

Original Article

The Impact of COVID-19 on Exchange Rate in Arab Economies

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Abstract: This research investigates the impact of COVID-19 on exchange rates in Arab economies from 2017 to 2022, utilizing a comprehensive panel dataset covering 22 Arab countries. Employing the pooled ordinary least square (OLS) estimator, the results reveal a significant negative influence of COVID-19 on exchange rates, indicating that higher COVID-19 prevalence exerts considerable downward pressure on currency values. The study also identifies the negative impact of GDP on exchange rates, underscoring the importance of economic growth for exchange rate stability. Conversely, a positive relationship is found between unemployment and exchange rates, as investors seek stability during economic uncertainty. Importantly, inflation rates do not significantly affect exchange rates in this context. These findings hold vital policy implications, emphasizing the need for effective pandemic response measures, economic growth strategies, and labor market policies in Arab economies to maintain exchange rate stability.

Keywords: Exchange Rate; COVID-19; Arab Economies.

I. INTRODUCTION

The COVID-19 pandemic, which developed in early 2020 as an unprecedented worldwide medical crisis, has resulted in profound repercussions beyond public health. One of the critical aspects it has profoundly influenced is the foreign exchange market, affecting the exchange rates in Arab economies. These economies, including countries across the Middle East and North Africa (MENA) region, have witnessed significant fluctuations in their exchange rates, with short-term and long-term consequences. This article explores the COVID-19 pandemic's numerous influences on currency exchange rates in Arab economies, shedding light on the factors driving these changes, their economic implications, and potential policy responses.

The outbreak of COVID-19 led to widespread economic disruptions worldwide, prompting governments and central banks in Arab economies to respond swiftly to mitigate the crisis's financial repercussions. Lockdowns, travel restrictions, and reduced global trade directly impacted the demand and supply dynamics of foreign currencies. The uncertainties created by the pandemic drove a flight to safety, with investors seeking refuge in stable currencies like the US dollar and Swiss franc, leading to significant depreciation of Arab currencies. The simultaneous decrease in global oil prices, a key revenue source for many Arab countries, further exacerbated these challenges.

The interplay of global factors, including the response of major central banks and the liquidity injections into financial markets, also influenced exchange rates in Arab economies. The Federal Reserve's decision to lower interest rates and engage in quantitative easing had ripple effects, as it encouraged a carry trade strategy, where investors borrowed in low-yield currencies to invest in higher-yield assets. As a result, Arab currencies experienced heightened volatility and speculative pressures, which influenced their relative values. The interconnectedness of global financial markets meant that Arab economies were not insulated from these global financial shocks.

Arab economies vary in terms of their dependence on oil exports, fiscal policies, and exchange rate regimes. These differences have led to diverse exchange rate experiences within the region. Oil-dependent economies like Saudi Arabia and the United Arab Emirates saw their currencies come under significant pressure due to falling oil prices, while countries with diversified economic structures, such as Qatar and the UAE, demonstrated greater resilience. As a result, Arab governments have had to adopt a range of policy responses, including currency devaluation, capital controls, and monetary easing, to stabilize their exchange rates and support their economies.

In sum, the COVID-19 pandemic has profoundly impacted exchange rates in Arab economies, with its repercussions being felt across the region. The combined effects of the pandemic's economic disruptions, the global response of central banks, and varying degrees of reliance on oil exports have created a complex landscape for exchange rates in the Arab world. As we delve deeper into this topic, we will explore the specific challenges faced by individual countries, assess the policy measures implemented to address these challenges and analyze the long-term implications for the economic landscape in the



Arab region. Understanding these dynamics is crucial for policymakers, investors, and businesses operating in the Arab world as they navigate the ongoing economic consequences of the pandemic.

Since the onset of the COVID-19 pandemic and its subsequent global proliferation, a substantial body of research has emerged, comprehensively exploring the pandemic's multifaceted impact on economies. This extensive research has probed various dimensions, meticulously assessing its influence on a wide spectrum of financial markets, as evidenced by studies conducted by Saif-Alyousfi (2022), Kotcharin et al. (2023), and Zhao et al. (2023). Furthermore, rigorous analyses of the pandemic's effects on energy prices have been conducted, with notable contributions from Saif-Alyousfi et al. (2021). In addition to these financial market assessments, research has also delved into the pandemic's implications for international trade, with studies conducted by Hayakawa and Mukunoki (2021), Nitsch (2022), and Mena et al. (2022) shedding light on this aspect. Beyond these dimensions, a significant body of work has scrutinized the pandemic's effects on foreign direct investment, with comprehensive analyses by Fu et al. (2021), Fang et al. (2021), Nawoi and Nijangan H (2021), Ho and Gan (2021), Giofré (2021), Koçak and Barış-Tüzemen (2022), and Chattopadhyay et al. (2022) providing valuable insights into this critical area. These investigations extend even further, encompassing the far-reaching socioeconomic consequences of the pandemic, ranging from its impact on labor markets and public health to its ecological effects on the environment.

However, despite the extensive body of research regarding the economic consequences of the COVID-19 pandemic, a noticeable gap emerges in the discussions concerning the pandemic's effects on exchange rates, especially within the framework of Arab economies. While many studies have emphasized the pivotal role of exchange rates in supporting global economic development (Tang, 2015; Usman, 2023; Iqbal et al., 2023), there remains a striking dearth of attention dedicated to the specific ramifications of the COVID-19 pandemic on these crucial financial indicators.

Exchange rates are the linchpin of international trade, investment, and overall economic stability, particularly in Arab economies. Understanding how the extraordinary circumstances of the pandemic have impacted these rates is imperative. Exchange rates, representing the relative values of one currency against another, directly influence a nation's export competitiveness, the price of imported goods, and the appeal of foreign investment. These dynamics play a fundamental role in shaping a country's economic trajectory, underscoring the urgency of exploring how the pandemic has disrupted these pivotal factors. By addressing this knowledge gap, we can achieve a more comprehensive understanding of the pandemic's far-reaching consequences, particularly in the Arab world. This knowledge can, in turn, inform the development of effective policies to navigate the challenges and capitalize on the opportunities that have arisen in this unprecedented economic landscape.

While a limited number of studies have made strides in examining the relationship between the pandemic and exchange rates (Alimi and Adediran, 2023; Narayan, 2022; Baek, 2022; Aloui, 2021; Iqbal et al., 2020; Iyke and Ho, 2021; Feng et al., 2021; Devpura, 2021), there remains a substantial research gap that warrants attention. To the best of our knowledge, there is a noticeable absence of research dedicated to the specific investigation of the COVID-19 pandemic's impact on exchange rates, especially within the Arab economies. This study endeavors to address this significant void by delving into the pandemic's consequences on exchange rates in the Arab region, thus contributing valuable insights to this understudied field.

The present investigation adds significantly to the existing literature in several key ways. Firstly, it addresses a significant research gap by examining the COVID-19 pandemic's impact on exchange rates in Arab economies, which has received limited attention thus far. Secondly, it provides region-specific insights into these effects, offering a nuanced understanding of how the pandemic has influenced exchange rates in a unique economic context. Thirdly, the research carries crucial policy implications, as it informs governments and central banks in the Arab region about effective exchange rate management techniques fluctuations for enhanced economic stability and resilience. Additionally, the study contributes to a holistic understanding of the broader economic consequences of the pandemic within Arab economies, playing a role in shaping policy decisions. Lastly, while its primary focus is on the Arab world, the study's findings hold global relevance, offering valuable lessons as the world continues to navigate the economic challenges posed by the pandemic. Top of Form

The remainder of the paper is structured as follows: Section 2 provides a literature review, Section 3 outlines the database and methodology used in this study, Section 4 presents the findings, and, lastly, Section 5 concludes with policy recommendations.

II. RELATED LITERATURE

In recent years, extensive research has been conducted by various scholars to look into the global effects of the COVID-19 pandemic. This research has encompassed a wide range of economic indicators, including unemployment, agricultural production, economic growth, trade, tourism, and foreign direct investment (Saif-Alyousfi, 2022; Kotcharin et al., 2023; Zhao et al., 2023; Saif-Alyousfi et al., 2021; Hayakawa and Mukunoki, 2021; Nitsch, 2022; Mena et al., 2022; Fu et al., 2021; Fang et al., 2021; Nawoi and Nijangan, 2021; Ho and Gan, 2021; Giofré, 2021; Koçak and Barış-Tüzemen, 2022;

Chattopadhyay et al., 2022). However, this study places its primary focus on the specific aspect of the COVID-19 outbreak's influence on exchange rates. Here, this study offers a concise overview of research dedicated to understanding the dynamics of exchange rates within the context of the pandemic.

Iqbal et al. (2020) investigated the complex weather-related connection between the initial COVID-19 outbreak in Wuhan and the Chinese economy. They used daily data, including temperature, COVID-19 cases in Wuhan, and the Chinese RMB exchange rate. Advanced analysis methods were applied to assess data from January 21 to March 31, 2020. The results indicated that temperature increases had a limited impact on slowing COVID-19 spread. Additionally, the RMB exchange rate showed a negative yet constrained impact on the Chinese export economy during the outbreak. These findings challenged earlier research that emphasized the temperature's role in mitigating COVID-19. The study's implications are significant for COVID-19 containment and economic management in varying weather conditions.

Aloui's (2021) study delves into the profound disruptions caused by the sudden and extensive COVID-19 pandemic. Using an advanced model, it examines how monetary policy, specifically quantitative easing (QE), affects the Eurozone's exchange rate and business credit both before and after the pandemic's onset. The research uncovers a time-dependent variation in how the EUR/USD exchange rate responds to monetary policy shocks. Significantly, throughout the time of COVID-19, the expected impact of QE on the exchange rate did not materialize. These findings underscore the pandemic's unpredicted influence in altering investor behavior and expectations.

Iyke and Ho's (2021) study delves into the complexities of the exchange rate being exposed in the framework of the COVID-19 pandemic. Utilizing a multifactor arbitrage pricing model and analyzing daily data from South Africa, the research reveals industries, in contrast to sectors, exhibited heightened susceptibility to exchange rate risk during the pandemic compared to the period before. The study also highlights that, in most cases, exchange rate exposure negatively impacted sectors and industries. However, it notes a few exceptions, such as the beverages, mining, personal goods, and tobacco sectors, as well as the basic materials, consumer goods, and technology industries, which seemed to benefit from this exposure. These findings remain robust under various testing scenarios, confirming their validity.

Feng et al. (2021) investigate the substantial global economic impact and diverse government interventions prompted by the high spread of COVID-19 in 2020. The research focuses on discerning whether COVID-19 and governmental measures have influenced exchange rate volatility. To answer this question, the study assesses the effects of COVID-19 and government responses on exchange rate volatility in 20 countries from January 13, 2020, to July 21, 2020, employing system GMM estimation. According to empirical findings, a rise in verified COVID-19 cases indeed heightens exchange rate volatility. Furthermore, various government schemes, including school closures, restrictions on internal mobility, and public information campaigns, have a mitigating effect on exchange rate volatility. Furthermore, throughout the global epidemic, governments implemented economic measures such as income support, fiscal strategies, and international aid to serve to restrain exchange rate volatility. These results offer crucial insights for global policymakers and financial investors.

Devpura's (2021) study delves into the intricate connection between the Euro-United States Dollar (Euro/USD) exchange rate and oil futures prices, utilizing high-frequency intra-day data. The dataset comprises hourly data from January 7, 2019, to November 30, 2020, covering a 17-hour daily span from 1:00 AM to 5:00 PM. Employing a predictive regression model, the research reveals that oil prices exert some influence on the Euro/USD exchange rate, albeit with limited empirical evidence. However, this influence disappears when accounting for the impact of COVID-19, which had a discernible effect on the exchange rate in March 2020. Ultimately, after controlling for COVID-19, the study concludes that the Euro/USD exchange rate has no forecasting capacity for oil prices.

Narayan's (2022) study used a complex model to analyze hourly exchange rate data for EURO, Yen, CAD, and GBP. The research found that during the COVID-19 period, exchange rates had a more significant influence on their own movements compared to the time before the pandemic. To put it another way, exchange rates were better at predicting their own changes during the pandemic. This discovery was confirmed through rigorous testing. It suggests that these insights can be used to predict exchange rate returns and create trading signals for buying and selling currencies.

Baek's (2022) study offers a unique perspective by explicitly examining the influence of the ongoing COVID-19 pandemic, represented by the COVID-19 index, on the asymmetric effects of oil prices on the South Korean won (KRW)/US dollar (USD) exchange rate. The research reveals that the pandemic has played a substantial role in shaping oil prices' uneven impact on the KRW/USD exchange rate in the short term and over an extended timeframe.

Alimi and Adediran (2023) offer a fresh perspective on the interaction of stock prices and currency exchange rates, exploring the reverse relationships between these variables. Their analysis spans the COVID-19 pandemic's waves, identifying developed and developing nations differently. Using a panel modeling approach, they reveal a statistically meaningful inverse

correlation between stock values and exchange rates, with the relationship intensifying during the COVID-19 crisis. Importantly, disruptions occur during the Second Wave, coinciding with the Delta variant surge, yielding valuable investment and policy insights.

III. DATA AND METHODOLOGY

A) Data

This research draws upon an extensive dataset from the Arab region, covering 22 countries: Algeria, Bahrain, Comoros, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Somalia, Sudan, Syria, Tunisia, the United Arab Emirates, and Yemen. The dataset spans the years from 2017 to 2022 and derives its variables from the World Bank database, ensuring data quality and reliability.

B) Model Specification

To examine the impact of COVID-19 on exchange rates in Arab economies, the following model is estimated:

$$\begin{aligned}
 & \text{ExchangeRates}_{j,t} \\
 &= \alpha_i + \beta_1 \text{COVID} - 19_t + \beta_2 \text{GDP}_{j,t} + \beta_3 \text{UnemploymentRate}_{j,t} + \beta_4 \text{InflationRate}_{j,t} \\
 &+ \varepsilon_{i,j,t} \quad (1)
 \end{aligned}$$

Where j refers to the country at year t , and *ExchangeRates* reflects the exchange rates as the dependent variable. *COVID-19* refers to the pandemic COVID-19. *GDP*, *UnemploymentRate*, and *InflationRate* represent the gross domestic product, unemployment rate, and inflation rate, respectively, as the control variables. The idiosyncratic error term is reflected by $\varepsilon_{i,j,t}$.

Following prior studies, Fu et al. (2021), Fang et al. (2021), Nawoi and Nijangan H (2021), Ho and Gan (2021), Giofré (2021), Koçak and Barış-Tüzemen (2022), and Chattopadhyay et al. (2022), Saif-Alyousfi (2020, 2022a, 2022b, 2023), Saif-Alyousfi et al. (2021), the model (1) is estimated by the pooled ordinary least square (OLS). Table 1 shows the measurements of the variables used in the study.

Table 1: Definition of variables

Variables	Description	Source
Dependent variables:		
Exchange rate	The twelve-month average exchange rate	WDI
Independent variables:		
COVID-19	COVID-19 is a dummy variable that takes 1 if the year 2020 and 0 otherwise	
GDP growth	Real GDP growth rate	WDI
Unemployment rate	The percentage of the labour force that is unemployed is known as the unemployment rate.	WDI
Inflation rate	Current period inflation rate (consumer prices)	WDI

IV. EMPIRICAL RESULTS

A) Descriptive Analysis

Table 2 displays the variables' descriptive statistics under examination, offering a snapshot of their distribution and characteristics based on 132 observations. Notably, the "Exchange rate" variable demonstrates substantial variation, with an average of 443.94 and a wide standard deviation of 2297.80, reflecting significant fluctuations in exchange rates across the studied dataset. The binary variable "COVID-19" has an average value of 0.33, indicating the proportion of years (2019 and 2020) affected by the pandemic, providing insight into its temporal presence. "GDP growth" shows an average rate of 1.27, illustrating diverse economic growth rates, while "Unemployment rate" has an average of 10.55, highlighting variability in labor market conditions. "Inflation rate" exhibits an average of 15.58, signifying diversity in consumer price inflation rates. These statistics serve as a foundational understanding of the dataset, essential for comprehending the range and characteristics of the variables, which is crucial for subsequent analyses and interpretations.

Table 2: Descriptive statistics

Variable	Observation	Mean	SD	Min	Max
Exchange rate	132	443.94	2297.80	0.30	23097.99
COVID-19	132	0.33	0.47	0.00	1.00
GDP growth	132	1.27	4.54	-21.40	8.74
Unemployment rate	132	10.55	7.26	0.10	28.05
Inflation rate	132	15.58	48.36	-2.54	359.09

B) Correlation Analysis

Table 3 presents the outcomes of a correlation analysis among the key variables in the study. As delineated in Table 3,

all the correlations among the independent variables register values below 0.50, confirming the absence of any significant multicollinearity issues. The "Exchange rate" variable displays relatively weak correlations with the other variables. It has a negative correlation with "COVID-19," indicating the influence of the pandemic on exchange rates. "GDP growth" exhibits a negative correlation, suggesting that as GDP growth increases, exchange rates tend to decrease. "Unemployment rate" positively correlates with the exchange rate, implying that higher unemployment rates may be linked to stronger exchange rates. "Inflation rate" shows a positive correlation, suggesting that higher inflation rates may coincide with stronger exchange rates. Overall, the correlations are generally weak, signifying that the relationships between these variables are not strongly linear, and other factors likely play a substantial role in shaping their dynamics.

Table 3: Correlation analysis

Variables	Exchange rate	COVID-19	GDP growth	Unemployment rate	Inflation rate
Exchange rate	1				
COVID-19	-0.121	1			
GDP growth	-0.365	-0.448	1		
Unemployment rate	0.250	0.012	-0.007	1	
Inflation rate	0.273	-0.073	-0.297	0.247	1

C) Results

Table 4 presents a comprehensive analysis of COVID-19's effects on exchange rates in Arab economies, employing the pooled OLS regression method over the period 2017-2022. The results yield significant insights into the relationship between these variables and exchange rates.

As shown in Table 4, the variable "COVID-19" emerges as a key factor, displaying a substantial and highly statistically significant negative impact on exchange rates, denoted by a coefficient of -467.7 (p-value < 0.01). This implies that the presence of COVID-19, as indicated by a higher value of the variable, exerts significant downward pressure on exchange rates. The negative coefficient underscores that exchange rates tend to weaken in response to the pandemic's effects, reflecting the uncertainty and economic challenges it poses. These results are in line with the study hypothesis and the results of Iqbal et al. (2020), Aloui's (2021), Iyke and Ho's (2021), Feng et al. (2021), Devpura's (2021), Narayan's (2022), and Baek's (2022), who determine how COVID-19 affects the exchange rate is negative and significant.

This phenomenon can be attributed to the challenges and uncertainties accompanying a global pandemic. As countries grapple with the health crisis, economic disruptions, and shifts in investor sentiment, their currencies may face downward pressure. Investors often seek refuge in stable currencies during times of uncertainty, leading to a depreciation of the exchange rates of economies affected by the pandemic. The robust statistical significance of this relationship underscores the importance of considering the pandemic's influence when analyzing exchange rate dynamics in Arab economies, as highlighted in this study.

Turning to the control variables, GDP reveals a negative and highly significant influence on exchange rates, with a coefficient of -57.36 (p-value < 0.01). This finding suggests that a decrease in GDP growth is associated with a concurrent decrease in exchange rates. Economic downturns, indicated by lower GDP growth, can result in weakened exchange rates, reflecting the interconnectedness of economic performance and currency values. The observed impact of GDP on exchange rates, as elucidated in Table 4, holds significant economic ramifications. Specifically, a decrease in GDP growth is correlated with a simultaneous decrease in exchange rates. This relationship underscores the intricate interplay between economic performance and currency values. When a country's GDP growth rate diminishes, it often signifies economic challenges, reduced economic activity, and investor uncertainty. In response to these economic downturns, exchange rates may weaken as they become less attractive to investors. This dynamic highlights the critical importance of considering the economic health of a country when analyzing exchange rate fluctuations in the context of Arab economies.

Conversely, the "Unemployment rate" variable exhibits a positive and highly significant impact on exchange rates, with a coefficient of 15.86 (p-value < 0.01). This signifies that higher unemployment rates are linked to stronger exchange rates, indicating that economic uncertainty associated with elevated unemployment can drive investors toward more stable currencies as safe havens. When unemployment rates rise, it often signals economic challenges and decreased consumer spending, which can lead to investor apprehension. In such circumstances, investors may seek refuge in more stable currencies, perceiving them as safe havens during times of economic turmoil. This finding highlights the relationship between labor market conditions and exchange rates, shedding light on the significance of understanding how unemployment influences currency values in the context of Arab economies.

Lastly, the "Inflation rate" variable does not demonstrate statistical significance (p-value > 0.10), suggesting that changes in inflation rates do not wield a strong influence on exchange rates in this context. Inflation, which represents the increase in consumer prices over time, typically impacts exchange rates when it reduces the value of a nation's currency.

However, the absence of statistical significance in this analysis suggests that inflation rates do not substantially influence currency rates in this particular context. This outcome underscores the complexity of exchange rate determinants and suggests that factors other than inflation play a more prominent role in influencing currency values in this specific economic environment. Understanding the limited influence of inflation rates on exchange rates in this context provides valuable insights for policymakers and analysts assessing currency dynamics in Arab economies.

In short, the results from Table 4 underscore the pivotal roles of COVID-19, GDP growth, and unemployment rates in influencing exchange rates within Arab economies. These findings align with economic intuition, highlighting the pandemic's disruptive impact and the interplay between economic performance and labor market conditions. However, changes in the inflation rate do not appear to be a significant driver of exchange rate dynamics in this particular analysis.

Table 4: The effect of COVID-19 on exchange rate

Variables	FDI inflows
COVID-19	-467.7*** (137.0)
GDP	-57.36*** (14.62)
Unemployment rate	15.86*** (4.395)
Inflation rate	0.379 (0.999)
Constant	177.0*** (56.31)
Observations	132
R-squared	0.292
This table shows the impact of COVID-19 on the exchange rate in Arab economies using the pooled OLS. The values in parentheses are robust standard errors. *, ** and *** denote significance at 10%, 5% and 1% levels, respectively	

V. CONCLUSION

The primary aim of this research is to examine COVID-19's effects on exchange rates in Arab economies during the period spanning from 2017 to 2022. To achieve this goal, a comprehensive panel dataset encompassing six years and covering 22 Arab economies has been meticulously analyzed using the pooled OLS estimator. This study represents a pioneering investigation into the connection between COVID-19 and exchange rates within the Arab region, making a significant and groundbreaking contribution to the existing body of research in this field. In essence, this study stands as the inaugural research endeavor to explore the nexus between COVID-19 and exchange rates in Arab economies, marking a pioneering milestone in this study area.

The results of this study present that COVID-19 has a substantial and highly statistically noteworthy adverse effect on exchange rates. This suggests that higher COVID-19 presence exerts significant downward pressure on exchange rates. The pandemic introduces numerous uncertainties and economic challenges, weakening currencies as investors seek refuge in more stable ones. GDP exhibits a negative and highly significant influence on exchange rates, indicating that lower GDP growth results in weaker exchange rates, reflecting the interconnectedness of economic performance and currency values. Conversely, though, the unemployment rate has a positive and highly significant impact on exchange rates, indicating that higher unemployment rates lead to stronger exchange rates as investors turn to stable currencies during economic uncertainty. Notably, the inflation rate does not significantly impact exchange rates in this context, suggesting that other factors play a more prominent role in influencing currency values in Arab economies.

The study's conclusions have several important policy ramifications for Arab economies. Firstly, the substantial negative impact of COVID-19 on exchange rates underscores the importance of effective pandemic response measures and strategies to mitigate its economic consequences. Policymakers should focus on maintaining economic stability and bolstering investor confidence during such crises. Secondly, the negative influence of GDP on exchange rates highlights the significance of fostering economic growth and stability. Arab countries should implement policies that promote economic resilience and recovery to maintain exchange rate stability. The positive impact of the unemployment rate on exchange rates suggests the need for proactive labor market policies during economic downturns. Governments should focus on job creation and economic support measures to address unemployment and its potential impact on exchange rates. Lastly, the limited impact of inflation rates on exchange rates indicates that inflation control measures might not be the primary focus when managing currency

values. Policymakers should consider a more holistic approach encompassing other factors contributing to exchange rate dynamics. These findings emphasize the importance of a multifaceted and adaptive policy framework to address the intricate dynamics of exchange rates in Arab economies, considering the unique challenges posed by COVID-19 and the broader economic landscape.

This study opens the door to further research in several important directions. Firstly, examining the COVID-19 pandemic's effects on exchange rates in more depth is crucial. Future research could delve into the nuances of how specific pandemic-related factors, such as lockdowns, vaccination rates, and government response policies, influence exchange rates in the Arab region. Additionally, exploring the role of other external and internal factors on exchange rates in Arab economies would be beneficial. These factors might include international trade patterns, political stability, and regional economic integration.

Furthermore, examining the effectiveness of various policy responses in mitigating the negative effects of COVID-19 on exchange rates would provide valuable insights for policymakers. Evaluating the success of economic stimulus packages, monetary policies, and vaccination campaigns in stabilizing exchange rates could be a promising avenue for research. Finally, conducting a comparative analysis between Arab economies and other regions would help to contextualize the findings. Investigating whether the impact of COVID-19 on exchange rates in the Arab region differs from that in other parts of the world could provide a broader perspective on the global economic consequences of the pandemic.

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