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The Effect of Non-Oil Diversification on Stock Market Performance: The Role of FDI and Oil Price in the United Arab Emirates*

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Abstract

UAE has rapidly developed into one of the leading global financial hubs, with significant transformations in its stock exchanges. In its attempt at economic diversification in the last two decades, the country has also taken a lead in the GCC region in introducing extensive reforms to attract FDI to the Emirates. However, oil price volatilities have posed a significant challenge to all oil-exporting countries. The main aim of this study is to explore the impact of economic diversification and oil price on the UAE stock market. The study applies Granger Causality and Vector Autoregressive Model on monthly Abu Dhabi stock exchange index, Dubai Fateh crude oil spot price, and FDI inflows during 2001–19. The short-term interbank rate has been included as a monetary policy variable. The results show a substantial difference between the two phases of reforms. Oil price and Abu Dhabi stock index show bidirectional relationship during 2001–09 but no causality was found during 2010–19. Furthermore, the second phase was characterized by unidirectional causation from FDI to ADX index. This study highlights FDI inflows as a key driver of stock market performance during the last decade and emphasizes the success of the intense reforms in the UAE initiated for the diversification of its economy.

Keywords: Abu Dhabi Stock Exchange, Oil Price, Foreign Direct Investment, Times Series Modelling, United Arab Emirates

JEL Classification Code: B26, C32, F21, G120, Q43

1. Introduction

United Arab Emirates (UAE) has rapidly developed into one of the leading global financial hubs, with significant reforms in its stock exchanges, namely Abu Dhabi Stock Exchange (ADX), Dubai Financial Market (DFM), and NASDAQ Dubai. DFM and ADX primarily list UAE companies whereas NASDAQ Dubai was set up in 2005 to trade in international stocks. With a modern trading system, sophisticated working mechanisms, and robust organizational structure, the stock markets have continued their efforts in bringing themselves in line with international best practices.

DFM, established in March 2000, was the first to have offered its shares through an IPO in the Middle East. ADX was established in November 2000 and currently has 69 companies are listed on the stock market, experiencing impressive growth in investments from expatriate investors from the UK, USA, and Luxembourg. ADX is recognized for the positive impact of its Innovation Strategy and the rapid and responsible measures it has taken to ensure business continuity during the pandemic outbreak. The total trading value on ADX during the first half of 2020 was AED 41 billion with a market capitalization of AED 495 billion, as of June 2020. In May 2020, ADX won the Best Trading Innovation Excellence – Gulf Cooperation Council (GCC) Award for its innovation in developing a range of digital products and initiatives, the most notable being its digital wallet 'Pay it' (ADX, 2020).

Stock market performance in all GCC countries has witnessed fluctuations in the past two decades in response

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to various macroeconomic events. In the recent past, stock markets in GCC began declining, particularly since 2015, owing to fears of global economic slowdown, the slump in oil prices, and weak performances in its real estate and retail market sectors. Although the US stock market had a bullish 2017, GCC stock markets missed the upward trend due to sluggish macroeconomic growth. Interestingly, during the global stock market decline in 2018, the DFM General Index fell by 25 percent in value (trade volumes fell by 48.2 percent) whereas ADX General Index increased by 11.7 percent in value (trade volumes increased 35 percent) (Zawya.com, 2019).

Several regulatory reforms were introduced in the UAE stock market since 2006 by streamlining regulations to improve liquidity and levels of activity in the stock markets. First, companies were allowed to buy back 10% of their own shares, replacing the mandate where such buyback was allowed only if the value of shares fell below book value. Second, foreigners were allowed to invest in UAE stock markets that improved its GDP through foreign direct and institutional investments (Awartani & Maghyereh, 2013) and a commensurate rise in the stock prices as well. The markets were then adversely affected by the financial crisis in 2008–09 when ADX recorded a 70 percent fall while DFM suffered 43 percent in terms of trading values (Paltrinieri, 2015). Another new legislation in 2010 made it easier for companies to launch initial public offerings by floating as little as 30 percent of their shares (down from 55 percent) which resulted in a significant stock market recovery during the 2010–2013 period. In 2013, a major boost to the UAE capital market was the grant of the 'Emerging Market' status by Morgan Stanley Capital International (MSCI), which marked a new era in facilitating long-term capital flows and access to foreign funds.

Global markets witnessed significant fluctuations in oil prices in the past two decades, reaching a high of $131.22 per barrel in July 2008 before dropping to $41 in December 2008 bringing down the ADX index to AED 2255 (Fig. 1). Oil price volatility had strong implications for UAE's economic growth as a fall in oil revenues had strong repercussions on the stock market. A similar trend in oil prices was seen from 2014 to 2016 when oil prices tumbled down from $100 per barrel in 2014 to $27 per barrel in January 2016. It is noteworthy that the ADX index did not crash during this 2016 oil price slump. The co-movement of monthly ADX index and Dubai oil price per barrel (US$) in Figure 1 shows a similar trend from 2001–09 while a change in the trend is evident during 2010–19 when stock market and oil price movement were not in tandem.

During the last decade, UAE witnessed impressive growth in foreign direct investment (FDI) inflows (2.7% of GDP) while the average inflows into GCC fell from 4.8% of GDP in 2007 to below 2% in 2017 (ADX, 2020). A major regional FDI policy reform in 2004 was marked by the formulation of National Investment Reform Agendas (NIRA), which was then implemented by the UAE government in 2007. Following the slump in investments during the financial crisis, the UAE Government began to encourage FDI into the country by signing 40 bilateral investment treaties during 2010–14 (ADX, 2020). Consequently, FDI inflows attained an average growth rate of 16.4 percent accompanied by a spike in the stock market index to touch AED 5,253.41 in May 2014 (Figure 2). Another major initiative came with a new law in September 2018 that allowed 100% foreign ownership of UAE limited companies outside the free trade zones, removing the foreign investment restriction of 49%. In 2019, UAE became the largest recipient of FDI in the Middle East, accounting for 50% of the total inflows in the

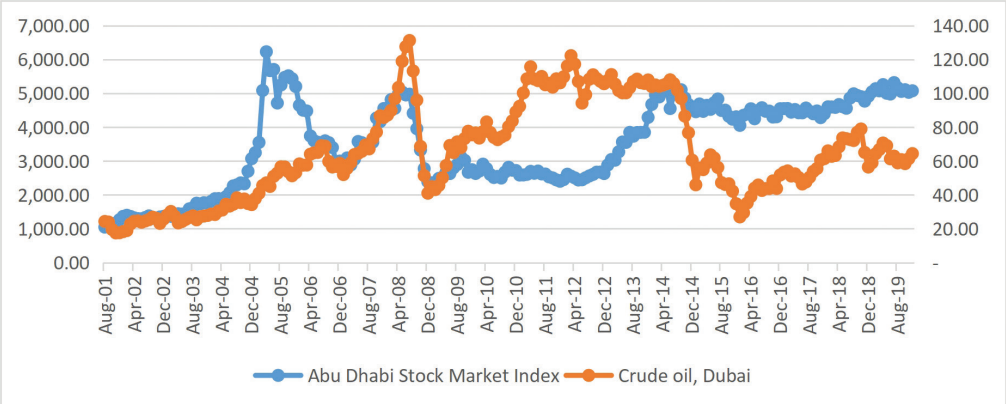

Figure 1: ADX Index Versus Dubai Fateh Crude Oil Spot Price Per Barrel from 2001–2019

Source: Abu Dhabi Securities Exchange (www.adx.ae);
World Bank Commodity Price Data (https://www.worldbank.org/en/research/commodity-markets)

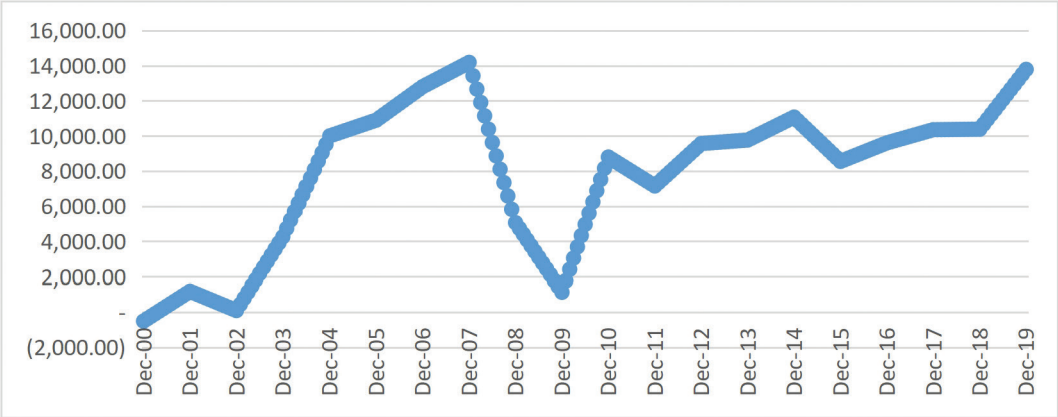

Figure 2: Net FDI Flows in UAE (In Million Dollars) from 2001–2019

Source: data.worldbank.org

region, amounting to $13,787 million (UNCTAD, 2020). UAE further consolidated its commitment to FDI growth by launching the Abu Dhabi Investment Office under Ghadan 21 program (UAE Economic Bulletin, 2020). The new laws, thus, helped in removing the existing legal barriers to FDI inflows into non-oil sectors like real estate, retail, financial services, and manufacturing.

The spate of major policy reforms relating to the UAE stock markets in the past two decades contributed to the vibrancy of the local bourses and explains the relevance of our research. This research augments the existing literature by extending the econometric analysis into a multivariate time-series model since past studies had often ignored FDI considerations in investigating the stock market-oil relationship. Further, the diversification policy reforms in the UAE were explored for two separate periods, 2001–09 and 2010–19.

The rest of the paper is structured as follows. The following section presents a review of the existing literature on related studies. The data and research methodology is described in Section 3 and 4 respectively. Section 5 presents the discussion and implications of the research. Our main conclusions are highlighted in Section 6 along with directions for future research.

2. Literature Review

Extant research on the oil price and stock market performance interaction encapsulates changes like this relationship based on a country's industrial structure, its net position in the global oil market, and demand-supply forces within the oil sector with few studies showing the effect of FDI on stock market development. In the context of developed economies with deep financial markets, Jones and Kaul (1996) found negative relationships for the USA, Canada, and UK stock prices, as did Kaneko and Papapetrou (2001) for Greece while European stock indices confirmed a significant positive effect of oil and gas sector on stock returns (Bagirov & Mateus, 2019).

For developing countries, extensive research has been carried out in Asian and African countries. Oil price shocks have shown a significant positive impact on real stock returns of most Chinese stock market indices before the financial crisis but negative effects during the 2007–17 period (Xiao et al., 2018). For India, there was no long-run relationship between crude oil prices and market indices (Nifty for overall market index and BSE Energy for the energy sector), while the impulse functions for BSE Energy showed a negative impact of lagged values of oil future prices (Sharma et al., 2018). Earlier, Chittedi (2012) confirmed a long-run relationship in India, with stock index volatilities influencing oil prices. Kenneth et al. (2019) used the Autoregressive Distributive Lag model and Bound testing approach for Nigeria and showed a positive significant effect of oil price on the stock market, in line with the results from Ghana stock returns (Lin et al., 2014).

Within the Middle Eastern studies, there are contradictory views on the association between oil price and GCC stock markets. Arouri and Rault (2010) examined long-run links between oil prices and stock markets in Gulf Cooperation Council (GCC) using recent bootstrap panel cointegration techniques and seemingly unrelated regression (SUR) methods. Since GCC countries are major world energy market players, their stock markets are likely to be susceptible to oil prices. They showed that there is evidence for cointegration between oil prices and stock markets in GCC countries, while the SUR results indicate that oil price increases have a positive impact on stock prices, except in Saudi Arabia.

Hammoudeh and Aleisa (2002) conducted a multi-country study to show spillovers from oil markets to stock indices of oil-exporting countries including Bahrain, in line with the conclusions of Mohanty et al. (2011). In terms of oil-exporting countries, oil price volatility was found to have a statistically significant positive impact on stock returns for each of the GCC stock returns, except Saudi Arabia (Maghyereh & Al-Kandari, 2007; Arouri & Rault, 2012). Negative oil price changes were found to exert larger impacts on stock returns than positive changes in Kuwait while the stock markets in Oman and Qatar were more sensitive to large oil price changes (Cheikh et al., 2018). Looking at the Abu Dhabi stock market returns during 2014–19, a long-run and short-run association between oil price volatility and stock returns was found, signifying that the performance of the ADX index continued to be influenced by oil price volatility (Hammoudeh & Aleisa, 2002).

The effect of FDI on stock market development also remains ambiguous. In line with this argument, Malik and Amjad (2013) found a positive impact of FDI on the Pakistani during 1985–2011. In complete contrast. They concluded that countries that are riskier, financially underdeveloped, and institutionally weaker have a higher inflow of FDI. Effects of exogenous macroeconomic variables have been explored in the context of the stock market and oil price associations (Conrad et al., 2014) establishing that interest rates and stock prices are closely related. An increase in interest rate tends to have an adverse impact on corporate profitability and stock market returns through an increase in the cost of capital.

Conversely, a fall in real interest rates is associated with an expansionary monetary policy whereby businesses expand their operations and increase their future income stream resulting in higher stock prices (Shiller, 1981). Filis and Chatziantoniou (2014) used the IS-LM model to explain that short-term interest rates may be used as a monetary tool to tackle demand-side inflation in oil-exporting countries since a fall in interest rates causes expansion of investments with a positive impact on stock market performance.

Alam and Uddin (2009) studied fifteen developed and developing countries and found a significant negative relationship between the interest rate and share price for all the countries. Ologunde et al. (2006) found that interest rate was a key positive determinant of share price movements in Ghana and Nigeria. They argued that lending interest rates from deposit money banks exerted an adverse effect on Ghanaian stock market performance.

Our research investigates the association between oil price movement and the ADX stock market index under the influence of macroeconomic factors, namely FDI inflows and the Central Bank monetary policy indicator (EIBOR) as a proxy for the monetary policy variable. Although causal relationships between oil prices, interest rates, and FDI have been examined separately by previous researchers in the context of stock market performance, their econometric analysis did not include an adequate multivariate analysis. The present model, explored by splitting the time-periods makes a significant contribution to gain insights into the oil price- stock-price nexus in the UAE.

3. Model Specification and Data

The vector autoregression (VAR) model involves 'k' time-series regressions, where the lagged values of all 'k' series appear as regressors. Therefore, for a lag order of 'p' the VAR(p) model of two variables (k = 2) X_t and Y_t, the model is given by the equations

$$\begin{aligned} Y_t &= \alpha_{10} + \alpha_{11} \cdot Y_{t-1} + ... + \alpha_{1p} \cdot Y_{t-p} + \beta_{11} \cdot X_{t-1} \\ &\quad + ... + \beta_{1p} \cdot X_{t-p} + u_{1t} \\ X_t &= \alpha_{20} + \alpha_{21} \cdot Y_{t-1} + ... + \alpha_{2p} . Y_{t-p} + \beta_{21} \cdot X_{t-1} \\ &\quad + ... + \beta_{2p} \cdot X_{t-p} + u_{2t} \end{aligned} \tag{1}$$

Our dataset includes the interaction between four variables, as follows:

i. Stock market index (ADX): Monthly data on the stock market index has been used for the ADX index from August 2001 to December 2019. August 2001 marked the first trading data on the Abu Dhabi Stock Exchange. Stock market data was obtained from the Abu Dhabi Securities Exchange website.
ii. Oil Prices (OIL): Data for the Dubai Fateh crude oil spot price per barrel (in USD) was procured from the World Bank Commodity Price database
iii. Interest rate (EIBOR): The interest rate was included as the monetary policy variable, represented by the Emirates Interbank Offered Rate (EIBOR). We used the three-month short term inter-bank rate released by the UAE Central Bank.
iv. Foreign Direct Investment (FDI): Net FDI inflows (in USD) was sourced from World Bank country indicators.

The time series model with our 4–variable (k = 4) case transforms into

$$\begin{aligned} \text{ADX}_t &= f(\sum \text{ADX}_{t-n}, \sum \text{OIL}_{t-n}, \sum \text{EIBOR}_{t-n}, \sum \text{FDI}_{t-n}) \\ \text{OIL}_t &= f(\sum \text{ADX}_{t-n}, \sum \text{OIL}_{t-n}, \sum \text{EIBOR}_{t-n}, \sum \text{FDI}_{t-n}) \\ \text{EIBOR}_t &= f(\sum \text{ADX}_{t-n}, \sum \text{OIL}_{t-n}, \sum \text{EIBOR}_{t-n}, \sum \text{FDI}_{t-n}) \\ \text{FDI}_t &= f(\sum \text{ADX}_{t-n}, \sum \text{OIL}_{t-n}, \sum \text{EIBOR}_{t-n}, \sum \text{FDI}_{t-n}) \end{aligned} \tag{2}$$

Based on our observation of the co-movement of oil price and stock index (Figure 1) and, a rebound in FDI

inflows from 2010–2019 compared to 2006–2009 (Figure 2), a structural change is evident in the UAE, with increased intensity in FDI reforms, initiatives by ADX and the constant volatilities in oil price. We incorporated the structural change in our analysis by splitting the full sample into two sub-periods, 2001–2009 and 2010–2019.

4. Research Methodology

4.1. Time Series with Stationarity

We seek to model the time series during the two sub-periods separately. The data on the stock prices, oil prices, and FDI inflows were first transformed by taking their natural logarithms to reduce the variance in the datasets. Stationarity in the series, at levels and first-differences, was investigated using the augmented Dickey and Fuller test. The ADF results at the levels show that the data contain unit roots and is non-stationary for both the periods in our time series (Table 1). Only FDI was stationary at the level. To smoothen the data, first-order differences were taken on the sequences and the ADF test on the first-differenced data confirmed the stationarity of the series for both periods (Table 1). This fulfills the requirement for carrying out our time series modeling for the first differenced logarithmic series.

4.2. Diagnostic Tests for Time Series Analysis

With stationarity at the first difference, we needed to establish the suitability of the Vector Autoregressive (VAR) model or Vector Error Correction Model (VECM) in our time series data by implementing Johansen's 'trace' statistic method to identify the number of co-integrating equations. The output in Table 2 shows the rejection criteria is at a 95% significance level such that the rejection of the null hypothesis (H0: no co-integrating equations) is indicated by the '*' in the trace statistic. Our results confirm that there was no identifiable long-term co-integrating relationship between the variables.

Model selection criteria further require the explicit choice of lag length in the equations. If one chooses too many lags, there would be a loss of degrees of freedom, while too few

Table 1: Augmented Dickey-Fuller (ADF) Stationarity Test

		Level	1st Difference
2001 Aug–2009 Dec Obs = 101	ADX	–1.888 (0.3377)	–6.835*** (0.0000)
	Oil	–1.020 (0.7458)	–6.559*** (0.0000)
	EIBOR	–0.739 (0.8365)	–4.717*** (0.0001)
	FDI	–1.288 (0.6349)	–7.110*** (0.0000)
2010 Jan–2019 Dec Obs = 120	ADX	–1.040 (0.7382)	–11.604*** (0.0000)
	Oil	–1.199 (0.6738)	–7.937*** (0.0000)
	EIBOR	–0.517 (0.8887)	–8.088*** (0.0000)
	FDI	–16.246 (0.000)	–5.157*** (0.0000)

Note: Figures in parentheses indicate the *p*-values.
***indicates significance at 99% level of confidence.
Ho = Variable has a unit root.

Table 2: Johansen Test for Cointegration

	Max Rank	Parameters	Lag Length	Eigen Value	Trace Statistic	5% Critical Value
2001 Aug–2009 Dec Obs = 101	0	20	268.37		36.4954*	47.21
	1	27	276.26	0.14729	20.7208	29.68
	2	32	282.11	0.11145	9.0223	15.41
2010 Jan–2019 Dec Obs = 120	0	20	611.29		42.0855*	47.21
	1	27	622.91	0.17876	18.8466	29.68
	2	32	629.42	0.10454	5.8177	15.41

lags would lead to specification errors. The Likelihood Ratio test in Table 3 has been used to determine the lag length of the multivariate time series model, which shows the optimal lag length to be at 2 or 3 during 2001–2009 while it was 2 for 2010–2019. Based on our analysis, the final lag length was set at 2 since the Lagrange Multiplier confirmed no autocorrelation at lag order 2 for both periods. We also performed the diagnostic checks for the stability condition of the dataset to ensure that the eigenvalue stability conditions were satisfied.

4.3. Vector Autoregressive Model and Granger Causality

In the absence of any long-term co-integrating relationship, we proceeded to estimate the Vector Autoregressive (VAR) model at lag 2 involving all four variables. Further, to determine the short-term causal relationships between the variables, the Granger Causality tests were carried out. A variable '*x*' is said to Granger-cause a variable '*y*' if past values of '*x*' are useful for predicting '*y*'. A common method for testing Granger causality is to regress '*y*' on its own lagged values and lagged values of '*x*' and test the null hypothesis that the estimated coefficients on the lagged values of '*x*' are jointly zero. Failure to reject the null hypothesis is equivalent to failing to reject the hypothesis that '*x*' does not Granger-cause '*y*'. For each equation, Granger Causality tests the hypotheses that each of the other endogenous variables does not Granger-cause the dependent variable in that equation. The results have been collated and presented in Table 4.

For 2001–2009, the VAR coefficients along with Granger Chi-square statistics show a positive bi-directional relationship between oil and stock prices in the UAE (at 95% level of significance) while EIBOR had a negative effect on stock prices (at 90% level of significance). FDI did not granger cause ADX in this period. Moreover, oil prices were found to be significantly influenced by all three variables in the first half of our study. The results in the second phase were markedly different. FDI emerged as the key variable in association with the stock price movements during the 2010–2019 period, with a positive bi-directional relationship. The VAR coefficients also get reversed in this period, with ADX having a strong positive influence on the EIBOR and a strong negative movement with oil prices, both at 99% levels of significance.

5. Findings and Discussion

Our results corroborate that during the 1st period of the structural break of our study, we found bidirectional causality of oil-stock market transmission, in line with earlier findings in the UAE during 2005–2008 by Arouri et al. (2012). The first decade of our study represents the non-diversification phase in UAE, where the oil-GDP constituted a substantial share of the government revenues along with significant oil dependency. Although this period witnessed early reforms in FDI and the stock market, it is evident that the stock market was highly integrated with the oil market and vulnerable to oil price volatility. Furthermore, a unidirectional causality from interest rate to stock market during 2001–09 was also found by Pradhan et al. (2015) for G-20 countries. We find a negative association of interest rate with stock prices. This may be because the historically low Fed rates kept interest rates low in the UAE, thereby attracting foreign investments due to lower borrowing costs.

An analysis of the 2nd period highlights that FDI inflows significantly influenced ADX performance. The 2010–2019 phase was marked by major reforms in FDI aimed at a diversified economy and efforts by the regulators were focused on moving away from oil dependency. Our results on bidirectional causality between stock market development and FDI were consistent with the regulatory reforms, as was confirmed for emerging market studies by Otchere et al. (2015). We argue that an increase in FDI inflows may have been in sectors with greater influence on the stock market, causing the upward trend in the ADX index during this phase.

Table 3: Selection-Order Criteria: Likelihood Ratio Test

	Lag	LR	df	*P*	FPE	AIC	HQIC	SBIC
2001 Aug–2010 Dec Obs = 101	0				0.010424	6.78788	6.83186	6.89681
	1	1055.5	16	0.000	$1.7e^{-07}$	–4.21747	–3.99756	–3.67282
	2	107.7	16	0.000	$7.7e^{-08}$	–5.03141	–4.63557*	–4.05105*
	3	41.99*	16	0.000	$6.9e^{-08}$*	–5.13886*	–4.56708	–3.72278
2010 Jan– 2019 Dec Obs = 120	0				0.001511	4.85683	4.89623	4.95392
	1	1552.4	16	0.000	$1.9e^{-09}$	–8.71825	–8.52129	–8.2328
	2	171.64	16	0.000	$5.5e^{-10}$*	–9.96499*	–9.61046*	–9.09119*

Table 4: Vector AutoRegression (VAR) with Granger Causality Wald Test

Years	Variables		VAR Coefficient	Granger Chi-Square	Granger Causality Direction		
2001–2009	ADX	OIL	0.1888759**	4.7294**	OIL	Granger causes	ADX
		EIBOR	–0.0526385*	3.5164*	EIBOR	Granger causes	ADX
		FDI	0.0431528	1.3829			
	OIL	ADX	0.2412899**	6.0992**	ADX	Granger causes	OIL
		EIBOR	–0.133409***	23.007***	EIBOR	Granger causes	OIL
		FDI	0.0691923*	3.6214*	FDI	Granger causes	OIL
	EIBOR	ADX	0.3338077	1.2523			
		OIL	0.474501*	3.2618*	OIL	Granger causes	EIBOR
		FDI	0.0233199	0.4413			
	FDI	ADX	0.2292354	0.73268			
		OIL	–0.2360663	1.0015			
		EIBOR	0.0265087	0.1209			
2010–2019	ADX	OIL	0.00189	0.01113			
		EIBOR	–0.0057485	0.59672			
		FDI	0.0080031**	3.8303**	FDI	Granger causes	ADX
	OIL	ADX	–0.243352**	10.866***	ADX	Granger causes	OIL
		EIBOR	0.0282758*	2.9669*			
		FDI	0.0144314	2.5594			
	EIBOR	ADX	0.254369***	11.875***	ADX	Granger causes	EIBOR
		OIL	–0.06038	2.3364			
		FDI	–0.03451***	14.64***	FDI	Granger causes	EIBOR
	FDI	ADX	0.552324***	7.9504***	ADX	Granger causes	FDI
		OIL	0.1679136	2.5655			
		EIBOR	0.294297***	45.652***	EIBOR	Granger causes	FDI

Note: ***significant at 99% level of confidence.
**significant at 95% level of confidence.
*significant at 90% level of confidence.

Our result on causality from ADX to FDI highlights the importance of stock market performance for FDI. In this context, Zhao et al. (2017) pointed out the tendency of FDI to seek financially developed systems, support the argument that countries with well-developed financial markets seem to gain significantly from FDI. Moreover, UAE's re-classification from frontier market to emerging market status by FTSE in 2010 and MSCI in 2014 may have attracted long term and stable FDI flows during the past decade in response to the non-oil diversification policy reforms by the Government.

It was interesting to note the significant causal effect from ADX to EIBOR. Although UAE does not have its independent monetary policy since the exchange rate is pegged to the US Dollar, this relationship indicates that stock market performance in the local bourse gives a signal for an increase or decrease in short-term interest rates. This seems to be followed by the UAE Central Bank for the repo market transactions and gets reflected in the inter-bank offered rates during its open market operations.

Another important outcome of our analysis was the fact that there was no association between oil and ADX, as revealed by the VAR coefficients and the Granger Causality Wald test statistics during this period. This strongly suggests that the dependency of stock market performance on the oil market ceases to exist, emphasizing the success of the diversification program drive. Our result contradicts Cheikh et al. (2018) who studied the Gulf stock market returns

for the period 2014 to 2019 confirming a unidirectional causal relationship from oil to stock market returns, despite the country's diversification drive. Our approach on analyzing different phases of reforms to boost foreign investor contributions into non-oil sectors makes important contributions to the existing studies on stock market-oil-FDI interaction in the region and provides strong directions for policymakers.

6. Conclusion

With the unfolding of a dynamic economic environment in UAE during the recent past, it was important to explore the influence of macroeconomic events on the stock market performance. The main aim of this research was to examine the effect of oil price movement on stock market performance from 2001 to 2019 by exploring the relationship in the context of FDI inflows and interest rate movements. Further, to capture the diversification drive and policy reforms in the UAE since 2010, we investigated the oil price-stock index nexus for two separate phases 2001–2009 and 2010–2019.

The evidence of a short-term two-way relationship between oil price and the stock market during the 1st phase revealed the vulnerability of ADX to oil price movement and significant oil- stock market integration. This period was also characterized by stock market sensitivity to interest rates while the influence of FDI was not evident. In complete contrast, the 2nd phase was marked by a bi-directional association of stock price with FDI which strongly evidences that stock market reforms have been a driver of economic growth through increased FDI inflows and vice versa. Our study confirms that the financial reforms initiated by the UAE government and market regulator for stimulating the capital market have successfully protected the stock market from any contagion effect of the oil price shock during 2016–17. Economic diversification through increased FDI inflows in non-oil sectors has brought desirable results concerning the sustainability of the stock market.

In terms of policy implications, results from the 2nd period suggest that promoting FDI in a wider range of sectors may give a further boost to the stock market performance in UAE. If the market regulator and policymakers work towards better market transparency, improving the liquidity of its market, and market liberalization, it could attract and retain long-term foreign investors leading to more stability in its markets and economy. In this context, maintaining its emerging Market status is crucial to UAE to reap benefits from its diversification efforts and FDI inflows.

Future studies may investigate the structural break by incorporating other relevant macroeconomic events that may have an influence on the stock market-oil and stock-FDI interactions. The effect of foreign institutional investors on oil- stock interaction may reveal interesting insights on the causations of market performance. Importantly, the effect of digitization of the markets on its performance may be a relevant factor in the contemporary digital business environment.

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