The Full Lockdown in Jordan, 2020: The Economic Consequences

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Abstract

The study aimed to show the economic impact of the full lockdown, which was taken by the Jordanian government, represented by the disruption of official institutions, universities, schools, and non-essential economic activities from March 20, 2020, to May 31, 2020.

The study's methodology was represented by comparing the economic indicators in 2020 with the previous years (10 years). Three economic indicators were considered: GDP per capita, unemployment rate, and economic growth. The study concluded that each GDP per capita and economic growth in Jordan decreased after the full lockdown, by an acceptable statistical significance. The unemployment rate in Jordan increased after the full lockdown by an acceptable statistical significance .

Keywords: economy, Jordan, Corona, COVID-19

1. Introduction

1. Preface

At the end of 2019, a new strain of Coronavirus was discovered, that called later (COVID19). This strain was characterized by its widespread, it started in the chine's city of Wuhan, then spread around the world. There is a lack of information about this virus and how to deal with it. There was no cure or vaccine, so it necessitated the world's governments to take special procedures and measures, besides unprecedented organizational steps. Although these measures differ from one country to another, the general feature includes a curfew and lockdown for government institutions, schools, universities, and the non-essential sectors.

2. Study problem

The Jordanian government, like all other governments in the world, has taken a set of precautionary measures. These measures were characterized at the beginning of the crisis by rigor. The full lockdown concept applied in the country, but the severest measures were during the period (20/3/2020 to 31/5/2020). This period is what call it later in this research by the full lockdown.

It was clear for everyone the bad and passive impact of these procedures on the economy. The principle that covered these procedures was considering the health of citizens first until the picture becomes clear about this disease. So, a set of questions was raised about the impact of the precautionary measures taken by the Jordanian government on the Jordanian economy.

To determine the economic situation in Jordan before the crisis, three economic indicators had considered: GDP per capita, unemployment rate, and economic growth.

Thus, the questions of this study crystallized as follows:

- A. Has the average GDP per capita in Jordan decreased after the full lockdown?
- B. Has the unemployment rate increased in Jordan after the full lockdown?
- C. Has the economic growth rate in Jordan decreased after the full lockdown?
- 3. Study importance

All the precautionary measures that taken during the full lockdown, were made a balance between the health and the economic sector. Therefore, they had based on expectations of its probable health and economic effects. It is

important to determine the economic impact according to the accepted scientific method. Thus, getting benefit from this experience to process what remains of this crisis to deal with similar crises in the future.

4. Study objectives

This study aims in general to explore the changes occurring in the Jordanian economy as a result of government measures taken during the period of full lockdown. This general objective can be detailed in the following sub-objectives:

- Determining the change in GDP per capita average in Jordan after the full lockdown.
- Determining the unemployment rate change in Jordan after the full lockdown.
- Determining the economic growth rate change in Jordan after the full lockdown.

5. The limits of the study

• Temporal limits: The researcher studied the ten years that preceded the period of full lockdown (2010-2019), to monitor the economic situation in Jordan. Then the researcher studied the economic situation in Jordan for the year 2020, where the full lockdown period was at its beginning (20/3/2020-31/05/2020).

• Spatial limits: The research is a case study on the Hashemite Kingdom of Jordan.

• Objective limits: The research specializes in the economic effects, without discussing the health, social and psychological effects of the crisis.

6. Literature Review

To the researcher's knowledge, there is one study that dealt with the economic impact of the crisis in Jordan, it is (Raouf, & others, 2020) study, which had prepared shortly after the full lockdown. The GDP during the full lockdown period increased by 23%, employment losses to 20%, and the average household income decreased by 20%. The researchers expected that the Jordanian economy would register negative growth in 2020, ranging between 5.7% to 7.4%. They also expected that the recovery would be slow.

Otherwise, several studies were conducted in this field in the world, which monitored the negative impact of the crisis on various economies, one of these studies (Pinilla, & others, 2021) about the Spanish economy. The study found a significant negative impact of the crisis on the Spanish economy. This impact on GDP is -11.41%, the business turnover index has changed by -9.37%, and unemployment has increased by 11.9% during 2020.

(Varona, & Gonzales, 2021) study in Peru found a significant and shocking impact of the Corona crisis on whole demand and supply. This impact on the Peruvian economy was shown as a decrease in the economic growth rate in 2020 by 12%. As well as the study (Ke, & Hsiao, 2021) was conducted on the Chinese county Hubei, where the decline in the county's GDP to 37%. By the same result, also the studies: study of (Tawil, et al., 2020) on several countries in the world, study of (Barlow, & Vodenska, 2021) on the American economy, study of (Fu, & others, 2020) on the Chinese economy, and study of (Kassegn, & Endris, 2021) in Ethiopia.

Several researchers focused on a specific sector, also the effect was negative. A (Verschuur, & others, 2021) study was conducted on maritime trade. The researchers studied data that related to (1,153) ports in (166) countries around the world. It reached significant effects of the crisis on the global economy; the study estimated a drop globally maritime trade by 7% to 9.6% during the first eight months of 2020. The sector's losses in the same period increased from 225 billion US dollars to 412 billion US dollars.

Also, the study (Apergis, & Apergis, 2021), which was conducted on a number of (OECD) countries during the period March 2020 to January 2021. It concluded that the (COVID-19) shock had a significant negative impact on industrial production. As for the study (Quang, & others, 2020), it was conducted on the tourism sector in Vietnam specifically. The researchers concluded that the sector was negatively affected by the epidemic.

As for the future prospects, the researchers' expectations were conflicting. So, several researchers expected that the negative effects of the crisis continue, such as the study (Raouf, & others, 2020), where researchers expected that the recovery in Jordan be slow. As well as the study of (Inoue, & Todo, 2020), which aimed to forecast the national economic effects if the major cities full lockdown. The study was conducted for Tokyo by studying the supply chains of 1.6 million companies operating in Japan. The study concluded that if Tokyo city closed for only one month, this would have significant negative effects. So, that would lead to a decrease in the GDP in Japan by 5.2%. Also, (Kassegn, & Endris, 2021) was conducted in Ethiopia, the researchers expected that the GDP decreased by 3% during the period (2019-2021).

While some see the light at the end of the tunnel. (Barlow, & Vodenska, 2021) concluded that despite the significant decline in the US GDP at the beginning of the crisis, it recovered quickly. The study attributed this to

several reasons, including: expansionary fiscal policy, availability of vaccines, and adaptation of the work environment to work from home. (Ba, & Bai, 2020) mentioned that the Chinese economy recovered quickly, due to China's interest in the supply side, the fast development of the digital economy, and the financing of supply chains. (Fu, & others, 2020) concluded that the negative impact of the epidemic on the Chinese economy was short-term on each GDP, foreign trade, and investment. Then followed by a quick recovery in the form of the letter (V), researchers refer this to the fast response from Chinese government through appropriate motivation policies. Also, each of these studies: (Ke, & Hsiao, 2021), (Duan, & others, 2020), and (Quang, & others, 2020), were conducted on the tourism sector in Vietnam specifically.

The scientific honesty requires mention, that some studies have monitored the positive effects of the Corona crisis. (Tawil and others, 2020) study, monitored some potential positive effects of the pandemic on some sectors such as internet service companies, and online retail. The (Fu , & others, 2020) researchers see that the epidemic had some positive effects, in the top is the speed of digital transformation in China, which drives economic growth for the long term. Both studies (Rose, & others, 2021), and (Duan, & others, 2020) concluded that this crisis created few opportunities for the Chinese economy in foreign trade and electronic commerce fields.

This study distinguishes from the past studies, that it specifically deals with the Jordanian economy. It was done in 2021 after the appearance of the actual indicators in 2020, which makes it based on facts more than expectations.

7. Study Hypotheses

To answer the study's questions and achieve its objectives, the researcher tested the following research hypotheses:

A. The first hypothesis: The GDP per capita in Jordan has decreased after the full lockdown.

B. The second hypothesis: The unemployment rate in Jordan has risen after the full lockdown.

C. The third hypothesis: The economic growth rate in Jordan has decreased after the full lockdown.

8. Methodology

- Study methodology: This study took the descriptive and analytical approach, to compare the important economic indicators in Jordan in 2020, with the same indicators in the past ten years (2010-2019).
- Data collection method: The data used in this study are secondary data published on the website of the Jordanian Department of Statistics, and on the website of the World Bank also. About monitoring the regulatory procedures of the Jordanian government by referring to the website of the Jordanian Prime Minister, and the Central Bank of Jordan. The exact source of the information will be indicated when mentioned in the research.
- Data analysis method: a set of statistical methods were used in analyzing data and measuring relationships by using (Microsoft Excel) and (SPSS). The researcher used descriptive statistics tools for the initial analysis of the data (arithmetic mean, coefficient of variation). For the comparison, both change and percentage of change had used. While to test the statistical significance, the T-test had used for the difference between the means, or the binomial coefficient according to the quality of the data, by checking the normal distribution of the data by using the One-Sample Kolmogorov-Smirnov normality test.
- 9. Study variables

This study depends on diagnosing the economic situation in Jordan before the period of the full lockdown by studying the years 2010-2019. Then compare it with the economic situation in Jordan in the period that followed the phase of the full lockdown by studying the indicators for the year 2020. The economic situation is determined by the government's ability to achieve the economic goals: economic efficiency and stability. To determining the economic situation in Jordan, three economic indicators had taken, GDP per capita, unemployment rate and economic growth. By taking more than one economic indicator will support the reliability of the study results.

As the following is an explanation of these variables (according to the definitions of the World Bank, databank.worldbank.org):

- GDP per capita: It is calculated by dividing the gross domestic product by the population, measured in constant US dollars.
- Unemployment rate Unemployment, total (% of total labor force) (national estimate): it is calculated by dividing the number of the unemployed by the whole labor force.

• GDP growth (annual %): The annual growth rate of GDP by market prices, based on constant local currency.

Totals depend on constant US dollars, 2010.

2. The Full Lockdown in Jordan

The full lockdown in Jordan means those harsh procedures, which was made by the government at the beginning of the full lockdown, that extended from 3/20/2020 to 5/31/2020. These procedures can clarify in the following paragraphs:

1. Regulatory conditions before the full lockdown period:

Before the full lockdown, it was working on the principle specified by the Jordanian constitution: "Personal freedom is inviolable" (the Jordanian Constitution, Article 7/1). There was no kind of a curfew, the individuals were allowed to move all weekdays freely, in morning and night, also based on Article 9 of the Jordanian Constitution, which states: It is not allowed to prevent any Jordanian from residing in a certain place, or prevented from moving, nor obligated to reside in a particular place except in the specified cases in the law" (Jordanian Constitution, Article 9/2). So, private entities have the right to work without any restrictions, based on personal freedom and movement freedom.

For government entities, schools and universities work as usual with all their employees. While the civil service system has set official working hours at seven hours daily, five days a week, the weekly holiday includes Friday and Saturday. But some entities work on Saturdays as an exception based on Article 97, paragraph B of the civil service system, which states: "By a decision of the Council of Ministers, It is permissible to exclude any department from the provisions of paragraph (A) of this article if its work requires that, and the official working hours are not less than (35) hours per week". (Civil Service System No. (9) 2020, Article 97). The Feasts and official holidays are limited and do not exceed fourteen days (official holidays, Amman Stock Exchange).

2. Regulatory conditions during the full lockdown period:

Although the consequences of the crisis continue until the preparation of this research (end of 2021), to control the involved factors in the study, the period from (20/03/2020) to (05/31/2020) was determined as the period that included the harshest procedures to avoid the consequences Corona crisis, for the following reasons:

- 1. At the beginning of the virus spread, there was a severe lack of information related to it and how to deal with it. So, for precaution, countries generally took severe closure measures until it became clear, this could be called the full lockdown period.
- 2. During these periods, Jordan took exceptional measures, which will explain in the subsequent paragraphs.
- 3. Most of the world's countries during this period took severe closure measures, which had a severe impact on the Jordanian economy.

Since March 20, 2020, the government has taken a number of measures, which are supposed to have a negative or positive impact on the economic situation in subsequent periods. These measures can be summarized in the following points:

- 1. The government has taken a decision to full lockdown, starting with" Defense Law No. 2", which included "It is prohibited to move and roam people in all regions of the Kingdom... All shops are closed in all regions of the Kingdom" (Jordanian Prime Minister, http://www.pm.gov.jo). Generally, these measures included a curfew, and the closure of all sectors at the beginning of the crisis, then basic products stores were allowed to work for specific hours per day. Disabling official entities and departments completely, also. (Refer: Defense orders and communications that based on it and published on the Prime Ministry website Jordan http://www.pm.gov.jo/).
- 2. Based on the expected results of the full lockdown, the government has taken a package of precautionary measures by the Central Bank first and is supported by other government entities, especially the Social Security Corporation. The measures were represented by a stimulus monetary and fiscal policy, starting in reducing the interest rates, pumping more liquidity into the markets, supporting the private sector in salaries payment, and a package of cash assistance for the unemployed and the lowest income groups in society (Refer: Defense orders and communications that based on it and published on the Prime Ministry website Jordan http://www.pm.gov.jo/and the decisions of the Central Bank of Jordan https://www.cbj.gov.jo/).
- 3. Regulatory conditions after the full lockdown period:

The general feature of the period after May 31, 2020, is the association of the regulatory situation with the

epidemiological situation. Generally, the partial full lockdown included the sectoral and temporally side, which can be clarified by the following points:

- A curfew for individuals at night hours, may be long or short, and it includes some days of the week (mostly on Friday).
- Vital and basic sectors (such as bakeries and grocery stores...) are open during the day and closed at night.
- Non-vital sectors (such as restaurants, gyms, ...) its close or open according to the epidemiological situation.
- Government departments and entities are partially working (with a percentage of employees).
- School and university education is online generally, except for the limited cases and times.

3. Hypothesis Testing

1. The First Hypothesis Test:

" GDP per capita in Jordan has decreased after the full lockdown "

First: Looking at Table 1, we find that the Jordanian GDP per capita in the ten years that past the period of the full lockdown was \$4,268 on average annually, with a little variation that the coefficient of variation was only 4.2%.

Table 1. GDP per capita in Jordan

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
4644	4521	4387	4275	4221	4164	4119	4106	4110	4134	4029
Arithme	tic mean: 4	268. maxin	num value 4	1644. minin	num value 4	4106. coeffi	icient of vai	iation 4.2%)	

Source: The World Bank (https://databank.worldbank.org), descriptive statistics computed by the researcher using the (Microsoft Excel)

Secondly: The statistical hypotheses were formulated to fit with the previous research hypothesis as follows (where GPC is the GDP per capita):

$H_0: \mu_{GPC(2010-2019)} = GPC_{2020}$

$H_1: \mu_{GPC(2010-2019)} \neq GPC_{2020}$

Third: Parametric tests were used to test the statistical hypotheses, since the variable data (GPC) were normally distributed in terms of (p. value > 0.05), where the (One-Sample Kolmogorov-Smirnov Normality Test) was used, see Figure 1:

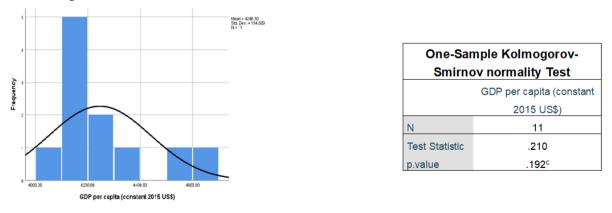


Figure 1. Data quality of the GPC variable

Fourth: Depending on the T-test for the statistical significance to difference between the means, see Table 2. We reject the null hypothesis at the level of significance (sig.= 0.004) which says that there is no difference between the value of variable in study in 2020 from previous years. We accept the alternative hypothesis which says that the value of variable in 2020 differs from previous years and has an acceptable statistical significance.

Table 2. T-test for statistical significance to the difference between the means

One-Sample Test					
	Test Va	lue = 4	029		
	t	df	Sig.	Mean	95% Confidence Interval of the
			(2-tailed)	Difference	Difference
					Lower
GDP per capita (constant	3.715	10	.004	217.30064	86.9636
2015 US\$)					

Fifth: According to that we accept the research hypothesis, "The " GDP per capita in Jordan has decreased after the full lockdown".

2. The Second Hypothesis Test:

"The unemployment rate in Jordan has risen after the full lockdown"

First: Looking at Table 3, we find that the unemployment rate in the ten years that past the period of the full lockdown was on average 13.94%, with a little variation that the coefficient of variation was only 12.8%.

Table 3. Unemployment rate in Jordan

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
12.50	12.90	12.20	12.60	11.90	13.08	15.28	15.78	16.29	16.85	18.5
Arithmet	tic mean: 13.	.94, maximu	m value 16.	85, minimur	n value 11.9	, coefficient	of variation	12.8%		

Source: The World Bank (https://databank.worldbank.org), descriptive statistics computed by the researcher using the (Microsoft Excel)

Secondly: The statistical hypotheses were formulated to fit with the previous research hypothesis as follows (where UR is the Unemployment Rate):

$H_0: \mu_{UR(2010-2019)} = UR_{2020}$

$H_1: \mu_{UR(2010-2019)} \neq UR_{2020}$

Third: Non-Parametric tests were used to test the statistical hypotheses, since the variable data (UR) were not normally distributed in terms of (p. value < 0.05), where the (One-Sample Kolmogorov-Smirnov Normality Test) was used, see Figure 2:

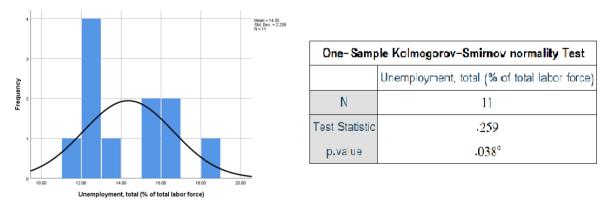


Figure 2. Data quality of the UR variable

Fourth: Depending on the Binomial test, see Table 4. We reject the null hypothesis at the level of significance (sig.= 0.001) which says that there is no difference between the value of variable in study in 2020 from previous years. We accept the alternative hypothesis which says that the value of variable in 2020 differs from previous years and has an acceptable statistical significance.

Fifth: According to that we accept the research hypothesis, " The unemployment rate in Jordan has risen after the

full lockdown".

Table 4. Binomial test

Binomial Test						
		Category	Ν	Observ	ed Prop.	Test Prop
Unemployment, total (% of total labor force)	Group 1	<= 18.5	11	1.00		.50
	Total		11	1.00		
					p.value	
Unemployment, total (% of total labor force)			0	Group 1	.001	
			Т	Total		

3. The Third Hypothesis Test:

"The economic growth rate in Jordan has decreased after the full lockdown"

First: Looking at Table 5, we find that the economic growth in the ten years that past the period of the full lockdown was on average 2.39%, with a little variation that the coefficient of variation was only 17.8%.

Table 5. Economic growth rate in Jordan

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
2.31	2.74	2.43	2.61	3.38	2.50	1.99	2.09	1.93	1.96	1 5 5
Arithmetic	c mean: 2.39	, maximum	value 3.38,	minimum va	alue 1.93, co	pefficient of	variation 17	7.8%		-1.55

Source: The World Bank (https://databank.worldbank.org), descriptive statistics computed by the researcher using the (Microsoft Excel)

Secondly: The statistical hypotheses were formulated to fit with the previous research hypothesis as follows (where EG is the Economic Growth):

$H_0: \mu_{EG(2010-2019)} = EG_{2020}$

$H_1: \mu_{EG(2010-2019)} \neq EG_{2020}$

Third: Non-Parametric tests were used to test the statistical hypotheses, since the variable data (EG) were not normally distributed in terms of (p. value < 0.05), where the (One-Sample Kolmogorov-Smirnov Normality Test) was used, see Figure 3:

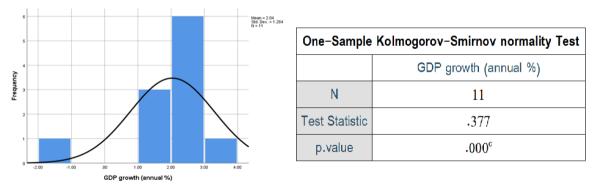


Figure 3. Data quality of the EG variable

Fourth: Depending on the Binomial test, see Table 6. We reject the null hypothesis at the level of significance (sig.= 0.001) which says that there is no difference between the value of variable in study in 2020 from previous years. We accept the alternative hypothesis which says that the value of variable in 2020 differs from previous years and has an acceptable statistical significance.

Fifth: According to that we accept the research hypothesis, " "The economic growth rate in Jordan has decreased after the full lockdown".

Table 6. Binomial test

Binomial Test					
		Category	Ν	Observed Prop.	Test Prop.
Unemployment, total (% of total labor force)	Group 1	<= -1.55	0	.00	.50
	Group 2	> -1.55	11	1.00	
	Total		11	1.00	

	p.vlaue
Unemployment, total (% of total labor force)	Group 1 .001

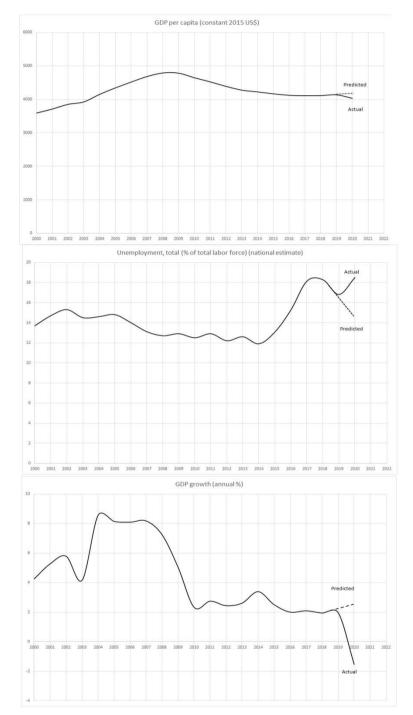


Figure 4. The economic situation in Jordan before the full lockdown

Source: Prepared by the researcher based on World Bank data (https://databank.worldbank.org), except the unemployment rate in Jordan in the year 2020 obtained from the Jordanian Department of Statistics

4. Discussing the Results

The statistical analysis in the previous paragraph reached the deterioration of the three economic indicators with acceptable statistical significance. The results indicated that the average GDP per capita and economic growth decreased after the full lockdown compared to the previous period. While the unemployment rate increased after the full lockdown. So, it should be noted that this deterioration in these indicators is not a continuation of a negative trend in the Jordanian economy. If we look closely at Figure (4), we find that the turning for the worse was very clear in 2020.

The results of this study are consistent with the results of most previous studies. The Corona crisis and the government full lockdown procedures have had a clear and bad impact on the economies of different countries, for example: (Raouf, & others, 2020), (Pinilla, & others, 2021), and (Varona, & Gonzales, 2021).

The link between the deterioration of the economy and epidemics is an obvious and eternal link. If we take a look at history, we find the link between epidemic and starvation is so close. Since the epidemic that occurred in Central Asia in the year 1057 AD, which was associated with great starvation (Al-Jawzi, almuntazim fi tarikh walmuluk (The Regular in The History of Nations and Kings), vol. 16, p. 17). As well as in Egypt in 1071 (al'asfahani, albustan aljamie lijamie 'ahl alzaman (The Orchard collecting all the histories of past people), vol. 1, p. 293). Also, in Europe at the fourteenth century (Bishop, History of Europe in the Middle Ages, pp. 345,355). In the modern era, studies have linked the epidemic of Spanish fever at the beginning of the twentieth century with the economic decline, for example the studies: (Schoenbaum, 1987), (McQueen, 1976), (Bishop, 2020), and (Percoco, 2016).

The negative impact of epidemics, disasters and wars on the economy is consistent with the axioms of economic analysis. Any disruption in economic activities, especially in production and exchange, is directly reflected on the product volume, then on the employment volume, and consequently on the level of income, and economic wellbeing. The most significant impact which may be prolonged is the psychological impact, represented in the lack of confidence among the participants in the economic activity, producers or consumers. The producer reduces or disrupts his investments, while the consumer reduces his consumption, both due to the fear of the future. In conclusion, the economy enters a stagnation status that requires the economic authorities to intervene by restoring confidence in the first place. Here, we agree with Keynes that the economy may balance and stabilize with the presence of unemployment, by the government role and it does not depend on individual initiative (Keynes, The General Theory, p. 187).

The existence of epidemics and natural disasters is one of the laws of the universe. So, if the societies are affected by these events, it is an inevitable reality. But the humanity of pioneer societies shows in their ability to Adaptation to overcome crises. Some previous studies have indicated the ability of some economies to overcome the crisis, such as the Chinese economy, check the study (Ba, & Bai, 2020). While others have even indicated that the crisis has created some opportunities for prosperity and human progress, by engorging the world towards a digital economy quickly, check the study (Fu, & others, 2020).

If we note Jordan's position in the world, we find that the Jordanian economy is better off, see figure 5, we find that the decline rate in GDP per capita in 2020 compared to 2019 is 2.5%, which is less than the decline rate in GDP per capita globally, which is 4.6%. While the increase in the unemployment rate also reached 38.1% in Jordan in 2020, which is lower than in the world, which is 40.4%. This also applies to the third economic indicator, as the decline rate in economic growth in Jordan reached 178%, while globally, it reached 256%. So, the economy turned from positive growth in 2019 by 2.3% to negative growth by 3.59%.

The measures due to full lockdown that taken by the Jordanian government contributed to this result which mentioned in the previous paragraph. The measures were represented by a stimulus monetary and fiscal policy, starting in reducing the interest rates, pumping more liquidity into the markets, supporting the private sector in salaries payment, and a package of cash assistance for the unemployed and the lowest income groups in society. The Jordanian government has published some actual expectations and statistics that reflect the effectiveness of the economic measures on the full lockdown procedures, by providing additional liquidity to banks by about half a billion Jordanian dinars, which enables the banks to reverse this measure by reducing the interest rates that they charge on the granted facilities by them to all economic sectors, including individuals and companies. Giving about 100 million dinars as direct aid to the unfortunate people, contributing to paying the salaries of 27.5 thousand employees until 11/6/2020, and contributing to financing 1229 projects by 877.1 million dinars, which helped to make about 12 thousand new job opportunities in various governorates of the Kingdom. Also, postponing the installments of facilities for companies, by more than 3 billion (see: In the face of the crisis, the

Central Bank of Jordan https://www.cbj.gov.jo/).

This study can recommend, first to stop self-flagellation, due to the Jordanian government did not have many options at the beginning of the Corona crisis. But because of the mystery and lack of information make the situation unclear. Taking a difficult decision to full lockdown does not balance the benefits and harms, but it compares between the maximum and the minimum damage. The damage that occurred to the Jordanian economy is clear, and this study has proven it, I believe that it is the minimum damage. Because of the seriousness of the Jordanian government in dealing with the situation, firmness, initiative and the speed of decision-making gave messages to the participants of the economic activity, consumers, and investors, confidence in like a difficult time. So, that spared Jordan catastrophic consequences that cannot fix it later. The Jordanian government has no choice to take a risk and experience that could have occurred if the health system collapsed, security was lacking, the street was disturbed, and trust was lost. This study recommends that the private sector in Jordan adapts to the time of the Coronavirus and gets benefits from the digital economy options.

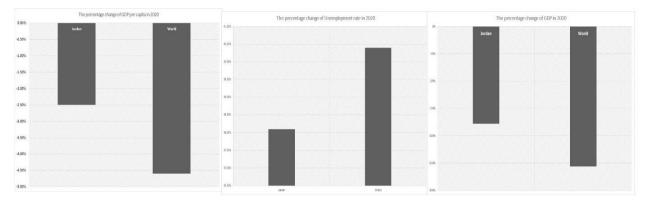


Figure 5. Comparison of the Jordanian economy after the full lockdown with the world

Source: Prepared by the researcher based on World Bank data (https://databank.worldbank.org), except the unemployment rate in Jordan in the year 2020, which was obtained from the Jordanian Department of Statistics, and the unemployment rate at the global level in 2020 was calculated by the researcher Depending on the countries data, which is available on the World Bank website.

5. Conclusion

The increase in infections by Covid-19 at the end of 2019 and the beginning of 2020 put governments with several options, like facing the virus with herd immunity policy, which is achieved without any procedures or closure, to the un-full lockdown. The Jordanian government has chosen a full lockdown at the beginning of the crisis, so the government entities, universities, schools, and non-essential economic activities were suspended from the period 20/3/2020 to 31/5/2020. Here, this study questioned the size of the economic impact as a result of this full lockdown.

The study methodology was represented by comparing the economic indicators in 2020 with the previous years (10 years), and three economic indicators were considered: GDP per capita, unemployment rate, and economic growth. It reached a number of results, which is:

1. GDP per capita average in Jordan decreased after the full lockdown, by an acceptable statistical significance.

2. The unemployment rate in Jordan has risen after the full lockdown, by acceptable statistical significance.

3. The economic growth rate in Jordan has declined after the full lockdown, by acceptable statistical significance.

The previous results indicate that the Jordanian economy has been negatively affected by the full lockdown procedures, this agrees with all previous studies and with the axioms of economic analysis. despite this, if we compared Jordan to the global average, it was less affected, and this leads us to the conclusion that the Jordanian government has chosen the minimum damages. Because of the seriousness of the Jordanian government in dealing with the situation, firmness, initiative and the speed of decision-making gave messages to the participants of the economic activity, consumers, and investors, confidence in like a difficult time. So, that spared Jordan catastrophic consequences that cannot fix it later. The Jordanian government has no choice to take a risk and experience that could have occurred if the health system collapsed, security was lacking, the street was disturbed, and trust was lost.

References

- Al-Isfahani, I. A. (2002). albustan aljamie lijamie 'ahl alzaman (The Orchard collecting all the histories of past people), Investigator: Omar Abdel Salam Tadmuri, Al-Asriyya Library for Printing and Publishing, Beirut Lebanon, First Edition, 1423 AH 2002 AD. Retrieved from https://al-maktaba.org/book/33332/293
- Al-Jawzi, A. A. (1992). almuntazim fi tarikh walmuluk (The Regular in The History of Nations and Kings), the investigator: Muhammad Abdul-Qadir Atta, Mustafa Abdul-Qadir Atta, Dar Al-Kutub Al-Ilmiyya, Beirut, First Edition, 1412 AH - 1992 AD. Retrieved from https://al-maktaba.org/book/12406/5396
- Amman Stock Exchange. (2021). *Public holidays*. Retrieved from https://www.ase.com.jo/ar/nbdht-n-albwrst/mn-nhn/alutl-alrsmyt
- Apergis, E., & Apergis, N. (2021). The impact of COVID-19 on economic growth: evidence from a Bayesian Panel Vector Autoregressive (BPVAR) model. *Applied Economics*, 1-13. https://doi.org/10.1080/00036846.2021.1946479
- Ba, S., & Bai, H. (2020). Covid-19 pandemic as an accelerator of economic transition and financial innovation in China. Journal of Chinese Economic and Business Studies, 18(4), 341-348. https://doi.org/10.1080/14765284.2020.1855394
- Barlow, J., & Vodenska, I. (2021). Socio-Economic Impact of the Covid-19 Pandemic in the US. *Entropy*, 23(6), 673. https://doi.org/10.3390/e23060673
- Bishop, J. (2020). Economic effects of the Spanish flu. RBA Bulletin, June, viewed December, 29, 2020.
- Bishop, M. (2005). *Europe History in Medieval (the pelican book of the middle ages, Morris Bishop)*, translated by: Ali Al-Sayyid Ali, The Supreme Council of Culture, First Edition, 2005. Retrieved from https://books-library.net/free- 411162325-download
- Civil Service Bureau. (2021). Civil Service System. Retrieved from http://www.csb.gov.jo
- Duan, W., Zhu, S., & Lai, M. (2020). The impact of COVID-19 on China's trade and outward FDI and related countermeasures. *Journal of Chinese Economic and Business Studies*, 18(4), 355-364. https://doi.org/10.1080/14765284.2020.1855395
- Fu, X., Zhang, J., & Wang, L. (2020). Introduction to the special section: the impact of Covid-19 and post-pandemic recovery: China and the world economy. *Journal of Chinese Economic and Business Studies*, 18(4), 311-319. https://doi.org/10.1080/14765284.2020.1855939
- Inoue, H., & Todo, Y. (2020). The propagation of economic impacts through supply chains: The case of a mega-city full lockdown to prevent the spread of COVID-19. *PloS one*, *15*(9), e0239251. https://doi.org/10.1371/journal.pone.0239251
- Kassegn, A., & Endris, E. (2021). Review on socio-economic impacts of 'Triple Threats' of COVID-19, desert locusts, and floods in East Africa: Evidence from Ethiopia. *Cogent Social Sciences*, 7(1), 1885122. https://doi.org/10.1080/23311886.2021.1885122
- Ke, X., & Hsiao, C. (2021). Economic Impact of the Most Drastic Full lockdown During COVID-19 Pandemic---the Experience of Hubei, China. *Journal of Applied Econometrics*. https://doi.org/10.1002/jae.2871
- Keynes, J. M. (1936). The General Theory of Employment, Interest and Money, ETH Zurich. Retrieved from https://www.files.ethz.ch/isn/125515/1366_KeynesTheoryofEmployment.pdf)29/01/2022,P187
- McQueen, H. (1976). The 'Spanish'influenza pandemic in Australia, 1918-19. Cassell, Sydney, NSW, Australia.
- Percoco, M. (2016). Health shocks and human capital accumulation: the case of Spanish flu in Italian regions. *Regional Studies*, 50(9), 1496-1508. https://doi.org/10.1080/00343404.2015.1039975
- Pinilla, J., Barber, P., Vallejo-Torres, L., Rodr guez-Mireles, S., López-Valc árcel, B. G., & Serra-Majem, L. (2021). The Economic Impact of the SARS-COV-2 (COVID-19) Pandemic in Spain. *International Journal* of Environmental Research and Public Health, 18(9), 4708. https://doi.org/10.3390/ijerph18094708
- Prime Minister. (2021). Communications and Instructions Orders Defense Law No. 13 of 1992. Retrieved from http://www.pm.gov.jo/content/1599463975
- Prime Minister. (2021). *List of Defense Law Orders No. 13 of 1992*. Retrieved from http://www.pm.gov.jo/content/1599463975
- Prime Minister. (2021). The Jordanian Constitution. Retrieved from http://www.pm.gov.jo

- Quang, T. D., Tran, T. C., Tran, V. H., Nguyen, T. T., & Nguyen, T. T. (2020). Is Vietnam ready to welcome tourists back? Assessing COVID-19's economic impact and the Vietnamese tourism industry's response to the pandemic. *Current Issues in Tourism*, 1-19. https://doi.org/10.1080/13683500.2020.1860916
- Raouf, M., Elsabbagh, D., & Wiebelt, M. (2020). Impact of COVID-19 on the Jordanian economy: Economic sectors, food systems, and households (Vol. 9). Intl Food Policy Res Inst. https://doi.org/10.2499/p15738coll2.134132
- Rose, A., Walmsley, T., & Wei, D. (2021). Spatial transmission of the economic impacts of COVID-19 through international trade. *Letters in Spatial and Resource Sciences*, 1-28. https://doi.org/10.1007/s12076-021-00271-8
- Schoenbaum, S. C. (1987). Economic impact of influenza: the individual's perspective. *The American Journal of Medicine*, 82(6), 26-30. https://doi.org/10.1016/0002-9343(87)90557-2
- Tawil, Assia, et al., (2020). The Impact of the Spread of the Coronavirus (Covid-19) on Various Economic Sectors: The Comprehensive International Study of the Basic Sectors. *Research Journal*, 34, 37-53. https://doi.org/10.12816/0058230
- The Central Bank of Jordan. (2021). Facing the Crisis. Retrieved from https://www.cbj.gov.jo
- Varona, L., & Gonzales, J. R. (2021). Dynamics of the impact of COVID-19 on the economic activity of Peru. *Plos one, 16*(1), e0244920. https://doi.org/10.1371/journal.pone.0244920
- Verschuur, J., Koks, E. E., & Hall, J. W. (2021). Global economic impacts of COVID-19 full lockdown measures stand out in high-frequency shipping data. *PloS one*, 16(4), e0248818. https://doi.org/10.1371/journal.pone.0248818
- World bank. (2021). Data bank. Retrieved from https://www.worldbank.org

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