

Impact of COVID-19 on the Global Airline Industry

Author's Details :⁽¹⁾DR. Marwan Yousef ⁽²⁾Bader Al Naqbi-PhD Student

⁽¹⁾Assistant Prof. City University College Of Ajman

Abstract:

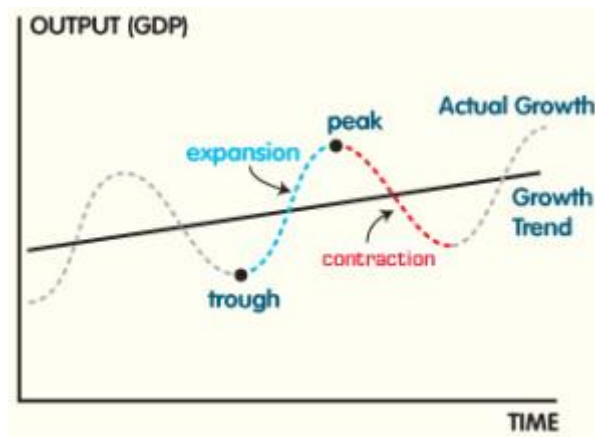
The study examines the Impact of the COVID-19 Outbreak on large NO. of airlines companies around the world by analyzing the study. The result showed that the returns of airlines companies decline in market value comparative to fair value. In United States, South Korea, United Kingdom, Canada and china.in addition COVID-19 Affected sharply the foreign direct investment sector and dropped down the investment size
Keywords: COVID-19, Foreign direct investment, Airline Industry, Business cycle, Contraction, Recession, GDP, Per capita Income, Market value, Fair Value.

Introduction:

COVID-19 is a disease started in china in December 2019 and

then invaded the world in different severity attitude forced the countries to try to use different appropriate tools to suppress the severity by using precautions to finally could reduce its hike by stopping the gathering to avoid hunting the public and reduce the death rate. United Arab Emirates employed all the possible ways to not affect the population as well as to secure the economy from the recession that might occurred in many countries in the world. UAE succeeded to keep up the economic growth rate as of the previous period before COVID-19

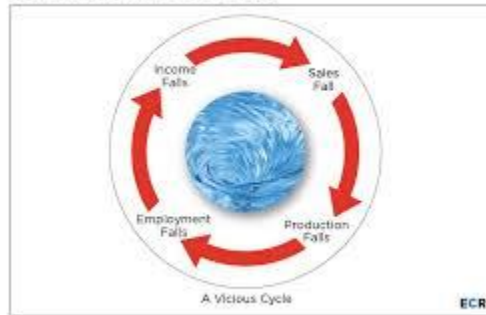
The business cycle showed up its two categories



- a) Recessions (contraction)
- b) Developing (Expansion)

Recession push the Macroeconomics trends to move together as follow:

What is a Recession?



GDP Recession

The cumulative loss to **global** GDP over **2020** and 2021 from the pandemic **crisis** could be around 9 trillion dollars, greater than the economies of Japan and Germany, combined. For the first time since the Great Depression both advanced economies and emerging market and developing economies are in **recession**



Per capita income falls

Demand fall

Supply fall

Corporate profit fall

And unemployment rate rise

All together lead the economy to reach trough stage

Reflecting a burden and causing

- 1) Budget deficit
- 2) Balance of payment deficit
- 3) Unemployment rate rise
- 4) inflation rate rise

At the time that economy cure the business cycle theory describe this event as an expansion motivate economic sectors to rebuild up it is ability to start produce with full capacity and finally raise up the GDP to higher level resulting the following consequences:

Per capita income rise

Demand size rise

Supply size rise

Corporate profit rise

And then unemployment rate drops down

The Theme:

COVID-19 disrupted the intra sectoral economy of the global airline industry:

1) Foreign Direct Investors

2) Return on Investment Capital

3) Airline Industry revenue

4) Market Value and Fair Value

5) The Cargo

1) Foreign Direct Investors:

COVID -19 created a horror situation in the global countries to the extent they reduce their investments even stopped totally to avoid any loss and that is why UNCTAD(United Nations Conference on Trade and Development) buildup its expectation that FDI investment dropped down approximately in as below percentages in the economic sectors

a) 208% in energy sector

b) 116% in global airline industry

c) 47% in vehicles sector

d) 41% in Hotels, Restaurants, and amusements

Our interest relies on the impact caused the FDI to drop down their investment in this sector. And what the drop reflected on global airline industry.

a) Termination rate rises

b) Profit rate fall

2) Return on Investment Capital:

IATA Reported that historically, debt providers to the airline industry have been rewarded for their capital, usually invested with the security of a very mobile aircraft asset to back it. On average during previous business cycles, the airline industry has been able to generate enough revenue to pay its suppliers' bills and service its debt.

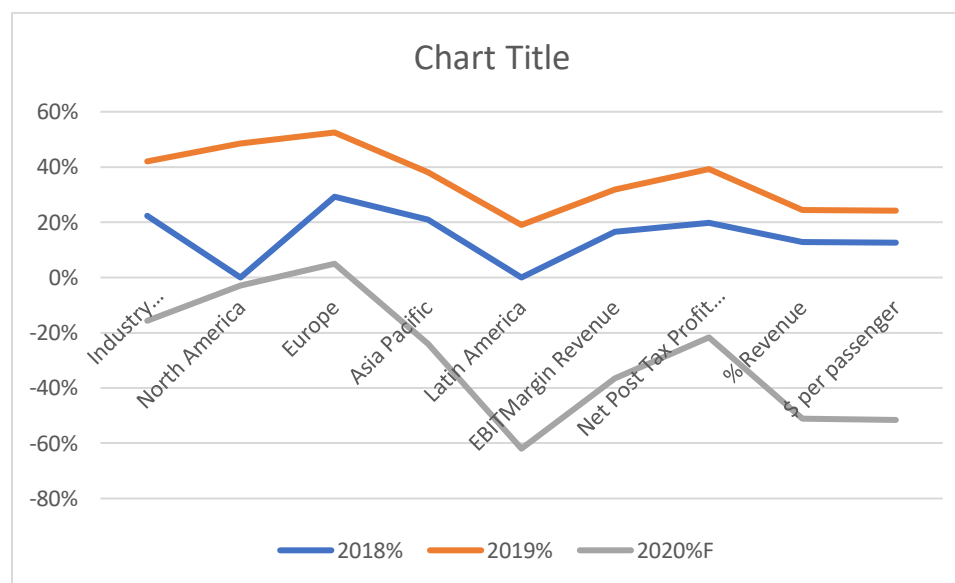
Table 1

Worldwide Industry	2018%	2019%	2020%F
Industry ROIC% Invested Capital	6.5	5.8	-16.9
North America	9.0	9.9	-10.5
Europe	8.8	7	-14.3
Asia Pacific	4.3	3.5	-12.7
Latin America	5.0	3.9	-16.6
EBITMargin Revenue	5.7	5.2	-23.4
Net Post Tax Profit Billion	27.3	26.9	-84.3

% Revenue	3.4	3.1	-20.1
\$ per passenger	6.22	5.8	-37.5

Source: IATA Economics Mid-Year Report

Note: ROIC = Return on Invested Capital, EBIT = Earnings Before Interest and Tax. Debt adjusted for operating leases



Above table reflected positively figures on ROIC, North America return increased in 2019 comparative 2018 performance ,but Europe, Asia Pacific, and Latin America register lower % in 2019 comparative to 2018 even though 2019 registered less in EBITMargin ,Net Post Tax Profit,% Revenue and \$ per passenger Comparative 2018.

The situation has changed considerably this year2020. With the impact of the pandemic, all regions are facing negative ROIC outcomes and we forecast the industry to generate an overall ROIC of -16.9%. Next year, we expect to see a moderate improvement stemming from the gradual recovery in demand conditions. Nonetheless, the return to investors is still expected to remain in negative result (IATA Analysis)

3) Airline Industry revenue

IATA Media Briefing:

The Airline industry confronted severe three months resulted in a loss of their revenues by\$252 billion in 2020 compared to2019 result. However, IATA expressed on 7th March2020, Airline Industry in 2020 is expected to face loss of 63 billion \$ from passenger movement if covid-19 remained in specific area, but If it is spreader in more areas the loss might reach 113billion \$ In case if COVID-19 -continue spreading, IATA think to estimate

The revenues through two scenarios

Scenario 1: stop Covid -19 spreader

This concentrated in some specific markets that registered more than 100 cases up to 2March, resulted in severe dropdown but lately economy cured to register better result.

Scenario 1 categorized the market as and according Passengers

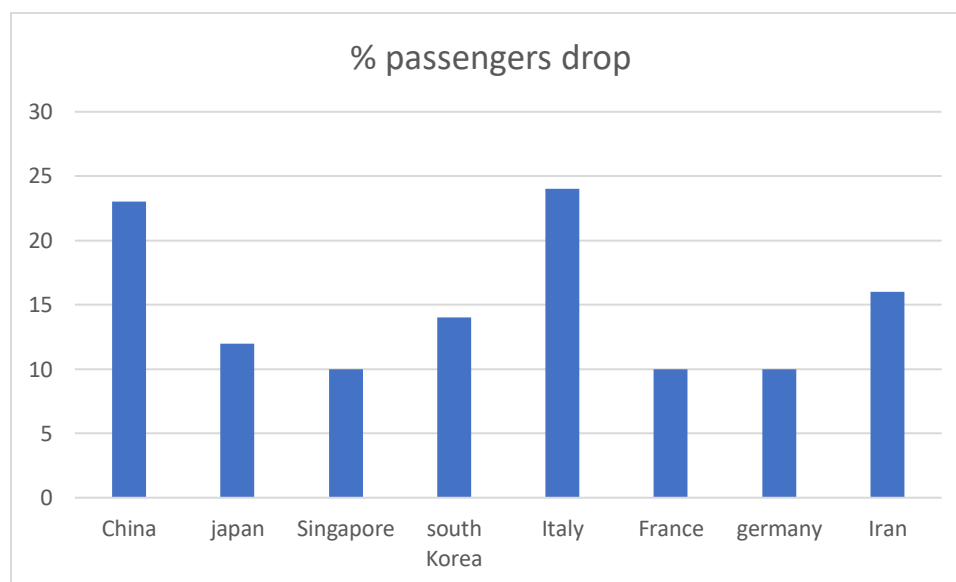
Drop.

Table 2

Country	% passengers drop
China	23
japan	12
Singapore	10
south Korea	14
Italy	24
France	10
germany	10
Iran	16

Source: IATA Analysis

Above analysis reflected the Impact of COVID -19 on passengers drop in different selected countries as shown, Italy registered the highest 24% of their accumulative passengers' movement, And then China, Iran, South Korea, Japan, Singapore, France, and Germany respectively as displayed in figure below



The demand is dropped by an average of 11% which equal to 63 billion \$ meanwhile China will lose 22 billion \$ and other markets which related to ASIA include China will lose 47 billion \$

Scenario 2:

Been build up on the basis that cover the markets registered not less than 10 cases of COVID -19 since 2 March these markets confront with a loss of 19% of its international passengers revenue which equal 113 billion \$ and this equals to what year 2008 crisis caused.

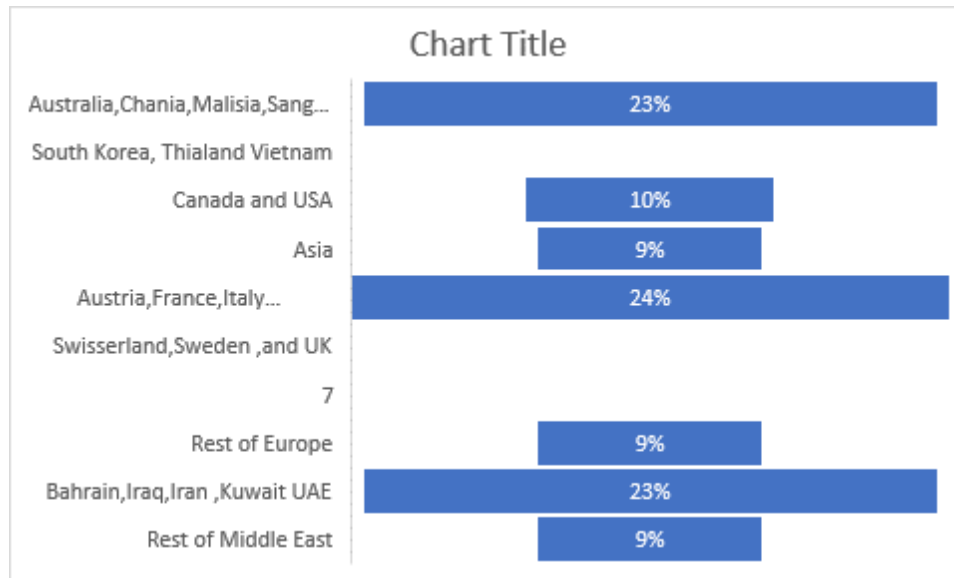
Table 3

Countries	Impact of passenger NO. %	Impact of Passengers revenues
Australia, Chania, Malisia, Sangapour,	23%	49.7 billion \$
South Korea, Thailand Vietnam		
Canada and USA	10%	\$21.1 billion

Asia	9%	7.6billion \$
Austria,France,Italy germany ,Holland Norway, Spain,	24%	37.3 billion \$
Swisserland,Sweden ,and UK		
Rest of Europe	9%	6.6billion \$
Bahrain,Iraq,Iran ,Kuwait UAE	23%	4.9billion \$
Rest of Middle East	9%	2.3billion \$

Source: IATA Analysis

Table above is the analysis of IATA (International Air Transport Association)



COVID-19 caused a loss of Airline industry revenue and a drop of passengers No. This drop affected the economy of global airline industry and caused or forced the proprietor and running management to terminate a large No. staff and finally reflected on GDP (Gross Domestic Product) accumulation.

COVID -19 Impact the global GDP growth as expected to contract by 5% in 2020 the worst year in history that caused Net Post Tax Profit --84.3 Billion as shown in table

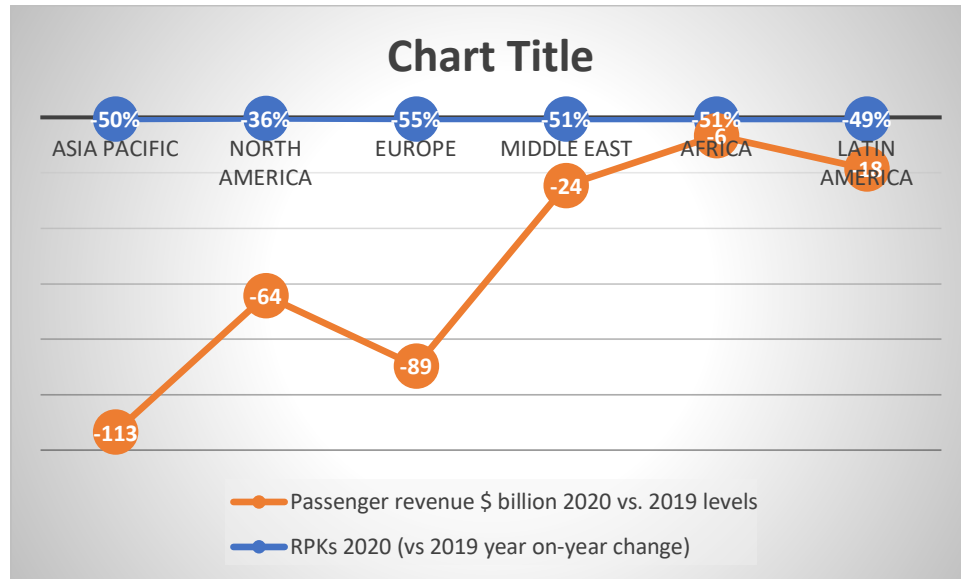
COVID-19 Updated Impact Assessment in analyzing deeply showing the RPKS (Revenue Passengers Kilometers) and the categorized global airline industry comparing the RPKS year on year 2020 Vs 2019 % and passenger revenue in billion \$2020 VS 2019 levels.

Table 4

Region of airline registration	RPKs 2020 (vs 2019 year on-year change)	Passenger revenue \$ billion 2020 vs. 2019 levels
Asia Pacific	-50%	-113
North America	-36%	-64
Europe	-55%	-89
Middle East	-51%	-24
Africa	-51%	-6
Latin America	-49%	-18
Industry	-48%	-314

Source: IATA Economics Brian Pearce Chief Economist 14th April 2020

RPKS: Revenue Passengers Kilometers



Analysis reflected negative result in 2020 comparative to 2019 for both RPKS and Passengers revenue the average RPKS loss reached (48%) -48% and total loss of revenue comparative to 2020 accumulation (314) -314

COVID -19 is harmful disease paralyzed the movement of global airline industry and caused

-Termination rate rises, resulted in contracting the global GDP (Gross Domestic Product) which finally affect all related macroeconomics trends.

4) Market value and fair value.

We investigate more in depth by examining particular airline companies. However, due to data availability, the remaining samples equal 35 airline companies. The results are shown in Table 5. Column 1 shows market value of each stock. Column 2 reports fair value of stocks using Equation (4). Column 3 states percentage differences between market value and fair value. The results show that market values significantly drop below fair values for most companies, our findings, thus, confirm that investors overreact to COVID-19 pandemic events.

Table5 Market value and Fair Value:

Stock

Stock	(1) Market value (\$US million)	(2) Fair value (\$US million)	(3) Difference
<i>Canada</i>			
Air Canada	2,928.39	5,531.06	-47.06%
ACE Aviation Holdings	3.93	8.64	-54.56%
Chorus Aviation	336.01	790.34	-57.49%
Exchange Income Corporation	438.49	960.90	-54.37%
<i>China</i>			
Air China	12,102.42	22,968.64	-47.31%
China Eastern Airlines	8,304.13	16,119.37	-48.48%
China Southern Airlines	7,830.70	15,059.57	-48.00%

Stock	(1)	(2)	(3)
	Market value (\$US million)	Fair value (\$US million)	Difference
Hainan Airlines	3,688.16	11,802.55	-68.75%
Juneyao Airlines	2,776.73	2,649.66	4.80%
China Express Airlines	1,105.49	691.26	59.92%
Shandong Airlines	345.25	1,168.90	-70.46%
<i>South Korea</i>			
Spring Airlines	4,179.18	3,773.11	10.76%
Air Busan	128.22	69.42	84.69%
Asiana Airlines	617.50	190.76	223.71%
JejuAir	364.53	335.14	8.77%
Korean Air Lines	1,470.66	2,866.00	-48.69%
Jin Air	273.33	214.49	27.44%
T'way Air	112.40	229.34	-50.99%
Hanjin Kal	3,631.96	1,447.67	150.88%
<i>Thailand</i>			
Asia Aviation	157.03	955.23	-83.56%
Bangkok Airways	257.85	1,242.22	-79.24%
<i>United Kingdom</i>			
Dart Group	1,018.89	1,157.20	-11.95%
EasyJet	2,816.48	3,817.80	-26.23%
Wizz Air Holdings	2,446.44	2,253.45	8.56%
<i>United States</i>			
Allegiant Travel	1,339.10	1,478.03	-9.40%
Hawaiian Holdings	479.72	1,686.92	-71.56%
JetBlue	2,413.88	7,967.74	-69.70%
Mesa Air Group	115.79	805.45	-85.62%
SkyWest	1,316.24	3,948.17	-66.66%
United Airlines Holdings	7,822.86	17,187.40	-54.48%
Alaska Air Group	3,489.98	7,327.18	-52.37%
Copa Holdings	1,914.68	3,607.31	-46.92%
Delta Air Lines	18,197.47	26,113.25	-30.31%
Southwest Airlines	18,117.25	16,561.45	9.39%
Spirit Airlines	882.39	4,077.66	-78.36%
<i>United States</i>			
Allegiant Travel	1,339.10	1,478.03	-9.40%
Hawaiian Holdings	479.72	1,686.92	-71.56%
JetBlue	2,413.88	7,967.74	-69.70%

Stock	(1)	(2)	(3)
	Market value (\$US million)	Fair value (\$US million)	Difference
Mesa Air Group	115.79	805.45	-85.62%
SkyWest	1,316.24	3,948.17	-66.66%
United Airlines Holdings	7,822.86	17,187.40	-54.48%
Alaska Air Group	3,489.98	7,327.18	-52.37%
Copa Holdings	1,914.68	3,607.31	-46.92%
Delta Air Lines	18,197.47	26,113.25	-30.31%
Southwest Airlines	18,117.25	16,561.45	9.39%
Spirit Airlines	882.39	4,077.66	-78.36%

Table include different countries USA, UK, South Korea, China and Canada the difference in above registered negative sign as market value below fair value caused by COVID-19

5) The Cargo:

At the end of March 2020 cargo capacity dropped down by 35% compared to 2019 performance North America to Asia Pacific capacity fall by 17% and 19% in the opposite direction but Asia Pacific to Europe also was down by 30%

Conclusion:

--The COVID-19 has caused disruption in all sectors of the world economy, we investigate the impact on global airline industry business to find that COVID -19 caused a severe horror to the governments as well as the public.

-GDP Recession

The cumulative loss to **global** GDP over **2020** and **2021** from the pandemic **crisis** could be around 9 trillion dollars, greater than the economies of Japan and Germany, combined. For the first time since the Great Depression both advanced economies and emerging market and developing economies are in **recession**



-The COVID-19 disrupted the intra sectoral economy of the global airline industry as follow

1) Foreign Direct Investors

- 2) Return on Investment Capital
- 3) Airline Industry revenue
- 4) Market Value and Fair Value
- 5) The Cargo

-IATA analysis reflected the exact global airline industry situation in passengers revenue of 2020 VS. 2019 and the result found as in below table 4, registered negative revenue.

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Source: IATA Economics Brian Pearce Chief Economist 14th April 2020

-IATA Economics using data and forecasts from Oxford Economics that the GDP t cures by 2021

-We understand that the government in each country is at intersection whether

- a) To prove financial support or
- b) To guarantee existing debt or
- c) To believe in market mechanism and let the airline firms file for bankruptcy

-- Finally several policies being supposed to be employed in a way to rescue the airline firms

- a) Subsidies
- b) Tax policy
- c) Mergers and Acquisitions

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