.26**	-6.11^{***}	-7.54***
	(0.62)	(0.76)	(06.0)	(1.16)	(1.38)	(1.45)	(1.81)	(1.84)	(1.90)
UK	-0.68***	-0.86^{***}	-1.02^{***}	-0.84^{***}	-0.99***	-1.13***	-1.15^{***}	-1.07	-1.33 * * *
	(0.14)	(0.17)	(0.20)	(0.25)	(0.30)	(0.32)	(0.40)	(0.41)	(0.42)
USA	0.66	0.50	0.23	0.79	1.00	1.06	1.13	0.87	0.65
	(0.41)	(0.50)	(0.59)	(0.76)	(0.91)	(0.96)	(1.20)	(1.22)	(1.25)
Constant	1759.57***	1949.71***	1990.24***	2139.30***	2458.47***	2715.75***	2882.85***	3032.93***	3271.72***
	(59.06)	(73.10)	(85.91)	(111.01)	(132.18)	(138.85)	(173.81)	(176.41)	(181.91)
Notes:	Standard errors in parenti	heses. *** p<0.01,	** <i>p</i> <0.05, * <i>p</i> <0.	.1.					

Variables	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
Australia	0.38	0.40	1.08	1.04	1.56	1.73	4.72	4.68	6.46**
	(1.06)	(1.14)	(1.38)	(1.48)	(2.29)	(2.79)	(4.65)	(4.61)	(3.12)
Brazil	-0.21	-0.24	-0.65	-1.04*	-1.39	-1.96*	-2.39	-3.00	-4.39***
	(0.43)	(0.46)	(0.57)	(09.0)	(0.93)	(1.14)	(1.90)	(1.88)	(1.28)
Canada	-0.98	-1.23*	-1.79^{**}	-2.16^{**}	-2.82**	-2.93*	-2.90	-2.30	-0.33
	(0.65)	(0.70)	(0.85)	(0.91)	(1.40)	(1.71)	(2.85)	(2.82)	(1.91)
China	-0.31	-0.57	-0.85	0.12	0.18	-0.18	-0.56	-0.88	-3.34**
	(0.48)	(0.51)	(0.63)	(0.67)	(1.03)	(1.26)	(2.10)	(2.08)	(1.41)
France	-1.17*	-1.81***	-1.78**	-1.36	-1.28	-1.59	-0.53	1.09	4.21**
	(0.64)	(0.69)	(0.84)	(0.89)	(1.38)	(1.69)	(2.81)	(2.78)	(1.89)
Germany	-0.04	0.22	0.66	0.94	0.93	1.78	3.86	5.55	6.98***
	(0.83)	(06.0)	(1.09)	(1.17)	(1.81)	(2.20)	(3.67)	(3.64)	(2.47)
India	0.18	0.21	-0.48	-0.64	-1.20	-0.57	0.19	-0.96	-0.53
	(1.01)	(1.09)	(1.33)	(1.42)	(2.19)	(2.68)	(4.45)	(4.41)	(2.99)
Italy	-0.75	0.29	-1.65	-3.43**	-4.77**	-5.70*	-8.15*	-9.25*	-10.00^{***}
	(1.10)	(1.18)	(1.44)	(1.54)	(2.37)	(2.90)	(4.82)	(4.78)	(3.24)
Japan	1.77	2.43	4.89**	5.90**	5.67	5.20	2.91	5.08	0.02
	(1.64)	(1.77)	(2.15)	(2.30)	(3.56)	(4.35)	(7.23)	(7.17)	(4.86)

Table 4Output for Cyprus

Variables	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
Korea	1.01	1.08	1.20	1.08	1.51	0.78	-0.50	-1.77	-4.28**
	(0.71)	(0.77)	(0.93)	(1.00)	(1.54)	(1.88)	(3.13)	(3.11)	(2.11)
Netherlands	0.06	-0.08	-0.34	06.0-	-1.57	-2.45	-7.03	-7.83	-14.83 * * *
	(1.11)	(1.19)	(1.45)	(1.55)	(2.40)	(2.93)	(4.88)	(4.83)	(3.28)
Russia	-0.27	-0.19	-0.47	-0.95*	-0.92	-0.24	0.32	0.64	0.07
	(0.41)	(0.44)	(0.54)	(0.58)	(0.89)	(1.09)	(1.81)	(1.80)	(1.22)
Spain	-6.29***	-8.77***	-7.73***	-5.25**	-5.92*	-6.82	-12.07*	-13.80^{**}	-16.40^{***}
	(1.57)	(1.69)	(2.06)	(2.20)	(3.40)	(4.15)	(06.90)	(6.84)	(4.64)
UK	-0.95***	-0.89**	-1.14^{**}	-1.33 * * *	-1.49**	-1.53*	-2.91*	-3.97***	-5.50^{***}
	(0.34)	(0.37)	(0.45)	(0.48)	(0.75)	(0.91)	(1.52)	(1.50)	(1.02)
USA	2.60**	2.48**	3.03**	2.47*	3.52	4.24	4.59	2.49	3.78
	(1.03)	(1.11)	(1.36)	(1.45)	(2.24)	(2.74)	(4.55)	(4.51)	(3.06)
Constant	1068.72***	1450.14***	1615.85***	1706.81***	2158.81***	2557.36***	4102.39***	4809.18***	6823.35***
	(150.21)	(161.59)	(196.95)	(210.51)	(325.48)	(397.30)	(661.03)	(655.25)	(444.36)
Note: See	notes of Table 3.								

The effects China, Korea and Netherlands are substantial and negative, whereas Australia has a significant and positive impact only at the end quantile (0.9). We find that the effect Brazil, Japan and Russia on the CYSMMAPA is not worth considering for all the quantiles because they have a negligible impact. Further, we find no impact of Indian EPU on CYSMMAPA. This finding supports the findings of Li et al. (2016) because they also state that EPU in India does not affect stock market.

5.3 EPU-Israel

We find an interesting finding (see Table 5) that TA-35 Index of Israel is sensitive to all the top 15 economies except Brazil. Brazil has no impact as all the coefficients are insignificant. We notice that among top 15 economies, only France, Russia, Spain and UK have a significant and positive impact on TA-35. The results of Canada and China are also in similar line. TA-35 react significantly and positively to Canada at 0.1 and 0.8, whereas for China at 0.1, 0.2, 0.5, 0.7 and 0.8 quantiles. It is discovered that Australia and Germany have a substantial negative impact at 0.1 and 0.2 quantiles, whereas Japan reacts only at the end quantile (0.9). We find a substantial and negative effects of India at 0.6 and higher quantiles. On the other hand, TA-35 is dependent for bottom quantiles and independent for higher quantiles. TA-35 moves inversely with the largest economy in the world that is USA because USA has a significant negative impact at 0.1, 0.5, 0.6 and higher quantiles. This result is supported by Ftiti and Hadhri (2019); Istiak and Alam (2020) who find the negative impact of USA EPU on stock market.

5.4 EPU-Jordan

As we can see in Table 6, only Spain exerts a significant and negative effect for all the quantiles except 0.1. Germany and Japan have a negligible positive impact on Jordan. In contrast, we find a significant negative impact of Italy and UK on Jordan. The changes in the EPU in China and France barely affect Jordan because the coefficients are significant in a single quantile (0.5 i.e., median quantile and 0.9, respectively). Germany has a positive and significant impact at median (0.5) and 0.9 quantiles. It is very surprised that Australia, Brazil, Canada, India,¹ Korea, Netherlands, Russia and USA do not affect the JOSMGNFF Index of Jordan because all the quantile regression coefficients are insignificant.

5.5 EPU-Oman

In Table 7, we observe that MSM30 Index of Oman is not affected by Brazil, Germany, Russia, UK and USA because all the quantile coefficients are insignificant. Our findings with regard to USA are inconsistent with Abdullah (2020) and Istiak and Alam (2020) who reveal a significant negative relationship between USA EPU and Oman. The Netherlands and Spain has a significant negative impact whereas Australia has a significant positive impact only at the end quantile (0.9). Canada, China, Italy and Korea show a significant and negative impact on Oman. However, the impact is found to be negligible as the coefficients are not for all the quantiles. On the other hand, we note that France, India and Japan have a negligible positive impact.

Table 5Output for Israel

Variables	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
Australia	-1.28	-1.36	-1.61**	-1.40*	-0.61	0.04	0.20	-0.16	0.73
	(0.78)	(0.84)	(0.79)	(0.77)	(0.68)	(0.59)	(0.43)	(0.46)	(0.54)
Brazil	-0.47	-0.54	-0.49	-0.24	-0.29	-0.21	-0.19	0.08	0.06
	(0.32)	(0.34)	(0.32)	(0.31)	(0.28)	(0.24)	(0.18)	(0.19)	(0.22)
Canada	1.21**	0.73	0.71	0.73	0.64	0.56	0.43	0.54*	0.45
	(0.48)	(0.51)	(0.49)	(0.47)	(0.42)	(0.36)	(0.26)	(0.28)	(0.33)
China	0.99***	0.86**	0.49	0.49	0.55*	0.43	0.45**	0.51^{**}	0.29
	(0.35)	(0.38)	(0.36)	(0.35)	(0.31)	(0.27)	(0.19)	(0.21)	(0.25)
France	0.98**	0.86*	1.11^{**}	0.97**	0.83**	0.75**	0.96***	0.43	0.79**
	(0.47)	(0.51)	(0.48)	(0.47)	(0.41)	(0.36)	(0.26)	(0.28)	(0.33)
Germany	0.26	0.04	-1.09*	-1.20^{**}	-0.86	-0.37	-0.00	0.36	0.42
	(0.61)	(0.66)	(0.63)	(0.61)	(0.54)	(0.46)	(0.34)	(0.36)	(0.43)
India	-0.61	-0.04	-0.75	-0.55	-0.91	-1.07*	-1.10^{***}	-1.27***	-1.63^{***}
	(0.75)	(0.80)	(0.76)	(0.74)	(0.65)	(0.56)	(0.41)	(0.44)	(0.52)
Italy	-1.55*	-1.58*	-0.09	0.03	0.27	0.07	0.07	-0.31	-0.74
	(0.81)	(0.87)	(0.82)	(0.80)	(0.71)	(0.61)	(0.44)	(0.48)	(0.56)
Japan	1.72	1.18	1.81	1.80	1.12	0.33	-0.64	-0.61	-1.63*
	(1.21)	(1.31)	(1.24)	(1.20)	(1.06)	(0.91)	(0.67)	(0.72)	(0.85)

Variables	10	0.7	03	τU	05	90	0.7	0.8	00
Korea	*06.0-	-1.43**	-0.98*	-0.97*	-0.42	-0.33	-0.16	-0.03	-0.19
	(0.53)	(0.57)	(0.54)	(0.52)	(0.46)	(0.40)	(0.29)	(0.31)	(0.37)
Netherlands	-1.17	-0.15	-0.58	-1.02	-1.36*	-1.41**	-1.65^{***}	-0.94*	-0.55
	(0.82)	(0.88)	(0.83)	(0.81)	(0.72)	(0.62)	(0.45)	(0.48)	(0.57)
Russia	0.39	0.69**	0.59*	0.54*	0.56**	0.62***	0.44***	0.30*	0.51**
	(0.30)	(0.33)	(0.31)	(0.30)	(0.27)	(0.23)	(0.17)	(0.18)	(0.21)
Spain	2.13*	1.49	2.08*	2.66**	2.52**	2.48***	2.44***	3.48***	3.48***
	(1.16)	(1.24)	(1.18)	(1.14)	(1.01)	(0.87)	(0.64)	(0.68)	(0.81)
UK	0.64**	1.03^{***}	0.92***	0.81^{***}	0.58***	0.44 **	0.30 **	0.18	0.11
	(0.25)	(0.27)	(0.26)	(0.25)	(0.22)	(0.19)	(0.14)	(0.15)	(0.18)
USA	-2.28***	-1.22	-0.63	-0.84	-1.36^{**}	-1.31 **	-1.44***	-1.31^{***}	-1.20^{**}
	(0.76)	(0.82)	(0.78)	(0.76)	(0.67)	(0.58)	(0.42)	(0.45)	(0.53)
Constant	633.68***	682.63***	674.86***	717.88***	873.78***	950.52***	1086.42***	1032.27***	1095.70***
	(110.73)	(119.31)	(113.03)	(109.66)	(96.96)	(83.56)	(60.95)	(65.48)	(77.36)
Note: See n	otes of Table 3								

Table 5 Output for Israel (continued)

20 M. Faniband and S. Shamsher

Table 6Output for Jordan

Variables	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
Australia	0.06	-0.48	-0.17	-0.39	0.15	1.47	2.24	4.14	1.38
	(0.81)	(0.80)	(1.10)	(1.17)	(1.14)	(1.36)	(2.10)	(3.29)	(2.42)
Brazil	-0.20	-0.00	0.00	-0.09	-0.26	-0.14	-0.20	0.16	-0.22
	(0.33)	(0.33)	(0.45)	(0.48)	(0.47)	(0.56)	(0.86)	(1.34)	(0.99)
Canada	-0.26	-0.65	-0.72	-0.73	-1.09	-0.96	-0.61	-0.91	-1.63
	(0.49)	(0.49)	(0.67)	(0.72)	(0.70)	(0.83)	(1.29)	(2.02)	(1.48)
China	-0.51	-0.40	-0.53	-0.74	-0.92*	-0.98	-0.75	-0.48	-0.49
	(0.36)	(0.36)	(0.50)	(0.53)	(0.52)	(0.62)	(0.95)	(1.49)	(1.10)
France	-0.04	0.03	-0.33	-0.78	-1.02	-0.94	-0.66	-1.43 -	-2.75*
	(0.49)	(0.48)	(0.66)	(0.71)	(0.69)	(0.82)	(1.27)	(1.99)	(1.46)
Germany	-0.59	-0.33	-0.06	0.45	1.58*	1.60	1.74	1.88 4	**68.1
	(0.64)	(0.63)	(0.87)	(0.92)	(06.0)	(1.07)	(1.66)	(2.60)	(1.91)
India	-1.12	0.03	-0.11	0.20	0.60	0.19	66.0	3.07	1.69
	(0.77)	(0.77)	(1.05)	(1.12)	(1.09)	(1.30)	(2.01)	(3.15)	(2.32)
Italy	-1.84^{**}	-1.47*	-1.59	-1.65	-2.32*	-3.01**	-3.03	-4.03	-4.27*
	(0.84)	(0.83)	(1.14)	(1.21)	(1.18)	(1.41)	(2.18)	(3.41)	(2.51)
Japan	3.17**	2.54**	2.12	1.30	1.10	0.16	-0.24	-1.65	3.11
	(1.25)	(1.25)	(1.71)	(1.82)	(1.77)	(2.12)	(3.27)	(5.12)	(3.77)

22

Variables	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
Korea	-0.50	-0.04	0.22	0.41	0.32	-0.18	-0.83	-2.20	-0.38
	(0.54)	(0.54)	(0.74)	(0.79)	(0.77)	(0.92)	(1.42)	(2.22)	(1.63)
Netherlands	0.54	0.35	0.10	-0.22	-0.57	-1.44	-2.43	-3.37	-2.82
	(0.84)	(0.84)	(1.15)	(1.23)	(1.20)	(1.43)	(2.20)	(3.45)	(2.54)
Russia	-0.13	-0.04	-0.11	-0.02	0.12	0.13	0.26	0.46	-0.20
	(0.31)	(0.31)	(0.43)	(0.46)	(0.44)	(0.53)	(0.82)	(1.28)	(0.94)
Spain	-1.13	-3.30^{***}	-4.67***	-6.00***	-7.99***	-7.13^{***}	-8.66***	-12.24**	-11.86^{***}
	(1.20)	(1.19)	(1.63)	(1.73)	(1.69)	(2.02)	(3.12)	(4.88)	(3.59)
UK	-0.04	-0.11	-0.21	-0.49	-0.75**	-0.82*	-1.12	-1.26	-2.18***
	(0.26)	(0.26)	(0.36)	(0.38)	(0.37)	(0.44)	(0.69)	(1.07)	(0.79)
USA	-0.12	0.32	0.66	1.15	1.67	1.66	1.23	2.02	0.37
	(0.79)	(0.78)	(1.07)	(1.15)	(1.12)	(1.33)	(2.06)	(3.22)	(2.37)
Constant	2410.68***	2633.05***	2920.25***	3321.22***	3691.77***	3866.89***	4184.28***	5045.26***	5624.79***
	(114.54)	(113.86)	(156.01)	(166.27)	(162.16)	(193.70)	(298.72)	(467.89)	(344.48)
Note: See	notes of Table 3.								

Table 7Output for Oman

Variables	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
Australia	-1.08	-1.97	-1.33	-0.99	0.49	1.80	2.62	2.00	11.83**
	(3.86)	(3.55)	(3.26)	(2.45)	(2.36)	(3.24)	(4.22)	(5.28)	(5.49)
Brazil	0.07	-0.83	-0.47	-0.34	-0.46	-0.09	-0.58	-0.28	0.01
	(1.58)	(1.45)	(1.33)	(1.00)	(0.96)	(1.32)	(1.72)	(2.16)	(2.24)
Canada	0.93	-0.46	-2.12	-2.78*	-3.41**	-3.01	-2.73	-4.62	-3.51
	(2.37)	(2.18)	(2.00)	(1.50)	(1.45)	(1.99)	(2.59)	(3.24)	(3.37)
China	0.09	-0.65	-1.86	-1.90*	-2.29**	-3.38**	-3.16*	-3.01	-3.63
	(1.75)	(1.61)	(1.47)	(1.11)	(1.07)	(1.47)	(1.91)	(2.39)	(2.48)
France	3.40	2.97	4.11**	4.03***	6.15***	5.29***	4.07	1.45	1.30
	(2.33)	(2.15)	(1.97)	(1.48)	(1.43)	(1.96)	(2.55)	(3.19)	(3.32)
Germany	-0.70	0.23	-0.83	-1.01	-2.45	-2.48	-1.86	0.29	-0.71
	(3.05)	(2.80)	(2.57)	(1.93)	(1.86)	(2.56)	(3.33)	(4.17)	(4.33)
India	5.76	5.16	6.68**	6.00**	5.11**	4.98	6.45	12.89**	15.42***
	(3.70)	(3.41)	(3.12)	(2.34)	(2.26)	(3.11)	(4.04)	(5.06)	(5.26)
Italy	-8.33**	-6.95*	-3.89	-4.49*	-2.14	-0.69	-2.22	-3.13	-3.64
	(4.01)	(3.69)	(3.38)	(2.54)	(2.45)	(3.36)	(4.38)	(5.48)	(5.70)
Japan	14.70^{**}	12.50**	6.28	7.49*	6.48*	6.21	1.93	-1.48	-1.51
	(6.01)	(5.53)	(5.07)	(3.81)	(3.67)	(5.05)	(6.56)	(8.22)	(8.55)

Variables	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
Korea	-7.66***	-5.38**	-3.60	-2.51	-3.86**	-3.23	-3.01	-2.90	-3.63
	(2.60)	(2.40)	(2.20)	(1.65)	(1.59)	(2.19)	(2.84)	(3.56)	(3.70)
Netherlands	1.38	2.38	0.47	-0.44	-0.39	-1.65	-2.53	-4.88	-9.77*
	(4.05)	(3.73)	(3.42)	(2.57)	(2.48)	(3.40)	(4.42)	(5.54)	(5.76)
Russia	-0.24	-0.90	-0.29	-0.52	-0.12	0.12	0.88	1.06	1.83
	(1.51)	(1.39)	(1.27)	(0.95)	(0.92)	(1.26)	(1.64)	(2.06)	(2.14)
Spain	1.29	-0.70	-2.02	-1.93	-4.29	-5.61	-8.37	-12.76	-23.04***
	(5.73)	(5.28)	(4.83)	(3.63)	(3.50)	(4.81)	(6.26)	(7.84)	(8.15)
UK	0.60	0.53	0.31	-0.12	-0.57	-0.68	-1.02	-0.42	-2.02
	(1.26)	(1.16)	(1.06)	(0.80)	(0.77)	(1.06)	(1.38)	(1.73)	(1.79)
USA	-5.50	-2.94	-0.68	-0.21	0.30	0.57	1.33	3.43	3.34
	(3.78)	(3.48)	(3.19)	(2.40)	(2.31)	(3.18)	(4.13)	(5.18)	(5.38)
Constant	3888.01***	4607.71***	5191.35***	5514.50***	5886.53***	6156.38***	7247.70***	8414.55***	9911.64***
	(549.29)	(505.59)	(463.10)	(348.10)	(335.68)	(461.21)	(599.93)	(751.72)	(781.24)
Note: See no	otes of Table 3.								

M. Faniband and S. Shamsher

24

5.6 EPU-Qatar

Table 8 reveals that China and France have a positive impact, whereas Korea and Netherlands have a negative influence on Qatar's DSM Index at the 0.1 and 0.2 quantiles which reveal how the impact these economies tend to be more significant in extreme EPU conditions. Further, DSM Index shows no significant response to economies such as Australia, Brazil, Canada, Germany, India, Italy. Russia is the sole economy that exhibits a statistically significant positive impact on Qatar the coefficients are significant for all the quantiles excluding 0.2. The policy uncertainty in Japan and Spain has the feature of affecting DSM index significantly and negatively only in a single quantile, whereas UK show a significant positive effect at 0.3 and 0.4 quantiles. USA has a significant negative impact for bottom and 0.4 quantiles,² but the impact is absent for higher quantiles which indicates bottom tail dependence and higher tail independence. Arouri et al. (2016); Ftiti and Hadhri (2019) and Istiak and Alam (2020) also detected the same result that is the stock markets react negatively to the USA EPU.

5.7 EPU – Saudi Arabia

The results in Table 9 show that the EPU in Brazil, Canada, France, India, Spain and UK do not affect the TASI index of Saudi Arabia. It is surprising to note that TASI goes up when the EPU increase in Australia, China, Germany, Italy and Russia because the sign of coefficients is positive. On the other hand, Japan's EPU also significantly influences Saudi Arabia at the same quantiles but the coefficients are negative. Along with Japan, Korea, Netherlands and USA also affect TASI negatively. TASI significantly affected by Korea and Netherlands at 0.4 and 0.3 and 0.4 quantiles. With regards to USA, the USA EPU has a significant and negative impact on Saudi Arabia's Tadawul All Share Index only at 0.3 and 0.4 quantiles. This finding matches with the findings of Abdullah (2020) and Istiak and Alam (2020).

5.8 EPU – Turkey

The output in Table 10 indicates that XU100 Index of Turkey is sensitive to EPU of all economies except Netherlands and USA. For Netherlands and USA, the coefficients are insignificant for all the quantiles.

We observe that China and Spain have a significant and positive for bottom, middle and higher quantiles. Moreover, Canada, Russia and UK also show a significant and positive impact for all the quantiles except 0.2 for Canada, 0.3, 0.4 for Russia and 0.9 for UK. Turkey also maintains a positive ratio with EPU of France for bottom, middle and 0.7 quantiles. However, XU 100 moves inversely to Korea as it has negative sign. Similarly, Australia, Brazil, Italy and Japan are the countries that barely affect (negatively) Turkey. The impact of Germany' EPU is significantly negative at 0.3, middle and 0.7 quantiles. India shows a significant and negative influence at 0.5, 0.6, 0.7 and 0.8 quantiles.

Table 8Output for Qatar

Variables	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
Australia	4.39	-0.89	-0.38	-1.25	4.04	3.94	-1.20	-3.03	2.14
	(4.14)	(4.28)	(5.25)	(4.61)	(5.02)	(5.41)	(5.63)	(6.37)	(6.32)
Brazil	-1.34	0.15	0.55	2.25	2.34	3.38	3.71	1.75	-0.10
	(1.69)	(1.75)	(2.14)	(1.89)	(2.05)	(2.21)	(2.30)	(2.60)	(2.58)
Canada	2.00	0.92	1.78	0.59	-2.48	-2.36	-1.81	0.34	-1.68
	(2.54)	(2.62)	(3.22)	(2.83)	(3.08)	(3.32)	(3.45)	(3.90)	(3.87)
China	5.04***	5.16***	2.20	1.00	1.95	0.94	-0.11	-0.84	-1.19
	(1.87)	(1.94)	(2.37)	(2.09)	(2.27)	(2.45)	(2.55)	(2.88)	(2.86)
France	7.74***	5.29**	4.12	2.64	1.84	1.17	-1.29	1.76	1.44
	(2.50)	(2.59)	(3.17)	(2.79)	(3.04)	(3.27)	(3.40)	(3.85)	(3.82)
Germany	0.90	3.97	2.08	1.71	1.11	1.50	2.73	2.60	5.56
	(3.27)	(3.38)	(4.14)	(3.64)	(3.97)	(4.27)	(4.44)	(5.03)	(4.99)
India	-1.89	0.33	1.35	-1.72	-1.08	-2.32	-1.14	66.0-	-0.54
	(3.96)	(4.10)	(5.03)	(4.42)	(4.81)	(5.18)	(5.40)	(6.10)	(6.05)
Italy	-5.45	-1.13	1.10	6.41	3.82	2.50	2.96	1.32	6.08
	(4.29)	(4.44)	(5.44)	(4.79)	(5.22)	(5.62)	(5.85)	(6.61)	(6.56)
Japan	1.20	3.70	-5.13	-6.12	-14.39*	-11.67	-7.70	7.51	-7.98
	(6.44)	(9.66)	(8.16)	(7.18)	(7.82)	(8.42)	(8.77)	(9.91)	(9.83)

Table 8Output for Qatar (continued)

Variables	5 0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
Korea	-6.03**	-8.89***	-5.63	-4.21	-1.89	-3.67	-4.25	-6.75	-3.36
	(2.79)	(2.89)	(3.54)	(3.11)	(3.39)	(3.65)	(3.80)	(4.30)	(4.26)
Netherlan	nds -11.34***	-10.86^{**}	-6.32	-6.05	-6.81	-6.43	-6.51	-6.83	-6.47
	(4.34)	(4.49)	(5.50)	(4.84)	(5.27)	(5.68)	(5.91)	(6.68)	(6.63)
Russia	2.85*	2.08	3.85*	4.48**	5.37***	6.04***	6.65***	8.65***	7.55***
	(1.61)	(1.67)	(2.05)	(1.80)	(1.96)	(2.11)	(2.20)	(2.48)	(2.46)
Spain	5.80	6.26	3.03	8.80	5.95	3.63	4.78	-8.16	-15.62*
	(6.14)	(6.35)	(7.79)	(6.85)	(7.46)	(8.03)	(8.36)	(9.45)	(9.38)
UK	1.75	2.28	2.87*	2.76*	2.31	1.59	1.91	0.02	-0.80
	(1.35)	(1.40)	(1.71)	(1.51)	(1.64)	(1.77)	(1.84)	(2.08)	(2.06)
USA	-8.97**	-9.25**	-8.70*	-10.32**	-7.35	-6.34	-8.16	-9.67	-9.23
	(4.05)	(4.19)	(5.14)	(4.52)	(4.92)	(5.30)	(5.52)	(6.24)	(6.19)
Constant	6349.35***	6621.58***	7430.47***	7396.95***	8756.73***	9591.14***	10,403.59***	11,426.38***	13,794.84***
	(588.53)	(608.98)	(746.30)	(656.52)	(714.84)	(769.86)	(801.21)	(906.13)	(898.66)
Note:	See notes of Table 3.								

27

Table 9Output for Saudi Arabia

Variables	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
Australia	2.80	4.51	5.28*	6.43**	5.96	5.85	2.72	0.34	-7.01
	(4.52)	(3.73)	(2.95)	(3.12)	(4.99)	(5.90)	(6.85)	(2.98)	(12.88)
Brazil	-1.88	-0.94	-0.64	-0.93	-1.21	-1.90	-2.01	-1.71	-2.54
	(1.85)	(1.52)	(1.20)	(1.28)	(2.04)	(2.41)	(2.80)	(3.26)	(5.26)
Canada	-0.67	-0.53	-0.11	-0.35	-0.34	-2.10	-2.51	-3.36	-8.05
	(2.77)	(2.29)	(1.81)	(1.92)	(3.06)	(3.62)	(4.20)	(4.90)	(06.2)
China	5.02**	3.23*	1.76	1.79	2.34	3.53	1.80	1.21	-0.09
	(2.04)	(1.69)	(1.33)	(1.41)	(2.26)	(2.67)	(3.10)	(3.61)	(5.82)
France	3.72	2.07	1.29	0.61	0.27	-1.81	-3.87	-5.09	-8.20
	(2.73)	(2.25)	(1.78)	(1.89)	(3.02)	(3.57)	(4.14)	(4.83)	(7.79)
Germany	-1.60	0.57	1.80	2.80	2.63	4.91	8.02	9.50	19.40*
	(3.57)	(2.94)	(2.33)	(2.47)	(3.94)	(4.66)	(5.41)	(6.30)	(10.16)
India	2.32	-2.17	-2.79	-3.08	-3.58	-0.17	-8.00	-3.01	-6.83
	(4.33)	(3.57)	(2.82)	(2.99)	(4.78)	(5.65)	(6.56)	(7.65)	(12.34)
Italy	1.71	3.13	6.49**	6.70**	5.17	1.41	-1.66	-1.23	-5.02
	(4.69)	(3.87)	(3.06)	(3.24)	(5.18)	(6.12)	(7.11)	(8.29)	(13.37)
Japan	-8.16	-14.76^{**}	-20.60^{***}	-20.04^{***}	-22.79***	-23.85**	-12.26	-12.56	-16.38
	(7.03)	(5.80)	(4.59)	(4.86)	(7.76)	(9.18)	(10.66)	(12.43)	(20.04)

Table 9

Variables	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
Korea	-10.24***	-4.96*	-3.22	-3.11	-2.69	-2.68	-0.99	-1.98	-0.51
	(3.05)	(2.52)	(1.99)	(2.11)	(3.36)	(3.98)	(4.62)	(5.39)	(8.69)
Netherlands	-6.73	-6.11	-4.88	-7.27**	-7.41	-6.54	-3.65	-8.77	-3.60
	(4.74)	(3.91)	(3.09)	(3.28)	(5.23)	(6.19)	(7.19)	(8.38)	(13.51)
Russia	1.50	2.48*	3.78***	3.92***	4.03**	4.56**	2.30	1.36	-0.19
	(1.76)	(1.45)	(1.15)	(1.22)	(1.95)	(2.30)	(2.67)	(3.11)	(5.02)
Spain	2.19	2.65	-0.73	-3.00	1.19	-8.52	-5.40	-5.81	-0.08
	(6.71)	(5.54)	(4.38)	(4.64)	(7.40)	(8.76)	(10.17)	(11.85)	(19.12)
UK	0.34	0.04	-0.33	-0.66	-1.42	-1.45	-2.36	-1.92	-2.05
	(1.48)	(1.22)	(0.96)	(1.02)	(1.63)	(1.93)	(2.24)	(2.61)	(4.21)
USA	0.75	-3.71	-6.38**	-6.65**	-6.61	-3.74	-3.66	-2.15	1.83
	(4.43)	(3.65)	(2.89)	(3.06)	(4.89)	(5.78)	(6.71)	(7.82)	(12.62)
Constant	6993.95***	8029.55***	8868.73***	9554.18***	10,112.34***	11,789.48***	12,645.15***	13,709.96***	15,599.63***
	(643.01)	(530.50)	(419.38)	(444.40)	(709.63)	(839.08)	(974.77)	(1, 135.96)	(1, 832.20)

Note: See notes of Table 3.

Variables	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
Australia	-1.22***	-0.44	-0.25	-0.41	-0.71*	-0.31	-0.34	-0.31	-0.01
	(0.31)	(09.0)	(0.53)	(0.55)	(0.36)	(0.48)	(0.42)	(0.48)	(0.59)
Brazil	-0.47***	-0.37	-0.02	0.04	0.04	-0.07	-0.03	-0.02	0.01
	(0.13)	(0.25)	(0.22)	(0.22)	(0.15)	(0.19)	(0.17)	(0.19)	(0.24)
Canada	0.60***	0.40	0.57*	0.74^{**}	0.72***	1.19^{***}	1.13***	1.12***	1.15***
	(0.19)	(0.37)	(0.33)	(0.34)	(0.22)	(0.29)	(0.26)	(0.29)	(0.36)
China	0.74***	0.66**	0.88***	0.73***	0.65***	0.56***	0.64***	0.90***	1.10^{***}
	(0.14)	(0.27)	(0.24)	(0.25)	(0.16)	(0.22)	(0.19)	(0.21)	(0.27)
France	1.13***	1.03^{***}	0.88***	0.67**	0.69***	0.70**	0.64**	0.46	0.47
	(0.19)	(0.36)	(0.32)	(0.33)	(0.22)	(0.29)	(0.25)	(0.29)	(0.36)
Germany	0.30	-0.24	-1.00**	-1.00^{**}	-0.75***	-0.64*	-0.66**	-0.38	-0.39
	(0.25)	(0.48)	(0.42)	(0.43)	(0.28)	(0.38)	(0.33)	(0.37)	(0.47)
India	0.05	-0.33	-0.63	-0.74	-0.64*	-0.84*	-0.91^{**}	-0.95**	-0.68
	(0.30)	(0.58)	(0.51)	(0.53)	(0.34)	(0.46)	(0.40)	(0.46)	(0.57)
Italy	-1.81***	-1.56^{**}	-0.19	-0.16	-0.23	-0.24	-0.18	-0.16	-0.11
	(0.33)	(0.63)	(0.55)	(0.57)	(0.37)	(0.49)	(0.44)	(0.49)	(0.62)
Japan	-0.51	-0.99	-1.26	-0.75	-0.57	-0.56	-0.66	-1.24*	-1.26
	(0.49)	(0.94)	(0.83)	(0.86)	(0.56)	(0.74)	(0.66)	(0.74)	(0.92)

30

Variables	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
Korea	-1.14***	-1.06^{**}	-1.03^{***}	-0.75**	+**06.0-	-0.79**	-0.81***	-0.70**	-1.02**
	(0.21)	(0.41)	(0.36)	(0.37)	(0.24)	(0.32)	(0.28)	(0.32)	(0.40)
Netherlands	-0.08	0.01	-0.69	69.0-	-0.44	-0.02	0.23	0.21	-0.17
	(0.33)	(0.63)	(0.56)	(0.58)	(0.38)	(0.50)	(0.44)	(0.50)	(0.62)
Russia	0.50***	0.50**	0.26	0.30	0.45***	0.41**	0.41^{**}	0.66***	0.85***
	(0.12)	(0.24)	(0.21)	(0.21)	(0.14)	(0.19)	(0.16)	(0.19)	(0.23)
Spain	1.40^{***}	1.46	2.16***	2.21***	2.21***	2.34***	2.55***	1.33*	1.47*
	(0.47)	(06.0)	(0.79)	(0.82)	(0.53)	(0.71)	(0.62)	(0.71)	(0.88)
UK	0.59***	0.66***	0.66***	0.64^{***}	0.54***	0.37**	0.38***	0.26*	0.11
	(0.10)	(0.20)	(0.17)	(0.18)	(0.12)	(0.16)	(0.14)	(0.16)	(0.19)
USA	-0.51	0.06	0.15	0.11	0.17	-0.48	-0.43	-0.15	0.14
	(0.31)	(0.59)	(0.52)	(0.54)	(0.35)	(0.47)	(0.41)	(0.47)	(0.58)
Constant	291.83***	326.17***	327.70***	306.45***	305.54***	317.58***	304.68***	460.01 ***	424.30***
	(44.78)	(85.87)	(75.72)	(78.19)	(51.16)	(67.76)	(59.89)	(67.58)	(84.38)
Note: See notes	s of Table 3.								

See notes of Table 3.

Variables	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
Australia	-0.04	0.34	0.73	2.46	3.05	2.91	1.17	1.84	2.80
Australia	(1.99)	(1.80)	(1.73)	(2.05)	(2.67)	(3.42)	(3.35)	(2.70)	(2.20)
Brazil	0.11	1.21	1.64^{**}	1.97^{**}	1.87*	1.66	0.67	0.41	-0.13
	(0.81)	(0.74)	(0.71)	(0.84)	(1.09)	(1.40)	(1.37)	(1.10)	(06.0)
Canada	2.91**	3.44***	2.58**	2.66**	2.88*	1.65	0.78	-0.61	-0.35
	(1.22)	(1.10)	(1.06)	(1.26)	(1.64)	(2.10)	(2.06)	(1.65)	(1.35)
China	3.05***	2.81***	1.70^{**}	2.13**	2.19*	2.04	1.64	2.57**	3.06***
	(06.0)	(0.81)	(0.78)	(0.93)	(1.21)	(1.55)	(1.52)	(1.22)	(1.00)
France	0.77	-0.76	0.16	-0.69	0.14	-0.14	0.18	-1.07	-0.57
	(1.20)	(1.09)	(1.05)	(1.24)	(1.61)	(2.07)	(2.03)	(1.63)	(1.33)
Germany	2.08	1.70	1.50	1.25	0.95	2.44	1.73	3.47	3.57**
	(1.57)	(1.42)	(1.37)	(1.62)	(2.11)	(2.70)	(2.65)	(2.13)	(1.74)
India	-3.82**	-3.84**	-6.21***	-6.79***	-6.44**	-6.51**	-5.34*	-5.15^{**}	-3.89*
	(1.91)	(1.73)	(1.66)	(1.96)	(2.56)	(3.28)	(3.21)	(2.59)	(2.11)
Italy	-2.96	-0.76	-0.62	0.81	1.48	2.64	1.37	-0.05	0.09
	(2.06)	(1.87)	(1.80)	(2.13)	(2.77)	(3.55)	(3.48)	(2.80)	(2.28)
Japan	-1.15	-0.99	-2.06	-3.89	-3.65	-1.66	-0.02	-1.93	-6.79**
	(3.10)	(2.80)	(2.70)	(3.19)	(4.16)	(5.32)	(5.22)	(4.20)	(3.42)

Variables	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
Korea	-4.29***	-2.70**	-2.35**	-2.51*	-2.79	-3.47	-1.54	0.54	-0.95
	(1.34)	(1.22)	(1.17)	(1.38)	(1.80)	(2.31)	(2.26)	(1.82)	(1.48)
Netherlan	ds -5.20**	-4.52**	-3.62**	-3.67*	-3.70	-3.98	-4.58	-4.35	-6.84***
	(2.09)	(1.89)	(1.82)	(2.15)	(2.80)	(3.59)	(3.52)	(2.83)	(2.31)
Russia	1.10	1.26*	2.08***	2.41***	3.01***	4.42***	4.33***	3.56***	2.32***
	(0.78)	(0.70)	(0.68)	(0.80)	(1.04)	(1.33)	(1.31)	(1.05)	(0.86)
Spain	-2.40	-1.45	-0.14	-1.09	-1.11	-4.61	-7.73	-9.78**	-8.57***
	(2.95)	(2.67)	(2.57)	(3.04)	(3.96)	(5.07)	(4.98)	(4.01)	(3.27)
UK	1.56**	1.35**	0.95*	0.77	0.41	-0.05	-0.11	-0.51	-0.55
	(0.65)	(0.59)	(0.57)	(0.67)	(0.87)	(1.12)	(1.10)	(0.88)	(0.72)
USA	-2.76	-5.11^{***}	-4.84***	-5.16^{**}	-6.78**	-6.02*	-3.80	-4.84*	-2.34
	(1.95)	(1.77)	(1.70)	(2.01)	(2.62)	(3.35)	(3.29)	(2.64)	(2.16)
Constant	3549.21***	3499.55***	3691.32***	4007.73***	4053.69***	4405.30***	5117.53***	6229.45***	6773.97***
	(282.95)	(256.26)	(246.78)	(291.38)	(379.85)	(486.36)	(477.31)	(383.96)	(313.05)
Note:	See notes of Table 3.								

See notes of Table 3.

5.9 EPU - UAE

The results presented in Table 11 show that UAE's ADSMI Index is very sensitive to India's EPU because India has a significant impact on UAE for all the quantiles. ADSMI Index goes down due to increase EPU in India as the sign is negative. Further, Korea, Netherlands and USA also affect negatively. For Korea, the coefficients are significant for bottom and 0.4 quantiles which shows dependence in bottom tail and independence in higher tail. Netherlands show impact for bottom, 0.4 and 0.9 quantiles. Further, USA has a significant impact for 0.2, middle and 0.6 quantiles.³ This result is in similar line with Ftiti and Hadhri, 2019; Istiak and Alam, 2020). They notice a significant and negative impact of USA EPU on stock markets. We notice that Spain has a significant and negative impact at 0.8 and 0.9 quantiles indicating bottom tail independence and higher tail dependence. It is found that Germany and Japan have a significant positive and negative impact respectively only at 0.9 quantile.

It is important to note that China influences UAE for all the quantiles except 0.6 and 0.7 quantiles. The results of Russia are also in similar line. Russia has a significant positive impact for all the quantiles except 0.1. The Brazil has a significant positive impact at 0.3, 0.4 and 0.5 quantiles, whereas Canada shows a significant positive influence for bottom and 0.4 and 0.5 quantiles. It is important to record that the EPU in Australia and Italy have no impact on UAE.

6 Conclusion, implications and scope for further studies

We examine how the Middle East countries' stock markets react to the EPU in top 15 countries using the monthly data ranging from 2004–2021 and QR methodology. Table 12 clearly shows that the impact of EPU in top 15 countries is not homogeneous across the stock markets in the Middle East.

Our results could be very assistive for portfolio managers, investors and policy makers. Understanding the long-run connection between the EPU and stock market performance can be of extreme importance with regard to the adoption of efficient decisions. This can also help make better asset allocation for investors. So, those who invest in the Middle East countries should pay close attention to the changes in the policy uncertainty in top 15 countries and diversify his/her portfolio accordingly. Further, the investors conducting business in Middle East as well as policymakers and regulators in Middle East and elsewhere should consider the important role played by EPU in top 15 countries and its impact on that of Middle East.

It would be interesting to examine whether the EPU in the Middle East exercises influence on the Middle East stock markets. This paper permits other researchers to address this issue in future research when the data of EPU of the Middle East become ready for use.

Table 12Summary of impact EPU on stock markets

Variables	Bahrain	Cyprus	Israel	Jordan	Oman	Qatar	Saudi Arabia	Turkey	UAE
Australia	Considerable	Negligible	Negligible	No Impact	Negligible	No Impact	Negligible	Negligible	No Impact
Brazil	No Impact	Negligible	No Impact	No Impact	No Impact	No Impact	No Impact	Negligible	Negligible
Canada	Negligible	Considerable	Negligible	No Impact	Negligible	No Impact	No Impact	Considerable	Considerable
China	Negligible	Negligible	Considerable	Negligible	Considerable	Negligible	Negligible	Significant	Considerable
France	Negligible	Considerable	Considerable	Negligible	Considerable	Negligible	No Impact	Considerable	No Impact
Germany	Negligible	Negligible	Negligible	Negligible	No Impact	No Impact	Negligible	Considerable	Negligible
India	Negligible	No Impact	Considerable	No Impact	Considerable	No Impact	No Impact	Considerable	Significant
Italy	Considerable	Considerable	Negligible	Considerable	Negligible	No Impact	Negligible	Negligible	No Impact
Japan	No Impact	Negligible	Negligible	Negligible	Considerable	Negligible	Negligible	Negligible	Considerable
Korea	Negligible	Negligible	Considerable	No Impact	Negligible	Negligible	Negligible	Significant	Considerable
Netherlands	Considerable	Negligible	Considerable	No Impact	Negligible	Negligible	Negligible	No Impact	Considerable
Russia	Negligible	Negligible	Considerable	No Impact	No Impact	Considerable	Considerable	Considerable	Considerable
Spain	Significant	Significant	Considerable	Considerable	Negligible	Negligible	No Impact	Significant	Negligible
UK	Significant	Significant	Considerable	Negligible	No Impact	Negligible	No Impact	Considerable	Negligible
USA	No Impact	Considerable	Considerable	No Impact	No Impact	Considerable	Negligible	No Impact	Considerable
Note: All c	quantile coefficient	s significant – Sigr	nificant, 4 or more	than 4 – Consider	able, 3 or less than	ı 3 – Negligible, al	l quantiles insignifi	cant - No impact.	

References

- Abdullah, S. (2020) 'US economic policy uncertainty and GCC stock market performance', *Studies in Business and Economics*, Vol. 15, No. 1, pp.223–242. Doi: 10.2478/sbe-2020-0017.
- Abouwafia, H.E. and Chambers, M.J. (2015) 'Monetary policy, exchange rates and stock prices in the Middle East region', *International Review of Financial Analysis*, Vol. 37, pp.14–28. Doi: 10.1016/j.irfa.2014.11.001.
- Ajmi, A.N., Hammoudeh, S., Nguyen, D.K. and Sarafrazi, S. (2014) 'How strong are the causal relationships between Islamic stock markets and conventional financial systems? Evidence from linear and nonlinear tests', *Journal of International Financial Markets, Institutions and Money*, Vol. 28, No. 1, pp.213–227. Doi: 10.1016/j.intfin.2013.11.004.
- Alqahtani, A.S.S., Ouyang, H. and Ali, A. (2017) 'The impact of european uncertainty on the Gulf cooperation council markets', *Journal of Heterodox Economics*, Vol. 4, No. 1, pp.37–50. Doi: 10.1515/jheec-2017-0003.
- Arouri, M., Estay, C., Rault, C. and Roubaud, D. (2016) 'Economic policy uncertainty and stock markets: Long-run evidence from the US', *Finance Research Letters*, Vol. 15, pp.99–105. Doi: 10.1016/j.frl.2016.04.011.
- Baker, S.R., Bloom, N. and Davis, S.J. (2016) 'Measuring economic policy uncertainty', *The Quarterly Journal of Economics*, Vol. 131, No. 4, pp.1593–1636. Doi: 10.1093/qje/qjw024.Advance.
- Balcilar, M., Gupta, R., Kim, W.J. and Kyei, C. (2019) 'The role of economic policy uncertainties in predicting stock returns and their volatility for Hong Kong, Malaysia and South Korea', *International Review of Economics and Finance*, Vol. 59, pp.150–163. Doi: 10.1016/j.iref.2018.08.016.
- Chau, F., Deesomsak, R. and 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*, Vol. 28, No. 1, pp.1–19. Doi: 10.1016/j.intfin.2013.10.008.
- Chellaswamy, K.P., Natchimuthu, N. and Faniband, M. (2020) 'Stock market sensitivity to macroeconomic factors: evidence from China and India', *Asian Economic and Financial Review*, Vol. 10, No. 2, pp.146–159. Doi: 10.18488/journal.aefr.2020.102.146.159.
- Chellaswamy, K.P., Natchimuthu, N. and Faniband, M. (2021) 'Chinese and Indian stock markets: linkages and interdependencies', *Research in World Economy*, Vol. 12, No. 2, pp.228–239. Doi: 10.5430/rwe.v12n2p228.
- Chen, J., Jiang, F. and Tong, G. (2017) 'Economic policy uncertainty in China and stock market expected returns', *Accounting and Finance*, Vol. 57, No. 5, pp.1265–1286. Doi: 10.1111/acfi.12338.
- Faniband, M. (2021) 'Indian government bonds sensitivity to macroeconomic and nonmacroeconomic factors: a quantile regression approach', *Afro-Asian Journal of Finance and Accounting*, Vol. 11, No. 5, pp.772–786. Doi: 10.1504/AAJFA.2021.119480.
- Faniband, M.M. and Marulkar, K.V. (2020) 'Quarterly results and share prices: what happens on the date of earnings announcement?', *Finance India*, Vol. 34, No. 1, pp.153–162.
- Ftiti, Z. and Hadhri, S. (2019) 'Can economic policy uncertainty, oil prices, and investor sentiment predict Islamic stock returns? A multi-scale perspective', *Pacific Basin Finance Journal*, Vol. 53, pp.40–55. Doi: 10.1016/j.pacfin.2018.09.005.
- Guo, P., Zhu, H. and You, W. (2018) 'Asymmetric dependence between economic policy uncertainty and stock market returns in G7 and BRIC: a quantile regression approach', *Finance Research Letters*, Vol. 25, pp.251–258. Doi: 10.1016/j.frl.2017.11.001.
- Hoque, M. E., Soo Wah, L. and Zaidi, M.A.S. (2019) 'Oil price shocks, global economic policy uncertainty, geopolitical risk, and stock price in Malaysia: factor augmented VAR approach', *Economic Research-Ekonomska Istrazivanja*, Vol. 32, No. 1, pp.3701–3733. Doi: 10.1080/1331677X.2019.1675078.

- Istiak, K. and Alam, M.R. (2020) 'US economic policy uncertainty spillover on the stock markets of the GCC countries', *Journal of Economic Studies*, Vol. 47, No. 1, pp.36–50. Doi: 10.1108/JES-11-2018-0388.
- Jareño, F., Ferrer, R. and Miroslavova, S. (2016) 'US stock market sensitivity to interest and inflation rates: a quantile regression approach', *Applied Economics*, Vol. 48, No. 26, pp.2469–2481. Doi: 10.1080/00036846.2015.1122735.
- Justinek, G. (2022) 'From one crisis to another', *International Journal of Diplomacy and Economy*, Vol. 8, No. 2, pp.109–112.
- Justinek, G. (2023a) 'State of economic play: European Union and economic diplomacy', *International Journal of Diplomacy and Economy*, Vol. 9, No. 1, pp.81–92. Doi: 10.1504/ijdipe.2023.10053486.
- Justinek, G. (2023b) 'What is the year 2023 bringing us? Gorazd Justinek', *International Journal* of Diplomacy and Economy, Vol. 9, No. 1, pp.1–4.
- Kabir Hassan, M., Maroney, N.C., Monir El-Sady, H. and Telfah, A. (2003) 'Country risk and stock market volatility, predictability, and diversification in the Middle East and Africa', *Economic Systems*, Vol. 27, No. 1, pp.63–82. Doi: 10.1016/S0939-3625(03)00017-7.
- Koenker, R. and Bassett, G. (1978) 'Regression quantiles', *Econometrica*, Vol. 46, No. 1, pp.33-50.
- Li, X. L., Balcilar, M., Gupta, R. and Chang, T. (2016) 'The causal relationship between economic policy uncertainty and stock returns in China and India: evidence from a bootstrap rolling window approach', *Emerging Markets Finance and Trade*, Vol. 52, No. 3, pp.674–689. Doi: 10.1080/1540496X.2014.998564.
- Luft, G. (2009) 'Dependence on middle east energy and its impact on global security', *Energy and Environmental Challenges to Security. NATO Science for Peace and Security Series C: Environmental Security. Springer, Dordrecht.* Doi: 10.1007/978-1-4020-9453-8_13.
- Misman, F.N., Roslan, S. and Aladin, M.I.M. (2020) 'General election and stock market performance: a Malaysian case', *International Journal of Financial Research*, Vol. 11, No. 3, pp.139–145. Doi: 10.5430/ijfr.v11n3p139.
- Naceur, S. Ben, Ghazouani, S. and Omran, M. (2007) 'The determinants of stock market development in the Middle-Eastern and North African region', *Managerial Finance*, Vol. 33, No. 7, pp.477–489. Doi: 10.1108/03074350710753753.
- Panda, A.K., Nanda, S. and Paital, R.R. (2019) 'An empirical analysis of stock market interdependence and volatility spillover in the stock markets of Africa and Middle East region', *African Journal of Economic and Management Studies*, Vol. 10, No. 3, pp.314–335. Doi: 10.1108/AJEMS-10-2018-0293.
- Phan, D.H.B., Sharma, S.S. and Tran, V.T. (2018) 'Can economic policy uncertainty predict stock returns? Global evidence', *Journal of International Financial Markets, Institutions and Money*, Vol. 55, pp.134–150. Doi: 10.1016/j.intfin.2018.04.004.
- Škrinjarić, T. and Orloví, Z. (2020) 'Economic policy uncertainty and stock market spillovers: case of selected CEE markets', *Mathematics*, Vol. 8, No. 7, pp.1–33. Doi: 10.3390/math8071077.
- Youssef, M., Mokni, K. and Ajmi, A.N. (2021) 'Dynamic connectedness between stock markets in the presence of the COVID-19 pandemic: does economic policy uncertainty matter?', *Financial Innovation*, Vol. 7, No. 1, pp.1–27. Doi: 10.1186/s40854-021-00227-3.
- Zhang, D., Lei, L., Ji, Q. and Kutan, A.M. (2019) 'Economic policy uncertainty in the US and China and their impact on the global markets', *Economic Modelling*, Vol. 79, pp.47–56. Doi: 10.1016/j.econmod.2018.09.028.
- Ziaei, S.M. (2018) 'US unconventional monetary policy and Islamic equity indices', *International Journal of Islamic and Middle Eastern Finance and Management*, Vol. 11, No. 4, pp.575–590. Doi: 10.1108/IMEFM-11-2017-0299.

Notes

- 1 Li et al. (2016) also documented no impact of Indian EPU on stock market.
- 2 Our findings support the findings of Abdullah (2020) and Istiak and Alam (2020) who documents that Qatar Exchange Index falls due to increase in EPU in USA.
- 3 Abdullah (2020) and Istiak and Alam (2020) also found the negative effects of USA EPU on Abu Dhabi Securities Market General Index.