



Aviation Studies  
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## **WHITE PAPER UPDATE**

### **RESTARTING INTERNATIONAL AIR TRAVEL WITHIN ASEAN**

**A White Paper from the Aviation Studies Institute (ASI) at the  
Singapore University of Technology and Design (SUTD)**

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## Updated Executive Summary

In the six months since the white paper was initially written, the ten Southeast Asian countries which comprise the Association of Southeast Asian Nations (ASEAN) have continued to experience passenger traffic declines that are sharper than the global and Asia-Pacific averages.

This update briefly examines passenger traffic in ASEAN over the last six months as well as other developments. There are no changes in the overall trends, findings or recommendations that were part of the initial paper. Market conditions in the ASEAN airline sector remain extremely challenging and, if anything, have become more difficult in the first half of 2021 as traffic levels have been declining again due to new waves of COVID-19 cases and the emergence of new more contagious variants.

Domestic traffic is currently again on the decline in all five of the main domestic markets in ASEAN: Indonesia, Thailand, Vietnam, Malaysia and Philippines. Airlines in these markets began 2021 optimistic that domestic traffic would continue to increase, following the same trend line of the domestic traffic improvements that were recorded in the second half of 2020. Instead, the opposite has happened. With domestic traffic dropping quarter over quarter in the first quarter of 2021 and again in the second quarter of 2021, the revenues at airlines based in these countries have declined from a base that was already over 70% below normal in the fourth quarter of 2020 (as discussed in the initial white paper), exacerbating their already weak financial position.

Several ASEAN airlines are now seeking to boost liquidity and renegotiate contracts with suppliers, particularly aircraft leasing companies. Some of these airlines have sought or are planning to seek assistance from bankruptcy courts to facilitate restructurings.

While domestic traffic should start to improve again in the second half of 2021, driven in part by vaccination rollouts, international traffic will take much longer to recover. ASEAN airlines began 2021 optimistic that the international recovery would start by mid 2021. But the start of this recovery has been set back and is now possible the international market will not start recovering until 2022.

A full recovery of the international market is likely to take at least two years once the recovery phase begins. But it is critical for ASEAN airlines to at least start the recovery phase as soon as possible as they rely on international passenger services for a majority of their revenues. Domestic passenger services and cargo services are important but are smaller segments than international passenger services for most ASEAN airlines. Some ASEAN airlines do not have any domestic operations and are completely reliant on an international recovery.

## International Update

International traffic in ASEAN has not yet started recovering as borders remain closed. Initiatives to facilitate a resumption of international traffic such as green lanes, travel corridors and air travel bubbles also have stalled or failed to materialize.

Total international passenger traffic in ASEAN has declined by about 98% since the start of the pandemic. While the rate of decline has moderated slightly in recent months, international traffic in ASEAN is currently about 97% below pre-COVID levels.

For the 12 months ending March 2021, representing the first year of the crisis, there was a 98% to 99% decline at ASEAN's three largest international airports – Singapore Changi, Bangkok Suvarnabhumi and Kuala Lumpur International (KLIA).

*Table 1 (updated from table 1 in the initial paper). International passenger traffic (in thousands) for top 5 airports in ASEAN*

<b>Airport</b>	<b>Pre-COVID (2019)</b>	<b>Apr-2020 to March 2021</b>	<b>Decline</b>
Singapore Changi	68,294	1,149	98.3%
Bangkok Suvarnabhumi	53,456	700	98.7%
Kuala Lumpur International	44,932	874	98.1%
Manila Ninoy Aquino	24,796	1,706	93.1%
Bangkok Don Mueang	17,856	18	99.9%
<b>TOTAL</b>	<b>209,333</b>	<b>4,446</b>	<b>97.9%</b>

*Notes: Pre-COVID uses 2019 as a baseline for all months;*

*Top 5 is based on 2019 international passenger traffic*

*Source: Changi Airport, Airports of Thailand, Malaysia Airports Holdings, Manila International Airport Authority*

The decline was a slightly less severe 93% at Manila Ninoy Aquino Airport. The Manila market relies proportionally more on worker traffic, which has been more resilient than other segments during the pandemic due to its essential nature. Manila is normally the fourth largest international airport in ASEAN but during the pandemic it has been the largest, handling 1.7 million international passengers in the 12 months ending March 2021.

The decline at Bangkok Don Mueang, which typically is the fifth largest international airport in ASEAN, was a steeper 99.9%. Don Mueang relies predominately on leisure traffic and low-cost carriers. In Thailand, repatriating flights and limited scheduled flights carrying essential traffic have been handled mainly at Bangkok Suvarnabhumi, which is used by most full-service airlines.

The top 5 international airports in ASEAN handled only 4.4 million international passengers for the year ending March 2021. Prior to the pandemic these five airports were handling over 200 million international passengers per annum and accounted for more than 60% of total international passenger traffic in ASEAN.

International passenger traffic at the top five airports combined was down about 99% in the first three months of the crisis (April to June 2020). Every month since July 2020, the decline

for the top five airports combined has been between 97% and 98%. The lowest rate of decline was achieved in March 2021, when traffic dropped 97.2% compared to pre-COVID levels (March 2019). However, this represented only a very slight improvement compared to the prior months.

Figure 1 tracks monthly international passenger traffic change at each of the top five airports and all five airports combined. The rate of decline has been relatively flat for several months. With all ASEAN countries keeping their borders closed, a significant improvement in international traffic is simply unachievable.

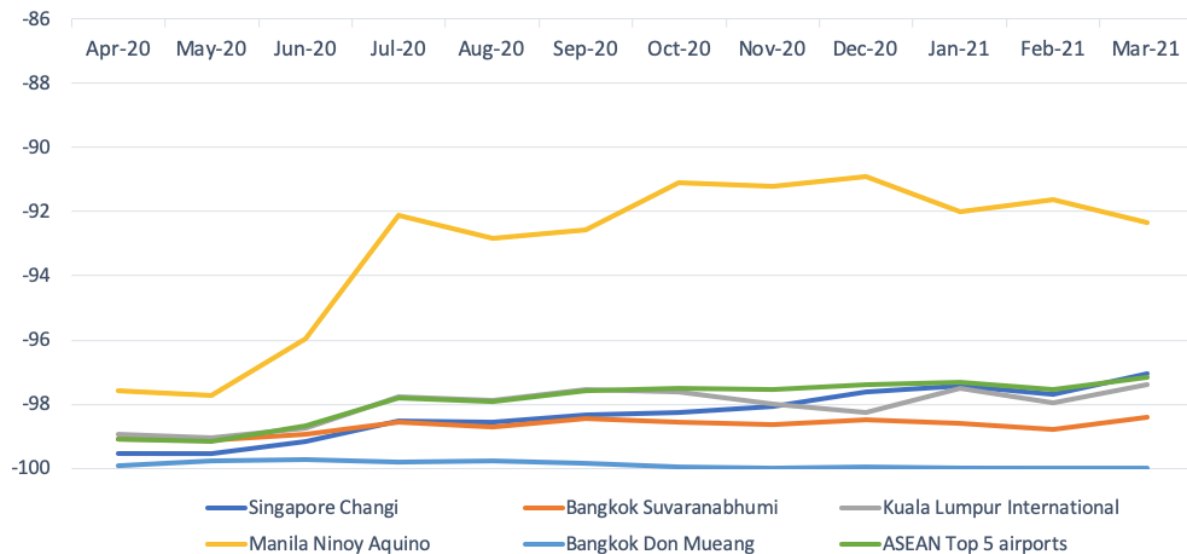


Figure 1 (new figure for this update). Monthly international passenger traffic change (%) for top 5 airports in ASEAN

Notes: Pre-COVID uses 2019 as a baseline for all months;  
 Top 5 is based on 2019 international passenger traffic  
 Source: Changi Airport, Airports of Thailand, Malaysia Airports Holdings, Manila International Airport Authority

International traffic in ASEAN has continued to be significantly below the global average, a trend highlighted in the initial white paper. Other regions have partially reopened their borders, enabling a resumption of international travel albeit at a reduced and stochastic level.

International RPKs reported by the International Air Transport Association (IATA) were down 85% in December 2020, representing the lowest monthly decline since the start of the pandemic. While the global declines have increased slightly in recent months they are still about 10 percentage points lower than the declines in ASEAN.

International traffic to/from ASEAN also continues to be below Asia Pacific overall levels. However, the gap between ASEAN and the rest of Asia Pacific is relatively small and has narrowed slightly in recent months.

As can be seen in Figure 2, the monthly decline rate for ASEAN’s top five airports combined is slightly below the monthly international passenger decline rate reported by the Association of Asia Pacific Airlines (AAPA), which combines traffic data from 40 Asia Pacific based airlines. It is also slightly below the international revenue passenger kilometer (RPK) decline rate for AAPA and the international RPK decline rate reported by IATA for the Asia Pacific region – which includes airlines based in Asia Pacific as well as flights to/from Asia Pacific operated by foreign airlines. IATA’s global international RPK decline rate is much lower, as the chart indicates.

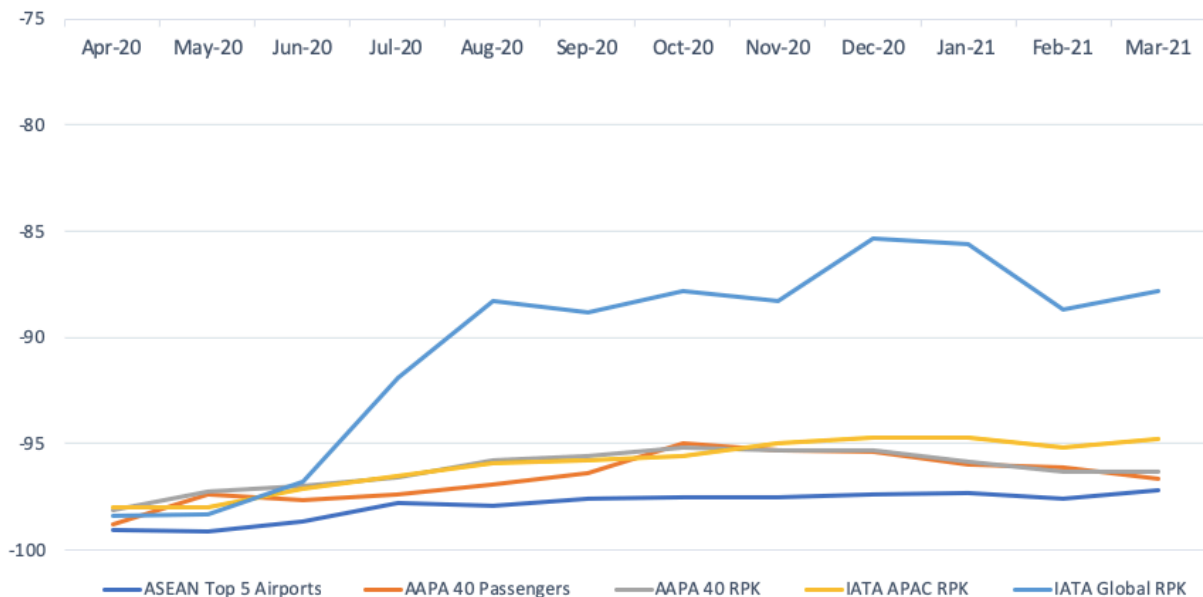


Figure 2 (new figure for this update). Monthly international passenger traffic change (%) for top 5 airports in ASEAN compared to Asia Pacific and global passenger traffic/RPK change

Notes: Pre-COVID uses 2019 as a baseline for all months  
 Source: Changi Airport, Airports of Thailand, Malaysia Airports Holdings, Manila International Airport Authority, AAPA, IATA

### Update on KLIA Case Study

Since the start of the pandemic the decline in international passenger traffic within ASEAN has been sharper than the decline in international passenger traffic to/from ASEAN. This trend was reported in the initial white paper using KLIA as a case study. In this section we update that case study.

In the first quarter of 2021, this trend was again prevalent at KLIA as international passenger traffic within ASEAN declined by 98.3% while international passenger traffic to/from non-ASEAN countries declined by 97.0%. ASEAN accounted for 33.5% of KLIA’s total international passenger traffic in the first quarter of 2021 compared to 47.6% in the first quarter of 2019.

In April 2021, this trend continued although it was less pronounced as KLIA’s international passenger traffic was 97.5% of pre-COVID levels while international passenger traffic to/from non-ASEAN countries was lower by 97.1%.

KLIA handled only 318,000 ASEAN passengers in the first 13 months of the crisis (April 2020 to April 2021), according to Malaysia Airports Holdings Berhad (MAHB) data. This represents a 98.7% decline compared to pre-COVID levels.

In these 13 months the highest monthly figure was 45,000 (in April 2021) and the lowest was 9,000 (in May 2020).

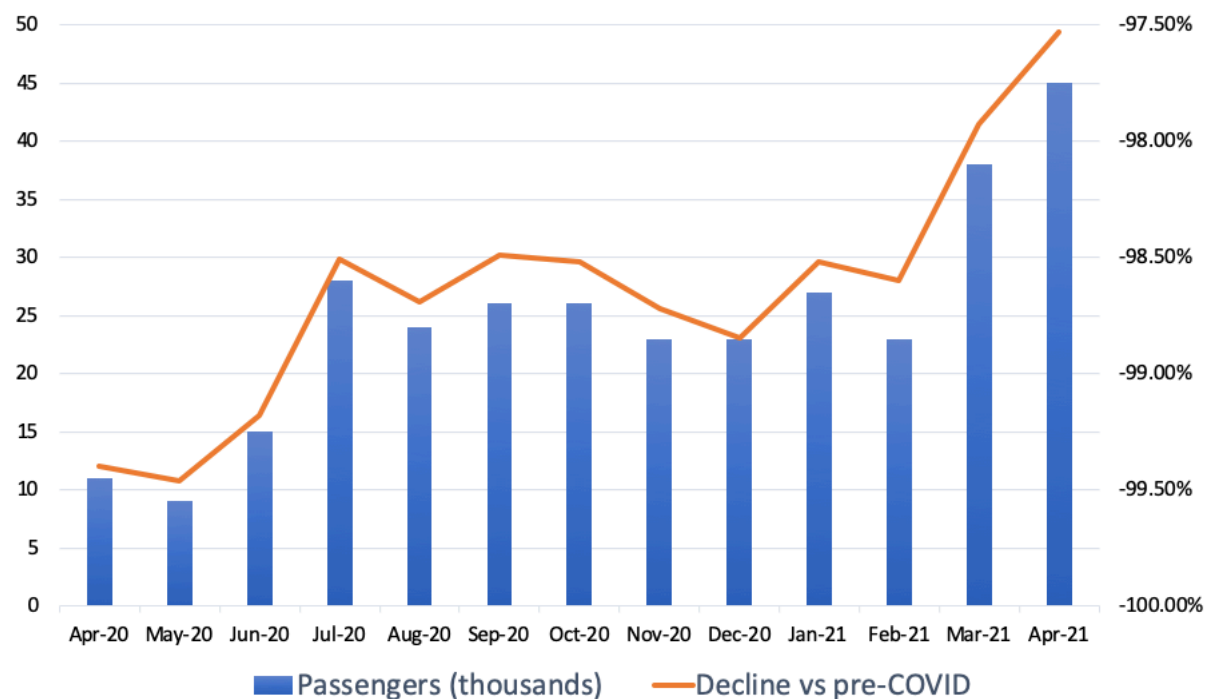


Figure 3 (updated from figure 1 in the initial paper). KLIA monthly ASEAN passenger traffic and change compared to pre-COVID: Apr-2020 to Apr-2021

Note: Pre-COVID uses 2019 as a baseline for all months  
 Source: Malaysia Airports Holdings Berhad

While it is encouraging that the two highest figures are from the two most recent months the overall decline compared to pre-COVID is still more than 97%. Intra-ASEAN traffic levels are likely to remain at 2% to 3% pre-pandemic levels until ASEAN borders start to reopen.

### Update on Air Traffic Bubbles

While KLIA is the only ASEAN airport that breaks out ASEAN in its monthly traffic reports, it is also clear from origin and destination passenger data that traffic within ASEAN has so far recovered slower than traffic to/from ASEAN. The initial white paper focused on the

regional international market within ASEAN. It assessed in detail what this market looked like prior to the pandemic, explained how important air connectivity is to the ASEAN economy and recommended a pan-ASEAN air travel bubble (ATB) agreement to help facilitate a recovery.

When the white paper was initially published in December 2020, there were no ATBs in place between any ASEAN countries. There are still no in ATBs within ASEAN. The start of the only ATB that has been forged by an ASEAN country with a non-ASEAN country or territory, Singapore-Hong Kong, also has been deferred twice.

ATBs could have a significant impact on international traffic as they permit leisure travel. Other platforms facilitating the resumption of international air travel such as travel corridors or green lanes are not as significant as they allow only essential business travel.

An ASEAN Travel Corridor, which was announced by the ASEAN Secretariat in November 2020, has not yet been implemented despite an initial timeline that proposed implementing the arrangement by the end of March 2021. As highlighted in the initial white paper, the ASEAN Travel Corridor would mark an important first step in reopening international travel between ASEAN countries and could be followed by an ASEAN ATB.

There are a few examples of travel corridors or reciprocal green lanes (RGLs) between ASEAN countries as well as several examples between ASEAN and non-ASEAN countries. However, none of the RGLs has had a significant impact on passenger traffic due to difficult restrictions and the caps limiting the number of travelers. All three of the ASEAN-specific RGLs (Brunei-Singapore, Malaysia-Singapore and Indonesia-Singapore) are also currently suspended along with several that were initially implemented in 2020 between ASEAN and non-ASEAN countries.

It is difficult at the moment to pursue RGLs or ATBs given that most ASEAN countries are currently experiencing new waves of COVID-19 cases as well as new, more contagious strains. However, it is important for ASEAN countries to continue to discuss initiatives to support a gradual and safe reopening, which can begin once conditions are more favorable.

The principal recommendation of this white paper – a pan-ASEAN ATB – remains relevant. The ASEAN Secretariat is still the most logical platform for forging such an agreement.

A pan-ASEAN ATB does not mean every ASEAN country would implement an ATB with all other ASEAN countries at once. The proposed concept is to provide ASEAN countries with a common framework so they can implement bubbles with each other when they are ready. There can also be a mechanism for suspending or delaying the start of any bubble if the number of untraceable cases exceeds a certain threshold. The Singapore-Hong Kong ATB agreement has such a mechanism, leading to the two suspensions as cases spiked, initially in Hong Kong and more recently in Singapore.

ATBs typically have a limit on the number of flights or travelers permitted. However, these limits can expand over time as conditions allow. Typically, COVID-19 tests are also required for ATBs to further ensure safety. As vaccinations continue to be rolled out across ASEAN it

is possible future ATBs will permit only vaccinated travelers, which should ensure an even greater level of safety.

In addition to the travel corridor concept, the ASEAN Secretariat began in March 2021 to discuss a common digital vaccine or health passport. This is another important initiative that, if implemented, would further facilitate a resumption of air travel between ASEAN countries.

It would be valuable for ASEAN countries to mutually recognize all vaccines being administered in ASEAN and have a system in place to verify that vaccination records are authentic. Technologies for validation exist but ASEAN countries need to agree on a platform for sharing vaccination data in addition to travel protocols.

So far during the pandemic there has been a lack of consensus between countries in ASEAN and globally in adopting new travel protocols and in adopting potential digital travel health passport solutions. Several different travel or health passes have been developed in recent months and are now in trial by various airlines in ASEAN. Governments are supporting some of these individual trials and it is now critical that ASEAN governments work together to achieve consensus.

So far governments have generally been working on a bilateral basis and in many cases have been making key decisions unilaterally. It is our view that multilateral initiatives at the ASEAN Secretariat level are critical. The ASEAN health passport and ASEAN travel corridor projects should be accelerated while the ASEAN air travel bubble proposal should be advanced.

As soon as it is safe to do so, a resumption of international travel is critical in order to restore ASEAN's aviation industry and overall economy. As the initial white paper highlighted, any recovery in domestic travel is not sufficient to support the recovery of ASEAN's aviation industry or overall economy.

## **Domestic Update**

While a domestic recovery alone is insufficient, the domestic markets do provide most ASEAN airlines some revenues until the international market starts to recover.

Unfortunately, ASEAN's domestic air transport market has experienced new declines so far this year as new waves of COVID-19 in several countries have led to new domestic travel restrictions. These declines have further impacted airline revenue streams at a critical time as airlines were already financially strained. While ASEAN airlines were not expecting to be profitable in 2021, the level of losses have so far this year been higher than initially expected due to weaker than expected domestic revenues.

As of December 2020, when the white paper was initially published, around 50% of domestic traffic in ASEAN had recovered. However, in the first quarter of 2021 domestic traffic in ASEAN declined again and overall was less than 40% of pre-COVID levels.

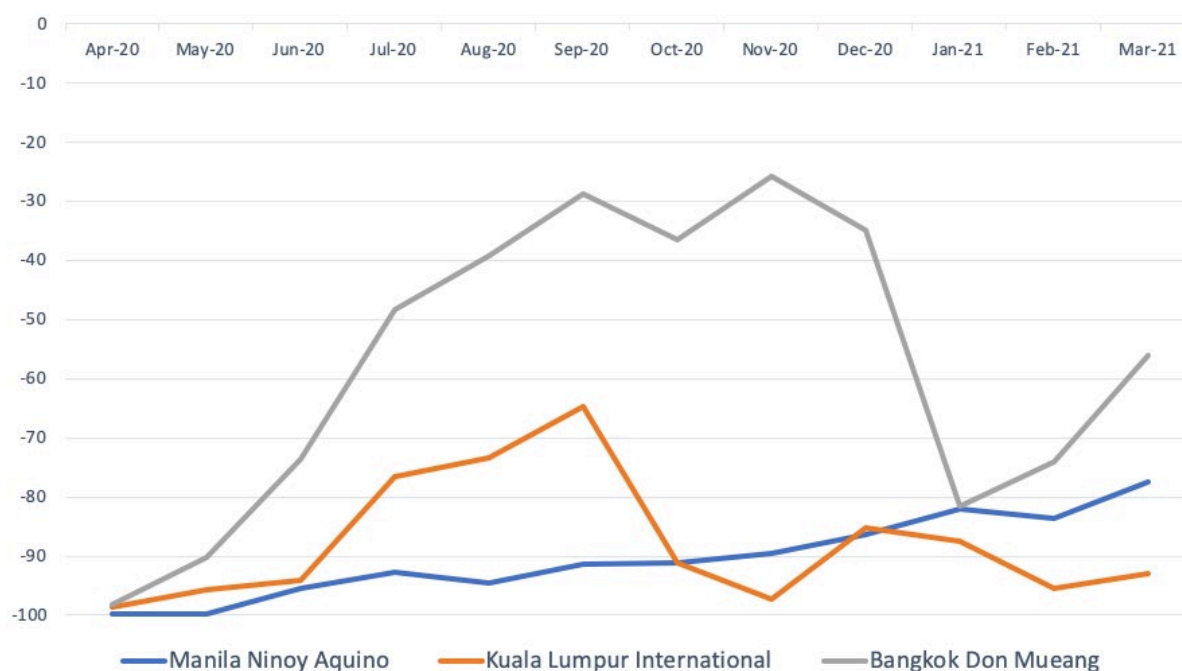
As can be seen in table 2, in first quarter 2021 domestic traffic was a small fraction of normal levels in four out of the five main ASEAN domestic markets. Vietnam was the exception but the Vietnam domestic market also dropped significantly compared to the fourth quarter of 2020, when traffic was close to pre-COVID levels.

*Table 2 (new table for this update). Recovery rate (% of pre-COVID passenger traffic) for ASEAN’s five main domestic markets*

<b>Rank</b>	<b>Country</b>	<b>Approximate recovery rate in 1Q2021</b>	<b>Peak recovery rate/month achieved</b>	<b>Market size in 2019</b>
1.	Indonesia	33%	50%/December 2020	77 million
2.	Thailand	30%	80%/November 2020	37 million
3.	Vietnam	70%	100%/November 2020	37 million
4.	Philippines	18%	21%/March 2021	30 million
5.	Malaysia	10%	39%/September 2020	28 million

*Note: Recovery % calculated using a 2019 baseline and a mix of airport, airline and government data for each country*

In all five markets, domestic traffic improved in March 2021 compared to February 2021 but with the exception of Philippines was still below fourth quarter 2020 levels. In Figure 4, domestic passenger traffic trends since the start of the pandemic are highlighted for three of ASEAN’s main airports.



*Figure 4 (new figure for this update). Monthly domestic passenger traffic change (%) compared to pre-COVID for Manila Ninoy Aquino, Kuala Lumpur International and Bangkok Don Mueang.*

*Notes: Pre-COVID uses 2019 as a baseline for all months*

*Source: Airports of Thailand, Malaysia Airports Holdings, Manila International Airport Authority*

The second quarter of 2021 is likely to experience a further drop in the domestic recovery rate due to recent spikes in COVID-19 cases. All five of the main domestic air transport markets in ASEAN are currently impacted by new waves of cases.

For example, domestic traffic in Indonesia dropped significantly in January and February 2021 after reaching about 50% of pre-COVID levels in December 2020. There was some improvement again in March and April, reaching close to but not quite December 2020 levels. However, there was another big dip in May due to travel restrictions that were imposed for Eid, which is typically the busiest period of the year for domestic travel. The restrictions for the Eid holiday were even stricter than last year, resulting in virtually no travel.

Indonesian carriers were initially hoping for the domestic market to steadily improve in the first half of 2021 but instead traffic has dropped compared to fourth quarter 2020 levels. The slower than expected domestic recovery has resulted in a weak financial position for airlines. Indonesian carriers rely more on the domestic market than airlines from any other ASEAN country.

While domestic traffic should start to improve again in the second half of 2021, airlines now do not expect a full recovery until at least mid 2022. Indonesia's large dispersed population and challenging geography means it will likely be one of the last Asian countries to have a majority of its population vaccinated.

Thailand experienced a similar large drop in domestic traffic in May due to a new record wave of COVID-19 cases. Thailand was one of the stronger domestic markets in the second half of 2020, recovering rapidly as the virus was contained and reaching 80% of pre-COVID levels in November 2020. But 2021 has been a completely different story with a wave that started in late December 2020, leading to domestic traffic declining to about 20% of pre-COVID levels in January and February.

Traffic improved in March, reaching about 50% of pre-COVID levels, but has since declined sharply and the second quarter of 2021 is expected to be much weaker than the prior three quarters. While domestic traffic in Thailand should improve again in the second half it could be several months before it returns to fourth quarter 2020 levels. Thailand's low cost carriers are particularly impacted as they rely more on the domestic market than the full service airlines.

Vietnam is another domestic market that initially recovered nicely, reaching pre-COVID levels in fourth quarter 2020, but is now impacted by a record wave of cases. There was a new small wave in Vietnam early this year that impacted traffic during the Vietnamese New Year holiday period. Tet is typically the busiest period for air travel in Vietnam but this year traffic dropped 65% as Vietnam implemented tight restrictions to contain the spread of the virus. Traffic quickly recovered in March, again reaching pre-COVID levels, and was also strong in April. However, May was a different story due to the new record wave.

During the pandemic, Vietnamese carriers have been in relatively better financial position than their peers in other Southeast Asian countries as it was the only country with a full

domestic recovery. However, total airline revenues have still decreased by over 70% due to the suspension of international services and will likely decrease further in the second quarter of 2021 as the domestic market weakens again.

Of ASEAN's five main domestic markets, Philippines has been the weakest during the pandemic, remaining at less than 10% of pre-COVID levels during the first nine months of the crisis. There was slight improvement in the first quarter of 2021 but traffic still remained below 20% of pre-COVID levels and a new record wave in cases which began in mid-March led to another decline in traffic in April and May.

The record wave has led to the reimplementing of domestic travel restrictions, impacting demand just after it finally had improved. In late February the Philippines introduced simplified requirements for domestic travel at the national level, replacing onerous local restrictions. While demand immediately picked up, resulting in a significantly higher level of forward bookings, the new wave started a few weeks later, resulting in cancellations for most of these bookings.

The Philippines domestic market will eventually recover but given the continued high number of cases and the slow rollout of vaccines it could be 2022 before domestic traffic reaches even 50% of pre-COVID levels.

Malaysia's domestic market has struggled for several months after peaking at 40% pre-COVID levels in September 2020. New waves in the fourth quarter of 2020 as well as the first quarter of 2021 resulted in declines. Another new wave hit Malaysia in May 2021, once again setting back hopes for any near-term recovery. The second quarter of 2021 will be similar or even weaker than the first quarter, when domestic traffic was only about 10% of pre-COVID levels.

Malaysian carriers are hoping domestic traffic will again start to pick up in the third quarter but this is hardly assured given both Malaysia's inability in the last several months to contain the virus and the slow rollout of vaccines. The domestic market accounted 45% of Malaysian carrier traffic prior to the pandemic but a much smaller fraction of revenues given the very low average domestic fares in Malaysia. For the other four ASEAN countries with major domestic markets the reliance on domestic is larger but from a revenue perspective it is impossible to have a full recovery without international traffic.

In addition to these five ASEAN countries with sizeable domestic markets, there are three countries in ASEAN with small domestic markets (Myanmar, Cambodia and Laos) and two countries with no domestic market (Brunei and Singapore). Recovery of the international market is obviously critical for these five countries.

While ASEAN's domestic markets could fully recover in 2022, any domestic recovery is not sufficient to support an overall recovery given the higher importance of international traffic.

## Updated Conclusion

The general consensus globally is that domestic air transport markets will recover first followed by regional international and long haul international. However, for ASEAN a regional recovery is not assured. It is possible some ASEAN countries will reopen first to countries outside ASEAN due to regional constraints and a lack of consensus among ASEAN countries.

A pan-ASEAN ATB as well as other ASEAN initiatives such as the ASEAN health passport would help facilitate an earlier regional recovery and provide major economic benefits. The ASEAN aviation and tourism sectors would particularly benefit from a resumption of travel between ASEAN countries. It is also important for the overall ASEAN economy and ASEAN relations to restore connectivity.

ASEAN is already behind other regions in terms of the domestic recovery. ASEAN now risks falling behind in recovering regionally.

It is important to start putting in place plans for a safe and gradual resumption of regional international travel.

Any implementation timeline will naturally hinge on virus containment efforts, vaccine rollouts and other variables. However, ASEAN countries need to start somewhere and the ASEAN Secretariat offers an ideal platform for forging agreements to establish a framework and protocols to facilitate the resumption of international travel in Southeast Asia.

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