

## KEY HIGHLIGHTS

### Passenger traffic set to recover in 4Q21

**2021 total air passenger traffic is estimated to be closer to MAVCOM's best case scenario forecast of 6.9mn – 7.8mn passengers.** This is mainly due to the easing of travel restrictions and reopening of international borders arising from the rapid vaccination rollout. Based on the latest monthly data, passenger traffic has shown early signs of recovery, growing by 56.6% MoM and 190.2% MoM in September and October 2021, respectively. This was 5.3% and 14.9% of the passenger traffic level recorded in the same months in 2019.

### 2022 passenger traffic is forecasted to be between 32.6mn – 49.0mn

**For 2022, MAVCOM estimates Malaysia's air passenger traffic to increase by between 316% YoY and 525% YoY, translating to 32.6mn – 49.0mn passengers, with a base case scenario of 39.3mn – 41.6mn passengers.** This marks a 30% – 45% recovery from the 2019 air passenger traffic level. Passenger traffic in 2022 is expected to be driven by flights to the domestic and ASEAN regions. Based on the airlines' schedule data as of November 2021, 47.5% of their capacity are planned to be deployed for the domestic routes, 31.5% for the ASEAN routes, and 20.9% for the non-ASEAN international routes. The pent-up demand to travel and the accumulated savings made during the pandemic would be key drivers to support the 2022 passenger traffic growth.

### Restarting the industry via travel bubbles and vaccinated travel lanes

**The development of travel bubbles has shown a positive impact to the tourism and aviation industries.** The Langkawi domestic travel bubble—which began on 16 September 2021—had caused a significant increase of 2,411.0% MoM and 261.4% MoM in domestic air passengers in September and October, respectively. The reopening of Langkawi's borders to international travellers starting 15 November 2021 is expected to increase international passenger traffic. In addition, the GOM is in discussion with several countries to reopen mutual borders. Malaysia began its first designated vaccinated travel lane (VTL) to Singapore on 29 November 2021.

### Demand for air cargo remains resilient

Malaysia's air cargo volume in terms of total FTK recorded a strong growth of 19.7% YoY in 3Q21 (3Q20: -22.7% YoY). MAVCOM expects the demand for air cargo to remain resilient over the remainder of 2021 and 2022. **For 2022, MAVCOM expects the air cargo traffic to grow by between 3.9% YoY and 6.7% YoY,** which translates to 20.8bn – 21.6bn. Malaysia's FTK in 2020 was 15.8bn (2019: 20.2bn). The growth is supported by the progress of vaccination, the strong growth for e-commerce, electrical and electronics (E&E), and strong demand from Malaysia's main trading countries (e.g. the UK and the US).

**\*The data and facts in this publication are accurate as of 8 December 2021.**

## TABLE OF ABBREVIATIONS

Abbreviations	
ADB	ASEAN Development Bank
AirAsia	AirAsia Bhd.
AirAsia X	AirAsia X Bhd.
AOL	Aerodrome Operating Licence
ASEAN	Association of Southeast Asian Nations
ATR	Air Traffic Rights
bbf	barrel
bn	billion
BNM	Bank Negara Malaysia
CMCO	Conditional Movement Control Order
COVID-19	Coronavirus Disease 2019
DOS	Department of Statistics, Malaysia
ECRL	East Coast Rail Link
E&E	Electrical and Electronic
EMCO	Enhanced Movement Control Order
EU	European Union
Firefly	FlyFirefly Sdn. Bhd.
FMCO	Full Movement Control Order
FTK	Freight Tonne Kilometre
GDP	Gross Domestic Product
GOM	Government of Malaysia
HK	Hong Kong
IATA	International Air Transport Association
IMF	International Monetary Fund
JENDELA	Jalanan Digital Negara
MAB	Malaysia Airlines Bhd.
Malindo	Malindo Airways Sdn. Bhd.
MAVCOM	Malaysian Aviation Commission
MCO	Movement Control Order
mn	million
MOF	Ministry of Finance
MoM	Month-on-Month
MOTAC	Ministry of Tourism, Arts and Culture
NRP	National Recovery Plan
PCR	Polymerase Chain Reaction
QoQ	Quarter-on-Quarter
RM	Ringgit Malaysia
RPK	Revenue Passenger Kilometre
SDMC	State Disaster Management Committee
SSD	Solid-state drive
UAE	United Arab Emirates
UK	United Kingdom
UNWTO	World Tourism Organization

## Abbreviations

US	United States of America
USD	United States Dollar
VTL	Vaccinated Travel Lane
WEO	World Economic Outlook
WTO	World Trade Organization
YoY	Year-on-Year

## AIRPORT CODES

Airport Codes	Airport Names
AOR	Alor Setar Airport
BKI	Kota Kinabalu International Airport
BTU	Bintulu Airport
CGK	Soekarno-Hatta International Airport, Indonesia (Jakarta)
DMK	Don Mueang International Airport, Thailand (Bangkok)
DOH	Hamad International Airport, Qatar (Doha)
DPS	Ngurah Rai International Airport, Indonesia (Bali)
HKG	Hong Kong International Airport, Hong Kong
IPH	Sultan Azlan Shah Airport (Ipoh)
JED	King Abdulaziz International Airport, Saudi Arabia (Jeddah)
JHB	Senai International Airport (Johor Bahru)
KBR	Sultan Ismail Petra Airport (Kota Bharu)
KCH	Kuching International Airport
KTE	Kerteh Airport
KUA	Kuantan Airport
KUL	Kuala Lumpur International Airport
LBU	Labuan Airport
LDU	Lahad Datu Airport
LGK	Langkawi International Airport
LMN	Limbang Airport
MAA	Chennai International Airport, India (Chennai)
MKM	Mukah STOLport
MYY	Miri Airport
MZV	Sandakan Airport
PEN	Penang International Airport
RDN	Redang Airport
SBW	Sibu Airport
SDK	Sandakan Airport
SIN	Changi Airport, Singapore
SZB	Skypark Terminal Sultan Abdul Aziz Shah Airport (Subang)
TGG	Kuala Terengganu Sultan Mahmud Airport
TPE	Taoyuan International Airport, Taiwan
TWU	Tawau Airport

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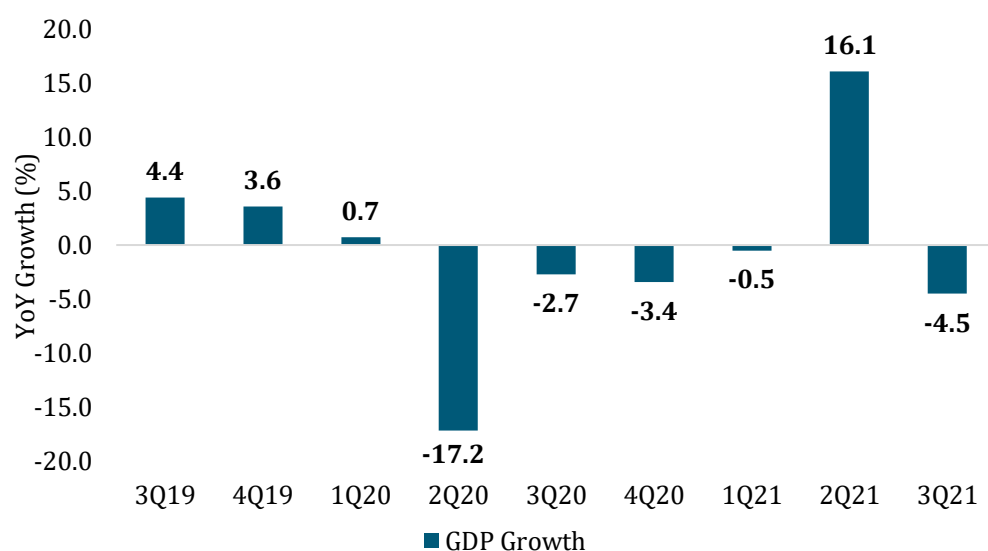
## SECTION 1: MACROECONOMIC OVERVIEW AND OUTLOOK

### Macroeconomic Overview

#### Malaysia's GDP Declined by 4.5% YoY in 3Q21

Malaysia's real gross domestic product (GDP) shrank by 4.5% YoY in 3Q21 (3Q20: -2.7%) (see Figure 1). On a QoQ basis, Malaysia's GDP declined by 3.6%<sup>1</sup>. According to the BNM<sup>2</sup>, the decline was mainly due to the strict COVID-19 containment measures which were implemented in July 2021 under Phase 1 of the National Recovery Plan (NRP). This had caused a slowdown in consumption and investment activities.

**Figure 1: Malaysia's Real GDP Growth, 2019 – 2021**



Source: DOS

All economic sectors registered a contraction in 3Q21, led by the construction sector due to the operating capacity limits (see Table 1).

**Table 1: Malaysia's GDP Growth by Sectors, 2021**

Sectors	1Q21 YoY Growth (%)	2Q21 YoY Growth (%)	3Q21 YoY Growth (%)
Headline GDP	-0.5	16.1	-4.5
-Services	-2.3	13.5	-4.9
-Manufacturing	6.6	26.6	-0.8
-Agriculture	0.4	-1.5	-1.9
-Mining & Quarrying	-5.0	13.9	-3.6
-Construction	-10.4	40.3	-20.6

Source: DOS

<sup>1</sup> Seasonally adjusted Real GDP.

<sup>2</sup> BNM, Quarterly Bulletin 3Q21 (August 2021).

The services sector, which was a major contributor to Malaysia's GDP, declined by 4.9% YoY (2Q21: 13.5% YoY), due to weaker consumer-related activities following the restriction imposed in July 2021. However, consumer-related activities have shown signs of recovery on a MoM basis since August 2021 as operating restrictions were eased.

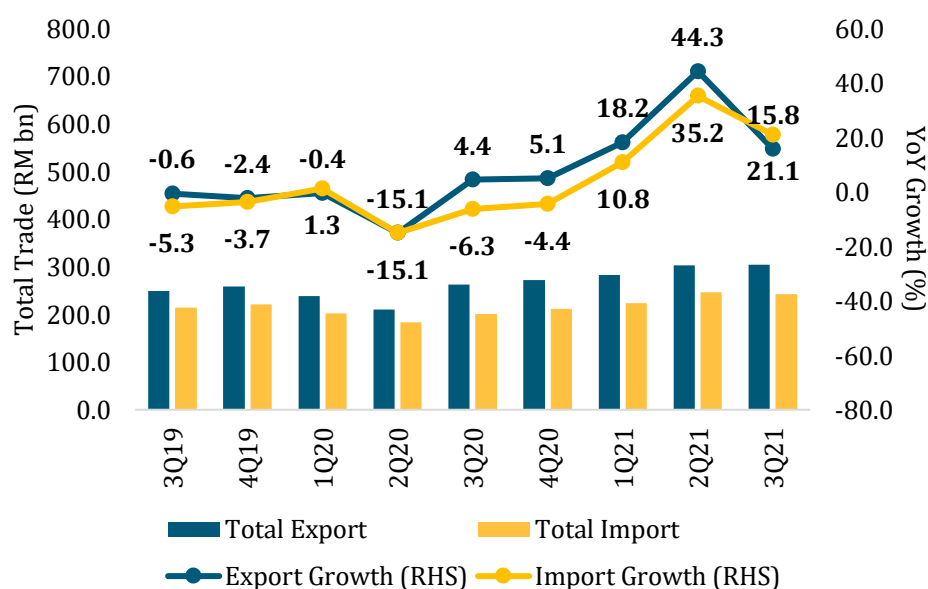
The manufacturing sector declined by 0.8% YoY (2Q21: 26.6% YoY) as the activities that were allowed to operate were restricted to essentials and global value chains. Production was further constrained to essential manufacturing activities during the two-week Enhanced Movement Control Order (EMCO) in Klang Valley, affecting the E&E subsector in particular.

Despite headwinds throughout 3Q21, there were several key indicators which indicate a possible recovery in 4Q21. This includes improvements in the labour market, as the unemployment rate declined to 4.5% in September 2021, as well as a 24.7% increase in exports and an 11.6% increase in manufacturing sales during the same month<sup>3</sup>. This is further supported by the transition of more states to Phase 4 of the NRP, where all economic activities are allowed to operate.

#### Total Exports and Imports Continue to Grow in 3Q21

In 3Q21, total trade grew by 18.1% YoY to RM546.2bn (3Q20: RM462.7bn). Exports increased by 15.8% YoY to RM303.7bn, whilst imports rose by 21.1% YoY to RM242.5bn (see Figure 2). For the first nine months of 2021, total trade expanded by 23.2% YoY.

**Figure 2: Malaysia's External Trade, 2019 - 2021**



Source: DOS

<sup>3</sup> MOF Press Release, <https://www.mof.gov.my/portal/en/news/press-release/third-quarter-2021-gdp-performance-malaysia-s-full-year-economic-growth-expected-to-remain-positive> (12 November 2021).



Total exports grew by 24.9% YoY to RM889.3bn for the first nine months of 2021. Exports were driven by the external demand for petroleum products, metal products, palm oil and palm oil-based agriculture products, as well as E&E products. Manufactured goods grew by 25.2% YoY to RM767.9bn. This was largely contributed by the exports of E&E products, especially solid-state storage devices (SSD), as well as iron and steel products.

During the same period, total imports expanded by 21.1% YoY to RM713.0bn. Capital goods, intermediate goods, and consumption goods all registered a double-digit growth of 11.8% YoY, 23.6% YoY, and 12.3% YoY, respectively.

Double-digit growth was seen in almost all major markets. Tables 2 and 3 show the breakdown of Malaysia's top 5 export and import markets. These markets account for 70.0% of Malaysia's total exports and imports.

**Table 2: Malaysia's Top 5 Export Markets, 9M21**

Economy	Exports (RM bn)	Share (%)	YoY Growth (%)
US	102.3	11.5	32.2
ASEAN	246.3	27.7	24.4
EU	75.4	8.5	21.9
China	137.0	15.4	19.0
Hong Kong	12.9	1.5	12.9

Source: DOS

**Table 3: Malaysia's Top 5 Imports Markets, 9M21**

Economy	Imports (RM bn)	Share (%)	YoY Growth (%)
China	167.1	23.4	35.1
ASEAN	163.9	23.0	29.0
EU	55.6	7.8	27.2
Japan	54.0	7.6	22.0
US	54.1	7.6	3.0

Source: DOS

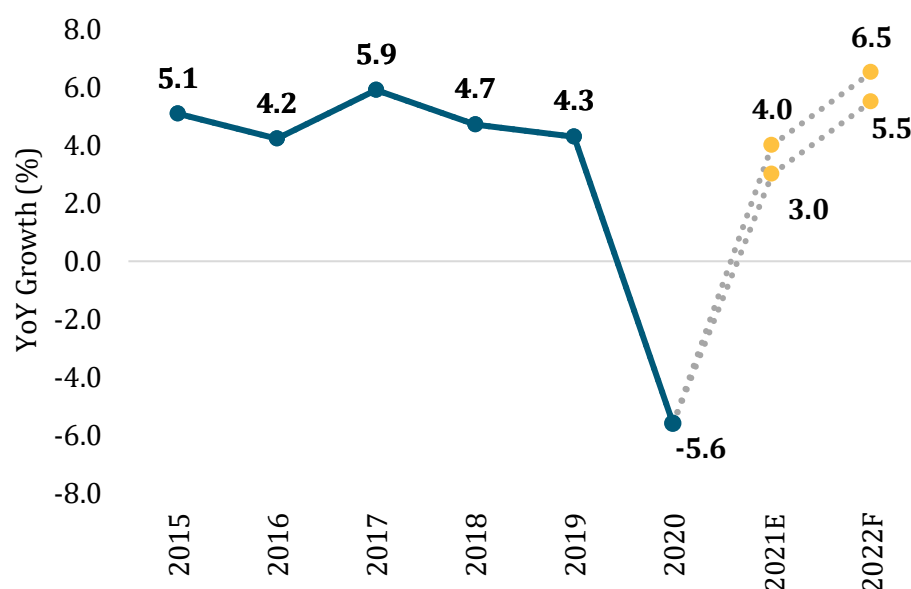
In September 2021, trade with China—which made up 19.7% of Malaysia's total trade—grew by 24.6% YoY to RM38.5bn, which is the 10th consecutive month of double-digit growth. Exports to China recorded a growth of 19.0% YoY to RM18.52bn, the highest monthly value ever recorded. This was due to higher exports of metal, iron and steel products, as well as liquefied natural gas.

## Macroeconomic Outlook

### Malaysia's GDP Growth in 2022 to be Between 5.5% and 6.5% YoY

According to the BNM<sup>4</sup>, Malaysia's economy is expected to grow by between 3.0% to 4.0% YoY in 2021, whereas in 2022, Malaysia's GDP growth is forecasted to be between 5.5% to 6.5% YoY (see Figure 3).

**Figure 3: Malaysia's 2022 GDP Growth Forecast**



Source: BNM

2022 growth will be supported by the overall global growth and trade activities, strengthening of labour market recovery, and faster progress in large infrastructure projects (e.g. ECRL<sup>5</sup>, Pan Borneo Highway, and JENDELA<sup>6</sup>). The growth will also be contributed by the improvement in consumer sentiments due to the increased share of the vaccinated population and the easing of containment measures.

Malaysia had managed to fully vaccinate 95% of its adult population and 62% of its teenagers<sup>7</sup> by October 2021, which is earlier than planned in the NRP<sup>8</sup>. This resulted in an earlier relaxation of containment measures. Meanwhile, overall labour market conditions are projected to recover at a faster pace, with increased hiring and improvement in income growth. This contributes to a sooner-than-expected recovery in consumer confidence. When restrictions are eased, the effects from improved labour market conditions and sentiments will generate stronger-than-expected demand conditions.

<sup>4</sup> BNM, Economic & Financial Developments in 3rd Quarter 2022.

<sup>5</sup> East Coast Rail Line (ECRL).

<sup>6</sup> Jalinan Digital Negara (JENDELA).

<sup>7</sup> Between 12 and 17 years old.

<sup>8</sup> The Edge Markets, <https://www.theedgemarkets.com/article/covid19-949-malaysias-adult-population-fully-vaccinated-oct-27> (28 October 2021).

Table 4 shows Malaysia's GDP growth forecast in 2021 and 2022 from various sources. In September 2021, the World Bank raised its 2022 projection for Malaysia, with a GDP growth forecast of 5.8% YoY (previous forecast: 4.2% YoY) as it anticipates a stronger recovery next year. This is mainly due to the higher vaccination rates and the relaxation of public health measures, which would enable the economy to reopen faster than expected. Similarly, the ASEAN Development Bank (ADB) had also made an upward revision of Malaysia's growth forecast for 2022 to 6.1% YoY (previous forecast: 5.7%). ADB stated that although there would be a robust recovery in 2022, growth will still be about 10% lower than its pre-pandemic trajectory.

**Table 4: Malaysia's GDP Forecasts by BNM, ADB, IMF, World Bank, and Market Consensus, 2021 – 2022**

Sources	Month of Forecast	2021 YoY GDP Growth Estimate (%)	2022 YoY GDP Growth Forecast (%)
BNM	November 2021	3.0 – 4.0	5.5 – 6.5
ADB	September 2021	4.7	6.1
IMF	October 2021	3.5	6.0
World Bank	September 2021	3.3	5.8
Market Consensus	October 2021	3.8	5.7

#### Global Economy is Expected to Grow by 5.9%YoY in 2021 and 4.9% YoY in 2022

In its October 2021 World Economic Outlook (WEO), the International Monetary Fund (IMF) forecasted that the global economy would grow by 5.9% YoY in 2021 and 4.9% YoY in 2022 (see Table 5).

**Table 5: Global GDP Forecast by IMF, 2021 – 2022**

Economy	2021 GDP YoY Growth Estimate (%)	2022 GDP YoY Growth Forecast (%)
Global	5.9	4.9
- Advanced Economies	5.2	4.5
- Emerging Market Economies	6.4	5.1

Compared to its July forecast, the global growth projection for 2021 was revised down marginally to 5.9% YoY (previous forecast: 6.0% YoY) whilst the forecast for 2022 remains unchanged. The downward revision for 2021 reflects a downgrade for the advanced economies in part due to the supply chain disruptions, as well as the low-income developing countries due to the slow rollout of vaccines.

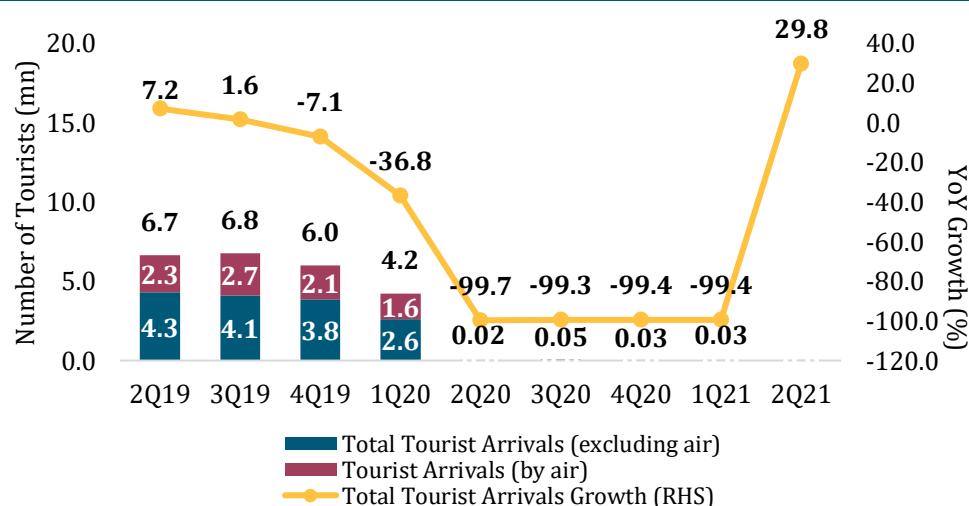
The forecast for the emerging market economies was marked up slightly compared to the July 2021 WEO Update, reflecting upgrades across most regions. However, China's prospect for 2021 is marked down slightly due to stronger-than-anticipated scaling back of public investment. Overall, the balance of risks for growth is tilted to the downside. The major source of concern is that more aggressive COVID-19 variants could emerge before widespread vaccination is achieved.

## SECTION 2: INDUSTRY OVERVIEW

Malaysia's Tourist Arrivals Increased by 29.8% YoY in 2Q21

Based on the latest data from the Ministry of Tourism, Arts and Culture (MOTAC), Malaysia's tourist arrivals recorded an increase of 29.8% YoY in 2Q21 (2Q20: -99.7% YoY) (see Figure 4). However, the increase was minimal as the number of tourist arrivals in 2Q21 was only 25,357 (2Q19: 6.7mn). On a QoQ basis, the tourist arrivals recorded a marginal increase of 0.4% in 2Q21 (2Q20: -99.5% QoQ).

**Figure 4: Malaysia's Tourist Arrivals, 2019 - 2021**



Source: Bloomberg, Tourism Malaysia

Notes: 1) This figure may contain rounding errors

2) Data only available up to 2Q21

**Malaysia's tourist arrivals are expected to recover in 4Q21 as travel restrictions were lifted by the GOM on 11 October 2021.** The recovery of tourist arrivals will be driven by the development of travel bubbles and travel corridors that were designed to revive air travel in a safe manner.

In September 2021, MOTAC had piloted the Langkawi domestic travel bubble which led to a total of 240,361 domestic tourist arrivals in Langkawi<sup>9</sup>. Beginning 15 November 2021, Langkawi reopened its borders to international visitors, which will run for 3 months<sup>10</sup>. Additionally, the GOM is also preparing to receive international tourists from West Asia<sup>11</sup> via international airlines<sup>12</sup>. The West Asian market was the main contributor to Malaysia's tourist arrivals when it recorded the highest number of international tourist arrivals to Malaysia back in 2019.

<sup>9</sup> The Star, <https://www.thestar.com.my/news/nation/2021/11/07/langkawi-soaring-again> (7 November 2021).

<sup>10</sup> Bloomberg, <https://www.bloomberg.com/news/articles/2021-10-22/malaysia-to-reopen-langkawi-to-foreign-tourists-in-bubble-plan> (22 October 2021).

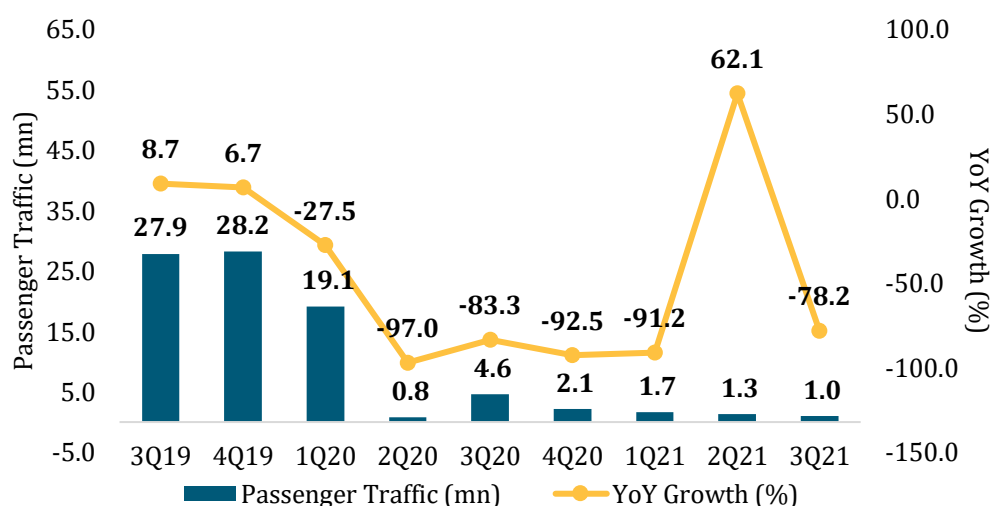
<sup>11</sup> West Asia: Saudi Arabia, United Arab Emirates, Qatar, Bahrain, Iraq, Jordan, Kuwait, Lebanon, Oman, State of Palestine, Syria, and Yemen.

<sup>12</sup> MOTAC, <http://www.motac.gov.my/media2/siaran/motac-sasar-kerjasama-syarikat-penerbangan-antarabangsa-tingkatkan-kembali-ketibaan-pelancong-asia-barat> (7 October 2021).

### Low Passenger Traffic recorded in 3Q21

In 3Q21, Malaysia recorded only 1.0mn passengers (3Q20: 4.7mn) (see Figure 5). This was a decline of 78.2% YoY and 22.1% QoQ in 3Q21 (3Q20: -83.3% YoY; 478.8% QoQ). This was due to the Full Movement Control Order (FMCO) imposed on 1 June 2021.

**Figure 5: Malaysia's Quarterly Passenger Traffic, 2019 - 2021**

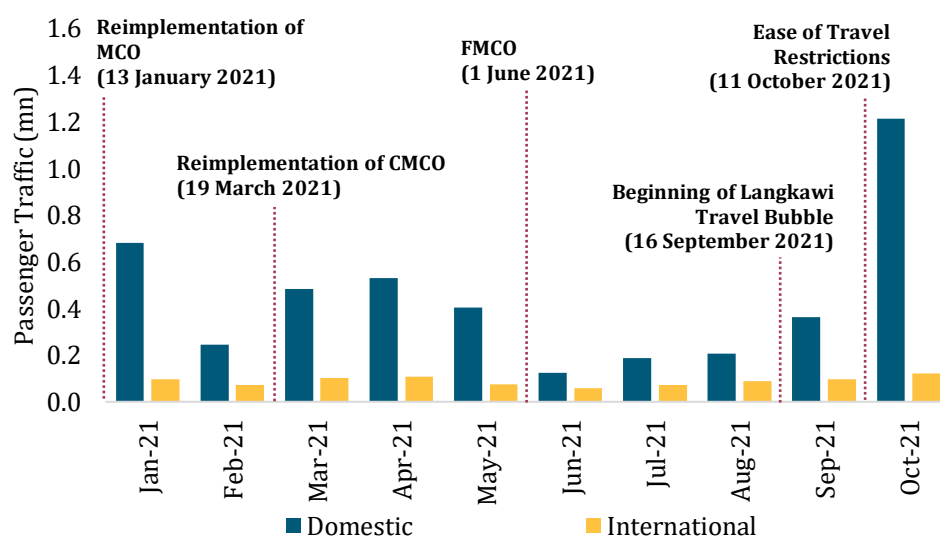


Source: MAVCOM, AOL Holders

### Passenger Traffic Set to Recover in 4Q21

Based on the latest monthly passenger traffic data in September and October 2021, passenger traffic has shown early signs of recovery. Malaysia's monthly passenger traffic had increased by 56.6% MoM and 190.2% MoM in September and October 2021, respectively (see Figure 6). This was 5.3% and 14.9% of the passenger traffic level recorded in the same months in 2019.

**Figure 6: Malaysia's Monthly Passenger Traffic, 2021**



Source: MAVCOM, AOL Holders

The recovery of passenger traffic in September and October was **driven by the ease of travel restrictions, the Langkawi domestic travel bubble, and the increase of flight frequencies between Peninsular and East Malaysia**. The recovery was further supported by the relaxation of health protocols. This enabled fully vaccinated travellers to enter East Malaysia without being quarantined. For instance, upon entering Sarawak, travellers are no longer required to apply via the EnterSarawak platform effective 18 October 2021<sup>13</sup>. For Sabah, fully vaccinated passengers entering the state are not required to take a prior swab test starting 1 December 2021<sup>14</sup>.

Overall, in terms of passenger market share by airports, most of the passengers in October were from KUL (35.3%), followed by LGK (13.4%), and BKI (7.5%) (see Figure 7).

**Figure 7: Malaysia's Passenger Traffic by Airports, October 2021**



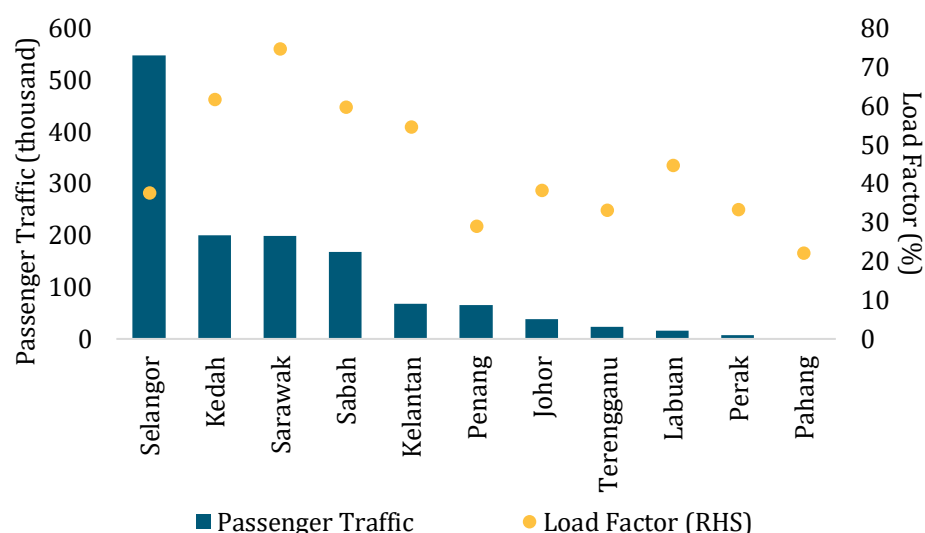
Source: MAVCOM, AOL Holders

<sup>13</sup> New Straits Times, <https://www.nst.com.my/news/nation/2021/10/737094/fully-vaccinated-within-malaysia-no-longer-need-apply-entering-sarawak> (16 October 2021).

<sup>14</sup> The Star, <https://www.thestar.com.my/news/nation/2021/11/20/sabah-travellers-will-not-need-swab-tests-after-dec-1-says-hajiji> (20 November 2021).

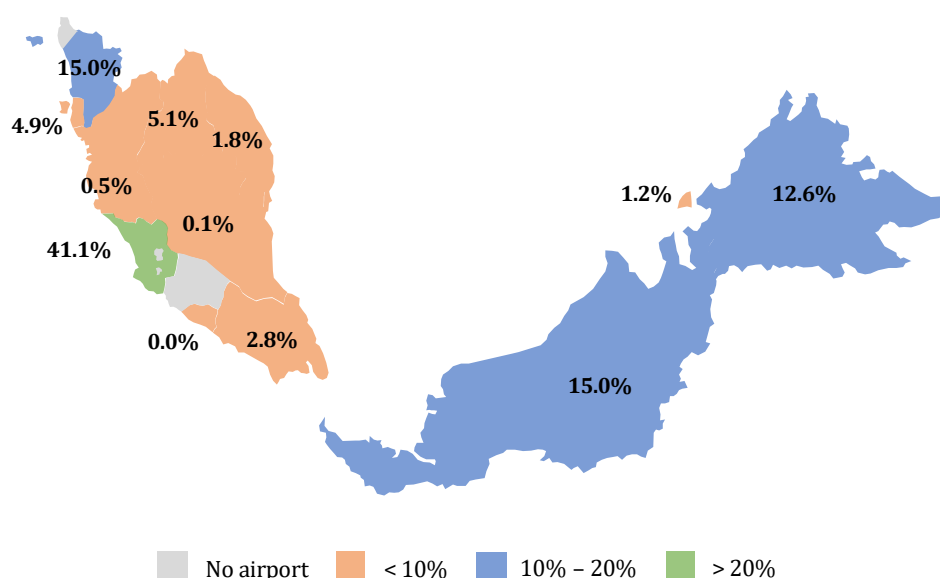
Figure 8 shows the passenger traffic and load factor by state, while Figure 9 shows the total passenger market share by state in October 2021. Apart from Selangor, other states with significant passenger traffic in October 2021 were Kedah, Sarawak, and Sabah. The passenger market share in these four states makes up 83.6% of Malaysia's total passenger traffic.

**Figure 8: Malaysia's Passenger Traffic and Load Factor by State, October 2021**



Source: MAVCOM, AirportIS, AOL Holders

**Figure 9: Malaysia's Total Passenger Market Share by State, October 2021**



Source: MAVCOM, AOL Holders

Note: The market share is derived from the total passengers (departure and arrival; domestic and international) in airports within their respective states.

The high passenger market share for Kedah was contributed by the Langkawi travel bubble. Sarawak was also one of the key states that contributed to the high passenger market in Malaysia. With a 15.0% passenger market share, Sarawak had the highest load factor of 74.7% in October 2021. This was due to the increase in flight frequencies to and from Sarawak.

#### *The Langkawi Travel Bubble*

The Langkawi domestic travel bubble—which began on 16 September 2021—had caused a significant increase in passengers travelling to LGK. In September 2021, LGK recorded the highest MoM passenger growth of 2,411.0% compared to the other airports in Malaysia. Passenger traffic continued to grow in October 2021, recording an increase of 261.4% MoM. This high increase in passengers in October 2021 marks a 79.1% recovery from the passenger traffic level in October 2019 (see Table 6).

**Table 6: LGK's Monthly Air Passenger Traffic Performance, June – October 2019 and 2021**

Month	Total Passenger Traffic		MoM Growth (%)	% of 2019 level
	2019 <sup>15</sup>	2021		
June	238,773	859	-80.5	0.4
July	270,497	1,602	86.5	0.6
August	280,427	1,967	22.8	0.7
September	217,424	49,391	2,411.0	22.7
October	225,711	178,502	261.4	79.1

Source: MAVCOM, MAHB, AirportIS, AOL Holders

Airlines had increased their flights to and from Langkawi due to the travel bubble initiative. Beginning mid-September 2021, AirAsia had served 90x weekly flights to LGK departing from KUL (63x weekly), PEN (14x weekly), JHB (7x weekly), IPH (3x weekly), and KBR (3x weekly). MAB served 28x weekly flights departing from KUL, Firefly served 10x weekly flights from SZB, whilst Malindo increased its flight frequency to LGK from 14x weekly to 42x weekly.

MAVCOM expects more routes and higher frequencies to LGK as the travel demand grows. International passenger traffic is also expected to recover after the opening of Langkawi's borders to international travellers, starting 15 November 2021.

<sup>15</sup> AirportIS estimation.

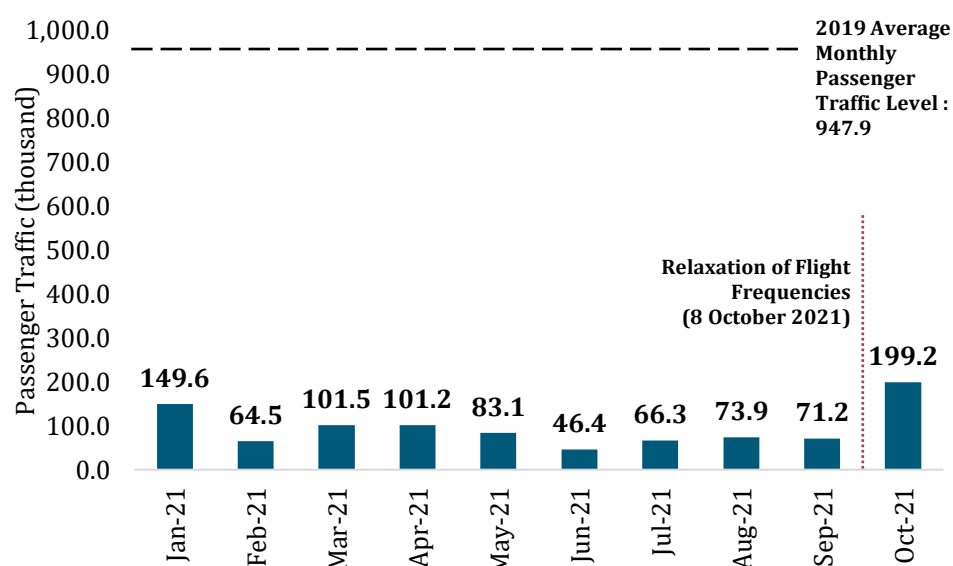


### *The Relaxation of Flight Frequencies to Sarawak*

Due to the reduction in COVID-19 cases in Malaysia, the Sarawak State Disaster Management Committee (SDMC) had allowed for the flight frequencies to and from Sarawak to be increased from 22x to 87x weekly flights, effective 8 October 2021 (2019: 561x weekly). This had caused an increase in seat capacity deployed by airlines for KUL-KCH (82.1% MoM), KUL-MYY (111.1% MoM), and KUL-SBW (56.6% MoM) in October 2021. This had, in turn, contributed to the increase in passenger traffic for the Peninsular to Sarawak routes.

In October 2021, Sarawak airports recorded 199,177 total passenger traffic, representing 15.0% of the total passengers in Malaysia. This marks a 21.0% recovery from the 2019 average monthly passenger traffic level (see Figure 10). Passenger traffic to and from Sarawak airports is expected to rise in 3Q21 due to the year-end festivities and the Sarawak State Elections demand. Hence, SDMC had agreed to increase the number of flight frequency limit from the current 223 flights per week to 307 flights per week (previously 87 flights per week to 223 flights per week on 1 November 2021)<sup>16</sup>. However, with the new developments of the Omicron variant recently detected in Malaysia, the SDMC has enhanced its regulations for travellers<sup>17</sup>. The enhancements will also affect travellers in the Langkawi travel bubble.

**Figure 10: Sarawak's Passenger Traffic, 2021**



Source: MAVCOM, AOL Holders

<sup>16</sup> Effective 11 December 2021 to 5 January 2022.

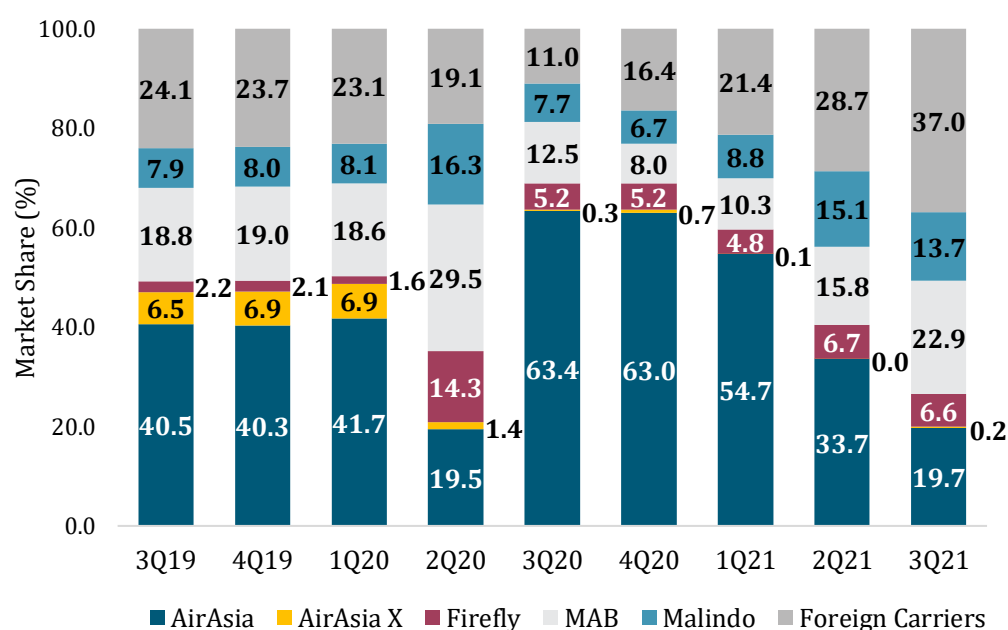
<sup>17</sup> The Borneo Post, <https://www.theborneopost.com/2021/12/03/sdmc-tightens-travel-conditions-after-malaysia-records-first-omicron-case/> (3 December 2021).

### AirAsia's Passenger Market Share Declined Significantly in 3Q21

**In 3Q21, Malaysia's passenger market share structure changed significantly compared to the previous quarter.** AirAsia's passenger market share had considerably decreased to 19.7% in 3Q21 (3Q20: 63.4%). This was a result of the imposition of travel restrictions, as well as the significant decrease in the airline's seat capacity by 90.2% YoY and 44.8% QoQ in 3Q21 (3Q20: -73.5% YoY; 96.8% QoQ).

Overall, Malaysian carriers' passenger numbers decreased by 78.4% YoY and 39.7% QoQ in 3Q21 (3Q20: -86.9% YoY; 358.4% QoQ). In terms of market share, Malaysian carriers' combined market share decreased to 63.0% in 3Q21 (3Q20: 89.0%) (see Figure 11). This was due to the reduction in operations carried out by local carriers during the MCO period.

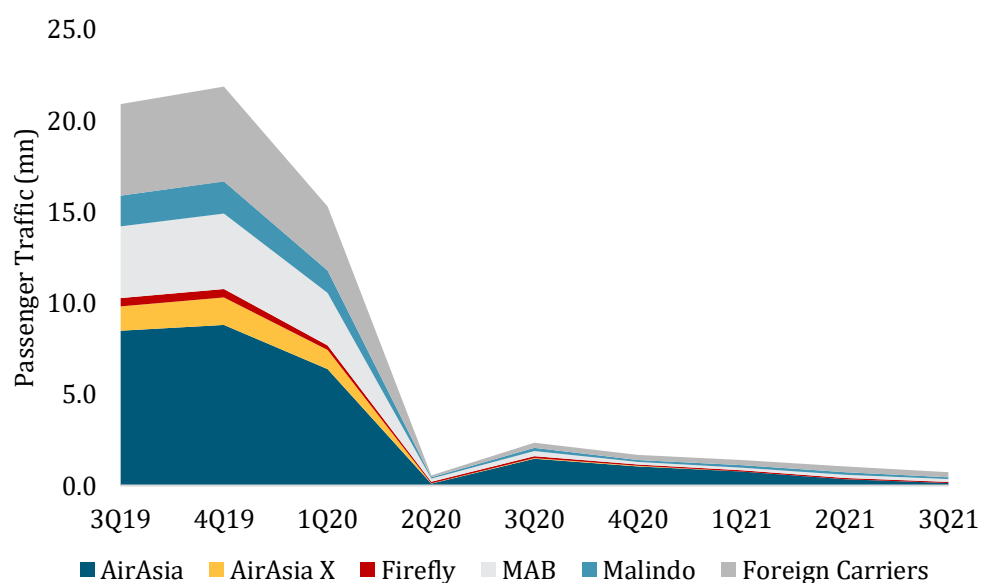
**Figure 11: Malaysia's Passenger Market Share by Airlines, 2019 – 2021**



Source: MAVCOM, AirportIS

Malaysia's market size in 3Q21 was still minuscule compared to the pre-pandemic level in 2019 (see Figure 12). During this period, the total air passenger traffic carried by airlines decreased by 69.5% YoY and 31.8% QoQ (3Q20: -88.8% YoY; 316.6% QoQ). The passenger traffic in 3Q21 was only 3.4% of the passenger traffic level obtained in the same quarter of 2019.

**Figure 12: Malaysia's Quarterly Passenger Traffic by Airlines, 2019 – 2021**



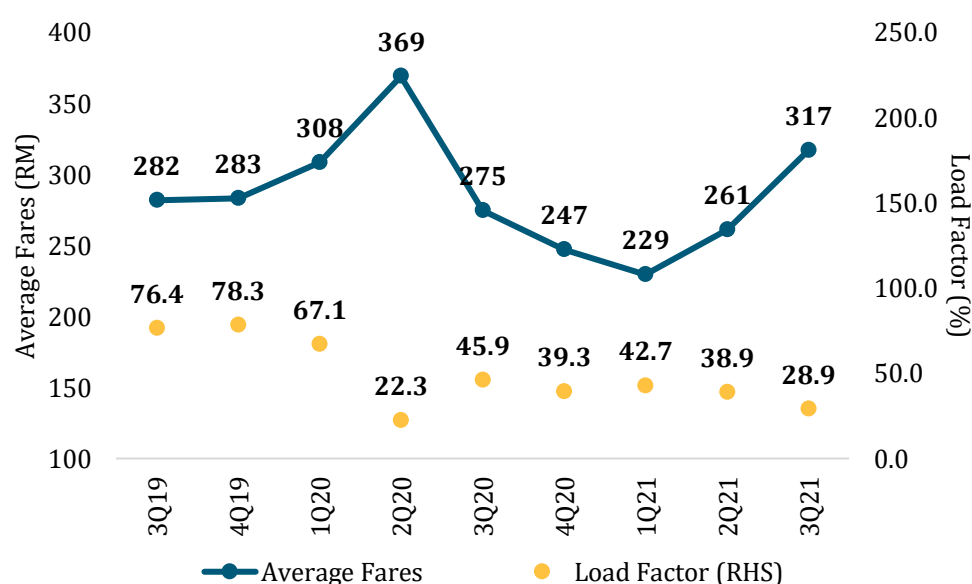
Source: MAVCOM, AirportIS

Malaysian Carriers' Average Load Factor Decreased to 28.9% while Average Fares Increased by 15.4% YoY in 3Q21

**Malaysian carriers' average load factor decreased to 28.9% in 3Q21 (3Q20: 45.9%)** (see Figure 13). This was due to the 69.5% YoY decrease in passenger traffic in 3Q21 (3Q20: -88.8% YoY), which was larger than the 68.1% YoY contraction in seat capacity (2Q20: -76.5% YoY). The muted demand in air travel during 3Q21 had caused airlines to have low load factor performance despite having a high seat capacity cancellation.

**Additionally, Malaysian carriers' average fares had increased by 15.4% YoY and 21.4% QoQ in 3Q21 (2Q20: -2.6% YoY; 25.6% QoQ).** This came to RM317 in average fares in 3Q21 (3Q20: RM275).

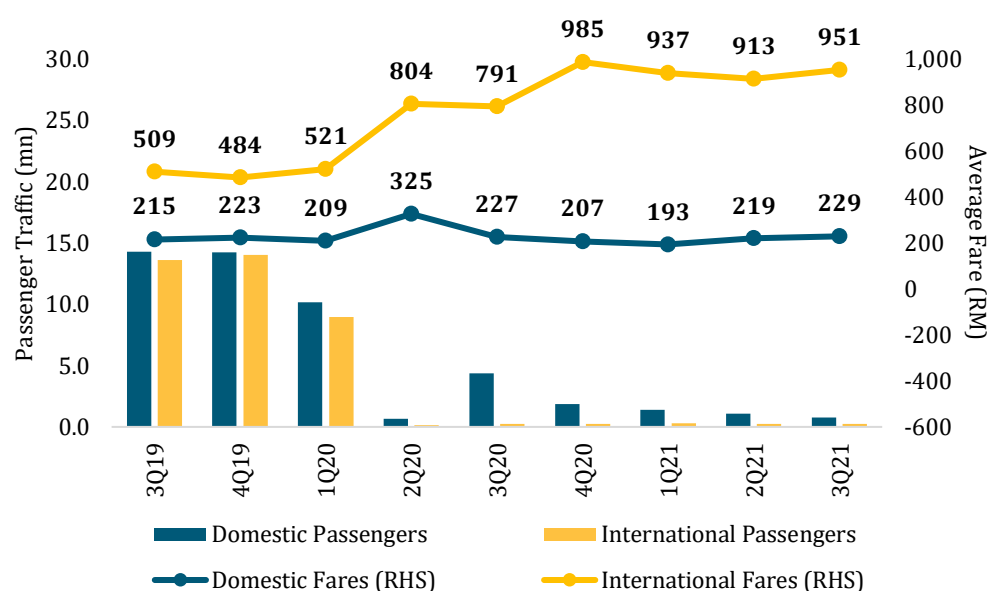
**Figure 13: Malaysian Carrier's Average Fares and Load Factor, 2019 - 2021**



Source: MAVCOM, AirportIS

The average domestic fares increased by 1.2% YoY in 3Q21 (3Q20: 5.4% YoY) while the average international fares increased by 20.1% YoY in 3Q21 (3Q20: 55.5% YoY) (see Figure 14). However, on a QoQ basis, domestic fares increased by 4.8% QoQ (3Q20: -30.4% QoQ) while international fares increased by 4.2% QoQ (3Q20: -1.6% QoQ). The domestic fares had increased to RM229 in 3Q21 from RM219 in 2Q21. Meanwhile, international fares increased to RM951 in 3Q21 from RM913 in 2Q21.

**Figure 14: Malaysian Carriers' Passenger Traffic and Average Fares, 2019 – 2021**



Source: MAVCOM, AirportIS, AOL Holders

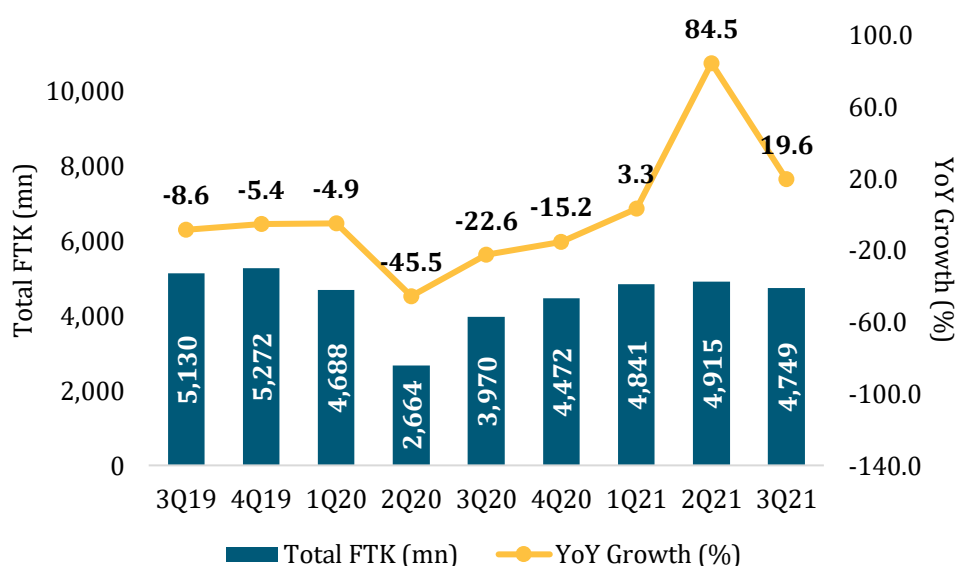
The increase in the QoQ domestic average fares was due to the limited flight frequencies allowed in the domestic market. For example, the Sarawak SDMC had implemented a limit to the flight frequencies to and from Sarawak. This was done to contain the spread of the virus, as well as to accommodate the limited number of quarantine centres available<sup>18</sup>. This had caused airlines to record very low load factors and high average fares. As the flight frequency was allowed to be increased from 22x weekly to 87x weekly beginning 8 October 2021, the airfares for KUL-KCH recorded lower airfares between 29.0% and 74.0% cheaper compared to pre-pandemic levels. MAVCOM expects average fares to return to average levels as more flights are allowed to operate.

<sup>18</sup> The Star, <https://www.thestar.com.my/news/nation/2021/01/15/number-of-flights-into-s039wak-reduced-from-friday-jan-15-due-to-spike-in-covid-19-cases> (15 January 2021).

Malaysia's Cargo Volume Expanded by 19.7% YoY to 4,749mn in 3Q21

**Malaysia's cargo volume in terms of total FTK recorded a growth of 19.7% YoY (3Q20: -22.6% YoY) to 4,749mn in 3Q21 (3Q20: 3,970) (see Figure 15).**

**Figure 15: Total FTK in Malaysia, 2019 – 2021**



Source: MAVCOM, CargoIS

The growth is in line with Malaysia's total trade growth of 18.1% YoY in 3Q21. This is supported by the progress of vaccination, the strong growth for e-commerce, E&E, and strong demand from Malaysia's main trading countries (e.g. Germany, the UK, and the US) for year-end festivities. More belly cargo capacity is also expected as the number of flights increases due to the easing of travel restrictions.

However, on a QoQ basis, total FTK recorded a decline of 3.4% QoQ in 3Q21 (3Q20: 48.8% QoQ) due to COVID-19 related supply chain disruptions. Factory closures in the non-essential sectors (e.g. electronics and semiconductors) and industrial clusters during the FMCO had brought the production activities to a standstill, which led to a reduction in air cargo volume<sup>19</sup>. This had caused delivery delays, order backlogs, and shortages of key manufacturing components. Box 1 highlights the various events that have led to the global supply chain disruptions.

MAVCOM expects the demand for air cargo to remain resilient over the remainder of 2021 and maintains the forecast made in August 2021 for Malaysia's air cargo traffic to grow by between 26.5% YoY and 28.2% YoY for 2021. In 3Q21, 18 out of the 21 approved Air Traffic Right (ATR) applications by MAVCOM were from the cargo sector. These signal continued healthy growth within the sector.

<sup>19</sup> The Edge Markets, <https://www.theedgemarkets.com/article/autos-sector-faces-chip-shortage-until-mid2023-says-fitch-solutions> (14 October 2021).

### Box 1: The Global Supply Chain Disruptions

A supply chain disruption is caused by a spike or steep decline in either demand or supply. Since 2018, trade tensions, labour shortages, and seaport congestions have disrupted the global supply chain (see Table 7). This had caused an imbalance between supply and demand, which was worsened by the COVID-19 pandemic. The impact of the supply chain disruption was more prevalent within the container market, shipping routes, ports, air cargo, trucking lines, and even warehouses. As long as consumer demand remains strong and the supply chain is susceptible to the COVID-19 outbreaks, the global supply chain disruption is still expected to continue.

**Table 7: Timeline of the Global Supply Chain Disruption**

Events	Factors
<b>Brexit</b> (Jan 2018)	<ul style="list-style-type: none"> <li>• The impact of Brexit has complicated the movement of goods between the UK and the EU</li> <li>• This has led to labour shortages across different industries attributed to a post-Brexit exodus of EU nationals</li> <li>• For instance, the lack of truck drivers has disrupted deliveries, leading to empty store shelves, backlogs at ports, and dry gas stations</li> </ul>
<b>US-China Trade War</b> (Jul 2018)	<ul style="list-style-type: none"> <li>• The trade tensions escalated under the Trump administration with the introduction of tariffs and sanctions on Chinese companies</li> <li>• It has created volatility in supply and demand as companies on both sides rushed to stock inventories ahead of the implementation of unprecedented tariffs</li> <li>• The unexpected shift in trade has set the initial constraint on the global supply chain</li> </ul>
<b>Suez Canal Blockage</b> (Mar 2021)	<ul style="list-style-type: none"> <li>• The stranded container ship has caused order backlogs and delivery delays in shipments as vessels were forced to wait for the canal to reopen</li> <li>• This imbalance has caused logistical delays as containers were not moving fast enough to meet the demand surge</li> <li>• This has also led to a shortage of shipping containers which caused shipping rates for major routes to increase significantly</li> </ul>
<b>COVID-19</b> (Mar 2020 – present)	<ul style="list-style-type: none"> <li>• Economies worldwide went into lockdown and manufacturing capacity was cut</li> <li>• Since 1Q20, the closure of international borders has caused a major reduction in international air belly cargo capacity which has put an upward pressure on air cargo rates</li> <li>• Extensive lockdowns have also kept manufacturing activities low</li> </ul>

Source: MAVCOM, Bloomberg

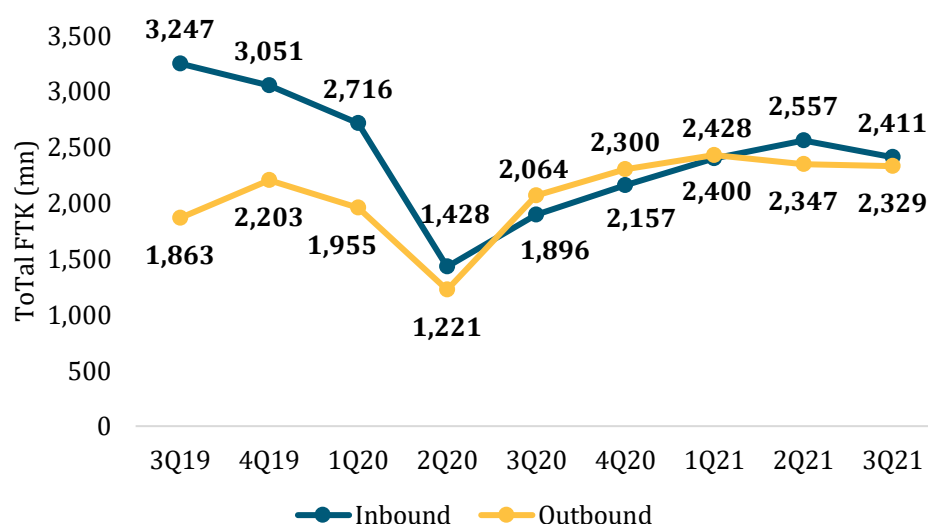
Despite the COVID-19 situation improving in certain parts of the world, the supply chain disruptions are expected to intensify in the coming months as demand for goods increases ahead of year-end festivities. This may increase the demand for air cargo, given its speed advantage to meet delivery deadlines. However, the lack of capacity may cause air cargo rates to increase, limiting the competitiveness of air cargo.

#### Malaysia's Inbound and Outbound Cargo Volume Expanded by 27.1% and 13.0% YoY in 3Q21

Malaysia's inbound cargo increased by 27.1% YoY in 3Q21 (3Q20: -41.6% YoY) but declined by 5.7% QoQ in 3Q21 (3Q20: 32.7% QoQ). The inbound cargo FTK was 2,411mn in 3Q21, lower than the pre-pandemic level at 3,247mn in 3Q19.

As for the outbound cargo, FTK increased by 13.0% YoY (3Q20: 10.6% YoY) but declined by 0.8% QoQ (3Q20: 68.7% QoQ). The outbound cargo FTK in 3Q21 was 2,329mn, higher than the pre-pandemic level (3Q19: 1,863mn) (see Figure 16).

**Figure 16: Inbound and Outbound FTK in Malaysia, 2019 – 2021**



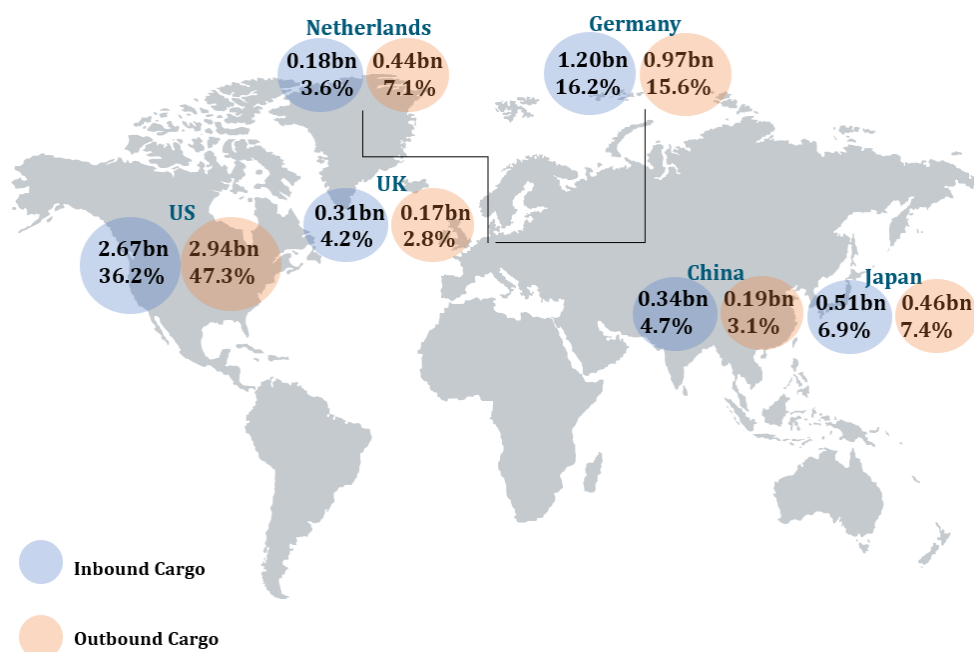
Source: MAVCOM, CargoIS

Note: This figure excludes domestic cargo volume due to small numbers



Figure 17 shows Malaysia's top inbound and outbound air cargo volume in terms of total FTK in 2021. The top six countries represent 70.9% and 83.4% of Malaysia's inbound and outbound FTK, respectively. The pattern over the first nine months of 2021 demonstrates that the US is a large inbound and outbound market for Malaysia.

**Figure 17: Top 6 Origin and Destination Countries of Malaysia's FTK in 9M21**

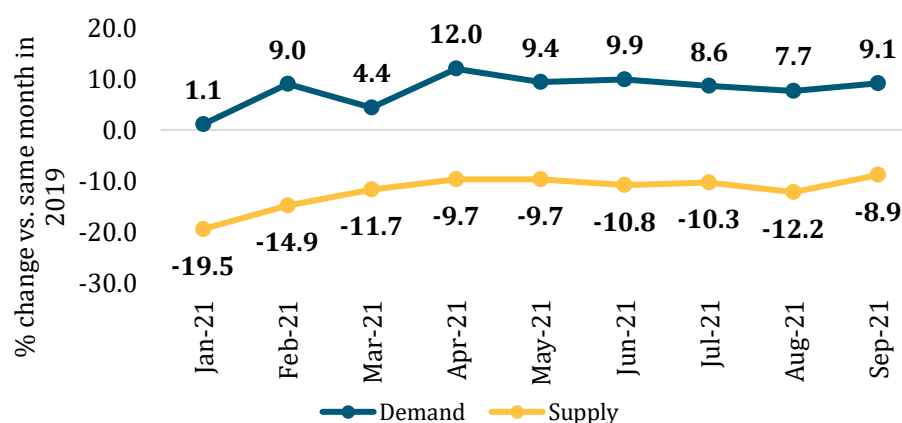


Source: MAVCOM, CargoIS

### Global Air Cargo Demand Continues Rising but Supply has Yet to Recover

Economic rebound in the developed countries (e.g. Germany, the UK, and the US) has boosted consumer spending, which has played an important role in the global air cargo demand recovery. However, with limited international flights, air cargo supply remains constrained due to the lack of belly capacity (see Figure 18). The air cargo supply would slowly recover with the expected gradual increase of international flights.

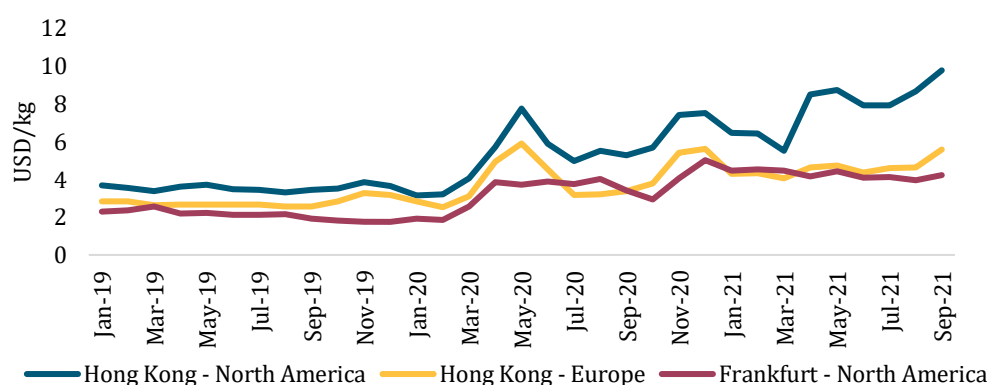
**Figure 18: Percentage Change of Global Air Cargo Demand and Supply to 2019 Levels**



Source: IATA

The resilient demand for air cargo against a shortfall in the air cargo supply had caused an increase in air cargo rates (see Figure 19). Despite high air cargo rates, air cargo remains a competitive mode of shipment. The difference between ocean shipment rates and air cargo rates has reduced, making air cargo more affordable. Based on IATA's Air Cargo Market Analysis, air cargo rates were only three times higher compared to ocean freight in September 2021. This was significantly lower compared to the rates prior to COVID-19 which were 12.5 times higher<sup>20</sup>.

**Figure 19: Air Cargo Rates on Major Trade Lanes**



Source: Baltic Exchange

<sup>20</sup> IATA, <https://www.iata.org/en/iata-repository/publications/economic-reports/air-freight-monthly-analysis---september-2021/> (3 November 2021).

## SECTION 3: INDUSTRY OUTLOOK

Global Passenger Traffic is Expected to Grow by 51.0% YoY in 2022

In October 2021, the International Air Transport Association (IATA) forecasted the global passenger traffic to grow by 51.0% YoY in 2022 (2021: 18.0% YoY) (see Table 8). This marks a 40% recovery from the 2019 pre-pandemic level. The forecast assumes a gradual recovery from the COVID-19 pandemic with the relaxation of travel restrictions in most countries.

**Table 8: IATA's Global Passenger Traffic Forecasts, 2021 – 2022**

Key Figure	2021 YoY Estimated Growth (%)	2022 YoY Growth Forecast (%)
Global Passenger Traffic <sup>21</sup>	18.0	51.0

Source: IATA

According to the IATA, the pace of vaccination rollouts and government policies will determine the course of international traffic while domestic travel will remain strong<sup>22</sup>. In an attempt to stimulate demand in reopening markets, travel costs are expected to be lower than pre-crisis. However, the rising cost of jet fuel prices will put pressure on airlines' financials.

In terms of the regional markets, there is an expectation of moderate improvement in passenger traffic. This is mainly arising from the gradual recovery in air travel demand. Regions with large domestic markets, faster vaccination rollouts, and less restrictive government policies will continue to recover faster than other parts of the world. However, the forecast is still expected to remain in negative territory in 2022 (see Table 9).

**Table 9: IATA's Total Passenger Traffic Forecasts by Region**

Regions	2022 Total Passenger Traffic Forecast vs. 2019 (%)
Global	-39.0
- North America	-18.8
- Europe	-40.8
- Asia Pacific	-47.3
- Middle East	-54.7
- Latin America	-29.3
- Africa	-57.7

Source: IATA

The North American region—the strongest performer in the pre-COVID-19 pandemic period—is forecasted to return to profitability in 2022 ahead of the other regions. The Asia Pacific region has been impacted by strict containment measures and differing vaccination rates.

<sup>21</sup> Growth forecasts in terms of Revenue Passenger Kilometre (RPK).

<sup>22</sup> IATA, <https://www.iata.org/en/iata-repository/publications/economic-reports/airline-industry-economic-performance> October 2021 (4 October 2021).

The recovery of the European market is expected to gain traction. However, airlines in the region are dependent on the medium- and long-haul international traffic. Similarly, the Middle Eastern markets' dependence on connecting international flights and the lack of large domestic markets will delay recovery in the region.

#### Malaysia's Air Passenger Traffic in 2021 is Estimated to be Closer to MAVCOM's Best Case Scenario Forecast

In August 2021, MAVCOM forecasted a decline in passenger traffic of 77% YoY – 80% YoY, translating to 5.3mn – 6.1mn passengers in 2021 (base case). **However, based on the current data, MAVCOM estimates that the actual 2021 passenger traffic to be closer to the best case scenario of its forecast, which was 6.9mn – 7.8mn passengers** (see Table 10). This is a growth of 71% YoY – 74% YoY in the passenger traffic.

**Table 10: Malaysia's Air Passenger Traffic Forecast in 2021<sup>23</sup>**

Scenarios	2021 Passenger Traffic Forecast (mn)
Best Case	6.9 – 7.8
Base Case	5.3 – 6.1
Worst Case	4.2 – 4.8

Source: MAVCOM

**This is mainly due to the easing of travel restrictions and reopening of international borders arising from the rapid vaccination rollout.** On 5 November 2021, the GOM announced that beginning 8 November 2021, five states (Perlis, Kedah, Perak, Penang, and Sabah) have entered Phase 4 of the NRP (see Figure 20).

**Figure 20: NRP Phase Classifications for the Malaysian States**



Source: MAVCOM, GOM

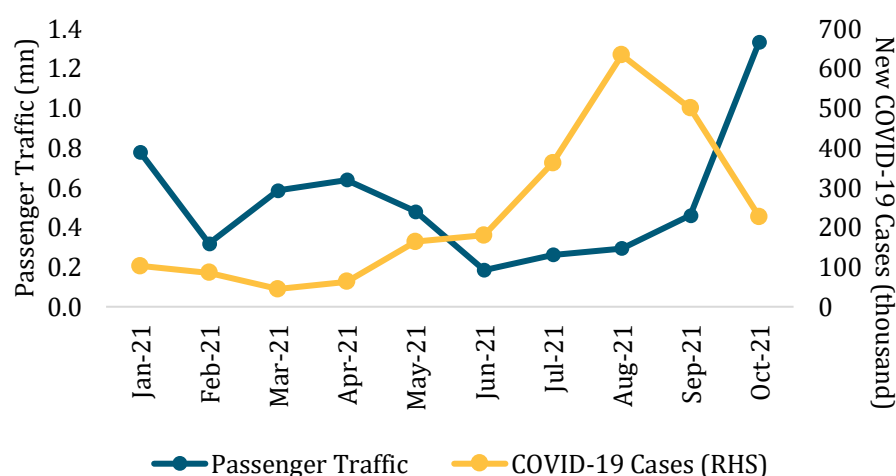
Note: As at 5 November 2021

<sup>23</sup> MAVCOM, Waypoint Report (August 2021).

For those five states, further relaxations are in place and all economic sectors are allowed to operate within the set standard operating procedures (SOP)<sup>24</sup>. Kelantan's transition to Phase 3 beginning 15 October 2021 indicates that there are no states classified under Phases 1 and 2. Due to the efficiency of the vaccination rollout plan, Malaysia reached its target of vaccinating more than 90% of its adult population on 10 October 2021<sup>25</sup>. As a result, interstate and international travel restrictions have been lifted for fully vaccinated citizens with the borders reopening on 11 October 2021<sup>26</sup>. However, with the new developments of the Omicron variant recently detected in Malaysia, the GOM has emphasised on tightening of the SOPs, especially with the upcoming Sarawak election on 18 December 2021<sup>27</sup>. The GOM has also delayed the transition from the COVID-19 pandemic phase into the endemic phase due to the uncertainty regarding the Omicron variant<sup>28</sup>.

Figure 21 shows Malaysia's monthly passenger traffic against the number of COVID-19 cases. It can be seen that the number of new COVID-19 cases has declined in the past two months, whereas the passenger traffic number has increased significantly during the same period.

**Figure 21: Malaysia's Monthly Passenger Traffic vs. Monthly New COVID-19 Cases, 2021**



Source: AOL Holders, Oxford University's Our World in Data

**The passenger traffic in the first ten months of 2021 is 5.3mn, which is within MAVCOM's base case forecast.** To reach MAVCOM's best case forecast of 7.8mn, an average of 1.3mn passenger traffic per month is required in 4Q21.

<sup>24</sup> New Straits Times, <https://www.nst.com.my/news/nation/2021/11/742840/perlis-kedah-penang-perak-sabah-move-phase-four-nrp-monday> (5 November 2021).

<sup>25</sup> New Straits Times, <https://www.nst.com.my/news/nation/2021/10/735420/malaysia-hits-90-cent-adult-vaccination-target> (11 October 2021).

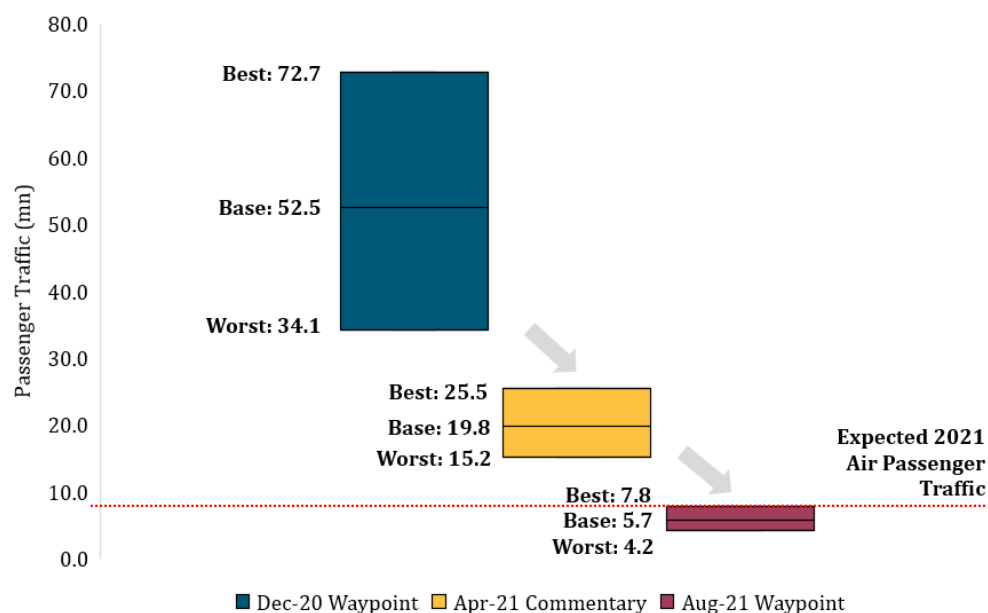
<sup>26</sup> Reuters, <https://www.reuters.com/world/asia-pacific/malaysia-lifts-travel-restrictions-fully-vaccinated-people-2021-10-10/> (10 October 2021).

<sup>27</sup> The Star, <https://www.thestar.com.my/news/nation/2021/12/03/khairy-sops-will-be-tightened-for-sarawak-election-after-country-records-first-omicron-case> (3 December 2021).

<sup>28</sup> New Straits Times, <https://www.nst.com.my/news/nation/2021/11/750117/hishammuddin-omicron-uncertainties-lead-pause-endemic-phase-transition> (30 November 2021).

Figure 22 shows MAVCOM's 2021 air passenger traffic forecast revisions. Due to the various uncertainties, the forecast was subject to continuous revisions throughout the year. Currently, the expected air passenger traffic in 2021 is expected to be close to or above the forecast in the best case scenario.

**Figure 22: Malaysia's 2021 Passenger Traffic Forecast Revision**



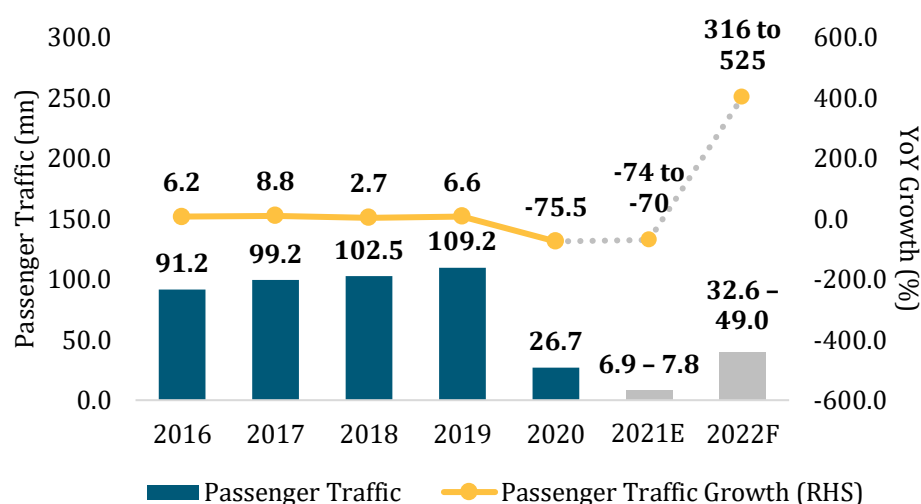
Source: MAVCOM, AOL Holders

Note: April 2021 Commentary on Malaysia's 2021 Air Passenger Traffic Forecast Revision

Air Passenger Traffic in 2022 is Expected to Grow by between 316% YoY and 525% YoY

For 2022, MAVCOM estimates Malaysia's air passenger traffic to increase by between 316% YoY and 525% YoY, translating to 32.6mn – 49.0mn passengers, with a base case scenario of 39.3mn – 41.6mn passengers (see Figure 23). This large jump in passenger traffic growth is due to the low base effect in 2021. This marks a 30% – 45% recovery from the 2019 air passenger traffic level. MAVCOM's estimation assumes that airlines will gradually deploy more seat capacity due to the relaxation of the interstate and international travel restrictions.

**Figure 23: Malaysia's Passenger Traffic, 2016 – 2022F**



Source: MAVCOM, AOL Holders

Due to the overall magnitude and duration of the pandemic, as well as the high degree of uncertainty, three different scenarios were developed. The three scenarios are based on the estimation of the seat cancellations by carriers and load factor assumptions for the domestic and international regions (see Table 11).

**Table 11: Assumptions Underlying Forecast Scenarios**

Scenario	Assumptions		
	Seat Cancellations <sup>29</sup> (%)	Domestic load factor (%)	International load factor (%)
Best Case	12	60 – 62	40 – 42
Base Case	23	57 – 60	37 – 40
Worst Case	35	55 – 57	35 – 37

Source: MAVCOM

<sup>29</sup> Seat cancellations compared to seats originally scheduled by airlines.

Table 12 shows MAVCOM's 2022 air passenger traffic forecast, as well as the estimated seats for each scenario.

**Table 12: Malaysia's 2022 Air Passenger Traffic Forecast**

Scenario	Estimated seats (mn)	Passenger Traffic (mn)	YoY Growth (%)
Best Case	59.1	47.2 – 49.0	503 – 525
<b>Base Case</b>	<b>51.7</b>	<b>39.3 – 41.6</b>	<b>402 – 432</b>
Worst Case	44.0	32.6 – 33.9	316 – 333

Source: MAVCOM

In 2019, the airlines had undertaken 6.4% seat cancellations from their originally scheduled data while in 2020, a total of 67.5% seat cancellations was recorded. For the 2022 base case scenario, the forecast assumes 23% seat cancellations from the airlines' originally scheduled data in October 2021, with a load factor of 57 – 60% for the domestic region and 37 – 40% for the international region. While recovery is on the cards, there are still uncertainties on the downside.

**Passenger traffic in 2022 is expected to be driven by flights to the domestic and ASEAN regions.** Based on the airlines' schedule data as of October 2021, 48.1% of their capacity are planned to be deployed for the domestic routes, 31.2% for the ASEAN routes, and 20.8% for the non-ASEAN international routes. Table 13 shows the key routes that may drive passenger traffic in 2022 based on the seat capacity schedule.

**Table 13: Key Routes based on Seat Capacity Schedule in 2022**

Domestic	ASEAN	International
KUL-BKI	KUL-SIN	KUL-HKG
KUL-PEN	KUL-CGK	KUL-TPE
KUL-KCH	KUL-DPS	KUL-JED
KUL-LGK	PEN-SIN	KUL-DOH
KUL-JHB	KUL-DMK	KUL-MAA

Source: MAVCOM, AirportIS

Note: Data as at 15 November 2021

Due to the rapid development on the discussions of travel corridors and VTLs, there is a possibility that the international travel restrictions in other countries are lifted earlier than expected. In this event, MAVCOM's best case scenario forecasts a growth of between 503% YoY and 526% YoY, translating to 47.2mn – 49.0mn passengers. This also assumes an increase in the demand for international tourism. For this scenario, international passengers would be expected to have a bigger proportion of the total passenger traffic in 2022.

However, if further outbreaks of new COVID-19 variants occur, this may cause travel restrictions to be reimplemented. Hence, MAVCOM's worst case scenario forecasts that the passenger traffic in 2022 will grow by between 316% YoY and 333% YoY, translating to 32.6mn – 33.9mn passengers. This is based on lower load factors and a further 35% seat cancellations than originally scheduled by airlines.



Table 14 highlights the key drivers and challenges of air passenger traffic growth in Malaysia.

**Table 14: Key Drivers and Challenges of Air Passenger Traffic Growth**

Key Drivers	Key Challenges
<b>Pent-up Demand</b> <ul style="list-style-type: none"> <li>➤ The pent-up demand for travel and the accumulated savings made during the pandemic would support passenger traffic growth in 2022</li> <li>➤ MAVCOM's Consumer Survey revealed an uptick in anticipation and expectation towards air travel<sup>30</sup>, with 60% of respondents looking forward to travelling domestically<sup>31</sup></li> </ul>	<b>Rise in Jet Fuel Prices</b> <ul style="list-style-type: none"> <li>➤ In 3Q21, Brent crude and jet fuel average increased to USD73/bbl and USD80/bbl, respectively</li> <li>➤ Due to the increase in jet fuel prices, airlines may: <ul style="list-style-type: none"> <li>▪ Raise airfares to cover the incremental cost of the increased oil price</li> <li>▪ Reduce their seat capacity to reduce their operational costs</li> </ul> </li> </ul>
<b>Ease of Travel Restrictions</b> <ul style="list-style-type: none"> <li>➤ The interstate and international travel restrictions have been lifted for fully vaccinated citizens with the borders reopening on 11 October 2021 as Malaysia has reached its target of vaccinating more than 90% of its adult population on 10 October 2021</li> </ul>	<b>Resurgence of New COVID-19 Cases</b> <ul style="list-style-type: none"> <li>➤ Further outbreaks of new COVID-19 variants (i.e. Omicron) may cause travel restrictions to be reimplemented</li> </ul>

Source: MAVCOM

<sup>30</sup> MAVCOM's Consumer Survey was carried out between February and May 2021 and involved 1,000 Malaysian respondents.

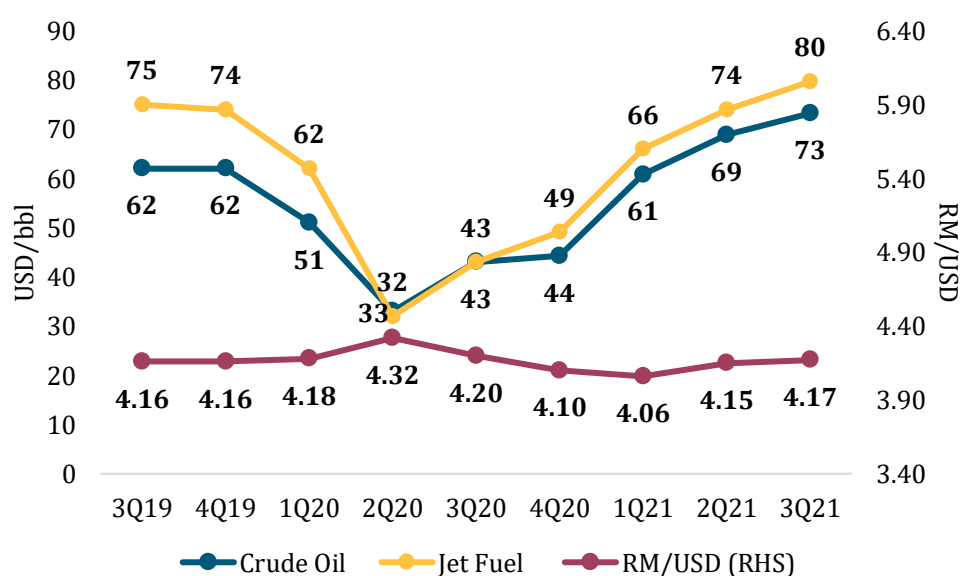
<sup>31</sup> MAVCOM's Consumer Survey, <https://www.mavcom.my/en/2021/10/01/passenger-confidence-to-travel-on-the-rise/?hilit=consumer+survey> (1 October 2021).

### *Rising Jet Fuel Prices may be a Risk to Airlines*

In 3Q21, Brent crude and jet fuel averaged USD73/bbl and USD80/bbl, respectively (see Figure 24), with an average crack spread<sup>32</sup> of USD7/bbl. In 2020, the consumption of jet fuel decreased as airlines reduced flying due to the low travel demand. This had sent the prices sharply lower in 2Q20. However, the recovery in overall economic activity around the world had caused the energy costs to rise significantly. As such, the prices for the Brent crude oil and jet fuel have been on a significant uptrend since 2Q20.

Jet fuel is one of the largest operating costs for airlines. During normal times (pre-COVID-19 pandemic), with the rise of jet fuel prices, airlines would raise airfares to cover the incremental cost of the increased oil price. However, under the current circumstance, due to the low demand for air travel, airlines may not be able to adjust their airfares according to the changes in jet fuel price. Hence, there is a possibility that the airlines may have to cut their seat capacity to reduce their operational costs. This may have a negative impact on passenger traffic.

**Figure 24: Oil, Jet Fuel, and Exchange Rates Trends, 2019 - 2021**



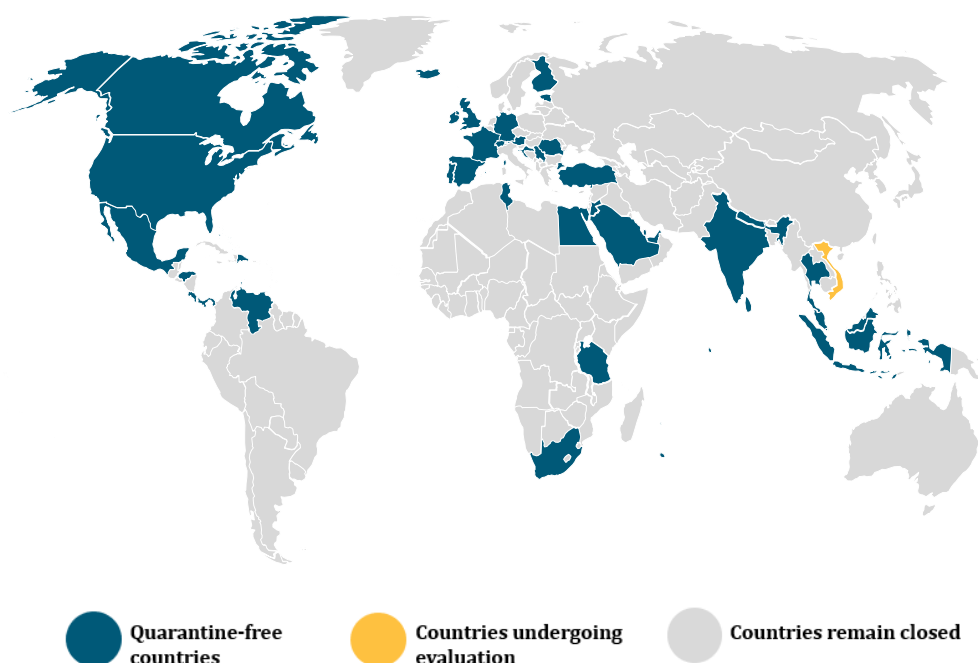
Source: Bloomberg

<sup>32</sup> The crack spread is the price difference between a barrel of crude oil and jet fuel. It is also known as the refining margin.

### International Travel Allowed for the Fully Vaccinated

On 10 October 2021, the GOM announced that fully vaccinated Malaysians are permitted to travel abroad (see Figure 25). The relaxation of international travel has been made possible after more than 90% of adults across the country were fully vaccinated<sup>33</sup>.

**Figure 25: International Travel Restrictions, December 2021**



Source: MAVCOM, Bloomberg

Note: As at 8 December 2021

Although Malaysians are now allowed to travel overseas, it is essential for travellers to check travel requirements with the national health authorities of the destination countries<sup>34</sup>. This is because different countries have different travel restrictions, with many requiring travellers to conduct a COVID-19 swab test prior to departure (see Table 15). For instance, following the emergence of the COVID-19 Omicron variant, there has been an initiative to update the SOP of the VTL with Singapore to address new issues arising from the Omicron variant<sup>35</sup>. In addition, the GOM has been proactively reviewing the possible reimposition of travel restrictions to and from the UK, Australia, the Netherlands, Belgium, and Germany

<sup>33</sup> The Edge Markets, <https://www.theedgemarkets.com/article/pm-domestic-tourism-activities-all-states-allowed-interstate-travelling-allowed-monday> (10 October 2021).

<sup>34</sup> For the latest updates on the current travel regulations, please visit the FlySmart website at <https://flysmart.my/en/travel-advisory-2/>.

<sup>35</sup> The Star, <https://www.thestar.com.my/news/nation/2021/12/02/omicron-variant-malaysia-singapore-to-wait-and-see-on-sop-changes-for-vtl> (2 December 2021).

that have reported confirmed or suspected transmission of the Omicron Covid-19 variant<sup>36</sup>.

**Table 15: Quarantine-Free Travel by Selected Countries as at 8 December 2021**

Countries	Eased Restrictions for Fully Vaccinated Travellers
France	<ul style="list-style-type: none"> <li>Travellers must provide proof of vaccination status and apply for a COVID-19 Health Pass upon arrival</li> </ul>
Indonesia	<ul style="list-style-type: none"> <li>Travellers are allowed to travel to Jakarta and Bali under the VTL</li> <li>Travellers must provide a negative COVID-19 PCR test result upon arrival</li> <li>VTL is expected to commence in 1Q22</li> </ul>
Maldives	<ul style="list-style-type: none"> <li>Travellers must present proof of a negative COVID-19 test, taken within 72 hours prior to arrival</li> </ul>
Qatar	<ul style="list-style-type: none"> <li>Travellers must provide a negative COVID-19 test result upon arrival</li> </ul>
Saudi Arabia	<ul style="list-style-type: none"> <li>Muslim travellers are allowed to travel for umrah from 18 October 2021 onwards</li> <li>Travellers must present proof of a negative COVID-19 test, taken within 72 hours prior to arrival</li> </ul>
Singapore	<ul style="list-style-type: none"> <li>Travellers are allowed to travel to Singapore under the VTL</li> <li>Travellers must provide a negative COVID-19 PCR test result upon arrival</li> </ul>
Thailand	<ul style="list-style-type: none"> <li>Travellers are allowed to travel to Phuket under the Phuket Sandbox scheme</li> <li>Travellers are allowed to travel to other cities in Thailand from there after staying in Phuket for at least seven nights</li> </ul>
United Arab Emirates	<ul style="list-style-type: none"> <li>Travellers must provide a negative COVID-19 test result upon arrival</li> </ul>
US	<ul style="list-style-type: none"> <li>Travellers must provide a negative COVID-19 test result upon arrival</li> </ul>

Source: Respective government websites

According to the World Tourism Organization (UNWTO), international tourism showed signs of rebound with an estimated 54mn international tourist arrivals in July 2021 (July 2020: 34mn)<sup>37</sup>. This is mainly due to certain destinations easing travel restrictions and the acceleration of the global vaccination rollout. However, the international tourist arrivals are not expected to return to the pre-COVID-19 level until 2023 or later.

<sup>36</sup> CodeBlue, <https://codeblue.galencentre.org/2021/12/01/malaysia-reviewing-travel-bans-on-uk-australia-netherlands-belgium-germany/> (1 December 2021).

<sup>37</sup> UNWTO, <https://www.unwto.org/news/vaccines-and-reopen-borders-driving-tourism-s-recovery> (4 October 2021).

### Global Air Cargo Traffic is Forecasted to Grow by 4.9% YoY

The 2022 global air cargo traffic is expected to grow by 4.9% YoY, according to the projection by the IATA in October 2021 (see Table 16). The growth would be supported by the return of belly cargo capacity as air passenger traffic is expected to increase in 2022.

**Table 16: IATA's Air Cargo Traffic Forecasts, 2021 – 2022**

Key Figure	2020 YoY Growth (%)	2021E YoY Growth (%)	2022F YoY Growth (%)
Global Cargo Traffic	-8.7	18.2	4.9

Source: IATA

According to the IATA, cargo revenues will remain an important part of airline revenues, representing one-third of the industry's revenue. Cargo yields are also expected to remain elevated due to the gradual return of belly cargo capacity from the wide-body passenger fleet. Cargo revenues are forecast to be USD169.0bn in 2022.

The IATA's global air cargo traffic growth forecast is in line with the World Trade Organization's (WTO) projection in October 2021 for global merchandise trade volume, which is expected to grow 4.7% YoY in 2022 (see Table 17).

**Table 17: WTO's Global Trade Forecasts, 2021 – 2022**

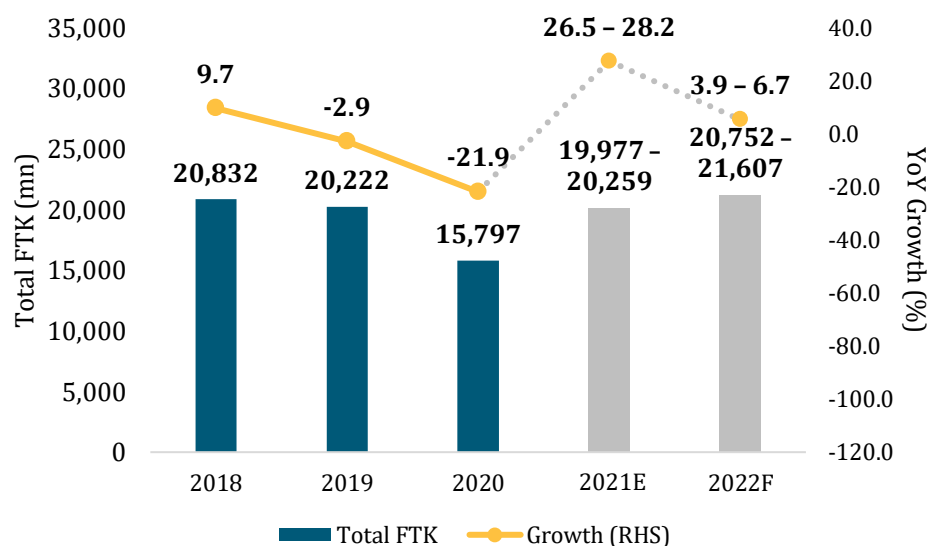
Key Figure	2020 YoY Growth (%)	2021E YoY Growth (%)	2022F YoY Growth (%)
Global Trade	-5.3	10.8	4.7

Source: WTO

MAVCOM Forecasts Malaysia's Air Cargo Traffic to Grow by between 3.9% YoY and 6.7% YoY in 2022

**MAVCOM expects the 2022 air cargo traffic to grow by between 3.9% YoY and 6.7% YoY**, which translates to 20.8bn – 21.6bn (see Figure 26). Malaysia's FTK in 2020 was 15.8bn (2019: 20.2bn).

**Figure 26: Malaysia's Air Cargo Traffic, 2018 – 2022F**



Source: MAVCOM, CargoIS

The growth range is in line with Malaysia's merchandise trade forecast by market consensus of between 2.2% YoY and 6.0% YoY, made in October 2021. The air cargo growth in 2022 is attributable to the economic recovery in Malaysia and its main trading countries, the growing demand for E&E, and the strong growth of the e-commerce sector.

- Economic recovery:** The IMF forecasted the global economy to grow by 5.9% YoY in 2021 and 4.9% YoY in 2022<sup>38</sup>. This is driven by the expectations of strong policy support and high vaccination rates. Malaysia's main trading countries are also expected to see continued growth in economic activities (see Table 18). High vaccination rates would reduce workplace clusters and may restore production to meet trade orders. The accumulated savings made during the pandemic would also support consumer spending in 2022.

<sup>38</sup> IMF, World Economic Outlook (October 2021).

- **Strong growth in e-commerce:** The pandemic has driven an e-commerce boom and the trend is set to continue. The latest e-Conomy report by Google, Temasek, and Bain estimated that e-commerce in Malaysia grew 68.0% YoY in 2021 and is expected to grow 8.0% YoY until 2025<sup>39</sup>. The Statista Digital Market Outlook forecasts that revenue in the global e-commerce market will grow 9.5% YoY in 2022<sup>40</sup>. According to the IATA, about 80% of cross-border e-commerce is transported by air in 2020<sup>41</sup>.
- **Growing demand for E&E:** The digital adoption and adaptation that gained momentum during the pandemic and the rollout of 5G network across the globe would continue to drive demand for E&E. According to the World Semiconductor Trade Statistics, the global semiconductor market is forecasted to increase by 10.1% YoY in 2022<sup>42</sup>. The International Data Corporation forecasts global shipments of smartphones to grow 3.4% YoY in 2022<sup>43</sup>.

**Table 18: IMF's GDP Growth Forecasts for Top 6 Origin and Destination Countries of Malaysia's FTK, 2021 – 2022**

Countries	2020 YoY Growth (%)	2021E YoY Growth (%)	2022F YoY Growth (%)
China	2.3	8.0	5.6
US	-3.4	6.0	5.2
UK	-9.8	6.8	5.0
Germany	-4.6	3.1	4.6
Netherlands	-3.8	3.8	3.2
Japan	-4.6	2.4	3.2

Source: IMF World Economic Outlook (October 2021)

However, the near-term outlook faces several headwinds, which include the recent rise in inflation, supply chain disruptions, and the spread of more contagious COVID-19 variants.

<sup>39</sup> Google, [https://services.google.com/fh/files/misc/malaysia\\_e\\_conomy\\_sea\\_2021\\_report.pdf](https://services.google.com/fh/files/misc/malaysia_e_conomy_sea_2021_report.pdf) (10 November 2020).

<sup>40</sup> Statista, <https://www.statista.com/outlook/dmo/ecommerce/worldwide> (1 July 2021).

<sup>41</sup> IATA, <https://www.airlines.iata.org/analysis/e-commerce-creates-new-opportunity-for-air-cargo> (28 May 2021).

<sup>42</sup> World Semiconductor Trade Statistics, <https://www.wsts.org/76/Recent-News-Release> (16 August 2021).

<sup>43</sup> International Data Corporation, <https://www.idc.com/getdoc.jsp?containerId=prUS48194821> (30 August 2021).

## APPENDIX A: DATA TABLES

**Table A1: Malaysia's GDP Growth, 2019 – 2021**

Year	YoY Growth (%)
1Q19	4.7
2Q19	5.0
3Q19	4.5
4Q19	3.7
1Q20	0.7
2Q20	-17.1
3Q20	-2.7
4Q20	-3.4
1Q21	-0.5
2Q21	16.1
3Q21	-4.5

Source: DOS

**Table A2: Malaysia's External Trade, 2019 – 2021**

Quarter	Total Export (RM bn)	Total Import (RM bn)	Export YoY Growth (%)	Import YoY Growth (%)
1Q19	239.7	199.2	0.9	-2.5
2Q19	247.7	215.1	1.1	-1.2
3Q19	249.5	213.7	-0.6	-5.3
4Q19	258.2	221.4	-2.4	-3.7
1Q20	238.7	201.7	-0.4	1.3
2Q20	210.3	182.7	-15.1	-15.1
3Q20	260.6	200.3	4.4	-6.3
4Q20	271.4	211.6	5.1	-4.4
1Q21	282.2	223.5	18.2	10.8
2Q21	303.4	247.0	44.3	35.2
3Q21	303.7	242.5	15.8	21.1

Source: DOS

**Table A3: Global and Malaysia's GDP Growth, 2015 – 2022F**

Year	Global YoY Growth (%)	Malaysia YoY Growth (%)
2015	3.5	5.1
2016	3.3	4.2
2017	3.8	5.9
2018	3.5	4.7
2019	2.8	4.3
2020	-3.2	-5.6
2021E	5.9	3.0 – 4.0
2022F	4.9	5.5 – 6.5

Source: Bloomberg, BNM, IMF, MOF



**Table A4: Malaysia's Tourist Arrivals, 2019 – 2021**

Quarter	Tourist Arrivals (by air) (mn)	Total Tourist Arrivals (excluding air) (mn)	Total Tourist Arrivals (mn)	Total Tourist Arrivals YoY Growth (%)
1Q19	2.5	4.2	6.7	2.7
2Q19	2.3	4.3	6.7	7.2
3Q19	2.7	4.1	6.8	1.6
4Q19	2.1	3.8	6.0	-7.1
1Q20	1.6	2.6	4.2	-36.8
2Q20	0.0	0.0	0.02	-99.7
3Q20	0.0	0.0	0.05	-99.3
4Q20	0.0	0.0	0.03	-99.4
1Q21	0.0	0.0	0.03	-99.4
2Q21	0.0	0.0	0.03	29.8

Source: Bloomberg, Tourism Malaysia

**Table A5: Malaysia's Quarterly Passenger Traffic, 2019 – 2021**

Quarter	Passenger Traffic (mn)	YoY Growth (%)
1Q19	26.4	4.4
2Q19	26.7	6.3
3Q19	27.9	8.7
4Q19	28.2	6.7
1Q20	19.1	-27.5
2Q20	0.8	-97.0
3Q20	4.7	-83.3
4Q20	2.1	-92.5
1Q21	1.7	-91.2
2Q21	1.3	62.0
3Q21	1.0	-78.3

Source: MAVCOM, AOL Holders

**Table A6: Malaysia's Monthly Passenger Traffic, 2020 - 2021**

Month	Passenger Traffic (mn)	
	Domestic	International
Jan-20	4.6	4.7
Feb-20	3.5	3.0
Mac-20	2.1	1.3
Apr-20	0.1	0.0
May-20	0.2	0.0
Jun-20	0.4	0.1
Jul-20	1.3	0.1
Aug-20	1.5	0.1
Sep-20	1.7	0.1
Oct-20	0.6	0.1
Nov-20	0.2	0.1
Dec-20	1.0	0.1
Jan-21	0.7	0.1
Feb-21	0.2	0.1
Mar-21	0.5	0.1
Apr-21	0.5	0.1
May-21	0.4	0.1
Jun-21	0.1	0.1
Jul-21	0.2	0.1
Aug-21	0.2	0.1
Sep-21	0.4	0.1
Oct-21	1.2	0.1

Source: MAVCOM, AOL Holders

**Table A7: Malaysia's Passenger Traffic by Region, 2019 - 2021**

Quarter	Passenger Traffic (mn)		
	Domestic	ASEAN	Non-ASEAN International
1Q19	13.1	6.5	6.8
2Q19	13.7	6.6	6.4
3Q19	14.3	6.7	6.9
4Q19	14.2	6.9	7.1
1Q20	10.2	4.5	4.5
2Q20	0.7	0.0	0.1
3Q20	4.4	0.1	0.2
4Q20	1.9	0.1	0.2
1Q21	1.4	0.1	0.2
2Q21	1.1	0.1	0.1
3Q21	0.8	0.1	0.2

Source: MAVCOM, AOL Holders

**Table A8: Malaysia's Passenger Market Share by Airlines, 2019 – 2021**

Quarter	AirAsia	AirAsia X	Firefly	MAB	Malindo	Others
1Q19	41.2	7.1	1.8	17.4	8.8	23.6
2Q19	42.2	7.2	2.1	17.8	7.3	23.4
3Q19	40.5	6.5	2.2	18.8	7.9	24.1
4Q19	40.3	6.9	2.1	19.0	8.0	23.7
1Q20	41.7	6.9	1.6	18.6	8.1	23.1
2Q20	19.5	1.4	14.3	29.5	16.3	19.1
3Q20	63.4	0.3	5.2	12.5	7.7	11.0
4Q20	63.0	0.7	5.2	8.0	6.7	16.4
1Q21	54.7	0.1	4.8	10.3	8.8	21.4
2Q21	33.7	0.0	6.7	15.8	15.1	28.7

Source: MAVCOM, AirportIS

**Table A9: Malaysian Carriers' Average Fares and Load Factor, 2019 – 2021**

Quarter	Load Factor (%)	Average Fare (RM)	
		Domestic	International
1Q19	81.2	192	470
2Q19	80.3	194	469
3Q19	76.4	215	509
4Q19	78.3	223	484
1Q20	67.1	209	521
2Q20	22.3	325	804
3Q20	45.9	227	791
4Q20	39.3	207	985
1Q21	42.7	193	937
2Q21	38.9	219	913

Source: MAVCOM, AirportIS

**Table A10: Malaysia's Total FTK, 2019 – 2021**

Quarter	Inbound (mn)	Outbound (mn)	Within (mn)
1Q19	2,993.2	1,916.8	18.5
2Q19	3,066.7	1,806.1	18.9
3Q19	3,247.4	1,862.6	19.6
4Q19	3,050.5	2,203.1	18.8
1Q20	2,715.8	1,954.9	16.8
2Q20	1,427.6	1,221.0	15.3
3Q20	1,896.0	2,063.6	10.8
4Q20	2,156.6	2,300.3	15.3
1Q21	2,399.8	2,428.1	13.1
2Q21	2,557.1	2,347.4	10.4
3Q21	2,410.9	2,328.7	9.5

Source: MAVCOM, CargoIS

**Table A11: Top 10 Inbound and Outbound Countries of Malaysia's total FTK in 9M21**

Countries	Inbound (bn)	Inbound (%)	Countries	Outbound (bn)	Outbound (%)
US	2.67	36.2	US	2.94	47.3
Germany	1.20	16.2	Germany	0.96	15.6
Japan	0.51	6.9	Japan	0.46	7.4
China	0.34	4.7	Netherlands	0.44	7.1
UK	0.31	4.2	China	0.19	3.1
Netherlands	0.26	3.6	UK	0.17	2.8
HK	0.26	3.6	HK	0.15	2.5
Italy	0.22	3.0	South Korea	0.09	1.5
Norway	0.21	2.9	Taiwan	0.09	1.4
France	0.20	2.7	France	0.07	1.1

Source: MAVCOM, CargoIS

**Table A12: Malaysia's Passenger Traffic, 2015 – 2022F**

Year	Passenger Traffic (mn)	YoY Growth (%)
2015	86.3	0.8
2016	91.7	6.2
2017	99.8	8.8
2018	102.5	2.7
2019	109.2	6.6
2020	26.7	-75.6
2021E	6.9 – 7.8	-71 to -74
2022F	32.6 – 49.0	316 to 525

Source: MAVCOM, AOL Holders

**Table A13: NRP Phase Classifications for Malaysian States**

Phase	State
3	Sarawak, Kelantan
4	Labuan, Negeri Sembilan, KL, Putrajaya, Selangor, Melaka, Johor, Terengganu, Perak, Perlis, Penang, Kedah, Sabah, Pahang

Source: MAVCOM, GOM

Note: As at 5 November 2021

**Table A14: Oil, Jet Fuel, and Exchange Rate Trends, 2019 – 2021**

Quarter	Crude Oil (USD/bbl)	Jet Fuel (USD/bbl)	RM/USD
1Q19	64	75	4.09
2Q19	68	78	4.15
3Q19	62	75	4.16
4Q19	62	74	4.16
1Q20	51	62	4.18
2Q20	33	32	4.32
3Q20	43	43	4.20
4Q20	44	49	4.10
1Q21	61	66	4.06
2Q21	69	74	4.15
3Q21	73	80	4.17

Source: Bloomberg

**Table A15: Quarantine-Free Travel by Countries as at 8 December 2021**

No.	Countries
1.	Andorra
2.	Aruba
3.	Austria
4.	Canada
5.	Costa Rica
6.	Croatia
7.	Dominican Republic
8.	Egypt
9.	Estonia
10.	Finland
11.	France
12.	Germany
13.	Honduras
14.	Iceland
15.	India
16.	Indonesia
17.	Ireland
18.	Jordan
19.	Maldives
20.	Mauritius
21.	Mexico
22.	Nepal
23.	Panama
24.	Portugal
25.	Qatar
26.	Romania
27.	Saint Lucia
28.	Saudi Arabia
29.	Serbia
30.	Seychelles
31.	Singapore
32.	Spain
33.	Sri Lanka
34.	Switzerland
35.	Tanzania
36.	Thailand
37.	The Bahamas
38.	Tunisia
39.	Turkey
40.	UAE
41.	UK
42.	US
43.	Venezuela

Source: GOM

**Table A16: Malaysia's Air Cargo Traffic, 2018 – 2022F**

Year	Total FTK (mn)	YoY Growth (%)
2018	20,832	9.7
2019	20,222	-2.9
2020	15,797	-21.9
2021E	19,977 – 20,259	26.5 – 28.2
2022F	20,752 – 21,607	3.9 – 6.7

Source: MAVCOM, CargoIS

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