# THE IMPACTS OF COVID-19 ON THE JORDAN TOURISM & ACCOMMODATIONS SECTOR: AN EMPIRICAL STUDY

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## ABSTRACT

This study aims to measure the time series-related impact of COVID-19 on the Tourist Accommodation Sector in Jordan. Quantitative economic statistical techniques was attentively nominated to establish unit measurement in data time series including the quantity of tourist visitors from 35 source countries among 1997 and 2020. The being of unit origins can find the static characteristics of the cycles. The study considers that the data time series of 23 countries include difference stationary process, and consequently any shape of external crisis, like the COVID-19 pandemic, can have a persistent impact on the total of tourist visitors. Involved in this classification are Germany, Italy, the KSA, and the UAE, which are the primary traveler source for Jordan. The paper advises that administrations take the main source country of visitor's specific efforts to handle the harmful effect of COVID-19.

Keywords: COVID-19, Jordan Tourism Sector, Quantitative Economic Statistical Techniques.

#### **INTRODUCTION**

Within ten years, Jordan and the Eastern Mediterranean countries' economies, suffered from several major crises. The political crises in Iraq and Syria for the year 2002-2022 caused a decline in export markets and reverse migration to Jordan through the human migration of more than two million refugees, which led to a major change in the Jordanian economy, which is the decline in exchange rates and securities. In 2005, the terrorist attacks on Amman hotels and their repercussions sent shock waves that could damage the tourism sector in the Middle East. As if these weren't enough, early 2019 saw the sustaining the Jordan's tourism economic growth and competitiveness falter (Qwader & Aloshaibat, 2020).

Stopping the COVID-19 pandemic is ravaging countries in the eastern Mediterranean. The impact of COVID-19 was so debilitating and influencing that Al-Halaika, through an interview with Al Arabiya Net (2020, May 11), compared it to the Great Depression of 1928 in the United States. Of all the affected countries, Jordan was the most affected, due to the closure of airports and border crossings and the limited economic capabilities, as the number of confirmed cases until September reached 2034 cases with 15 deaths (Jordanian Ministry of Health, 2020). The number of reported cases in Jordan represents 13 percent of all situations and 75 percent of situations outside Jordan (Alqutob et al., 2020).

Of course, the media and global media (for example, BBC, CNN.com 2020) across the region have featured these cases as their headlines (Qiu et al., 2020) All residents were residents of Amman and surrounding cities; for example the Collective surveys to date have indicated that there is a large cluster of COVID-19 cases broke out, sent to quarantine camps out near Dead Sea in late February 2020, other media headlines. These kinds of comprehensive medical coverage of

outbreaks reported by local and international media worldwide alerted most potential travelers (Al-Tammemi, 200).

Tourism is one of the largest and fastest growing industries in the Jordanian economy, currently; tourism sector investment has been the largest source of cash flows for Jordan. It contributed about 14% of Jordan's GDP over the past decade through reliance on affordable tourism. The tourism sector in Jordan faced the most significant challenge from this epidemic. The decrease in the number of tourist arrivals was staggering. The decrease in the number of tourist arrivals was a factor (Kheirallah et al., 2020).

The rate of decline in the number of passengers on board the Royal Jordanian and Jordanian Aviation and the Royal and Arab Aviation, which are based in Jordan, was apparent. The noticeable decline in passenger numbers by 19%, the seat fill rate by 5%, and the operating income by 22%, resulting in a loss of \$ 5 million in the first quarter (see Royal Jordanian's interim report for the year 2020), while Jordan Aviation witnessed a sharp decline of 76% In the number of travelers compared to the same period of time last year. In general, the losses amounted to 42 million dollars on scheduled flights, equivalent to approximately 750,000 abandoned seats (see operational statistics for 2020). Not surprisingly, then, the Central Bank of Jordan and the International Monetary Fund estimated that Jordan would Jordan would suffer the consequences and also recorded the largest drop in due to increased frequency and intensity of epidemic induced disasters like the COVID-19 (see Central Bank of Jordan, 2020, May 2). It could also decrease the expected economic growth of 3.7 percent and a contraction of -3.5 percent 3.5 percent economic growth for 2020 (royal Jordanian: annual report, 2020).

According to the report issued by the World Tourism Organization (UNWTO) in May 2020, the global tourism sector will lose between (850 million - 1.1 billion) international tourists this year, and this will lead to real losses in tourism revenues between (910 billion to 1.2 trillion dollars). There are between (100-120 million) job opportunities threatened with loss worldwide during the current year in the tourism sector, which is one of the most critical sectors that generate job opportunities in the economies of Arab countries (World Tourism Organization, 2020).

The effects of the infectious disease on the Jordan Tourism and Accommodations was so critical that the Minister of Tourism, through the head of the Research and Economy Department at the Jordan Tourism Board, claimed that "the impact of Covid-19 on these countries (Jordan and Egypt)) is two or three times the impact of the countries of the region due to its impact on income Nationalist more than nudist Gulf states" (Baldwin & Weder, 2020; Ayadi & Shaban, 2020).

Arabiyat, head of the Jordan Tourism Board, expected the impact of Covid-19 on the tourism sector in Jordan to be temporary, with a return to economic growth conditions by 2021How well does this fit? Given that COVID-19 has had an unmatched effect on sector; it is unclear whether the effect is in short-term or continuous. Jordan has relied on the initial operation of tourist restaurants at a rate of 30%, revenues dropped by 56.5%, encouraging domestic tourism for Jordanians and encouraging medical tourism, as Jordan is one of the most advanced countries in the region. In the field of medical services (Abuamoud et al., 2019; Central Bank of Jordan, 2020)

Previous studies and scientific researchers have sought to predict the effect of systemic global risks on the travel industry. (Angel et al., 2018; Jackson & Tamuke, 2019; Kufel, 2020), for example, used the Autoregressive Integrated Moving Average Model (ARIMA) model to forecast the assessment of the effects of terrorism on tourism using time-series methods, namely

ARMAX (Moving Average Self-Regression with Interpretive Variables). But for all we know, there is no experimental study that has examined the impact of the epidemic crisis on the Jordanian or Arab travel and tourism Sector. This article note aims to define whether the effect of COVID-19 on tourists coming to Jordan is short or long term. As it is forecasted that travelers from various locations of the world will conduct differently from any form of world risks, so the effect may differ From a developed country to a country in the third world from those coming to Jordan By selecting a suitable Quantitative economic statistical techniques strategy, we assess the effects of COVID-19 on the arrival of tourists to Jordan, while no one could argue against that. COVID-19 isn't a transient problem if not immediately correct, recent issues of COVID-19 that have been reported in some surrounding countries give an ambiguous indication of the extent of the impact in light of the political instability and terrorism plaguing the Middle East region (see Choe et al., 2020; Swaraj et al., 2020). All previous studies and analyses of the reality of the Jordanian economy, which is facing debt problems, which reached 101% of GDP, and the high debt to a record level of about 40 billion dollars, may indicate that it will be beneficial to it. Jordan, its government, and the private sector, especially the tourism sector, prepare for any further outbreak, for disease or any similar crisis to the tourism & accommodation sector.

The article also contributes to the use of a new scientific methodology for analytical tourism research of epidemics that may be repeated in the future and new future research orientations by proposing a method for identifying patterns of access concerning the concept of constancy of honesty in scientific research. It describes utilize of a research approach not often used in the discipline, while honesty is more comprehensive and more general than persistence. Many studies have been adopting the methodology in the current research and reproducing the Mythological Criticism approach can experimentally assess the impacts of other tourism crises, which have been used in the United States and Hong Kong.

The rest of the facts it is organized as follows: The next part discusses the rationale, methodological strategy we utilized. This is followed by investigation of the result of the research, and lastly, we finish with some conciseness antonym.

### DATA COLLECTION AND SCIENTIFIC METHODOLOGY

In a strict scientific summary, it is said that the time series is one of the most important methods of prediction, which is a random variable, and it is fixed if its To conduct the technical evaluation of the tourism sector indicators, it is suggested that the statistical propertiess constant a long period of time. Under these conditions, there is a range of traumatic events or trauma types which may have a smooth and decreasing effect on the series, especially in probabilistic models for prediction, Which means time series will apply The Box-Jenkins approach to time series modeling consists of extracting predictable movements through the Auto Regressive Moving Average model. On the contrary, a series is thought to be unstable if it does not have a statistical pattern over a long period measured by a moving average. Econometric economists point out that this type of filament as a random march. Since this is the first day of pandemic the kind of time series does not have a unique pattern, any crisis or external influence will persist, so the series's effect will be long, so we use the automatic regression moving average (ARMA). To determine if a given time series is constant or non-constant, one has to decide whether if the statistics data of time series includes a stochastic process (Ghalehkhondabi et al., 2019; Gil-Alana et al., 2020).

There exist a number of steps for measuring the presence of stochastic process in a data time-series. One could agree that tests and facilitates comparisons with alternative procedures due to (Akadiri et al., 2020) the ADF approach test on the integrating regression residuals using a sequential general to specific testing strategy. Dickey and Fuller (1979; 1981) propose several statistics techniques, including Tt, tat, TB2,  $\Phi$ 3,  $\Phi$ 2, tm, tam, F1, and t, for Testing for a Unit Root in a Time Series with a Changing Mean to use these statistics correctly and accurately, to develop a strategy needs to be empiricism (Fahmi et al., 2019) This study treats the strategy based on Pérez et al. (2020) and the adjustation inserted by Gil et al., (2020) Table 1 characterize the tactical methodology implemented in this study.

Statistics on the number of tourists visiting Jordan from 35 countries between 1997 and 2020 the data were collected over a period of 23 years for the current study. These 35 most important countries make up about 100 percent of the visitors who travel to Jordan. Only countries for which sourced data is available are listed from different issues of Jordan. Therefore, statistics published pertaining to the local economy by the Jordan Tourism Board.

#### **Methodology Stages**

Stage 1 use a series of equations to estimate ancestry (1) with OLS

$$\Delta y_t = a_0 + \gamma y_{t-1} + a_2 t + \sum_{i=1}^k \beta_i \Delta y_{t-1} + \varepsilon_t$$

Where Y is the data of time series of concern about; t indicate time;  $\Delta$  is the first variation of an operator; a<sub>0</sub>, y, a<sub>2</sub>, and  $\beta_i$  are the predestined parameters;  $\varepsilon$  denotes the error of time.

The rate of k is first fixed that indicates the relationship between the molar concentrations. This stage is a decisive term such that the asymptotic distribution that's providing approximations to the cumulative distribution functions of statistical estimators, leastsquares estimation, and critical values acquired above Dickey-Fuller t statistic can be supposed to grasp. Cavanaugh & Neath (2019) presentation that data standards such as the Akaike information criterion AIC sample prediction error and thereby designed for preplanned comparisons between models then define a very short delay range which drives to a great deal of distortion. While on the other hand, the common pathway for causing the late portion of time tends to identify a higher slow length resulting in a lack of forecasting strength. Hence, both methodologies are not examined here. Instead, a "bottom-up" way is used to determine the value of k (Zheng et al., 2019). With the LM test, mechanical correlations are examined to another authoritative orientation. If both LM exams do not refuse the invalid assumptions As the response progresses, the reaction can modify from second order to first order as reactant is used Autocorrelation, it is a mark that k=0 is suitable. However, if any of invalid assumptions are rejected, the rate of k will be raised until the null hypotheses are accepted. Such a 'bottom-to-top' lag, the measurement chosen strategy is particularly advantageous when facts extent is unassuming, as it could decrease the lack in the freedom of time series (Afyouni et al., 2019). Equation 1 with the chosen k is applied to examine for H0: g=0 using the T<sub>t</sub> statistic. Whether the null hypothesis is accepted, move forward the next stage. Furtherone would bring the timeseries is orientation-steady.

Stage 2: Set up a null hypothesis of a2=0 given y=0 and check it deploy the TB2 test. If this null is accepted, the common test,  $\Phi$ 3 (Obradović, S., & Obradović, 2019), has been used to test H0: a2=y=0 in order to assert again the conclusions.  $\Phi$ 2 could also be utilized to earn further

insight. If the null hypothesis of a2=0 stated g=0 is rejected, the level of quality or attainment of normal position in weight is used to re-test the H0: y=0. Rejection of H0: g=0 leads the way to the results that the series is orientation-steady.

H0: y = 0 drives to the conclusion that the series is orientation -stationary. If the H0: y = 0 is accepted, we forward to the next stage.

Stage 3: Estimate equation 2 with OLS

$$\Delta y_t \equiv a_0 + \gamma y_{(t-1)} + \sum_{j=1}^{\infty} \beta_i \Delta y_{(t-1)} + \varepsilon_t$$

The rate of k in equation (2) is selected based on the method designed in stage 1. H0: y=0 is examined utilizing tm statistics and probability. The operations are discontinued if the null is rejected. On the other hand, the testing resumes staging 4.

Stage 4: Experiment the null hypothesis of ao = 0 given y = 0 utilizing the tam statistics and probability. Forward to stage 5, if this null hypothesis is accepted. furtherly, the F1 test with H0: ao=y=0 use as a basis equation 2 is then utilized to reaffirm the acceptance of this null. If the null hypothesis of ao=0 given y=0 is rejected, the standard normal distribution is used to reexamine H0: y=0. Rejection of H0: y=0 drives to the conclusion that the series is stationary

Stage 5: Estimate equation (3) with OLS

$$\Delta y_t = \gamma y_(t-1) + \sum_{i=1}^{k} \beta_i \Delta y_(t-1) + \varepsilon_t$$

Describe k utilizing the operation advised in Stage 1. H0: y=0 is examined utilizing the T statistic. If the null is rejected, one could conclude the series is (zero-mean) stationary.

#### **RESULTS AND DISCUSSION**

Primary and Final examinations statistics and probability procedure depend on the strategy designated Activity are given in annex 1. The conclusions of our main findings are notified based on five categories as follows:

- 1. Stationary The effect of External liabilities and crises like SARS, wars, and COVID-19 will gradually diminish over time. This may indicate that Most visited destinations by international tourist arrivals in this division will steadily return to the previous standard in the long term.
- 2. Orientation -stationary the influence of external crisis impact would progressively decrease during the time. In this situation, the number of travels from these destinations would back to its long-term trend. So, in these conditions, the effect created by the impact is provisional.
- 3. Stochastic the effect of the External liabilities and crises on non-stationary time series would not reduce during the period of time. This would suggest that there would be the effect of a constant on the number of travelers from destinations that come below this tourism group.
- 4. Stochastic with a deviation Random move carried slowly- the effect of the external crisis on a nonstationary time series with a deviation proceeds precisely. In the case of this research, the translation of the deviation is supernumerary in the short term; the effect of the crisis on such a chain is lasting
- 5. Stochasticing with deviation and orientation the crisis's impact will not diminish on an unstable chain with deviation and orientation over time. However, given the circumstances, the effect is always due to the war status in Syria, Iraq, and Yemen, and the Arab Gulf states' economic issues.

Facts and statistics series displays an orientation; both the orientation and the crisis participate in the variations in the number of tourists. Even though the effect of these crises - Epidemics and wars- on such a series is permanent, the increase in the number of tourists is

dominated by a tendency. Thus, the effect is not as damaging as in (3) and (4). We can make it clearly explain how the United States be the right shape into the stochastic with a deviation group.

In the first stage, we find that the Tt collecting and analyzing numerical data is not significant, which drives us to stage 2. The null hypothesis of  $a_2=0$  stated y=0 is examined using the TB2 statistics. The results, however, are not significant. An insignificant  $\Phi_3$  and  $\Phi_2$  would assert that the orientation must not have been contained in equation 1. Thus, we progress to stage 3. Given an insignificant tm, we progress further to stage 4. In stage 4, the null hypothesis of ao=0 given y=0 using the tam statistics is examined. An insignificant tam suggests that the drift must not have been contained in equation 2. An insignificant F1 confirms this. Consequently, we proceed to stage 5. Herein, a higher percent positive t mentions an explosive process in the series, sometimes inaccurately called unit-roots processes. Turkay & Atasoy proposes (2019), and Khan et al., (2019) indicate that the best alternative at such an uncomfortable corner is to Excludes the model prevents the possibility of an explosive series and or of a series with negative growth. This results from the poor power of unit root tests since it does not make any sense. We may conclude that it happens by the way or due to misspecification in the model to cover a broad range of modeling errors, including measurement errors; thus, one would be knowledgeable to do backward and deduce that the drift phrase was not equal to zero in equation 2. As the tm statistics parameters are location-dependent on equation two is insignificant, we finally classify the KSA series analysis as a random series analysis with a drift. Utilizing parallel strategy, we recognized countries that fit into the five groups, as shown in Table 2. Our conclusions from Table 2 emphasize several significant points. First, between the 36 source countries, 24 characterize random properties. This would include emphasis that tourists from these countries are in danger to any form of external crisis and make modifications to their tourism destination whenever news of these crises is happening as mentioned before in a sentence, the extensive mass media coverage of COVID-19 would have a weakening impact on the total of tourist comes from these countries. It ought to be distinguished that in between these 24 countries are Germany, Italy, the KSA, and the UAE, making up nearly 60 percent of tourist arrivals into Jordan. Second, among the 11 countries that portray stationary properties are Syria, Egypt, the Philippines, Indonesia, Algeria, and Pakistan. Among these countries, Sri Lanka and Indonesia are important sources of imported labor for Jordan, Egypt, Syria, and Pakistan, on the other hand, are prominent migration destination among Jordan's professionals. Thus, these countries' relationships may go beyond typical tourists' relationship per se into family and workrelated ties; this may provide credible clarification as to the not permanent phenomena of the crisis in these source countries (Appendix 1).

Third, and perhaps more significantly, it is argentine that the Jordan tourism authorities controlled the COVID-19 issue differently as claimed by the groups appointed above. For example, in markets like Germany, Italy, the KSA, and the UAE, where shocks make a lasting effect on tourist arrivals, the authorities will need to calm down the global touring community theatre by could be undermining the efforts of the health government authorities in quarantining the COVID-19 carriers, etc. An asset allocation of funds to these stock markets is required to introduce a positive shock that will counter the negative impact of COVID-19. It should be well known that a positive effect of any phoneme can positively impact tourist arrivals from these countries as well-image building.

			Table 2							
DESTINATIONS BY STATIONARITY CATEGORIES										
Category	A Pure	A Stochastic	A Stochastic with a	Orientation -	Stationary					
	Random Walk	with a Drift	Drift and an Orientation	Stationary	Stationary					
	Qatar	KSA	Ethiopia	Pakistan	Iraq					
	Libya	Lebanon	Oman	Bahrain	Syria					
	Algeria	Greece	India	Venezuela						
	Bahrain	Venezuela	Italy	South Africa						
	Germany	UAE		Kuwait						
		Sweden		Palestine						
Country		France		Algeria						
		Tunisia		Indonesia						
		Italy		Philippines						
		Spain		Egypt						
		SUDAN								
		Malaysia								
		Somalia								
Implication	Move from side to side randomly Responding bad news as it is accepted as; a "shock and crisis," or an "effective innovation", has a supported effect in these Series	The series is not Pointed on zero; a "shock and crisis," or an "effective innovation" , has a supported effect in these series	Over the long Time, the number of tourists from these countries are increasing; there appears to be a random walk around an Effective orientation; a "shock and crisis," or an "innovation", has a sustained effect in these series	Over the long run, number of tourists from these countries are increasing (decreasing for Kuwait and Palestine); a "shock and crisis," or an "effective innovation", has a diminishing effect over time	Mean reversing; time-invariant have a broad constant amplitude; a "shock and crisis," or an "effective innovation", has a diminish effect over time					

The promotion and support of direct and indirect financial incentives and facilities for travel agents, tourism companies, and tourism-related services in these source countries are examples of this positive and error shock. On the other hand, in cost- and price-sensitive source countries, reductions in visa prices, entry prices to tourist sites, airline tickets, and accommodation prices can be emphasized. And can help in this regard the Saudi dollar slide, which directly impacts the flow of hard currency to Jordan, such as the US dollar, the euro, and others.

Concerning strategies for Jordanian marketing sites and improving the level of knowledge about the services that support the tourism sector. Sonmez et al., (1999) suggest that a specialized organization supporting the tourism sector or a specialized department should be formed in the Ministry of Tourism that manages crises affecting the sector and promotes them the destination level to administer the recovery marketing process including any activities. Richie (2020) proposes that these staff should include both central government, tourism, and travel qualified and local community leaders. Given the different diminutions of perceptions, they will be able to propose practical solutions that will help speed up the recovery of the tourism sector in a manner that satisfies all stakeholders in the tourism sector.

### CONCLUSION

The impact of COVID-19 on Jordan's Tourism sector is said to be more damaging than Crisis, Gulf War, and mortgage crisis. This paper examines the temporal effects of the tourism sector's crisis, the most important for national income in Jordan, such as COVID-19, on tourists visiting Jordan. Using data that through 23 years (1997-2020) and 36 source countries, our analysis finds that 12 countries-Iraq, Syria, Pakistan, Bahrain, Venezuela, Algeria, Kuwait, Palestine, Algeria, Indonesia, Sri Lanka, and Egypt - do not contain unit roots and so possess stationary properties. This means that any shock and crisis that would probably impact Jordan's tourism sector would have only a tentative impact. While, data associate with the other 24 countries consist of unit roots and so shock and crisis can cause lasting diversions from the normal trend, thereby making a continued effect on the number of visitors from these countries. Among these latest countries are Germany, Italy, the KSA, and the UAE, which make up 60 percent of tourist arrivals. We recommend decision-makers in the tourist sector to promise harm control operations at a country-specific level, i.e., based on these tourists' temporal nature. It must be concentrated that our examinations use total tourist arrivals. Future research could consider the effect of shock and crisis like COVID-19 on other sectors, for instance, industrial, agriculture, etc.

Appendix 1 TESTS STATISTICS										
Country		t	t		t			F		
Country		t		Bt	at			3		
Iraq	22.993	(-0.009)	1.134	(-0.269)	1.159	(-0.256)	4.236	(-0.026)		
Syria	22.629	(-0.014)	2.034	(-0.043)	3.163	(-0.004)	3.996	(-0.034)		
Qatar	22.669	(-0.013)	2.395	(-0.026)	21.204	(-0.243)	4.431	(-0.026)		
Bahrain	22.612	(-0.029)	21.999	(-0.061)	2.916	(-0.006)	4.003	(-0.021)		
Tunisia	22.692	(-0.014)	2.509	(-0.022)	20.242	(-0.626)	2.926	(-0.026)		
Greece	22.121	(-0.044)	1.966	(-0.064)	0.56	(-0.591)	2.041	(-0.14)		
Pakistan	22.964	(-0.009)	2.952	(-0.009)	0.046	(-0.964)	4.125	(-0.029)		
Bahrain	24.129	(-0.003)	2.99	(-0.003)	21.214	(-0.259)	9.692	(-0.003)		
Indonesia	21.912	(-0.009)	2.629	(-0.014)	0.213	(-0.922)	4.1	(-0.029)		
India	21.929	(-0.264)	1.264	(-0.219)	0.212	(-0.922)	1.55	(-0.222)		
France	22.922	(-0.003)	2.642	(-0.003)	2.242	(-0.025)	6.642	(-0.002)		
Oman	20.091	(-0.94)	1.192	(-0.244)	20.624	(-0.46)	2.996	(-0.064)		
Italy	20.65	(-0.462)	0.264	(-0.696)	2.009	(-0.046)	1	(-0.292)		
Germany	22.94	(-0.006)	2.291	(-0.029)	0.966	(-0.29)	4.214	(-0.021)		
Kuwait	22.225	(-0.003)	22.406	(-0.025)	2.296	(-0.003)	5.956	(-0.009)		
Malaysia	22.141	(-0.046)	2.092	(-0.04)	0.662	(-0.45)	2.29	(-0.13)		
Lebanon	22.926	(-0.006)	1.964	(-0.061)	2.294	(-0.021)	4.598	(-0.022)		
Ethiopia	22.456	(-0.021)	2.652	(-0.014)	20.656	(-0.519)	2.692	(-0.026)		
Venezuela	22.441	(-0.003)	2.221	(-0.003)	0.066	(-0.946)	5.924	(-0.009)		
SUDAN	22.944	(-0.006)	2.692	(-0.012)	2.616	(-0.012)	4.269	(-0.022)		
Philippines	22.229	(-0.004)	2.995	(-0.006)	20.229	(-0.629)	5.255	(-0.012)		

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Algeria	21.656	(-0.099)	0.914	(-0.422)	0.24	(-0.626)	1.622	(-0.216)
Palestine	22.261	(-0.003)	21.419	(-0.169)	2.962	(-0.009)	6.004	(-0.009)
Egypt	22.296	(-0.003)	2.465	(-0.003)	20.619	(-0.542)	6.009	(-0.006)
South Africa	22.466	(-0.003)	2.922	(-0.006)	2.451	(-0.022)	6.042	(-0.009)
Algeria	22.09	(-0.004)	2.044	(-0.006)	21.664	(-0.099)	5.025	(-0.014)
Spain	22.266	(-0.024)	2.45	(-0.02)	1.499	(-0.151)	2.011	(-0.066)
Sweden	20.947	(-0.066)	1.465	(-0.144)	1.204	(-0.241)	2.261	(-0.126)
Libya	21.209	(-0.229)	0.425	(-0.666)	1.504	(-0.145)	1.296	(-0.299)
Italy	22.009	(-0.046)	2.25	(-0.026)	21.226	(-0.196)	2.904	(-0.062)
Venezuela	22.204	(-0.026)	1.446	(-0.16)	2.006	(-0.046)	2.624	(-0.094)
Turkey	0.969	(-0.29)	1.061	(-0.291)	21.142	(-0.266)	5.992	(-0.007)
UAE	23.099	(-0.046)	1.609	(-0.12)	1.269	(-0.19)	2.191	(-0.124)
KSA	22.753	(-0.014)	1.452	(-0.023)	2.459	(-0.019)	2.52	(-0.046)
Somalia	19.582	(-0.122)	1.546	(-0.125)	0.969	(-0.294)	1.421	(-0.253)
							С	ontinued

Ф2		$t_n$	ł		am		F1		Т
2.960	(0.049)	22.661	(0.012)	2.429	(0.022)	2.621	(0.042)	20.590	(0.566)
4.004	(0.019)	21.906	(0.092)	2.299	(0.021)	2.516	(0.044)	1.246	(0.224)
2.024	(0.045)	21.291	(0.159)	1.506	(0.146)	1.145	(0.221)	20.261	(0.696)
2.956	(0.046)	22.009	(0.044)	2.122	(0.044)	2.269	(0.122)	20.212	(0.924)
2.226	(0.045)	20.946	(0.404)	1.950	(0.062)	2.525	(0.044)	0.694	(0.501)
2.042	(0.124)	20.650	(0.460)	1.229	(0.195)	1.204	(0.216)	0.699	(0.426)
5.265	(0.006)	0.129	(0.906)	1.922	(0.049)	9.921	(0.002)	2.520	(0.003)
6.292	(0.004)	21.240	(0.192)	1.624	(0.129)	1.224	(0.295)	0.109	(0.914)
2.946	(0.021)	20.994	(0.229)	1.641	(0.095)	1.954	(0.162)	1.450	(0.149)
2.990	(0.019)	1.212	(0.226)	0.254	(0.901)	5.069	(0.014)	2.229	(0.003)
6.210	(0.003)	20.921	(0.226)	1.506	(0.140)	1.504	(0.242)	0.656	(0.519)
4.922	(0.009)	2.069	(0.040)	0.206	(0.929)	6.419	(0.004)	2.642	(0.002)
1.666	(0.200)	21.412	(0.160)	2.021	(0.042)	2.540	(0.092)	0.922	(0.259)
2.962	(0.041)	21.692	(0.092)	1.619	(0.092)	1.544	(0.229)	20.292	(0.604)
2.922	(0.022)	22.003	(0.046)	1.926	(0.065)	2.024	(0.142)	20.090	(0.921)
3.215	(0.046)	20.216	(0.931)	1.969	(0.092)	5.693	(0.009)	2.639	(0.013)
3.343	(0.036)	21.659	(0.099)	1.940	(0.069)	1.623	(0.193)	0.269	(0.690)
09.146	(0.000)	0.656	(0.516)	1.900	(0.094)	9.512	(0.002)	3.921	(0.002)
5.619	(0.004)	20.639	(0.469)	1.650	(0.123)	2.134	(0.139)	1.201	(0.241)
4.090	(0.016)	21.091	(0.295)	1.666	(0.099)	2.023	(0.143)	1.095	(0.293)
5.254	(0.016)	20.821	(0.521)	1.608	(0.092)	2.190	(0.126)	0.666	(0.512)
1.095	(0.266)	21.619	(0.129)	1.286	(0.168)	1.252	(0.269)	20.860	(0.296)
5.016	(0.020)	22.096	(0.004)	2.668	(0.009)	5.814	(0.016)	21.226	(0.221)
6.258	(0.003)	0.916	(0.260)	1.652	(0.095)	6.141	(0.004)	2.866	(0.009)
5.541	(0.012)	21.545	(0.122)	1.802	(0.085)	1.668	(0.208)	0.680	(0.542)
2.906	(0.022)	2.003	(0.060)	0.960	(0.254)	5.502	(0.014)	2.159	(0.004)
2.629	(0.025)	20.160	(0.865)	1.012	(0.220)	2.190	(0.122)	1.825	(0.069)

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1.854	(0.159)	21.565	(0.121)	1.696	(0.085)	1.614	(0.220)	0.020	(0.925)
1.012	(0.504)	21.582	(0.126)	1.606	(0.090)	1.566	(0.259)	20.140	(0.882)
5.595	(0.012)	0.599	(0.622)	1.292	(0.165)	2.295	(0.049)	2.165	(0.040)
2.099	(0.126)	21.654	(0.092)	1.996	(0.046)	2.016	(0.142)	0.202	(0.851)
6.514	(0.003)	2.254	(0.004)	20.580	(0.626)	9.007	(0.002)	0.549	(0.656)
2.256	(0.098)	21.295	(0.206)	1.826	(0.069)	1.956	(0.162)	0.621	(0.561)
2.092	(0.046)	21.060	(0.295)	1.925	(0.065)	2.616	(0.085)	1.254	(0.220)
2.592	(0.022)	20.545	(0.585)	1.561	(0.146)	2.192	(0.048)	2.014	(0.044)
1.662	(0.190)	20.652	(0.520)	1.252	(0.222)	1.266	(0.260)	1.068	(0.291)
Values in parentheses are p-values for t-tests, not t-tests.									

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