The Restart of Tourism in the ASEAN+3: When Will the Love Boat Sail Again?[1]

October 11, 2021

I. Introduction

1. **Widespread travel restrictions necessitated by the pandemic have brought the global tourism industry to its worst crisis on record.** Losses from international tourism and its ancillary sectors are estimated to have reached USD 2.4 trillion in 2020 (UNCTAD 2021), and as high as USD 4.4 trillion when domestic tourism activities are accounted for (WTTC 2021). International tourist arrivals plunged by 73 percent in 2020 and by another 65 percent between January and May 2021, as new COVID-19 variants and continuing movement restrictions forestalled any recovery. Although the majority of tourism experts expect a rebound in international tourism in 2022, any return to pre-pandemic levels is not considered likely until 2023 or later (UNWTO 2021).

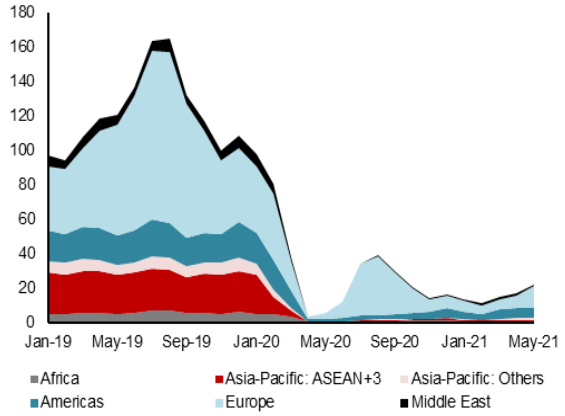
2. **The ASEAN+3 region has been hardest hit, but rising COVID-19 vaccination rates are paving the way for a restart in travel and tourism activities.** No region has been spared from the collapse in tourist arrivals since COVID-19 infections spread globally in early 2020 (Figure 1). But, the impact on the ASEAN+3 has been largest, costing the region's previously booming industry an estimated USD 1.4 trillion in lost income in 2020, and displacing around one in five travel and tourism jobs (Figure 2). On an optimistic note, progress in COVID-19 vaccinations—with six of the region's 14 member economies having fully vaccinated more than 50 percent of their populations—augur well for a gradual recovery of the sector (Figure 3).

3. **This note examines the restart of tourism using high-frequency data on leisure cruise ship traffic.** The speed at which pandemic developments triggered changes in human behavior and official policy responses has underscored the usefulness of analyzing real-time data to track economic activity. Drawing from earlier work by AMRO staff (del Rosario and Quách 2020, 2021), this note makes use of near real-time information from a tracking device installed in ships called the Automated Identification System (AIS), to monitor changes in tourism activity globally and within the ASEAN+3 region. Daily global cruise ship data may be used to complement existing travel and tourism indicators (such as in the

[1] Prepared by Edmond Choo Chiang Yong (Edmond.Choo@amro-asia.org), Regional Surveillance; Diana del Rosario (diana.del-rosario@amro-asia.org) and Toàn Long Quách (Quach.ToanLong@amro-asia.org), both Financial Surveillance; reviewed by Li Lian Ong, Financial and Regional Surveillance; authorized by Hoe Ee Khor, Chief Economist. The authors would like to thank Wenxing Pan for useful comments. The views expressed in this note are the authors' and do not necessarily represent those of the AMRO or AMRO management.

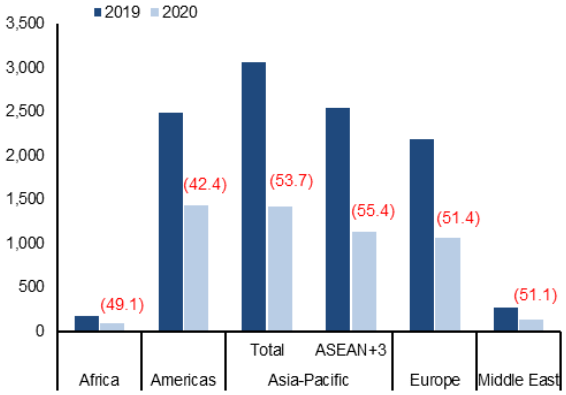
UNWTO Tourism Recovery Tracker), potentially as a leading sign of the broader recovery of the tourism industry, as more international borders gradually reopen. Whereas flight indicators would capture both business and tourism travel (Figure 4)—indeed, countries are prioritizing returning residents, essential business, and official travel when allowing or easing restrictions on entry (Springer and Spurrell 2021)—cruise ship data would capture "pure" tourism travel.

Figure 1. International Tourist Arrivals
(Millions of persons)



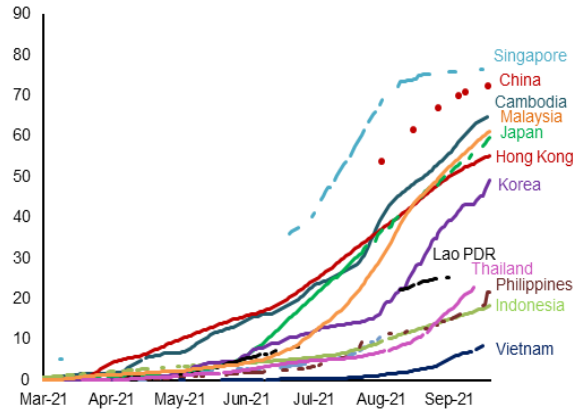
Source: United Nations World Trade Organization (UNWTO) Tourism Dashboard.

Figure 2. Travel and Tourism Contribution to GDP
(Billions of US dollars)



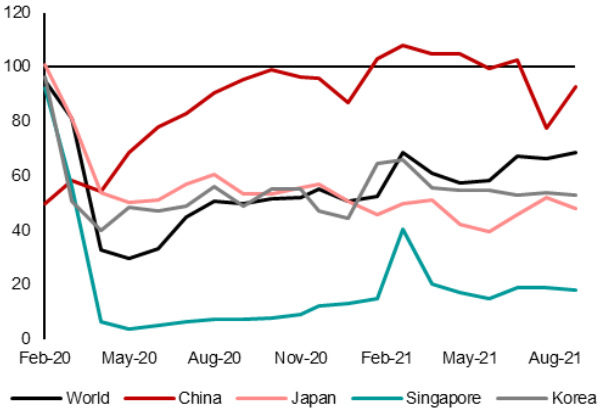
Source: World Travel and Tourism Council.
Note: Numbers in parentheses refer to the percentage drop in travel and tourism contribution to GDP in 2020. The data refer to the direct, indirect, and induced impact of travel and tourism.

Figure 3. ASEAN+3: Fully Vaccinated Share of Population
(Percent)



Source: Our World in Data. Accessed on October 1, 2021.

Figure 4. World and Selected ASEAN+3: Scheduled Flight Seats
(Percent, 2019 = 100)



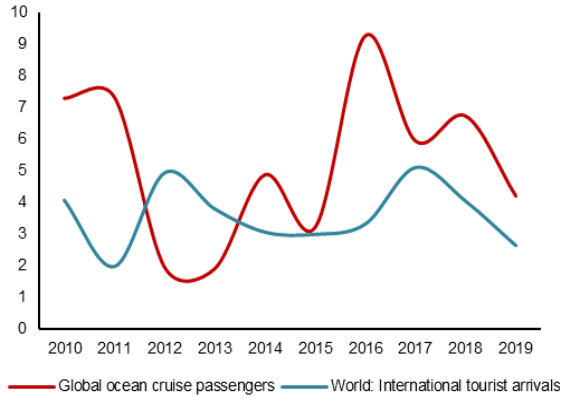
Sources: Official Aviation Guide; and AMRO staff calculations.
Note: China's flights had already fallen by 50 percent year-over-year by the time the authorities locked down Wuhan in late-January.

II. Tourist Activity through the Lens of Cruises

4. **Cruise ship tourism had been a fast growing segment of the global tourism industry prior to the pandemic**. While this segment's output contributed less than 10 percent of international tourism receipts in 2019, global cruise ship passengers had grown faster—at an annual rate of 5.3 percent in 2010–19—than the overall 3.6 percent increase in international tourist arrivals within the same period (Figure 5). North America and Europe are

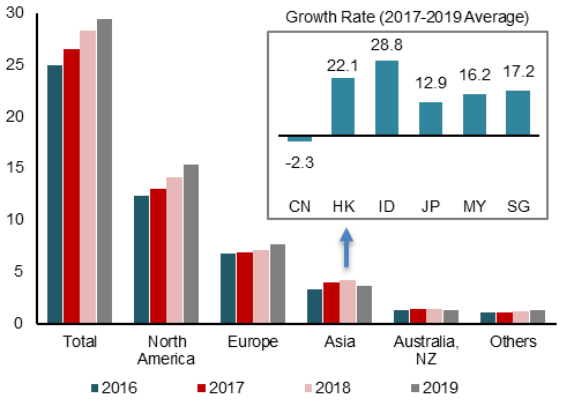
the main markets for these cruises, but the ASEAN+3—led by China, Hong Kong,[2] Japan, Malaysia, and Singapore—are strong growth markets (Figure 6). Asia is a far second to the Caribbean as a cruise destination, although it is considered to have strong growth prospects—especially Southeast Asia—owing to its diverse archipelagic geography, conducive climate, and rich natural and cultural resources (UNWTO 2016), as well as a rapidly growing middle-class with disposable income for leisure activities.

Figure 5. World: Cruise Ship Passengers and International Tourist Arrivals
(Percent year-over-year)



Source: Cruise Lines International Association (2021).

Figure 6. World: Cruise Passenger Volume by Source Region
(Millions of persons)



Source: Cruise Lines International Association (2019).
Note: CN = China; HK = Hong Kong, China; ID = India; JP = Japan; MY = Malaysia; SG = Singapore.

5. **Emerging from the shadow of the notorious COVID-19 outbreaks onboard several cruise ships in early 2020, cruises have resumed with limited passenger capacity.** The cruise sector was one of the earliest casualties of the ongoing health crisis, with a fifth of the global ocean cruise fleet having recorded COVID-19 cases as of the end of the first quarter of 2020. The outbreaks left passengers and crews stranded as the cruise ships were held in quarantine or refused entry at ports, following border closures (Holland and others 2021). Notwithstanding the reputational impact on cruises as a safe leisure activity and the financial repercussions wreaked by the pandemic, operations have resumed in Europe and Asia since late last year, and the United States in June 2021 (Yeginsu and Chokshi 2021). Cruise voyages are typically subject to 50–70 percent passenger limits at the moment, as well as stringent safety precautionary measures to comply with COVID-19 requirements.

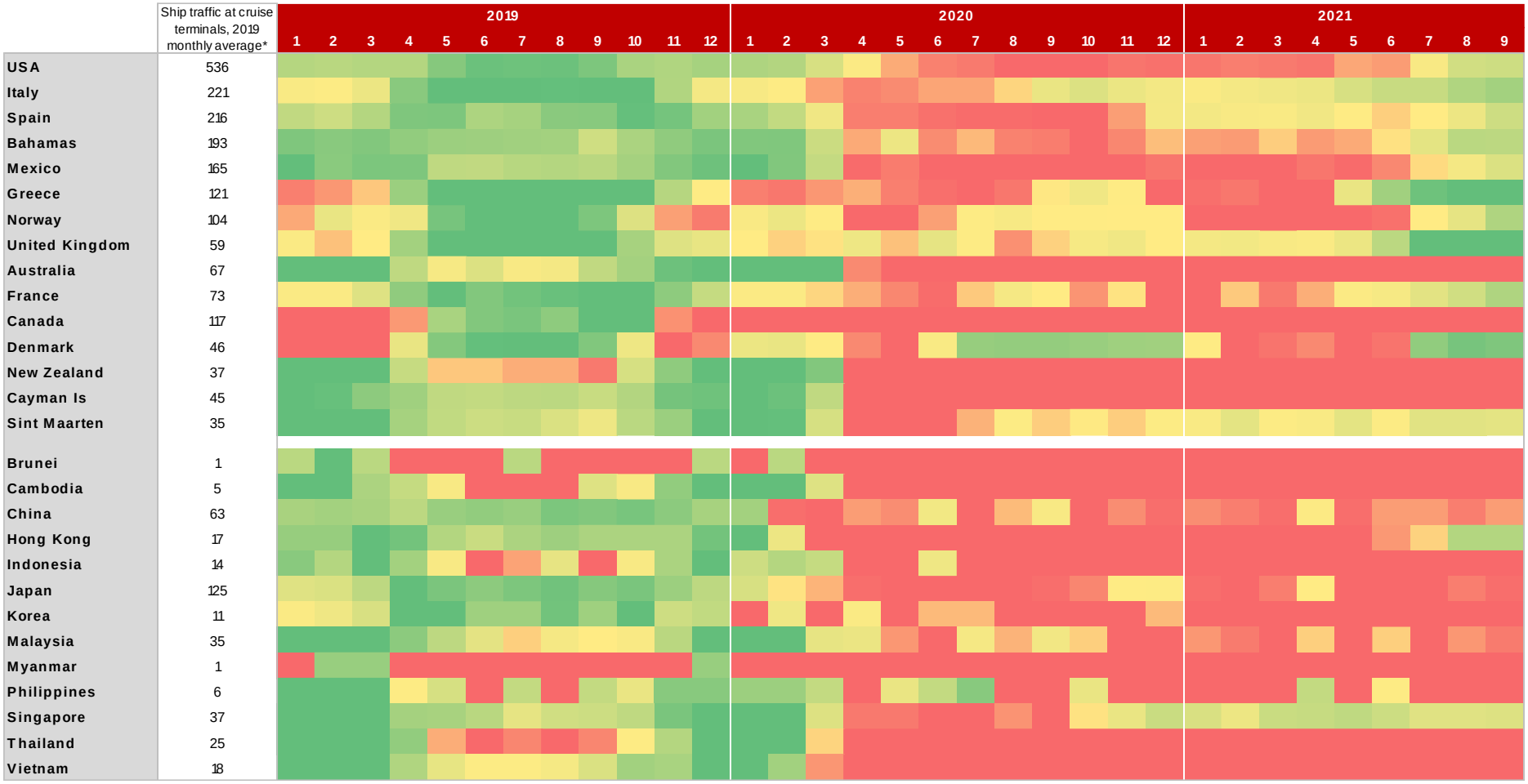
6. **High-frequency data on cruise ship activity confirm the re-emergence of cruise tourism even as cross-border travel restrictions remain largely in place**. Information derived after processing AIS-based shipping data show that cruise ship operations had largely restarted by mid-2020 in several parts of Europe (such as Denmark, France, Italy, and the United Kingdom) and the Caribbean (Sint Maarten) (Figure 7).[3] Within the ASEAN+3 region, the resumption was led by cruise operators in Singapore and Hong Kong, who launched "cruises to nowhere"—or round-trip cruises without ports of call—in November 2020 and August 2021, respectively, as neighboring countries remained largely closed to foreign tourists.

[2] Hong Kong, China, hereafter "Hong Kong."

[3] See Appendix I for a description of the data screening process.

Figure 7. ASEAN+3 and Selected Economies: Number of Departing Cruise Ships per Month

(Percentile, 2019 = 100)

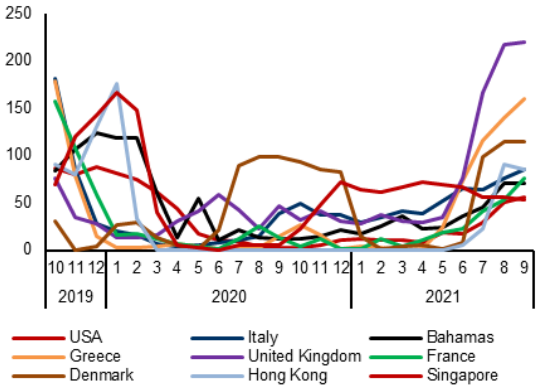


Sources: MarineTraffic; and AMRO staff estimates.

Note: Cruise ships refer to passenger ships that are above 40,000 gross tonnage (UNWTO 2010), and which have visited more than three different ports in their voyage history (Appendix I). Red, Yellow, and Green refer to the 10th, 50th, and 90th percentiles, respectively, of the total number of departing cruise ships for the 2019–21 period, from cruise terminals in ASEAN+3 and other economies with the highest cruise ship monthly turnover in 2019. Data cover through September 30, 2021.

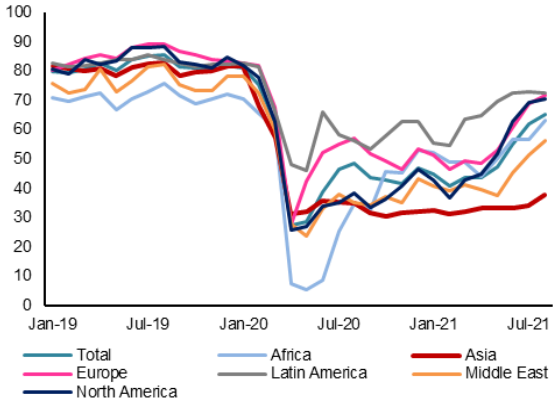
7. **The turnaround in cruise tourism is supporting the recovery of the broader travel and tourism industry in the West, and mitigating the continuing weakness in the ASEAN+3.** After a 15-month slump starting in April 2020, the number of departing cruise ships from several Western economies turned around in June 2021, to reach at least 50 percent of 2019 levels in August 2021 (Figure 8). Fresh from the restart in operations, Hong Kong likewise saw over three-quarters as many voyages in August–September 2021 as the pre-pandemic average of 17. Singapore reached a peak of 22–24 voyages over the March–May 2021 period—62–67 percent of 2019 levels—before easing to 40 percent over the July–September 2021 stretch, as mobility curbs were tightened. These relatively favorable developments in cruise tourism correspond to the improvement in air traffic in the Western economies, and help offset largely stagnant international travel and tourism in the region (Figures 9 and 10).

Figure 8. Selected Economies: Number of Departing Cruise Ships per Month
(Percent, 2019 = 100)



Sources: MarineTraffic; and AMRO staff estimates. The data cover the period to September 30, 2021.

Figure 9. International Air Passenger Transport Capacity
(Percent)



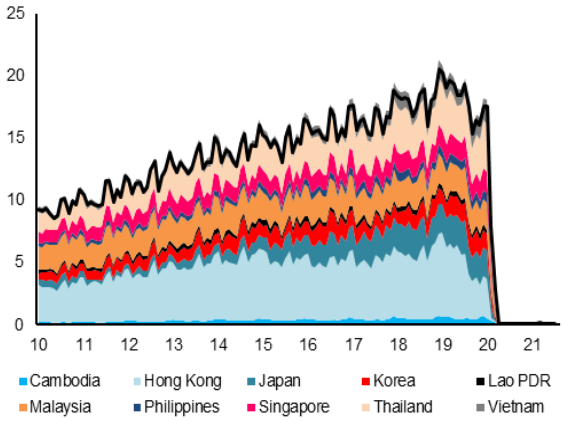
Sources: International Air Transport Association via Haver Analytics; and AMRO staff calculations.
Note: The data refer to the passenger load factor, which is a measure of capacity utilitization equal to the number of paying passengers divided by the number of passenger seats available.

8. **That said, greatly improved cruise ship traffic is characterized by shorter voyages, with fewer destination stops or none at all, and existing caps on passenger capacity.** Cruise ships operating in the summer of 2021 are found to have fewer port calls compared to cruises prior to the pandemic (Table 1). The number of cruise stops are likely constrained by cross-border travel restrictions or actions taken to minimize the risks of passengers contracting COVID-19 as they disembark to explore port cities along the route. Some cruises, for example, are stopping only at private islands usually owned by the cruise operators, or forgoing ports completely such as in Hong Kong, Singapore, and the United Kingdom (Ng 2020; Delahaye 2021). The port call data used in this study are unable to capture activity at marinas, where a notable increase in luxury cruises on chartered yachts have been reported during the pandemic (Neubauer 2020; The Economist 2021).

9. **A diverse set of passenger vessel data indicates pockets of revival in sea travel in the ASEAN+3 region, despite remaining generally subdued compared to that in the West.** For most ASEAN+3 economies, the number of departing passenger vessels—high speed crafts and smaller ships, in addition to cruise ships (Appendix I)—are at least 50 percent fewer than their respective 2019 levels, as of September 2021 (Figure 11). That

said, China and Korea are exhibiting more buoyant sea travel, in line with a pick-up in domestic air travel and government measures to support domestic consumption. Meanwhile, passenger ship activity in the majority of European economies, as well as the United States, is on track to recover to pre-pandemic levels.

Figure 10. ASEAN+3: International Tourist Arrivals
(Millions of persons)



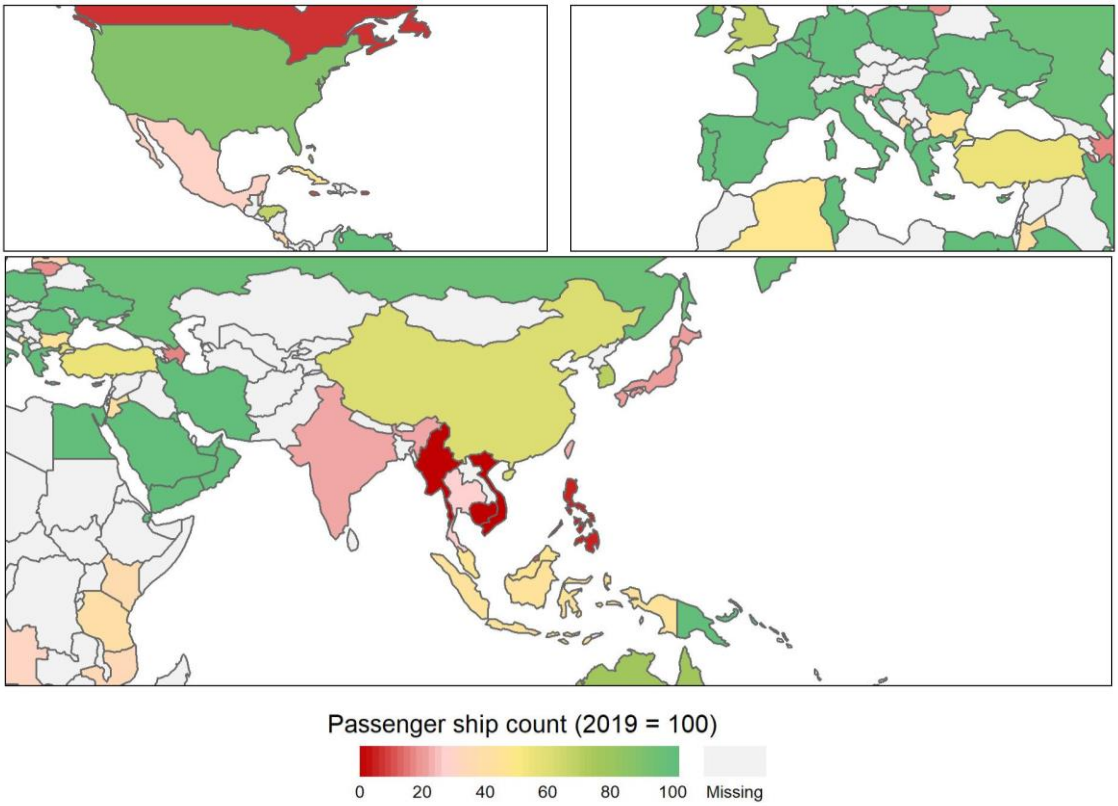
Source: National authorities via CEIC and Haver Analytics.

Table 1. Selected ASEAN+3 and Other Economies: Cruise Destinations
(Average number of port calls per ship)

Economy	August 2019	August 2021
United States	3	2
Bahamas	2	1
Italy	3	2
Spain	3	2
China	1	1
Hong Kong	1	0*
Japan	5	1
Singapore	1	0*

Sources: MarineTraffic; and AMRO staff estimates.
Note: *Refers to the "cruise to nowhere" program in which cruise ships sail from and return to the port of Hong Kong or of Singapore without having any other port of call.

Figure 11. Selected Regions: Passenger Ship Count, September 2021
(Percent, 2019 = 100)

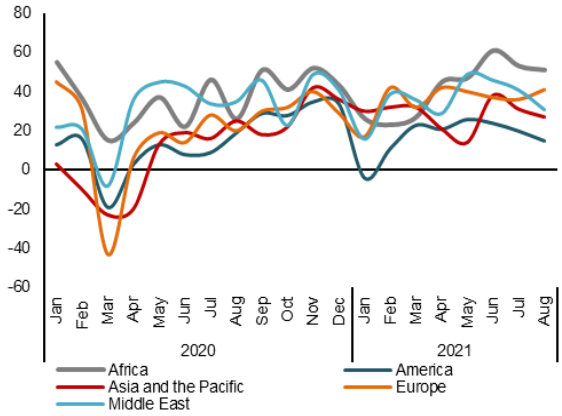


Sources: MarineTraffic; and AMRO staff estimates.

III. Implications for the Travel and Tourism Industry

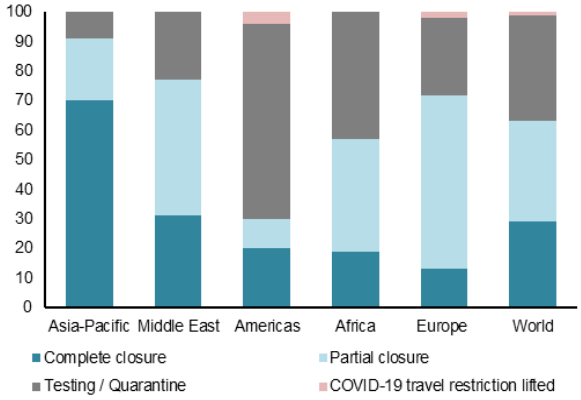
10. **The revival of cruise tourism hints at how quickly pent-up demand can fuel a broader recovery in global travel and tourism as more borders reopen.** The turnaround in cruise activity is consistent with various survey findings (for example, CLIA 2021; Google 2021), which indicate a general desire to travel over the course of the pandemic (Figure 12). However, any unleashing of this suppressed demand is still largely dependent on the successful containment of domestic virus infections and easing of international travel restrictions (UNWTO 2020). In the ASEAN+3 region, some economies are leveraging on their rising vaccination rates to reopen major tourist destinations to local visitors and foreigners from low infection rate jurisdictions. Already being adopted by Indonesia with Bali, Malaysia with Langkawi, and Thailand with Phuket, such a strategy could alleviate pressure on the industry from still-pervasive border closures in the region (Figure 13).

Figure 12. Net Travel Sentiment Score
(Percent)



Source: TCI Research via UNWTO Tourism Recovery Tracker.
Note: Data refer to net sentiment scores, or the difference between percentage of positive comments and percentage of negative comments.

Figure 13. Travel Restrictions Across Regions, as of 1 June 2021
(Percent of total number of destinations)



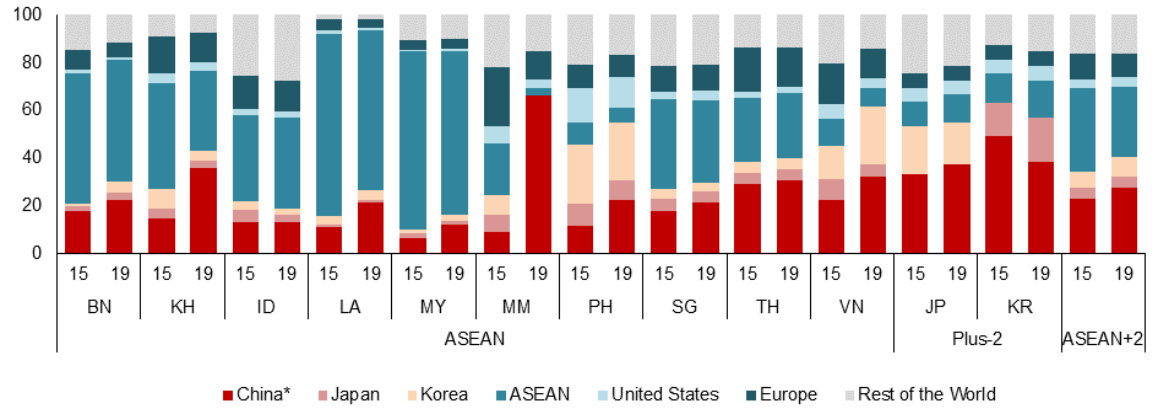
Source: UNWTO.

11. **Reopening tourist destinations could be a way for regional economies to mitigate the impact from China's pursuit of a zero-COVID strategy.** The ASEAN+3 region had benefited from robust intra-regional tourism prior to the pandemic (Choo and others 2020), with China accounting for over a quarter of international tourist arrivals in 2019. The absence of Chinese tourists as the country pursues strict lockdowns and repeated testing to bring COVID-19 cases to zero has significantly impacted regional economies that had benefited from those arrivals previously. It has been most apparent in Cambodia, Japan, Korea, Myanmar, Thailand, and Vietnam, where visitors from China accounted for more than 30 percent in 2019 (Figure 14). In this regard, tourism corridors or bubbles within the Asia-Pacific region and with Western economies, where COVID-19 risks are under control, as well as vaccinated travel lanes, could help ease the pain on the tourism industry.

12. **Domestic travel bubbles can likewise be a source of relief for the larger regional economies.** China has been able to keep its international borders closed as it can tap on its large domestic market, where domestic travel and tourism spending accounted for 87 percent of the total in 2017 (WTTC 2017). But beyond China, domestic tourism has also been a key driving force in Japan (84 percent of total), Korea (75 percent), and the Philippines (86 percent), where their tourism industries could get a boost from the

establishment of domestic travel bubbles. In Malaysia, where domestic travel and tourism spending accounted for 48 percent of the total in 2017, a pilot travel bubble program for residents has been initiated with Langkawi, allowing fully vaccinated travelers from within the country to visit the island (Floris 2021).

Figure 14. ASEAN+2: Composition of Inbound Tourist Arrivals by Residency
(Percent of Total)



Sources: National authorities; and AMRO staff calculations.
Note: *China includes Mainland China and Hong Kong for the following economies: Cambodia, Indonesia, Malaysia, the Philippines, Singapore, and Thailand. For Vietnam, ASEAN only includes Cambodia, Lao PDR, Malaysia, and Thailand. For Japan, ASEAN only includes Indonesia, Malaysia, Philippines, Singapore, Thailand, and Vietnam. Data for Myanmar refer to arrivals to Yangon and Mandalay only.

13. **Given the emergence of COVID-19 variants, maintaining enhanced health and safety protocols over the course of travel and leisure would be crucial in sustaining any industry revival.** Adapting to COVID-19 entails a new normal for travel, which would involve vaccination requirements, virus testing, and high sanitization standards as part of the broader risk management strategy. Innovation and digital transformation to reduce touchpoints while enhancing efficiency, for example, will likewise accelerate the recovery of tourism once conditions allow. Against this backdrop, robust and coordinated policy actions would be critical in providing an enabling environment for the tourism industry to adapt to the new normal of living with COVID-19.

14. **Importantly, the pandemic has presented an opportunity to advance sustainable and responsible tourism.** As the tourism industry re-emerges, efforts to mitigate its environmental and social costs should be strengthened. Cruise tourism, for example, can intensify pollution and cause environmental degradation if not properly zoned and regulated. The tourism industry is estimated to have accounted for 8 percent of global greenhouse gas emissions between 2009–13, primarily via transport, shopping, and food (Lenzen and others 2018). Encouragingly, consumers can be agents of change—for instance, they have expressed willingness to pay for lower carbon-emitting flights (Amenta and Sanguinetti 2020). At the same time, tourism can be more inclusive, with host destinations and their communities sharing in the gains and empowered to preserve their natural and cultural resources. In this regard, reshaping the industry to become more sustainable and responsible requires regulatory reforms as well as investment in technology, green infrastructure, and high-value jobs (Pololikashvili and Gurría 2020).

****

Appendix I. Data Screening Process

The "passenger ships" category in the AIS-based port call dataset from MarineTraffic covers a wide range of passenger vessels, including cruise ships, high-speed crafts, and roll-on/roll-off vessels, among other vessel types. The dataset contains more than 18 million port calls recorded by passenger ships globally from January 2019 to September 2021.

The analysis in this note focuses on cruise ships and related passenger vessels to derive relevant tourism indicators. To do so, a classification filter based on ship itinerary and volume (gross tonnage) is imposed on the port call data as follows:

- ***Step 1: Remove vessels at anchorage.*** As discussed in del Rosario and Quách (2020), vessels that head to anchorage are likely to require repairs or are waiting for berth facilities, and unlikely to be contributing to any tourism activity.

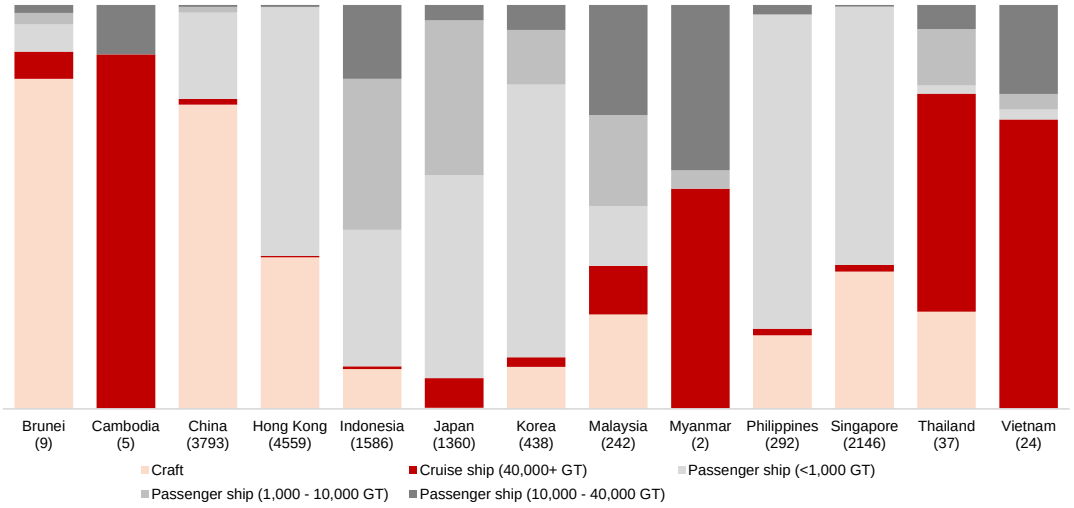
- ***Step 2: Remove vessels with fixed ferry routes.*** These vessels are mainly roll-on/roll-off vessels or ferries that solely serve as a means of transporting passengers, and in some cases, vehicles and a small amount of goods, on fixed sea routes. They are excluded from leisure travel, given that the port call data do not contain information on the purpose of passenger travel. In the ASEAN+3 region, some of the most active transportation routes are within Indonesia, between Java with Sumatra and Bali; and in Japan, between Hokkaido and Honshu.

- ***Step 3: Focus on passenger vessels that have made multiple port calls.*** In particular, vessels that have made more than three port calls in their voyage history are selected. The filtered dataset makes up the passenger vessels considered in this study, which refer to cruise ships, crafts, and other smaller-sized vessels (Appendix Figure 1).

- ***Step 4: Categorize vessels based on volume.*** The remaining passenger vessels that are above 40,000 gross tonnage are classified as ***cruise ships***, based on the categorization of mid-sized-and-above cruise ships by the UNWTO (2010). Passenger vessels that are below 40,000 gross tonnage refer to a wider range of vessels, ranging from pleasure craft and high speed craft, to private cruise ships, and are thus excluded from the "cruise ship" classification. The filtered vessel names are then cross-checked with their operating cruise lines for data accuracy.

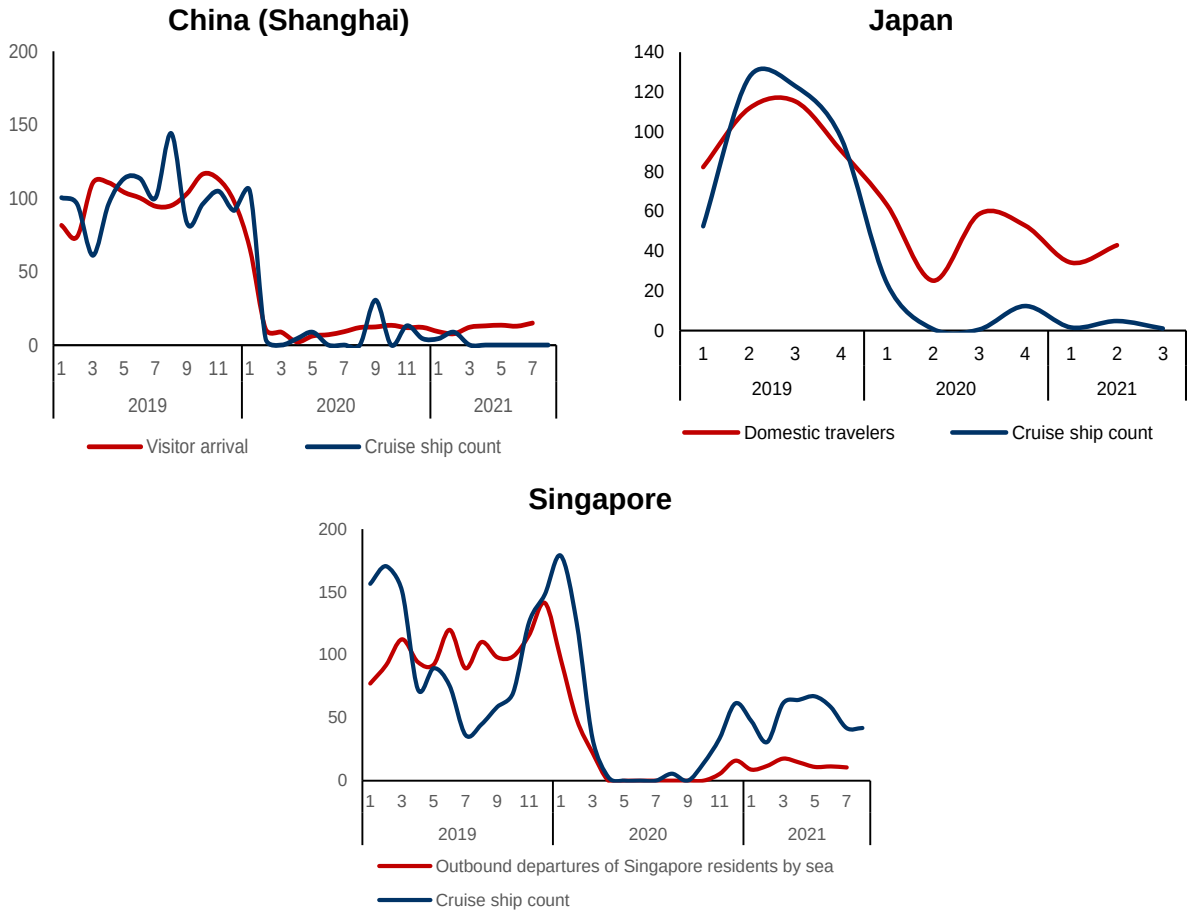
Passenger ship traffic, or the count of departing passenger vessels (as in del Rosario and Quách 2020), is then derived from the filtered dataset. For ease of presentation, daily frequency data are aggregated to monthly frequency. The resulting ship traffic indicator exhibits strong correlation with international tourist arrival data for China and Japan, and with the number of outbound departures by sea in Singapore (Appendix Figure 2). The **average number of port calls made by a departing ship** (Table 1) counts port calls made by a cruise ship. However, the count does not include repeated visits at the same port in the ship's itinerary.

Appendix Figure 1. ASEAN+3: Passenger Vessel Types, 2019 Monthly Average
(Number of Departing Vessels)



Sources: MarineTraffic; and AMRO staff calculations.
Note: Figures in brackets refer to the total number of passenger ships per said economy. GT refers to gross tonnage.

Appendix Figure 2. Official Tourism Indicators and Derived Cruise Ship Traffic
(Percent, 2019 = 100)



Sources: MarineTraffic; national authorities via Haver Analytics; and AMRO staff calculations.
Note: 2021 data are to end-August 2021.

References

Amenta, Nina and Angela Sanguinetti. 2020. "Emissions Information Can Prompt Travelers to Purchase Greener Flights." Policy Brief, National Center for Sustainable Transportation, University of California, Davis, May. https://escholarship.org/uc/item/6nx526w9.

Choo, Edmond Chiang Yong, Marthe Hinojales, Vanne Khut, and Diana del Rosario. 2020. "A Lonely Planet: ASEAN+3 Travel and Tourism in the Time of COVID-19." AMRO Analytical Note, ASEAN+3 Macroeconomic Research Office, Singapore, May 15. https://www.amro-asia.org/a-lonely-planet-asean3-travel-and-tourism-in-the-time-of-covid-19/.

Cruise Lines International Association (CLIA). 2021. "2021 State of the Cruise Industry Outlook." Washington DC, January. https://cruising.org/en/news-and-research/research/2020/december/state-of-the-cruise-industry-outlook-2021.

———. 2019. "2019 Global Market Report." Washington DC. https://cruising.org/en/news-and-research/research/2021/february/2019-global-market-report.

del Rosario, Diana, and Toàn Long Quách. 2020. "What Does the Real-Time Shipping "Crystal Ball" Tell Us about the Recovery in ASEAN+3 Trade?" AMRO Analytical Note, ASEAN+3 Macroeconomic Research Office, Singapore, October 7. https://www.amro-asia.org/what-does-the-real-time-shipping-crystal-ball-tell-us-about-the-recovery-in-asean3-trade/.

———. 2021. "Covid Congestion and Trade Fever in the ASEAN+3: A Prognosis with the Shipping 'Crystal Ball'" AMRO Analytical Note, ASEAN+3 Macroeconomic Research Office, Singapore, July 2. https://www.amro-asia.org/covid-congestion-and-trade-fever-in-the-asean3-a-prognosis-with-the-shipping-crystal-ball/.

Delahaye, Julie. 2021. "UK 'Cruises to Nowhere' are Already Selling Out for the Summer Holiday." *The Mirror,* London, April 22. https://www.mirror.co.uk/travel/cruises/uk-cruises-nowhere-already-selling-23960455.

Floris, Lise Poulsen. 2021. "Langkawi Travel Bubble Wins Approval from Malaysian Travellers and Hotels, but Coronavirus Fears Remain." South China Morning Post, Hong Kong, October 4. https://www.scmp.com/lifestyle/travel-leisure/article/3150864/langkawi-domestic-travel-bubble-malaysia-has-approval.

Google. 2021. "How Next-Gen Will Reignite the Travel Industry." Consumer Insights, Mountain View, June. https://www.thinkwithgoogle.com/consumer-insights/consumer-trends/trending-visual-stories/next-gen-travel-data?

Holland, Jennifer, Tim Mazzarol, Geoffrey Soutar, Suellen Tapsall, and Wendy Elliot. 2021. "Cruising through a Pandemic: The Impact of COVID-19 on Intentions to Cruise." *Transportation Research Interdisciplinary Perspectives,* 9, March. https://www.sciencedirect.com/science/article/pii/S259019822100035X#!

Lenzen, Manfred, Ya-Yen Sun, Futu Faturay, Yuan-Peng Ting, Arne Geschke, and Arunima Malik. 2018, "The Carbon Footprint of Global Tourism." *Nature Climate Change* 8: 522–28. https://www.nature.com/articles/s41558-018-0141-x.

Ng, Rachel. 2020. "Why Cruise Ships are Setting Sail Again as COVID-19 Rages." National Geographic, Washington, DC, December 10. https://www.nationalgeographic.com/travel/article/how-cruise-ships-are-sailing-again-during-coronavirus.

Pololikashvili, Zurab, and Ángel Gurría. 2020. "Stepping Up Support and Coordination for a Safe and Sustainable Recovery of Tourism." United Nations, Madrid, October 5. https://www.unwto.org/news/stepping-up-support-and-coordination-for-a-safe-and-sustainable-recovery-of-tourism.

Springer, Kate, and Megan Spurrell. 2021. "A Country-by-Country Guide to Asia's Travel Restrictions." News & Advice, Condé Nast Traveler, August 23. https://www.cntraveler.com/story/asia-reopening-guide-coronavirus.

The Economist. 2021. "On Italy's Costa Smeralda, the Megayachts are Back." London, August 24. https://www.economist.com/europe/2021/08/14/on-italys-costa-smeralda-the-megayachts-are-back.

United Nations Conference on Trade and Development (UNCTAD). 2021. "COVID-19 and Tourism: An Update." United Nations, Geneva, June 30. https://unctad.org/webflyer/covid-19-and-tourism-update.

United Nations World Tourism Organization (UNWTO). 2010. *Cruise Tourism—Current Situation and Trends.* United Nations, Madrid. https://www.e-unwto.org/doi/book/10.18111/9789284413645.

———. 2016. *Sustainable Cruise Tourism Development Strategies—Tackling the Challenges in Itinerary Design in South-East Asia.* United Nations, Madrid, January. https://www.e-unwto.org/doi/book/10.18111/9789284417292.

———. 2020. "Impact Assessment of the COVID-19 Outbreak on International Tourism." United Nations, Madrid, December. https://www.unwto.org/impact-assessment-of-the-covid-19-outbreak-on-international-tourism.

———. 2021. “Tourism Numbers Down 83 Percent but Confidence Slowly Rising.” United Nations, Madrid, June 2. https://www.unwto.org/news/tourist-numbers-down-83-but-confidence-slowly-rising#:~:text=International%20tourist%20arrivals%20were%20down,a%20slow%20uptick%20in%20confidence.

World Travel and Tourism Council (WTTC). 2018. *Domestic Tourism: Importance & Economic Impact.* London, June. https://wttc.org/Portals/0/Documents/Reports/2018/Domestic%20Tourism-Importance%20Economic%20Impact-Dec%2018.pdf?ver=2021-02-25-182514-683.

———. 2021. *Travel and Tourism: Economic Impact 2021*. Economic Impact Reports, London, June. https://wttc.org/Research/Economic-Impact.

Yeginsu, Ceyland, and Niraj Chokshi. 2021. “The Cruise Industry Stages a Comeback.” *The New York Times,* New York, July 28. https://www.nytimes.com/2021/07/28/travel/cruise-industry-comeback.html?