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MENA Stock Markets Decoupling:

Winners and Losers from the Wars in Ukraine and Middle East

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ECONOMIC RESEARCH FORUM
منتدى البحوث الاقتصادية

MENA Stock Markets Decoupling: Winners and Losers from the Wars in Ukraine and Middle East[1]

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Abstract

The recent wars in Ukraine and the Middle East created opportunities for change and reevaluation of the traditional integration argument. To protect their economies from outside shocks magnified by integration, policymakers are seeking strategic realignments with new trading blocks to diversify their economies and maintain a footing in an unstable world. The impact of these wars on the region has been vastly asymmetric, with some countries directly or indirectly harmed by the wars, while others, primarily Turkey, seizing the opportunity to quietly expand trade to both sides of the conflicts. This strategy is not opportunistic but is grounded in the desire to decouple from traditional trading partners and chart an independent course. As US sanctions become more frequent and severe, we detect a growing evidence of decoupling in the trend of foreign trade, and in the central banks diversification away from the US Dollar. Using a Garch-based vector autoregression model, we note a clear decoupling from historical correlations in the region's equity markets, with leading countries of that region either completely or partially decoupled. The results indicate that countries in the region are rejecting pressures to take sides, and seeking a new direction by strengthening ties with emerging markets

1. Introduction and Motivation

As the Middle East and North Africa (MENA) grapple with parallel shocks in the aftermath of the wars in its region and in Ukraine, there has been a growing push for neutrality from countries in MENA with a desire to seek new strategic alignments and better navigate shifting economic headwinds.

Intensified by increasingly competitive geopolitical and geoeconomic environments, several countries in the region are attempting to untangle their economies to the best they can and reduce exposure to externalities. These countries justify their new direction by a desire to remain neutral calling their strategy one of 'de-risking' and not decoupling. Regardless of the terminology used, the new strategy represents a step back from economic and financial integration, an economic notion recommended to policymakers by respected organizations

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(such as the IMF and World Bank) as a prerequisite to foster growth and improve market efficiency. In fact, integration has been one of three key topics that has garnered the attention of the best economists studying the MENA region (the other two topics are labor, and energy). However, three key events have stood against the integration argument and reminded policy makers of its potential downsides: contagion from the financial crisis of 2008-09; spillovers from the US Fed rapid tightening of monetary policy which caused the failure of several banks in 2023 (starting with the collapse of Silicon Valley Bank); an acceleration and widening of US financial sanctions in the past decade forcing compliance on neutral countries. These three events have turned the support of the 'open market' and 'free capital movements' arguments upside down as integration with the new World order brought negative externalities, undesirable spillovers, and considerable administrative costs by local banks to comply with US sanctions.

2. Winners And Losers

With the war in Ukraine now in its third year, and instability in the Middle East in its second year, multiple countries in the region are now facing additional challenges magnified by integration. To protect their economies from outside shocks and remain neutral, policymakers are scaling back from traditional engagements, and seeking strategic realignments with new trading blocks to diversify their economies and maintain a footing in an unstable world. Examples of this new strategy are the choices made by Egypt, Iran, Algeria, and Saudi Arabia to apply and join the intergovernmental organization BRICS in 2023.

The latest wars in Ukraine and the Middle East created opportunities for change and a reevaluation of the traditional integration argument. For example the war in Gaza in October 2023 has evolved from a localized confrontation between Israel and Palestinians living in Gaza, to a major war and objectives to redraw the historical maps in parts of the Middle East. Meanwhile the financial impact of these wars has been shockingly large on the world stage with significant inflation, trade disruptions, and higher commodity prices. Prior to the war in the Middle East, the IMF had predicted that the long-term cost of economic fragmentation (sanctions, trade retrenchment, boycotts) because of the War in Ukraine could measure more than 7% of the global GDP. The Middle East wars compounded the shocks from the war in Ukraine, impacting the economies in MENA, positively and negatively, in several ways. For example, grain, cooking oil, and other commodity prices rose sharply following the War in Ukraine, hurting primarily countries that subsidize staple foods for their low-income population. Similarly, tourism dependent countries, namely Egypt and Tunisia, saw this sector decimated just as it was beginning to recover from the Covid pandemic. The war on Gaza added more fuel to the fire and further destroyed the tourism industry in Jordan, Egypt, and Lebanon. Meanwhile, tensions in the Red Sea altered trade routes causing major declines in

revenues for the port of Jeddah, Aqabah, and the Suez canal, in addition, of course to the Israeli ports of Haifa and Eilat (which filed for bankruptcy in July 2024).

The consequences of these wars were not all negative. As the geoeconomic landscape evolved and uncertainties took hold, some countries in the region actually benefitted from an increase in trade flows depending on their geographic location and level of integration with the "World Order". On average, the IMF had estimated[4] that, as a whole, GDP in MENA countries would grow only by 0.4% in 2024. In October 2024, the World Bank[5] provided a rosier outlook of a growth of 2.2%. However, hidden behind these limited growth numbers is the fact that, within MENA, the impact of these wars has been vastly asymmetric. On one hand, countries such as Qatar, Kuwait, Algeria, Oman, and Bahrain have clearly benefitted from higher energy prices, both from sales of crude oil and natural gas to replace sanctioned Russian exports. Turkey has expanded its trade and is providing support to one and sometimes both sides of the conflict. Ports in Sri Lanka, Djibouti, Spain, Morocco, and Saudi Arabia (Dammam) have also benefitted when trade bound to Europe and the Mediterranean is rerouted through the Cape of Good Hope in South Africa. As Figure 1 shows, there is a marked increase in port traffic in the first half of 2024 vs. the same period in 2023. Transshipment hubs that have reaped the most rewards and witnessed the largest traffic surges from the shift in trade are Barcelona, Dammam, and Djibouti. There are also undeclared countries that are directly, but quietly supporting one and sometimes both sides of the conflict. For example, the UAE doesn't deny sending goods to Israel throughout the conflict in Gaza. These goods are shipped through Saudi Arabia and Jordan, the only land route possible to reach Israel (Wrobel 2023). In table 1, IMF figures about the Direction of Trade show that UAE exports to Israel were relatively constant during 2023 and 2024, fluctuating between $0.42b in Q4 of 2023 and $0.67b in Q2 2024.

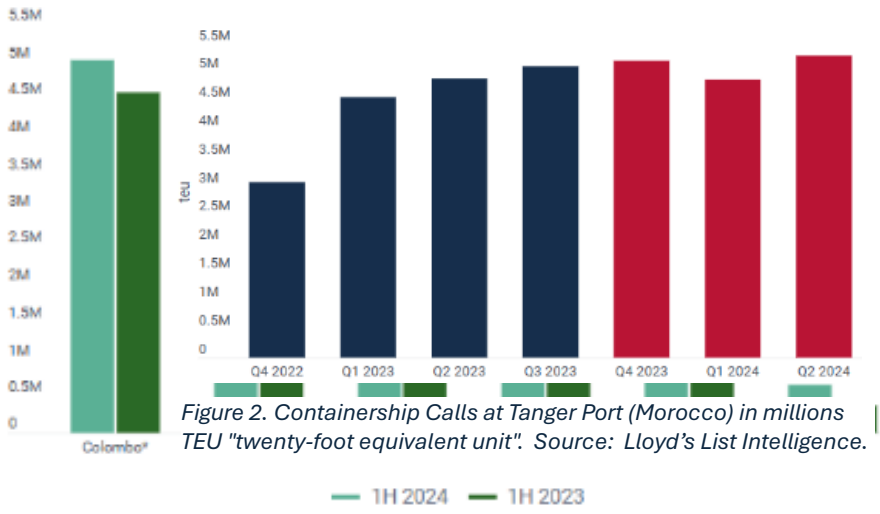

Figure 2. Containership Calls at Tanger Port (Morocco) in millions TEU "twenty-foot equivalent unit". Source: Lloyd's List Intelligence.

Figure 1. Containers Ports Gaining from Sea Disruption, first half of 2024 (1H 2024) vs 2023 (1H2023). Source: Lloyd's List Intelligence.

[4] An Uneven Recovery amid High Uncertainty. Regional Economic Outlook: Middle East & Central Asia, IMF 2024, Washington DC.
[5] Growth in the Middle East and North Africa, MENA Economic Update, October 2024, the World Bank, Washington DC.

However, the same IMF sources reveal that in the quarter when the war with Gaza erupted, UAE's total imports jumped 20% (from $213b in Q4 2022 to $255B in Q4 2023). It is very possible that this inexplicable increase in imports was being rerouted to Israel. However, the trade statistics between Jordan and Israel do not show any meaningful change because the traffic volume transiting through Jordan is not reported in any trade (or even transit) official figures. Saudi Arabia doesn't have any diplomatic relations with Israel and any trade between the two countries or transit through 3rd parties is undeclared.

One final MENA country directly benefiting from the wars and conflicts in the Middle East is Turkey. As Table 1 shows, Turkey reported a steady decline in its exports to Israel from $1.67B in Q4 2022 to $1.1B in Q4 2023 (column 1). Yet during the same period, Turkey's total exports peaked at $143.3B in Q4 2023 (column 2), again during the same quarter that the conflict erupted. While this could be a sheer coincidence, it is more likely that the sharp increase in Turkey's exports during that quarter was being diverted to Israel through third parties (Kenez 2024). According to Souly (2024), after the Turkish government halted direct trade with Israel in May 2024, Turkish firms began exporting to Israel using the Palestinian Authority customs credentials. In fact, the Turkish Exporters' Assembly recorded a whopping 423% increase in exports to Palestine in the first eight months of 2024, jumping from $77m in the same period in 2023 to $403m in 2024. The trend is accelerating and remains unabated even after Israel invaded Lebanon in October 2024.

		TURKEY EXPORTS		UAE EXPORTS		UAE IMPORTS	JORDAN EXPORTS		JORDAN IMPORTS	SAUDI IMPORTS	SAUDI EXPORTS
		To Israel	Total	To Israel	Total	Total	To Israel	Total	Total	From Emerg Asia & China	To Asia & Developing Econ
	2020Q1	1.17	91.8		82.1	130.0	0.02	2.8	8.1	14.98	50.09
	2020Q2	0.91	68.7		54.3	92.4	0.01	2.3	7.5	16.99	27.74
	2020Q3	1.20	93.1		85.2	111.9	0.01	3.3	8.7	16.03	40.82
	2020Q4	1.42	109.5		87.6	127.6	0.02	3.3	9.4	18.54	51.33
	2021Q1	1.38	107.7	0.10	99.7	137.1	0.02	3.0	9.2	19.26	53.44
	2021Q2	1.52	118.6	0.23	106.9	141.1	0.01	3.4	9.8	17.51	60.02
	2021Q3	1.54	121.0	0.16	120.4	156.7	0.01	3.7	11.0	20.47	70.55
	2021Q4	1.91	137.7	0.24	138.3	171.2	0.02	4.6	11.9	20.73	81.65
Ukraine War	2022Q1	1.87	130.2	0.31	139.7	166.8	0.03	4.7	11.7	22.90	89.81
	2022Q2	1.85	142.2	0.53	169.0	179.4	0.03	5.6	13.9	23.12	102.65
	2022Q3	1.65	133.7	0.48	170.3	187.5	0.03	5.6	14.5	25.19	98.50
	2022Q4	1.67	141.3	0.46	164.8	213.4	0.03	4.5	13.0	27.67	85.42
	2023Q1	1.54	134.3	0.54	153.6	213.0	0.04	5.1	12.9	28.38	77.63
	2023Q2	1.38	134.3	0.59	144.0	201.7	0.04	5.2	12.6	26.83	72.80
	2023Q3	1.41	136.5	0.63	142.6	206.1	0.03	5.1	13.8	27.87	75.58
Gaza War	2023Q4	1.10	**143.4**	0.42	159.2	**255.2**	0.03	5.0	12.6	29.66	76.94
	2024Q1	1.21	137.4	0.66	151.3	**244.9**	0.04	4.1	12.2	29.19	70.03
	2024Q2	0.31	133.7	0.67	152.3	**231.8**	0.04	5.3	13.1	28.72	70.86
									Source: IMF Direction of Trade Statistics, Oct 2024		

Table 1 Evolution of key trading partners in the wake of wars on Ukraine and Gaza

While most energy exporting countries in MENA have generally benefitted with windfall profits from higher commodity prices, others such as Egypt, Jordan, Yemen, Lebanon, and Sudan are

net economic losers. Lebanon is now devasted by a full scale war, while other countries that are not directly impacted by the violence are also hurting. The World Bank estimates that Jordan and Egypt are the countries most harmed by a decline in tourism and foreign exchange receipts, higher energy commodities, and more fiscal pressures[6]. It is important to note that trade disruptions and the rise in commodity and energy prices began in February 2022, nineteen months before the war on Gaza. These divergent trends have prompted economies in several MENA countries to readjust and seek new realignments, while their stock markets decouple from historical correlations.

Against this backdrop this paper investigates how the MENA equity markets are responding to these external shocks. We ask, are the stock market linkages in MENA countries that have grown steadily in the past 30 years beginning to unwind? Given that decoupling is a process and not an overnight event, which equity market remains integrated with advanced economies? Which countries have decoupled from Advanced economies and established links with emerging economies? And which equity markets were impacted by the wars in Ukraine and the Middle East?

The remainder of the paper is as follows. After an overview of related literature in Section 3, we present more recent evidence of stock market decoupling in Section 4. Section 5 details the empirical methodology and data. In Section 6, we discuss the empirical results. Section 7 summarizes our observations and concludes the paper with policy implications.

3. Theoretical Motivation and Related Literature

Financial decoupling refers to the phenomenon in which markets or economies of different regions or sectors become less correlated, or "decoupled," over time. This term has gained prominence particularly in the context of global financial markets, where economies or asset classes that were previously highly correlated begin to show divergent performance, either due to changes in economic conditions, shifts in investor behavior, or structural transformations in global finance.

The literature on financial decoupling spans several key dimensions, including the role of globalization, regional economic integration, technological advances, and the evolution of financial market dynamics. Financial decoupling typically describes a situation where two or more financial markets that were once strongly correlated begin to exhibit increasingly independent behavior. A central debate has been whether emerging markets, once heavily influenced by the economic performance of developed economies (especially the US), can evolve to become more independent or decoupled. The 2008 global financial crisis is frequently

[6] Conflict and Debt in the Middle East and North Africa, MENA Economic Update, The World Bank, Washington DC, April 2024.

cited as a key event that either reinforced or weakened the decoupling phenomenon[7]. Academic studies, such as those by Chinn and Prasad (2003), have argued that the increasing integration of financial markets does not preclude the possibility of decoupling, particularly when external shocks cause differential impacts across regions.

Global financial markets have become increasingly interconnected due to the removal of capital controls, improved communications, and the globalization of trade. However, recent shifts in policy, trade wars, and geopolitical tensions have led to instances of financial decoupling as economies may prioritize local over global interests (e.g., the US-China trade war or Brexit). Advancements in technology, including algorithmic trading, high-frequency trading, and the rise of fintech, have altered the behavior of financial markets. These innovations can decouple the performance of different markets by allowing investors to rapidly respond to local information rather than global events, leading to divergent trends between markets. Central banks in major economies, such as the Federal Reserve, the European Central Bank, and the Bank of Japan, have often followed different monetary policies. Interest rate differentials, quantitative easing measures, and unconventional monetary policies can create a situation where asset prices in different regions do not move in tandem.

Emerging markets have seen substantial structural changes in the last two decades, with countries like China, India, and Brazil becoming more integrated into global supply chains and financial markets. However, their ability to decouple from developed markets has been debated, especially in light of the increasing role of domestic factors (e.g., internal policy shifts, and local consumption trends) in influencing their financial markets. Bekaert and Harvey (2003) suggest that financial market integration and decoupling in emerging markets are not static and vary over time depending on the state of the global economy and the stage of development in emerging markets. Research by Fratzscher (2012) indicates that there were instances of decoupling during periods of heightened risk aversion in global markets, with emerging market economies experiencing growth despite global financial downturns.

An important number of researchers have explored the phenomenon of asset market decoupling, particularly the evolving dynamics between equity markets in developed and emerging economies. Auerbach and Gorib (2021) observe that during global financial crises, equity markets in emerging economies tend to decouple from those in developed economies, primarily due to local economic conditions. However, over the long term, global macroeconomic factors continue to exert substantial influence. Decoupling can also manifest in the disjunction between different asset classes, such as stocks, bonds, and commodities. Cheung and Roca (2016) identify signs of decoupling between commodities, emerging market equities, and traditional equity indices in the aftermath of

[7] See for example Hakim and Haddad (2017)

the 2008 financial crisis, as investors increasingly sought alternative assets for diversification, especially when developed economies struggled with slow growth. The distinction between contagion—where negative shocks propagate across markets—and spillover effects—where economic or financial conditions in one region influence another without direct transmission of shocks—is pivotal in understanding decoupling. Forbes and Rigobon (2002) contend that spillover effects can occur under normal conditions, while financial decoupling is more likely to take place when contagion channels weaken, allowing regional markets to react independently. Some scholars, such as Subramanian (2007), suggest that decoupling reflects a broader shift in global economic power. As emerging economies, particularly in Asia, grow in importance, their ability to independently influence global market trends strengthens, further contributing to decoupling in financial markets.

Witt et al. (2023) argue that decoupling, defined as the diminishing interdependence between nations or blocs, has been an ongoing trend between China and the United States, with potential for further acceleration. They present evidence of deglobalization and China-U.S. decoupling, exploring the dynamics underpinning these trends and their implications. They propose a framework to analyze variations in decoupling based on industry characteristics.

Liang-Chun and Huang (2014) assess the contagion effect between the stock markets of Abu Dhabi, Jordan, and the United States, using the Lagrange multiplier principle for causality in variance tests. Their results indicate significant contagion between the U.S. stock markets and the stock indices of Jordan and Abu Dhabi, providing evidence that the variances of returns from major U.S. stock price indices exert contagion effects on the return variances of both the Jordanian and Abu Dhabi stock indices.

Wajih and Sandrello (2012) examine whether the recent financial turmoil in the United States has propagated contagion to the MENA region, distinguishing between pure contagion (Masson, 1999) and shift-contagion (Rigobon, 2003). Using a Markov-Switching EGARCH model, they find evidence of both mean and volatility contagion in MENA stock markets, particularly during the third phase of the subprime crisis, where MENA stock markets experienced persistent recession characterized by low means and high variance.[8]

Alqahtani et al. (2019) explore whether changes in U.S. economic policy uncertainty can explain stock market returns in six GCC countries. Their results show that, with the exception of Oman, changes in U.S. economic policy uncertainty have no significant impact on stock returns in the GCC countries.

[8] See Neaime 2012, 2015a, 2015b, 2016, Neaime and Gaysset 2017, 2018a, and Neaime et al 2018, 2019, and 2023.

Godfred et al. (2023) investigate the determinants of time-varying return volatility in Africa's equity markets using monthly data from eight major African stock markets. Their findings indicate that African stock markets became increasingly sensitive to advanced market volatility post the financial crisis, with North African markets showing immunity to such spillovers, presenting potential diversification opportunities.

Peterson et al. (2024) analyze daily data from twelve Sub-Saharan African stock markets to investigate co-movements and information transmission among these markets during the COVID-19 pandemic. Their findings reveal significant co-movements among African stock markets, suggesting that diversification through portfolio creation within African markets is not advisable during periods of uncertainty, as these markets tend to exhibit strong co-movements during such times. Their empirical results also show that information transmission and spillovers are more pronounced in the short term than in the medium- and long-term horizons.

Decoupling can also be interpreted through the lens of market psychology and investor behavior. Bohm and Choi (2017) argue that when market participants perceive certain economies or sectors to be immune to global shocks due to stronger fundamentals or different economic conditions, they may decouple their investment decisions, leading to divergence in asset prices.

4. Recent Evidence of Decoupling in MENA Countries

Before we turn to the equity markets, it is important to note several important changes in the direction of trade of several MENA countries. As the global economic landscape is undergoing significant transformations, influenced by various factors including geopolitics, technological advancements, and evolving investment strategies, several countries in the MENA regions are seeking to reduce interdependence with traditional partners and enhance economic resilience. Decoupling is one of the most notable trends of the past years – and likely the coming years as well. Decoupling can come in all kinds of forms. Typically, it involves dismantling existing trade and investment patterns, replacing supply chains, and establishing new economic partnerships. Decoupling can also take place in the digital realm, including the composition of reserves held by the Central Bank. For example, the US Dollar has always been the reserve currency worldwide and remains so today. However the War in Ukraine and the severe sanctions enforced on Russia following its invasion of Ukraine have prompted some countries to diversify their reserves and boost their gold holdings. We find clear and widespread evidence of the shift in the composition of central bank reserves throughout the region. Specifically, in the 12 MENA countries[9] that we analyzed, the average holdings of Gold reserves (as a percent of USD reserves) was 4% in 2003. This proportion has remained relatively stable throughout the

[9] Turkey, Egypt, Kuwait, Saudi Arabia, UAE, Qatar, Bahrain, Oman, Iraq Algeria, Tunisia, and Morocco.

financial crisis, and the sharp drop in US (and worldwide) interest rates. For example, in 2013, the average percentage holdings of Gold by central banks in MENA countries was still 4.75%. It wasn't until the war in Ukraine in 2022 that we begin to see a significant rise in that proportion, and by the end of 2023, the average percent holdings of Gold has more than doubled to 10%. As Table 2 shows, in the first quarter of 2024, Turkey held 39% of its reserves in Gold. This is followed by Algeria at 15.1%, Qatar at 14.1%, and Kuwait at 10.6%. Even Saudi Arabia, while its proportion is only 4.8%, it is more than 3 times what it was in 2005. Clearly there is an undeniable shift in the composition of reserves by the central banks in the region.

The increasing trend in MENA to diversify away from the US Dollar is not only limited to their holdings of reserves. More evidence is detected in their choice of trading partners. There is no doubt that China's rapid economic rise has shifted the global balance. China's GDP per capita and technological advancements have grown significantly, making it a key player in global trade and finance. We find clear evidence of how several MENA countries are resetting their trade priorities in a shifting World Order. Trade statistics from the IMF show that in Saudi Arabia, the ratio of trade with Developing and Emerging Economies as a proportion to the G7 countries (or Advanced Economies: US, Canada, UK, France, Germany, Italy, and Japan) stood at 82% in 2001[10]. This means that in that year, Saudi Arabia traded relatively more with the G7 than with Developing and Emerging Economies worldwide. By 2023, this proportion grew to 142%. The rising trend since 2001 is noted for all the countries in the region, suggesting that the G7 have been consistently losing ground to Emerging Economies. Today, the G7 countries combined are not the main trading partners to MENA with the exception of the countries in North Africa other than Egypt. Figure 3 shows the rising trend in the region for the countries we have analyzed.

	Central Bank Gold Holdings As % of Total US$ Reserves											
	Tür	Egy	Kuw	Sau	UAE	Qat	Om	Irq	Bah	Alg	Tun	Mor
2005	3.9%	5.6%	12.1%	1.7%	0.0%	0.2%	0.0%	0.9%	3.7%	4.9%	2.4%	2.0%
2006	3.7%	6.2%	12.3%	1.4%	0.0%	0.2%	0.0%	0.8%	3.8%	4.7%	2.6%	2.2%
2007	3.7%	6.0%	8.9%	1.3%	0.0%	3.7%	0.0%	0.6%	3.2%	4.0%	2.1%	2.2%
2008	4.3%	6.3%	13.1%	2.3%	0.0%	3.0%	0.0%	0.4%	3.1%	3.6%	2.2%	2.5%
2009	5.1%	7.2%	11.9%	2.5%	0.0%	2.6%	0.0%	0.4%	3.6%	3.6%	2.1%	3.0%
2010	5.9%	8.5%	13.3%	3.0%	0.0%	2.1%	0.0%	0.5%	3.5%	4.4%	2.9%	4.1%
2011	6.2%	15.1%	13.1%	3.0%	0.0%	3.4%	0.0%	0.5%	4.8%	4.6%	4.0%	4.9%
2012	6.5%	25.6%	13.1%	2.8%	0.0%	2.3%	0.0%	1.5%	4.9%	4.7%	4.9%	6.8%
2013	4.4%	20.7%	10.2%	2.0%	0.0%	1.4%	0.0%	1.9%	3.6%	3.7%	3.8%	5.3%
2014	4.1%	18.9%	8.6%	1.7%	0.0%	1.2%	0.0%	4.7%	3.1%	3.6%	3.7%	4.3%
2015	4.1%	16.9%	8.6%	1.7%	0.2%	1.4%	0.0%	5.3%	3.9%	3.9%	3.3%	3.9%
2016	4.6%	16.5%	9.3%	2.3%	0.4%	2.6%	0.0%	7.6%	7.5%	5.3%	4.3%	3.5%
2017	6.7%	9.6%	8.9%	2.6%	0.3%	5.7%	0.0%	7.7%	6.6%	6.4%	4.6%	3.7%
2018	11.6%	7.4%	8.0%	2.5%	0.3%	4.8%	0.0%	6.6%	8.7%	7.5%	5.1%	3.6%
2019	16.6%	8.2%	8.6%	2.9%	0.6%	4.9%	0.0%	6.5%	5.6%	10.5%	4.7%	4.1%
2020	34.2%	12.0%	9.2%	3.9%	2.3%	7.0%	0.0%	9.1%	11.6%	15.7%	4.5%	4.1%
2021	26.8%	11.5%	9.0%	3.9%	2.7%	7.8%	0.0%	8.8%	6.0%	17.8%	4.4%	3.6%
2022	30.7%	22.4%	9.1%	3.9%	2.9%	9.4%	0.3%	8.8%	5.8%	16.3%	4.9%	4.0%
2023	30.4%	24.2%	9.3%	4.4%	2.8%	12.0%	0.9%	7.7%	5.7%	13.8%	5.1%	3.9%
Q1 2024	39.0%	23.5%	10.6%	4.8%	2.6%	14.1%	2.8%	9.5%		15.1%	6.0%	4.4%
									Source: 2024 World Council			

Table 2 Gold Holdings by Central Banks in MENA

[10] A ratio of 100% indicates equal trade with Advanced and Emerging Economies.

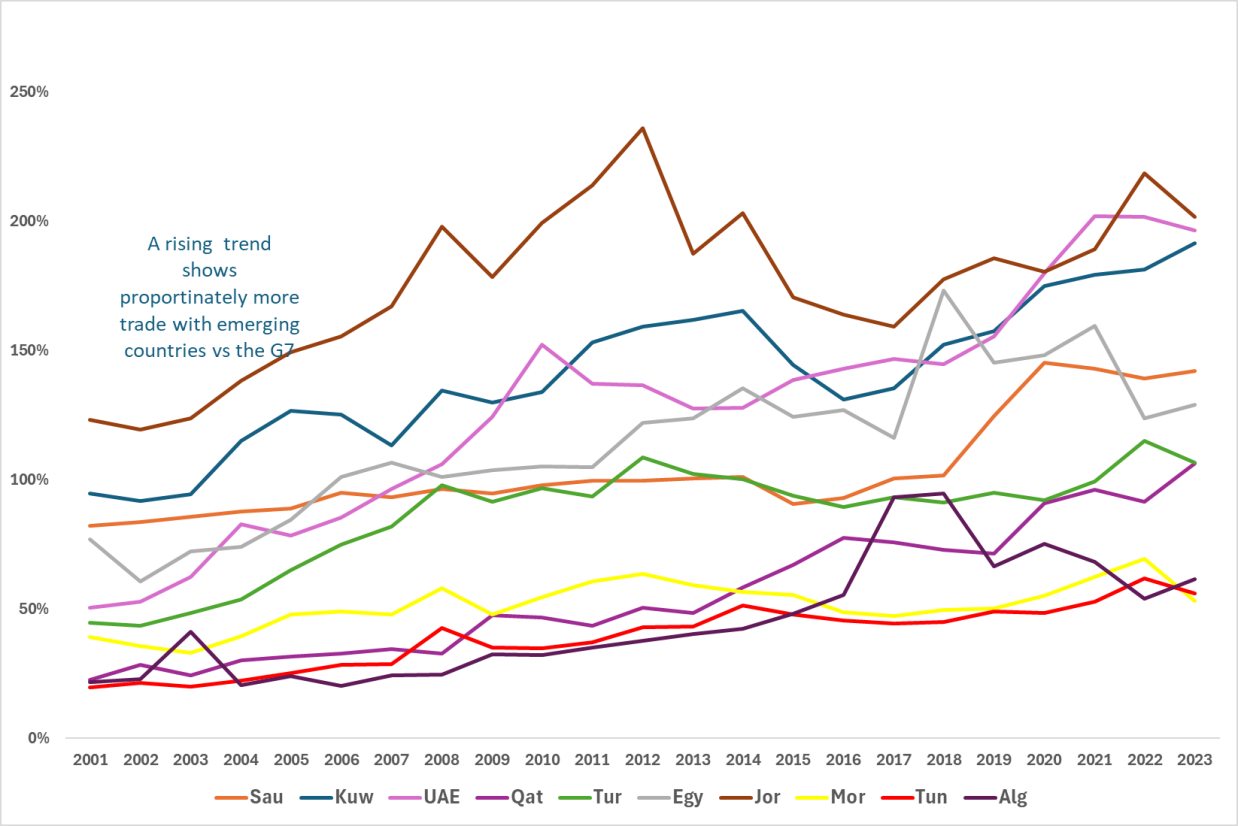

Figure 3. Direction of Trade for each country in MENA: Proportion of total trade per year (Imports + Exports) with Emerging vs. G7 countries. A rising trend indicates proportionately more trade with emerging countries and less dependence on the G7. Source: IMF Trade Statistics, 2024.

5. Data and Methodology

To analyze how the region's stock markets are responding to the preceding changes, we use the monthly closings of the indices for Large and Mid Cap company listings of each country in USD from September 2014 through October 2024. The data is available from Morgan Stanley and is better suited for our analysis than the regular index published by the stock market in each country in local currency. Using an index in USD enables consistent comparisons across countries without the need to control for how the local stock market has reacted to currency depreciation, a key factor for example in Egypt and Turkey. The countries we analyze include those that are recipients of shocks: UAE, Jordan, Egypt, Saudi Arabia, Kuwait, Qatar, Oman, Bahrain, Turkey, Morocco, and Israel. Each country index is designed to measure the performance of the large and mid cap segments of its stock market. The index includes generally 12 constituents, covering approximately 85% of the equity universe in each country. The advanced economies who are the source of shocks are the UK, US, Germany, France. The emerging economies include Brazil, India, Korea, and China.

We start by estimating a basic Garch model expressed as follows:

$$(1) \qquad h_t = \omega + \sum_{i=1}^{m} \alpha_i u_{t-i}^2 + \sum_{j=1}^{n} \beta_j h_{t-j}$$

Where ω is a constant, and α, β represent short-and long-term persistence of shocks respectively. We estimate two types of Garch starting with the EGarch developed by Nelson (1991) which can be slightly modified and expressed as:

$$(2) \qquad ln\,(h_t) = \omega' + \sum_{i=1}^{m} \alpha_i\,|u_{t-i}| + \sum_{j=1}^{n} \beta_j ln(h_{t-j})$$

where ω' is a constant equal to ω -$\sqrt{(2/\pi)}$. For some countries, the GJR-Garch (developed by Goltsen et al. (1993)), leads to a better fit than the EGarch based on the estimates of the log-likelihood and Akaike's Information Criterion consistent with the approach adopted by Switzer et al (2017).

After extracting the conditional volatilities for each country, we evaluate the impact of volatilities in advanced and Emerging markets on the volatility of each MENA country under study. To that end, we use a vector autoregression model of the form:

$$(3) \qquad H_{it} = \alpha H_{it-1} + \beta M'_{it} + (\delta_i + v_{it})$$

Where $\mathbf{H_{it}}$ is a vector of endogenous variables representing the volatility of stock index returns for country i and month t obtained from the Garch models, $\mathbf{H_{it-1}}$ is a lagged term of the dependent variables (lagged volatilities), α is an autoregressive vector of parameters, $\boldsymbol{\delta_i}$ represents the unobserved, fixed time, country specific effect, and $\mathbf{v_{it}}$ the idiosyncratic error. The impact of the advanced and emerging equity markets on their counterparts in MENA is captured by the vector of exogenous variables **M** and represents a set of volatilities obtained from Garch models. The exogenous variables include the Garch volatilities for the:

- key G7 countries (US, UK, France, Germany[11]) and Israel,
- emerging and developed countries (China, India, South Korea, Indonesia, Brazil, and South Africa).

The exogenous variables include 3 additional variables:

- Garch volatility of the monthly return of the spot price in USD of crude oil (measured by Brent). The data is available from Reuters.
- Garch volatility of the monthly return of the global price of natural gas in USD. The data is available from the US Federal Reserve. These last two variables for included for obvious reasons as the several MENA economies are energy exporters.

[11] We run the model on all G7 countries (including Italy and Japan) and obtained similar results

- The return volatility on the (constant maturity) 90 days US treasury. This variable measures the impact of the Federal Reserve monetary policy on the MENA region as several currencies are pegged to the USD, and not freely floating.

The energy and interest rate variables are included to control for the independent impact that these variables may have on the Garch volatilities of the dependent variables. The results of the Garch models in (1) and (2) are widely available in the literature and have been examined in a long list of academic papers over the past 20 years. We do not report them for space considerations but they are available from the authors upon request. The main model is represented in expression (3) and the results are summarized in Table 5.

6. Results And Analysis

Financial decoupling describes a situation where financial markets that were once strongly correlated begin to exhibit increasingly independent behavior. To that end, we begin by reporting the correlation matrices of the monthly returns of the individual equity markets in our analysis. In Table 3, top panel (at the end of the paper), we show the correlation matrix for the period prior to Ukraine Russia war (Sep 2014 – Jan 2022) which broke out on February 22, 2022. In the bottom panel of Table 3, we report the correlation matrices after the war (Feb 2022 – Oct 2024). We summarize the correlations further in the Table 4 nearby where the average correlation of all countries in MENA was 0.36 with Advanced Countries and 0.31 with Emerging Countries. After the war in Ukraine, the average correlations fell to 0.27 and 0.26 respectively. Examining the correlations of individual countries, we note the largest change for Saudi Arabia with the correlations with Advanced Countries dropping from 0.49 to 0.38 while those with Emerging Economies rising from 0.33 to 0.43. For Qatar, the change is more pronounced with correlations with Advanced Economies falling from 0.40 to 0.29 while correlations with emerging economies rising from 0.38 to 0.48. In Egypt, Turkey, and Morocco, there is a drop in correlations across the board, suggesting that these markets became more insular after the war in Ukraine.

Pre-war	SAU	KUW	UAE	QAT	EGY	TUR	MOR
Advanced	0.49	0.42	0.48	0.40	0.36	0.45	0.51
Emerging	0.33	0.35	0.40	0.38	0.33	0.46	0.49
Post-war	SAU	KUW	UAE	QAT	EGY	TUR	MOR
Advanced	0.38	0.54	0.40	0.29	0.23	0.15	0.29
Emerging	0.43	0.40	0.42	0.48	0.07	0.12	0.27

Table 4 Summary of equity return correlations of MENA countries with Advanced and Emerging countries

Turning to the Garch results reported in Table 5, we notice that the equity markets in UAE, Kuwait, Oman, Bahrain, and Morocco remain, in large part, integrated with Advanced economies as noted in the p-values of that table. For example, the model results how that the UAE markets remain sensitive to volatility spillovers from equity markets in the US, France, and

Germany. The same reaction is noted for Oman, Bahrain, and Morocco. We will refer to this group of countries as "integrated". It is important to note that these five countries are also sensitive to movements in Emerging equity markets. For example, despite its relative small capitalization, Oman's stock market is sensitive to movements in 4 of the 6 emerging markets under study. Another revealing result for the 'integrated' group is the importance of their sensitivity to Indian equities. All 5 countries have volatility spillovers from their counterpart in India and the p-values of the coefficient of the Garch volatility for India varies between 95% and 99%. On the other hand of the integration spectrum, stand Qatar, Egypt, and Tunisia. These three markets are insular and unaffected by the volatilities in advanced countries. This observation is confirmed by the absence of any statistically significant coefficient of the Garch volatility independent variable for any of the advanced countries. At the same time, these markets have mixed links with Emerging markets. For example, Egyptian equities are impacted by volatilities in South African and Korean markets, while Tunisian and Qatari markets do not show any statistically significance coefficient of the Garch volatility for Emerging countries. We will refer to these three countries as "decoupled".

The other markets in our analysis, in particular Saudi Arabia, Turkey, and Jordan are weakly impacted by movements in advanced economies. For example, Saudi Arabian equities are impacted by movements in their counterparts in the UK, Turkey by movements in German's equities, while Jordan by the US market. These results are logical given the traditional commercial relations of these countries with their counterparts in Advanced economies. For example, the Saudi/UK financial ties have always been strong and many Saudi investors are active participants in the UK financial markets. Germany has the largest Turkish diaspora, while the US is the largest contributor of foreign aid to Jordan. However, it is clear that these three markets are not reacting similarly to the two prior groups and we will refer to them as "partially decoupled". We also note that this last group has volatility spillovers from several Emerging countries. For example, Saudi Arabia and Jordan are sensitive to Korean equities, Turkey is impacted by spillover in Brazil and Jordan by movements in India and Korea.

Table 5. Classification of MENA Equity Markets

	Integrated	**Decoupled**	**Partially Decoupled**
MENA Countries	UAE, Kuwait, Oman, Bahrain, Morocco	Qatar, Egypt, Tunisia	Turkey, Saudi Arabia, Jordan
Links with Advanced Economies	Strong	No links	Weak
Links with Emerging Economies	Strong	Varies	Strong

Turning to the dummy variables that represent the timing of the 2 key war events, we notice mixed impacts. For example, Egypt is the most impacted with the Ukraine and Gaza wars showing a direct effect on the volatility of the Egyptian stock market. Other MENA countries impacted are Turkey, Bahrain, and Morocco. We also report that the volatility of the equity markets in Turkey and Bahrain are also sensitive to the volatility in the US interest rates. One other point, Israel doesn't seem to have a link with the MENA region's stock market with the exception of UAE and Kuwait. These links are a consequence of the Abraham Accords that were signed in September 2020. While Kuwait is not a signatory to this agreement, Kuwaiti investors are active participants on the UAE stock market.

7. Discussion and Conclusion

For the past three decades, the academic literature on MENA equity markets has promoted the benefits of financial integration with limited analysis about its costs and negative consequences. The globalization of investments seeking higher rates of return and the desire to diversify risk internationally, has encouraged inflows of capital by dismantling restrictions, deregulating domestic financial markets, and introducing market-oriented reforms. In contrast to these positive factors, there has been a recognition, that open financial markets may also generate significant costs. These negative consequences include abrupt reversals in capital flows, volatility spillovers emanating from Advanced to Emerging countries, the impact of wars, and the cost of compliance with a World Order increasingly bent in favor of financial sanctions. The US financial crisis in 2008-09 was the first step in a long list of events that brought the harm of financial integration to the fore. Given the recognition that "If the United States sneezes, the rest of the world catches a cold", there is now a widespread acknowledgment that disturbances to U.S. growth influence economies elsewhere. Overtime, the potential size of growth spillovers from the U.S. has increased, consistent with the notion that greater trade and financial integration magnify the cross-border effects of disturbances. More recently the shift in US monetary policy from near zero to high interest rates, and the collapse of Silicon Valley Bank and other financial institutions in the US has raised concerns of these negative spillovers. The War in Ukraine and the unprecedented sanctions imposed on Russia including the confiscation of its foreign reserves and assets added more fuel to the fire, with a concern that MENA countries holding reserves in US dollars might face potential sanctions if they distanced themselves from US policy. Another factor was the dominance of China in international trade. The emergence of the BRICS organization led by Brazil, Russia, India, China, and South Africa provided many developing and emerging countries with an opportunity to diversify their economies away from the Advanced and traditional trading partners. Finally, the war on Gaza, Lebanon, and the events in Syria, while organic to MENA and not a spillover from other areas, have produced differential impacts across the region.

Our analysis of the trade statistics for each country revealed clear winners and losers from these regional wars. Ignoring any strategic or foreign policy considerations, the IMF trade statistics show Egypt, and Jordan are net losers from the wars on Ukraine and the Middle East, while Morocco, Algeria, the UAE, and Turkey are net gainers. In some cases, the trade statistics reveal an opposite set of facts to declarations made by government officials or decisions made by Parliament, suggesting deliberate attempts to deceive public sentiment. For example, in the case of Turkey, while its President and Parliament were publicly announcing the suspension of all trade with Israel following accusations of Genocide by the International Court of Justice, exports to that country were rising sharply with practices to circumvent trade suspensions by falsifying the destination of exports and deceive the public. As the war on Gaza raged, Turkey's exports hit an all-time high of more than $143b in the fourth quarter of 2023. In the case of the war in Ukraine, Turkey was also benefitting from both sides of the war, with exports to Emerging Europe and Russia growing by 33% and 106% respectively in the 3rd quarter of 2022. Turkish total exports also jumped by $12b immediately after Russia invaded Ukraine.

Regardless of which country in MENA benefited or suffered from the wars in Ukraine and the Middle East, the regional trend, in general, has shifted away from integration with Advanced Economies in search for new links and trading partners. This is supported by the application for membership to BRICS by several leading countries in the region, namely Egypt, Turkey, Saudi Arabia, and Algeria. It is not without notice that the stock markets in Turkey, Saudi Arabia and Egypt are also those with the highest capitalization in MENA. These factors suggest that these leading countries are seeking a new direction. The empirical evidence presented in this paper detects this change.

While globalization and financial integration have historically led to more interconnected markets, recent shifts in US monetary policy, wars, and sanctions are fostering an environment where markets become increasingly decoupled. First, using standard correlations of returns, we note a significant reduction in links with Advanced economies between the periods pre- and post- the war in Ukraine. We are not suggesting that this war made MENA countries purposely reduce their ties with Advanced economies, but it is quite possible that the Advanced economies wandered in a different direction, namely severing all ties with Russia, a move countries in MENA refused to adopt. There is no doubt that the excessive use of Western financial sanctions in the past decade and which snowballed during the war in Ukraine has been a key contributor to the reduction in correlations. This statement is supported by the fact that while correlations with advanced economies were waning, those with emerging markets were rising after the war in Ukraine.

We shed more light on the regional links of the equity market in MENA by employing a more robust econometric analysis. Using a vector auto regression model, we analyze how the equity

markets may have decoupled from prior links with Advanced countries. Financial decoupling describes a situation where financial markets that were once strongly correlated begin to exhibit increasingly independent behavior. Our results are able to classify MENA countries into three distinct segments. One group includes countries that remain financially integrated with Advanced Economies while maintaining strong links with Emerging economies. This group includes the UAE, Kuwait, Oman, Bahrain, and Morocco. Another group includes those MENA countries that have become insular, are no longer impacted by volatility spillovers or contagion from Advanced Economies, and have varied degrees of links with Emerging economies. This group includes Qatar, Egypt, and Tunisia. In the middle, is a group of countries that have partially decoupled from the equity markets in Advanced Economies and have replaced these links with stronger ties with their counterparts in Emerging markets. This third group includes Turkey, Saudi Arabia and Jordan. Overall these results confirm the strategic choices made by countries in MENA to diversify away from traditional links with Advanced economies and establish stronger ties with Emerging economies, and the countries in BRICS in particular.

It is difficult to evaluate the full costs and benefits from decoupling because the choices made by governments in each country are generally strategic in nature, based on their foreign policy objectives, and not economic considerations alone. In a World Order where sanctions are rampant, threat of tariffs are rising, military conflicts are erupting in several regions, it is difficult to argue that diversification of trading partners is imprudent. Likewise, central banks diversification of foreign reserves away from US Dollar is emanating from a desire to chart a more independent course and reduce spillovers of US monetary policy. Dismantling existing trade and investment patterns, replacing supply chains, and establishing new economic partnerships gives governments more flexibility to chart a more independent path. In a challenging environment with multiple countries involved in armed conflicts, and financial reprisals, MENA neutrality should be strengthened, not weakened. Along this line, restrictions on foreign participation in equity markets should be increased not reduced. For example, Saudi Arabia, imposes ownership limit restrictions on foreign investors to reduce abrupt capital movements, reduce spillover volatility, and limit the participation of foreign investors in the management of local corporations. While these measures were frowned upon by organizations that advocate for open borders and free trade, they make a lot more sense today than a decade ago. We feel that decoupling reflects a broader shift in economic power. As the region's economies grow in importance, their ability to dissociate themselves from other markets strengthens, further contributing to decoupling in their financial markets.

SEPT 2014 - JAN 2022	US	UK	FR	GER	ISR	IND	CHI	KOR	BRZ	AFR	INDO	BAH	EGY	JOR	KUW	MOR	OMN	QAT	SAU	TUN	UAE	TUR	BRENT	GAS	Tbill
US	1.00																								
UK	0.80	1.00																							
FR	0.80	0.91	1.00																						
GER	0.84	0.86	0.92	1.00																					
ISR	0.72	0.57	0.56	0.62	1.00																				
IND	0.57	0.56	0.55	0.61	0.41	1.00																			
CHI	0.55	0.52	0.48	0.53	0.33	0.40	1.00																		
KOR	0.65	0.70	0.70	0.73	0.44	0.56	0.70	1.00																	
BRZ	0.44	0.56	0.52	0.54	0.25	0.43	0.43	0.55	1.00																
AFR	0.58	0.67	0.62	0.67	0.38	0.64	0.56	0.67	0.71	1.00															
INDO	0.58	0.56	0.55	0.57	0.54	0.60	0.40	0.50	0.50	0.64	1.00														
BAH	0.41	0.43	0.38	0.29	0.24	0.33	0.31	0.22	0.36	0.32	0.30	1.00													
EGY	0.33	0.33	0.38	0.41	0.31	0.42	0.27	0.30	0.27	0.35	0.40	0.32	1.00												
JOR	-0.07	-0.06	-0.17	-0.13	-0.10	0.06	0.00	-0.14	-0.08	-0.03	-0.05	0.11	0.06	1.00											
KUW	0.41	0.46	0.41	0.40	0.19	0.39	0.25	0.22	0.47	0.43	0.30	0.67	0.33	0.09	1.00										
MOR	0.45	0.50	0.55	0.53	0.36	0.50	0.32	0.41	0.56	0.60	0.56	0.45	0.45	0.04	0.59	1.00									
OMN	0.38	0.40	0.40	0.35	0.27	0.29	0.09	0.13	0.29	0.28	0.34	0.46	0.40	-0.06	0.51	0.49	1.00								
QAT	0.36	0.46	0.36	0.41	0.34	0.41	0.23	0.31	0.50	0.45	0.40	0.41	0.42	-0.03	0.44	0.41	0.33	1.00							
SAU	0.45	0.59	0.49	0.43	0.27	0.25	0.35	0.34	0.43	0.39	0.22	0.43	0.19	-0.03	0.54	0.40	0.34	0.34	1.00						
TUN	0.16	0.19	0.26	0.26	0.05	0.15	0.09	0.19	0.21	0.22	0.05	0.19	0.25	-0.06	0.27	0.31	-0.04	0.12	0.18	1.00					
UAE	0.44	0.53	0.50	0.44	0.31	0.41	0.30	0.31	0.51	0.48	0.39	0.59	0.44	0.01	0.64	0.55	0.55	0.59	0.51	0.14	1.00				
TUR	0.37	0.51	0.45	0.46	0.31	0.32	0.33	0.47	0.57	0.59	0.49	0.18	0.23	-0.12	0.23	0.39	0.17	0.28	0.18	0.06	0.24	1.00			
BRENT	0.41	0.46	0.41	0.40	0.25	0.40	0.22	0.41	0.31	0.46	0.34	0.20	0.18	0.00	0.39	0.39	0.36	0.25	0.46	0.16	0.41	0.18	1.00		
GAS	0.21	0.14	0.22	0.21	0.07	0.28	0.04	0.15	0.15	0.12	0.11	0.23	-0.05	-0.03	0.16	0.26	0.21	0.12	0.13	0.06	0.18	-0.08	0.05	1.00	
Tbill	-0.03	0.00	-0.02	-0.06	-0.01	-0.06	-0.01	-0.07	0.08	-0.04	0.03	0.16	0.09	0.03	0.15	-0.03	-0.03	0.08	0.04	0.08	-0.05	0.02	-0.04	-0.21	1.00

Feb 2022 - Oct 2024	US	UK	FR	GER	ISR	IND	CHI	KOR	BRZ	AFR	INDO	BAH	EGY	JOR	KUW	MOR	OMN	QAT	SAU	TUN	UAE	TUR	BRENT	GAS	Tbill
US	1.00																								
UK	0.73	1.00																							
FR	0.81	0.91	1.00																						
GER	0.83	0.88	0.96	1.00																					
ISR	0.76	0.57	0.62	0.64	1.00																				
IND	0.68	0.46	0.41	0.45	0.62	1.00																			
CHI	0.18	0.37	0.34	0.43	0.09	0.08	1.00																		
KOR	0.81	0.71	0.70	0.78	0.67	0.59	0.33	1.00																	
BRZ	0.64	0.51	0.56	0.54	0.62	0.46	-0.04	0.57	1.00																
AFR	0.64	0.78	0.65	0.71	0.47	0.51	0.52	0.67	0.57	1.00															
INDO	0.38	0.35	0.38	0.40	0.62	0.43	-0.01	0.47	0.49	0.34	1.00														
BAH	0.19	0.06	0.02	-0.04	0.17	0.30	-0.17	0.14	0.13	0.05	0.16	1.00													
EGY	0.17	0.20	0.25	0.28	0.19	0.18	0.02	0.06	0.01	0.06	0.11	-0.06	1.00												
JOR	0.17	0.21	0.21	0.17	0.06	-0.01	0.14	0.24	0.06	0.19	0.14	0.34	-0.04	1.00											
KUW	0.58	0.57	0.54	0.45	0.59	0.55	0.05	0.41	0.44	0.54	0.42	0.40	0.15	0.44	1.00										
MOR	0.29	0.31	0.25	0.30	0.21	0.47	0.43	0.24	0.11	0.31	0.08	0.11	0.17	-0.04	0.24	1.00									
OMN	0.27	0.21	0.29	0.13	0.25	0.20	-0.04	0.06	0.18	0.08	0.11	0.27	0.10	0.35	0.34	0.02	1.00								
QAT	0.47	0.26	0.19	0.24	0.62	0.65	0.11	0.53	0.51	0.46	0.62	0.32	-0.04	0.21	0.48	0.28	0.09	1.00							
SAU	0.48	0.33	0.36	0.34	0.58	0.61	-0.09	0.49	0.53	0.32	0.71	0.25	-0.12	0.07	0.52	0.19	0.15	0.65	1.00						
TUN	0.35	0.16	0.24	0.31	0.34	0.25	0.37	0.30	0.37	0.35	0.25	0.18	-0.26	-0.11	0.04	0.32	0.08	0.26	0.39	1.00					
UAE	0.43	0.50	0.34	0.31	0.57	0.62	-0.12	0.40	0.51	0.49	0.66	0.38	0.17	0.08	0.69	0.19	0.17	0.66	0.59	-0.02	1.00				
TUR	0.08	0.20	0.15	0.16	0.25	0.26	0.09	0.20	0.00	0.17	0.02	0.14	0.27	0.05	0.35	0.05	0.14	0.07	-0.01	-0.29	0.25	1.00			
BRENT	-0.10	-0.13	-0.15	-0.12	0.00	-0.31	-0.07	-0.01	-0.02	-0.06	0.05	-0.06	-0.21	0.02	-0.12	-0.22	-0.16	-0.04	0.11	0.04	-0.11	-0.12	1.00		
GAS	0.16	0.17	0.05	-0.02	0.14	0.04	0.16	0.17	-0.08	0.14	-0.18	-0.05	-0.11	0.07	0.18	-0.16	0.15	0.10	-0.10	-0.27	0.06	0.02	0.06	1.00	
Tbill	0.32	0.23	0.27	0.38	0.22	0.31	0.14	0.17	0.00	0.13	-0.12	-0.13	0.30	-0.47	-0.14	0.55	-0.27	-0.08	-0.01	0.21	-0.02	0.03	-0.13	-0.23	1.00

Table 3. Monthly Equity Return Correlations Pre Ukraine war (top panel) and Post Ukraine War (bottom panel)

Decoupling of MENA Stock Markets

VAR Model of Garch equity volatilities represented as: $\boldsymbol{H_{it} = \alpha H_{it-1} + \beta M'_{it} + (\delta_i + v_{it})}$ where $\mathbf{H_{it}}$ is a vector of endogenous variables representing the volatility of stock index returns for country i and month t obtained from the Garch models for Saudi Arabia, UAE, Kuwait, Jordan, Qatar, Oman, Bahrain, Turkey, Egypt, Tunisia, Morocco, $\mathbf{H_{it-1}}$ is a lagged term of the dependent variables, α is an autoregressive vector of parameters, $\boldsymbol{\delta_i}$ represents the unobserved, fixed time, country specific effect, and $\mathbf{v_{it}}$ the idiosyncratic error. The impact of the advanced and emerging equity markets on their counterparts in MENA is captured by the vector of exogenous variables **M** and represents a set of volatilities obtained from Garch models. The exogenous variables include the Garch volatilities for the key G7 countries (US, UK, France, Germany[1]), Israel, emerging and developed countries (China, India, South Korea, Indonesia, Brazil, and South Africa). In addition, the vector of exogenous variables includes **M** a Garch volatility of the monthly return for the spot price of Brent crude oil, the global price of natural gas, and the 90 days US treasury. We use monthly observations starting in Sept 2014 through Oct 2024, a total of 122 time periods.

	SAU		UAE		KUW		JOR		QAT		OMN		BAH		TUR		EGY		TUN		MOR	
Constant	0.00032		−0.00503		0.00005		−0.0098		0.00312		0.00206	***	0.00091		0.00175		0.00612		0.00398		0.00260	***
SAU (-1)	0.15351		0.12678		0.02279		0.15219		−0.0241		−0.0099		−0.0135596		−0.1607	*	−0.08786		0.0249		0.01714	
UAE (-1)	−0.0665		−0.274	**	0.03874		−0.073		−0.0305		0.01705	***	−0.00383933		0.01586		−0.02382		−0.0315		0.01485	
KUW (-1)	−0.2249		−0.277		0.84861	***	0.56269	**	−0.02717		0.00995		−0.0254941		−0.317541		0.49772		0.01033		0.00213	
JOR (-1)	0.08499		0.12565		−0.0147		0.60533	***	0.01879		0.00085		−0.0133865		0.05356		−0.05478		−0.0995	*	−0.004714	
QAT (-1)	0.06634		−0.17361		−0.0673		−0.141		0.32600	***	−0.0473	**	−0.0189463		−0.1095		0.31857		0.3353	*	−0.00586	
OMN (-1)	2.19154		6.55244	**	−0.7097		2.465		0.28302		−0.0694		0.51499	*	−0.1964		−1.70101		−0.4964		−0.42765	*
BAH (-1)	−0.9241		−1.99690	**	0.54142	**	2.51962	***	−0.369025		0.03562		0.46466	***	−0.583		−0.4602		−0.02924		0.16473	**
TUR (-1)	−0.0336236		0.00247		−0.05375	**	0.11277		−0.0798930	**	−0.00958	*	0.00815		0.83220	***	0.09286		−0.101806	*	−0.00149	
EGY (-1)	−0.0221		0.13610	*	−0.021		−0.0102118		0.02855		−0.00493		0.00126		0.10087	**	0.51717		−0.0226		−0.0153	**
TUN (-1)	0.04706		0.09596		−0.00098		0.05248		−0.0996879	*	−0.0131051		0.01207		0.07355		0.00643		0.513037	***	−0.00234	
MOR (-1)	−0.782521		−1.79700		0.63883	**	−0.683		−0.261574		0.15249	**	−0.0704612		0.46039		−0.04502		0.242125		0.03716	
US	−0.142235		0.75304	**	−0.125725	*	0.77750	***	0.09706		−0.0523	***	0.06323	**	−0.125605		0.25306		0.170231		−0.123782	***
UK	0.47321	***	0.28363		−0.0261141		0.13467		−0.0575160		−0.00858		−0.00867		0.14506		0.14185		0.00107		−0.00568	
FRA	0.28393		1.27450	***	−0.247221	**	−0.551892		0.14749		−0.0597	***	0.17565	***	−0.216322		−0.3661		−0.0485		−0.1289	***
GER	−0.290493		−0.7476	**	0.16164	**	0.04599		−0.0194643		0.04147	**	−0.0958461	***	0.44799	**	−0.2324		0.0965		0.07850	***
ISRL	0.23435		0.72372	**	−0.144229	**	−0.175025		0.02624		−0.02308		0.01601		0.06064		0.27592		−0.2637		−0.03862	
INDIA	0.04625		−0.5558	**	0.11953	**	−0.444971	**	−0.00828		0.04149	***	−0.07478	***	−0.205541		−0.3536		−0.05687		0.10980	***
CHINA	−0.136941		−0.16411		−0.01841		0.07673		−0.09719		−0.0157		−0.0365213	*	−0.0289		0.15662		−0.1016		−0.00874	
KOR	0.56994	***	−0.00358		0.07699		−0.357321	**	−0.02479		0.02931	**	−0.0274681		0.00894		0.52353	**	−0.136370		0.04190	**
BRZ	0.09627		0.21407	**	−0.01276		−0.0395497		0.04753		−0.00852	*	0.00688		0.15977	***	0.03146		−0.052		−0.004376	
AFR	0.00525		0.00610		−0.0143		0.00725		0.03761		0.00124		0.03080		−0.194217		−0.4849	**	0.0167		0.00157	
INDON	−0.0339		0.12339		−0.0399	**	−0.108073		0.00316		−0.00915	**	0.01687	*	0.03389		−0.08114		0.0115716		−0.024334	***
BRENT	−0.0139		−0.0174		0.01619	***	−0.0038		0.00767		0.00103		−0.00134		0.01306		0.00104		−0.003067		0.00072	
GAS	−0.00128		−0.0059		−0.00416	**	−0.00118		0.00160		−0.0000012		0.00085		0.00510		0.00830		0.00445		−0.00051	
UKRAINE	0.00021		0.00085		0.00007		0.00019		−0.000256		−0.0000002		0.00027	**	−0.002	**	−0.00236	*	−0.00068		−0.0000037	
GAZA	0.00084		−0.00049		−0.000117		0.00000		−0.000267		0.00002		−0.0000061		0.00012		0.00257	**	−0.000376		0.00017	**
TBILL	−0.000306		−0.0002		0.00003		−0.000019		0.00006		0.00001		−0.000007	***	0.00037	**	0.00019		0.00014		0.00000	

Table 3. Stock market decoupling based on GARCH links between MENA and other equity markets. Source: Morgan Stanley, NY.

References

- Auerbach, A., & Gorib, S. (2021). The Impact of Global Financial Cycles on Emerging Market Economies. *Journal of International Money and Finance*, 105, 102167.
- Alqahtani A., Hongbing O., & Adam Ali (2019). The Reaction of Stock Markets in the Gulf Cooperation Council to Economic Policy Uncertainty in the United States. *Economics and Business*, pp. 22-34.
- Bekaert, G., & Harvey, C. R. (2003). Emerging Markets Finance. *Journal of Empirical Finance*, 10(1-2), 3–56.
- Cheung, S., & Roca, E. (2016). Commodity and Equity Market Decoupling. *Journal of Commodity Markets*, 3(4), 112-129.
- Forbes, K. J., & Rigobon, R. (2002). No Contagion, Only Interdependence: Measuring Stock Market Co-movements. *Journal of Finance*, 57(5), 2223-2261.
- Fratzscher, M. (2012). Financial markets and global decoupling: Evidence from the 2007-2009 financial crisis. *Global Finance Journal*, 23(1), 18-32.
- Gatti, R., Torres J., Elmallakh N., Mele G., Faurès D., Mousa M. E., Suvanov I. (2024): MENA Economic Update, October 2024: Growth in the Middle East and North Africa. Washington, DC: World Bank. http://hdl.handle.net/10986/42000
- Godfred A., Louis L., & Daniel D., (2023). Equity return volatility in Africa's stock markets: A dynamic panel approach, *Cogent Economics & Finance*, 11(2), pp. 1-22.
- Glosten L. R., Jagannathan R., Runkle D. (1993): On the Relation between the Expected Value and the Volatility of the Nominal Excess Return on Stocks. The Journal of Finance, Vol 48, Issue 5 p. 1779-1801.
- Hakim S., and Haddad M. (2017): Measuring the Cost of Financial Integration in the GCC: Lessons from the Global Crisis. Review of Economics and Finance, Vol 9, Issue 3.
- Kenez Levent (2024): Figures indicate Erdogan gov't turns a blind eye to violation of Turkey's trade restrictions on Israel. Nordic Monitor, November 5. https://nordicmonitor.com/2024/11/32374/
- Liang-Chun Ho & Chia-H., (2014). Did the contagion effect exist? Evidence from Abu Dhabi, Jordan and America. *Economic Research-Ekonomska Istraživanja*, 27 (1), pp. 740-754.
- Subramanian, A., (2007). The Decoupling of Asia: An Analysis of Asia's Role in the Global Economy. *Asia Economic Policy Review*, 2(2), 181-194.
- Neaime, S., (2012). 'The Global Financial Crisis, Financial Linkages and Correlations in Returns and Volatilities in Emerging MENA Stock Markets', *Emerging Markets Review* 13(2): 268-82.
- Neaime, S., (2015a). 'Sustainability of Budget Deficits and Public Debts in Selected European Union Countries', *Journal of Economic Asymmetries* 12: 1-21.
- Neaime, S., (2015b). 'Twin Deficits and the Sustainability of Public Debt and Exchange Rate Policies in Lebanon', *Research in International Business and Finance* 33: 127-43.
- Neaime, S., (2016). 'Financial Crises and Contagion Vulnerability of MENA Stock Markets', *Emerging Markets Review* 27: 14-35.

- Neaime, S., and I. Gaysset (2017). 'Sustainability of Macroeconomic Policies in Selected MENA Countries: Post Financial and Debt Crises', *Research in International Business and Finance* 40: 129-40.
- Neaime S., and I. Gaysset (2018a). 'Financial Inclusion and Stability in MENA: Evidence from Poverty and Inequality', *Finance Research Letters,* 24: 230-37.
- Neaime, S., I. Gaysset and N. Badra (2018b). 'The Eurozone Debt Crisis: A Structural VAR Approach', *Research in International Business and Finance* 43: 22-33.
- Neaime S., I. Gaysset and N. Badra (2023). Fiscal Asymmetries and Debt Crises: Evidence from Lebanon Using a Sign Restricted Structural VAR Model, *Journal of Economic Asymmetries*, Vol.28, pp.1-12.
- Peterson O., Tetteh J., Nkrumah-Boadu , B., & Adjei A., (2024). Co-movement of African Stock Markets: Any Influence from the COVID-19 Pandemic? *Heliyon*, 10(2), pp.1-19.
- Soylu Ragip (2024): Turkish exports still reach Israel as goods sent to Palestine skyrocket, Middle East Eye, September 4.
- Switzer, L. N., Tahaoglu, C., & Zhao, Y. (2017). Volatility measures as predictors of extreme returns. Review of Financial Economics, 35(1), 1–10.
- Wajih K., & Sandretto R., (2012). Testing for "contagion" of the subprime crisis on the Middle East and North African stock markets: A Markov Switching EGARCH approach. *Journal of Economic Integration*, 27 (1), pp. 134-166.
- Webangah: Sending goods through the UAE land channel to Israel, Saturday 16 December 2023, https://en.webangah.ir/2023-12-16/news=22253/
- Witt M., Lewin, A., Ping Li P., & Ajai G., (2023). Decoupling in international business: Evidence, drivers, impact, and implications for IB research, *Journal of World Business* 58, pp.1-11.
- Wrobel, Sharon (2023): Israel logistics startup forges overland trade route to bypass Houthi Red Sea crisis. Times of Israel, Dec 27.