



Honors College Theses

4-28-2023

The Economic Impact of the Cruise Ship Industry on Destination Port Countries during COVID-19

Katherine Snowberger
Georgia Southern University

Follow this and additional works at: <https://digitalcommons.georgiasouthern.edu/honors-theses>



Part of the [Hospitality Administration and Management Commons](#), and the [Tourism and Travel Commons](#)

Recommended Citation

Snowberger, Katherine, "The Economic Impact of the Cruise Ship Industry on Destination Port Countries during COVID-19" (2023). *Honors College Theses*. 874.
<https://digitalcommons.georgiasouthern.edu/honors-theses/874>

This thesis (open access) is brought to you for free and open access by Digital Commons@Georgia Southern. It has been accepted for inclusion in Honors College Theses by an authorized administrator of Digital Commons@Georgia Southern. For more information, please contact digitalcommons@georgiasouthern.edu.

**The Economic Impact of the Cruise Ship Industry on Destination Port Countries during
COVID-19**

An Honors Thesis submitted in partial fulfillment of the requirements for Honors in Hospitality
Management.

By

Katherine Snowberger

Under the mentorships of *Dr. Jeffrey Schiman* and *Dr. Stan Suboleski*

Thesis Mentor: _____

Dr. Jeffrey Schiman

Honors Director: _____

Dr. Steven Engel

ABSTRACT

The travel and tourism industry was the fastest-growing industry in 2019. With more discretionary income available, many people spent their time traveling and exploring new cultures. One major sector of the travel and tourism industry is the cruise industry. In this sector of the industry, the clientele pays a flat fee to cover room, food, travel, and entertainment, which allows them to explore new and exciting ports of call. These port destinations rely heavily on tourism income to support their communities and infrastructure. This economic study aims to show how the COVID-19 pandemic has impacted destination port cities and how these port economies are recovering as borders have reopened. This study will analyze the revenue and expense reports from both Carnival Cruise Line as well as those of Royal Caribbean to determine which cruise line earned the most money through passenger ticket bookings and onboard purchases from 2018 to 2022. After data extraction, an analysis of the economic reports of the destination ports will be conducted to show how the cruise industry impacted countries where ports are located before, during, and after COVID-19.

Introduction

Travel and tourism is a major industry for many destination port cities across the globe, and cruising is a major sector of that industry. Peručić (2020, 89) states, "Since 1980, the demand for cruising worldwide has increased from 1.8 million passengers to 26.75 million in 2017," which is 24.95 million passengers in thirty-seven years. With a multitude of port cities, a variety of cruise lines, and even different levels of involvement for the guests, the cruise industry strives to continue to grow and increase its economic impact. In an effort to profit from the revenue of the travel and tourism industry, port cities developed across the world to accommodate the large ships that wanted to visit their countries. Unfortunately, the cruise ship industry came to a standstill in March 2020 when COVID-19 closed down the industry throughout the world. For many in the hospitality and tourism industry, the world seemed to stop spinning. Despite these challenges, the hospitality industry continues to be one of the largest and fastest-growing industries in the world (Zhang 2021).

For port countries, the tourism industry is one of the primary sources of economic revenue. Building a cruise port not only allows tourists to visit the country, but also encourages the development of port shops, restaurants, and excursions for guests as they explore the port cities. Some residents make their living by selling locally crafted items to tourists as well as working in the shops frequented by tourists; therefore, when borders closed, port revenue stalled and locals were no longer able to support their families on their own shown specifically by an increased unemployment rate in the Bahamas of over 15% in 2020 (Economic Commission for Latin America and the Caribbean, 2023). In particular, the Caribbean hosts very popular island destinations, and these ports make up almost 40% of the entire cruise industry, while ports along the Mediterranean compose the next largest at 15% (Peručić 2022). With such a large proportion

of port destinations, it is clear that the Caribbean port economies rely heavily on tourists. Using the "nested circles" figure seen in Scheyvens and Van der Watt's (2021, 7) article, the figure displays that "the economy sits within, and thus serves, society," as well as the surrounding environment. This figure displays the ideal area for sustainability is within the center of all three circles where the environment, society, and the economy benefits from development. The "nested circles" as seen in Figure 1 suggests that "the economy sits within, and thus serves, society, and whatever happens in the economy and society takes place within the boundaries of the natural environment. Thus, it must not degrade that environment," Scheyvens & Van der Watt, 2021). This means that if development is done only to support the economy and society and not to support the environment, the development is unsustainable.

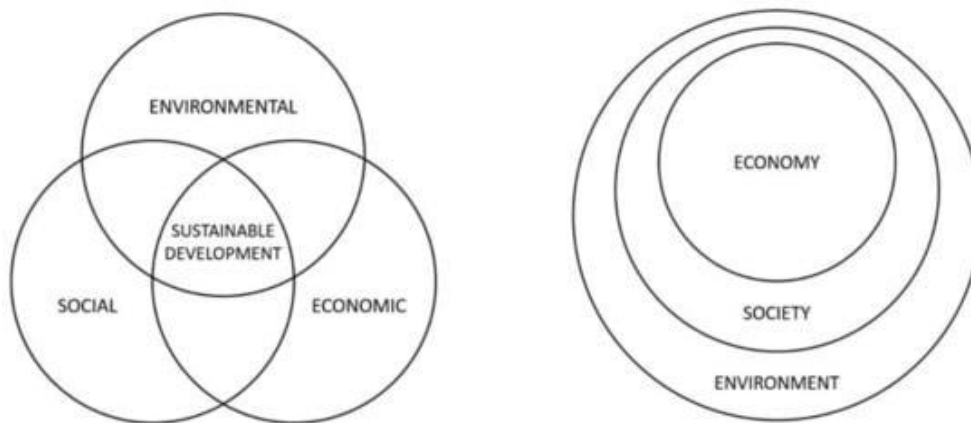


Figure 1: Nested Circle Figure (Scheyvens & Van der Watt, 2021)

The itinerary for cruise lines resulted in specific port development. Otherwise, many popular tourist destinations, such as Aruba and the Bahamas would have remained undeveloped for the tourism industry. "Aruba is among the fastest developing Caribbean islands in terms of population growth, which has doubled since the mid-1980s" (DiPietro & Peterson, 2017) and the trend can be even further shown in other Caribbean nations. Another factor in the cruise

industry's economic impact is the increase in jobs created in port cities based on the cruise industry: "Before COVID-19, travel and tourism had become one of the most important sectors in the world economy, accounting for ... more than 320 million jobs worldwide," (Behsudi, 2020). In addition to the economic impact of the goods and services sold in the port cities, the generation of jobs created by the tourism of cruise lines funnels money back into local economies through the employment of the local workforce. During COVID-19, hospitality jobs were the first to be considered non-essential even though they make up about 15% of total employment at approximately 2.8 million jobs in the Caribbean (Little, 2021), and this categorization lead to around 30,000 jobs lost or approximately 14.7% of the work force in the Bahamas (IADB, 2022).

Port cities create naturally competitive atmospheres as each vies for tourist and cruise ship companies' attention while also aiming to obtain high revenues and low expenses during a quarter. This is seen in Copenhagen with the different tour operators competing with each other for excursions that each cruise company offers to guests (Fridriksson, Wise, & Scott, 2020). Countries like Spain which have many different cities with cruise ports also tend to compete with each other to get attention and business from the large cruise companies so that their city can become the preferred cruising destination. Nogue-Alguero (2020) notes, "ports compete against each other to capture more traffic flows, and port regions vie to become the main gateways to entire national markets," (p. 14) as is seen in Spain with the Port of Valencia and the Port at Barcelona. Both cities compete with each other to have the highest number of tourist visits, the most amount of money spent by tourists, and the most ships docked over a period of time. This competition between cities is healthy as it allows for more amenities to be added to the ports of call to drive tourism. If the cities are competing against each other, they will make changes to

their ports to draw visitors and companies there. However, the competitive nature of ports came to a screeching halt in 2020 when COVID-19 spread through the entire globe.

The World Health Organization classified COVID-19 as a pandemic on March 11th, 2020; however, it took until April 20th, 2020, for the entire world travel ban to take effect on the travel industry as a whole (Chang & Wu 2021). The cruise industry, on the other hand, was issued a no-sail order by the Center for Disease Control and Prevention on March 14, 2020, which was then further extended on April 15, July 16, and September 30 of the same year (*The Federal Register* 2020). The impact of COVID-19 was far more reaching than people assumed it would be. As of February 2022, there are still travel restrictions in place for some destinations, restrictions on travelers desiring to cruise, and port cities that cannot accommodate travelers at pre-pandemic levels. The most recent update comes from the United States Embassy website on COVID-19-related travel restrictions based on country. As of October 06, 2022, U.S. citizens are no longer required to test negative for COVID-19 before entering the Bahamian countries or the Dominican Republic, masks are no longer required in public places in the Bahamas and the Dominican Republic, and quarantine is not necessary before enjoying a vacation in the Caribbean (US Embassy, 2022). COVID-19 widely impacted the cruise industry starting in March of 2020 and has seen a slow but steady comeback as the ports of call reopen and ease restrictions.

This study will examine how port countries were positively impacted by the travel and tourism industry before COVID-19, the degree to which these economies and the cruise line companies were affected during COVID-19, and what measures the affected countries are taking to recover their revenue generated from the travel and tourism industry as cruise lines now operate at an increased capacity.

Data Presentation

The data used in this study is gathered mainly from governmental end-of-year financial reports detailing tourist expenditures and arrivals, as well as data from the two largest cruise line companies, Carnival Cruise Line and Royal Caribbean displaying revenue and net income. It consists of data from the year 2018 onward gathered from annual reports and historical financial data from Carnival Cruise Line and Royal Caribbean and governmental data from The Bahamas and the Dominican Republic. The data gathered from both cruise lines will be presented as the net revenue of each line as well as their overall net income for the fiscal year measured in the millions. There will also be some presentation of the size of some of the major ships involved with each line to ensure a thorough understanding of the capacity of each cruise line and how it relates to the revenue and net income. The data gathered from The Bahamas and the Dominican Republic will consist of the amount of tourists that arrived in port via cruise ship and actually entered the country classified as port arrivals. It will also include the amount of money spent by tourists in ports on items related to the tourism industry such as shopping as well as food and beverage classified as tourism expenditures. Unemployment Rate and the amount of individuals affected by unemployment in the hospitality field will also be included and analyzed for both The Bahamas and the Dominican Republic.

Cruise ship companies experienced a steep decline in their revenue during COVID-19. Three major cruise companies make up nearly 74.6% of the cruise industry from 2015-2021, including Royal Caribbean Cruises, Carnival Cruise Line, and Norwegian Holiday Cruises (Lin et al., 2022). The two largest of those three are Carnival Cruises and Royal Caribbean Cruises, and both companies lost upwards of 5 billion dollars in 2020 and 2021 (Lin et al., 2022) as seen

in Tables 1.1 and 1.2. Royal Caribbean has recovered a little slower than Carnival Cruises in the year 2022 due to the amount of debt they took on during the pandemic. While Royal Caribbean was planning for new ships and paying off older debt during the Pandemic, Carnival took a different approach and sold 19 of its older model ships in 2020, which decreased its fleet size by 13% (Lin et al., 2022). Though Carnival has more ships than Royal Caribbean, the size difference between the ships allowed Royal Caribbean to recover quickly despite the outstanding debt. Royal Caribbean has 5 ships that have held the title of largest ship to sail and each one has only been replaced by another ship in the Oasis class (Callais, 2023). The current ship with that title is *Wonder of the Seas* with a capacity of 5,700 at double occupancy. Royal Caribbean is set to sail the largest cruise ship to date, the *Icon of the Seas* in 2024 with an occupancy of 5,610 guests at double occupancy or at 7,600 passengers at full capacity (*Icon of the Seas* 2023). This amount of space alone on just the two newest ships has allowed Royal Caribbean to operate at a deficit of only \$1.65 million lost in 2022 as seen in Table 1.2, versus Carnival who operated at a \$6.09 million deficit in 2022 as seen in Table 1.1.

Table 1.1 Carnival Financial Data (Annual Report, 2021, 2023)

| In Millions | Revenue | Net income |
|--------------------|----------|------------|
| 2018 | \$18,881 | \$3,207 |
| 2019 | \$20,825 | \$3,060 |
| 2020 | \$5,595 | -\$10,253 |
| 2021 | \$1,908 | -\$9,501 |
| 2022 | \$12,168 | -\$6,093 |

Table 1.2 Royal Caribbean Financial Data (Key Statistics, 2023)

| In Millions | Revenue | Net Income |
|--------------------|----------|------------|
| 2018 | \$9,493 | \$1,811 |
| 2019 | \$10,950 | \$1,878 |
| 2020 | \$2,208 | -\$5,797 |
| 2021 | \$1,532 | -\$5,260 |
| 2022 | \$6,223 | -\$1,655 |

Continuing with the governmental data from The Bahamas, the total number of cruise arrivals for the years 2018 and 2019 were 4,877,596 and 5,433,359 tourists, respectively (CBB, 2021). These arrivals are determined by the amount of tourists who visit the Bahamas via cruise ship and get off the ship even if only for a brief time. The tourists that stay on the ship are not included in this arrivals count as they did not enter the island and instead chose to stay on the ship. Tourists spent approximately \$354,219,000 and \$392,850,000 in 2018 and 2019 respectively across the Bahamian family of islands (CBB, 2021) as shown in Table 2.1. These expenditures are measured by the amount of money spent by tourists in the country on things such as shopping, travel on the island, food and beverage, as well as accommodations for those who are staying overnight. The expenditures measured here do not include accommodations as cruise ship arrivals do not stay overnight on the islands. In 2020, the arrivals and expenditures category declined significantly as tourists were not able to travel to these destinations. In 2020, cruise arrivals decreased to only 1,327,142 tourists, who spent approximately \$78,300,000 (CBB, 2022). Most of this income came during Quarter One, spanning from January to March, a

trend seen when examining the financial reports of other Caribbean islands around the same time. As COVID restrictions began to ease in the ending months of 2021, the cruise arrivals and expenditures in the Bahamian islands increased with 1,112,181 tourists who spent approximately \$53,784,000 from October to December (CBB, 2023). The financial data for expenditures is not yet available for 2022, but there was a significant increase in arrivals as the Bahamian islands hosted 5,390,016 cruise arrivals, a 383.33% increase from 2021 arrivals (CBB, 2023).

Table 2.1 Bahama Arrivals and Expenditures (CBB, 2021, 2022, 2023)

| Bahamas | Tourist Expenditures | Port Arrivals |
|----------------|----------------------|---------------|
| 2018 | \$354,219,000 | 4,877,569 |
| 2019 | \$392,850,000 | 5,433,359 |
| 2020 | \$78,300,000 | 1,327,142 |
| 2021 | \$53,784,000 | 1,115,181 |
| 2022 | N/A | 5,390,016 |

The data from the Dominican Republic tells a very similar story. From 2018 to 2019 the port arrivals increased from 982,329 to 1,103,898 tourists (*Sector turismo* 2022). Then in 2020, the arrivals dropped to 342,872, and in 2021 arrivals decreased even further to only 33,134 port arrivals (*Sector turismo* 2022). There is no available data that shows Dominican Republic tourist expenditures, but calculating from the average tourist expenditures each year estimates that in 2018 port arrivals spent \$87,604,100.22, and in 2019, \$100,785,887.40 (CBDR, 2021). This amount drastically decreased in 2020 to approximately \$35,010,659.92 and decreased even further in 2021 to approximately \$3,068,871.08 (CBDR, 2021).

Table 2.2 Dominican Republic Arrivals and Expenditures (CBDR, 2021, 2022)

| Dominican Republic | Average Total Expenditures | Port Arrivals |
|--------------------|----------------------------|---------------|
| 2018 | \$87,604,100.22 | 982,329 |
| 2019 | \$100,785,887.40 | 1,103,898 |
| 2020 | \$35,010,659.92 | 342,872 |
| 2021 | \$3,068,871.08 | 33,134 |
| 2022 | N/A | 1,325,442 |

The expenditure comparison between the Dominican Republic and The Bahamas can be seen in Table 3.1 with the expenditure gains and losses being much higher than those of the Dominican Republic. Part of this can be attributed to the fact that the Bahamas are made up of 30 inhabited islands the largest of those including Grand Bahama Island and Nassau are mainly focused on tourism and hospitality (Albury & Harris, 2023). This can also explain why the drop in expenditures is so significant compared to the Dominican Republic as there are more areas to lose money. Both nations follow the same trend with a significant decrease in expenditures in 2020, and falling even further in 2021.

Expenditure Comparison between The Bahamas and The DR

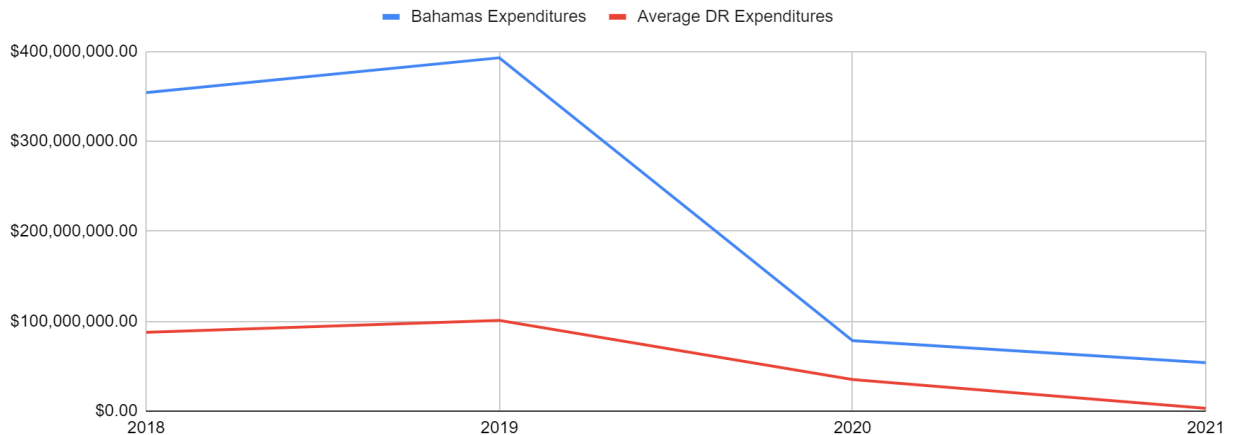


Table 3.1 Expenditure comparison

Most of the financial data currently available for the Bahamas and the Dominican Republic does not include 2022. The revenue for the cruise ships, however, does include this data. Referring to Tables 1.1 and 1.2, the revenue for both Carnival Cruise Line and Royal Caribbean Cruises has increased drastically from 2021. Carnival Cruise and Royal Caribbean are slowly decreasing the amount of revenue lost each year, trying to increase revenue numbers higher than even pre-COVID.

Unemployment is also a large factor in economics and can cause serious issues for countries if a large portion of their workforce is unemployed. COVID-19 affected the unemployment of the tourist industry employees in The Bahamas and the Dominican Republic severely. In The Bahamas, the tourism industry makes up for approximately 70% of employment and from April to September of 2020, 47,000 workers qualified for unemployment benefits (IADB, 2022). Those who were self-employed in the tourism industry were hit the hardest with over 15.66 million BSD paid out in unemployment to over 7,000 people from April of 2020 to January of 2022 (IADB, 2022). According to the World Bank, the overall unemployment rate for

the Bahamas increased significantly from 10.7 in 2019 to 12.5 in 2020, and decreased slightly in 2021 to 11.7 (World Bank Open Data, 2023). The overall unemployment rate also increased from 10.7 in 2019 to 25.6 in December of 2020 (IADB, 2022).

The Dominican Republic shows a very similar trend with La Altagracia province. It is the largest tourist area on the island and in 2010 over 40% of the work force was employed in the tourism industry but in 2020 had the highest amount of documented layoffs with 7,827 employees (Dominican Today, 2020). With over 20,000 employees overall being terminated through the Ministry of Labor (Dominican Today, 2020), the unemployment rate was 8 by Quarter 1 of 2021 (Cepal, 2022). The overall unemployment rate is a less drastic decline even going into 2020, but then significant increases from 6.1 to 7.7 in 2021 (World Bank Open Data, 2023).

Conclusion

Comparing the Bahamian Islands to the Dominican Republic allows professionals to demonstrate just how much revenue the cruise industry and its clientele bring into the countries they visit. As seen by both countries' data, cruise tourists increased in port spending by 10.91% in the Bahamas and by about 15.05% in the Dominican Republic. The year 2020 was projected to follow that upwards trend in both countries, but COVID-19 interrupted the flow of the tourism industry, especially the cruise industry. The percent change from 2019 to 2020 was -80.07% in the Bahamas and -65.26% in the Dominican Republic. These countries' revenues were significantly decreased without the influx of tourists as they no longer had the large number of foreigners who wanted to spend their money in the cruise ports as seen in Table 3.1.

When analyzing the quarterly report for the Central Bank of the Bahamas the report breaks down each sector that majorly contributes to their economy into its own section at the

very beginning of the report. The very first sector the report discusses is the tourism sector where the report states “Preliminary evidence suggest that tourism output continued to strengthen during the final quarter of 2022, benefitting from the easing of pandemic related-restrictions in the major source markets, and pent-up demand. These contributed to healthy seasonal gains in the high-valued air segment and a notable rebound in the dominant sea component (CBB, 2023).” Especially in the Caribbean area, many economies are dependent on the tourism industry as a whole to keep their people employed, money flowing into the economy, and spreading their culture and history to the rest of the world. The restrictions are slowly being eased or even lifted completely, as evidenced by the fact that there is no test or quarantine requirement in the Bahamas or the Dominican Republic (US Embassy, 2022). The cruise ship industry is also recovering steadily with increasing revenues and net incomes. Many vacations that were canceled in 2020 and 2021 are now being taken as people are excited to get out and explore the new normal. This is leading to a boom in the tourism industry that is displayed in the number of people cruising and the amount of money that is spent on cruise ships and the cruise industry overall.

Even in the cruise industry, restrictions are being eased or done away with as neither Royal Caribbean nor Carnival requires a negative test or proof of vaccination to board the ships (Boarding Requirements), (*Have fun. be safe*). Looking at both the countries’ financial data, the financial data for the cruise ship companies, as well as unemployment rates for tourism workers and overall in both countries allows professionals to conclude that COVID-19 did have a major impact on the industry and travel and tourism as a whole. As the tourism industry slowly reopens, things are slowly but surely increasing towards Pre-COVID levels with predictions to

continue the upward momentum seen previous to the pandemic ensuring that the travel industry stays the largest and fastest growing industry.

References

- Albury, E. P., & Harris, D. R. (2023, April 7). *The Bahamas*. Encyclopædia Britannica. Retrieved April 21, 2023, from <https://www.britannica.com/place/The-Bahamas>
- Behsudi, A. (2020, December 1). *Impact of the pandemic on tourism – IMF F&D*. IMF. Retrieved April 8, 2023, from <https://www.imf.org/en/Publications/fandd/issues/2020/12/impact-of-the-pandemic-on-tourism-behsudi>
- Boarding requirements FAQ: Royal Caribbean Cruises*. Boarding Requirements. (n.d.). Retrieved April 7, 2023, from <https://www.royalcaribbean.com/faq/topics/boarding-requirements>
- Callais, T. (2023, March 30). 12 major differences between Royal Caribbean and Carnival Cruise Line. Cruzely.com. Retrieved April 1, 2023, from <https://www.cruzely.com/11-major-differences-between-royal-caribbean-and-carnival/>
- Carnival Corporation & PLC. (2021). 2020 Annual Report - Carnival Corporation & plc. Financial Information. Retrieved March 1, 2023, from <https://www.carnivalcorp.com/static-files/48701769-9f2c-48c6-ac4f-4772bad2ff8b>

Carnival Corporation & PLC. (2023). *2022 annual report - carnivalcorp.com*. Financial Information. Retrieved March 1, 2023, from <https://www.carnivalcorp.com/static-files/ef80ac8c-e40e-42ad-ba8e-62a02fb13d6d>

Carnival Cruise Line. (n.d.). *Have fun. be safe*. Carnival Cruise Line. Retrieved April 5, 2023, from <https://www.carnival.com/legal/covid-19-legal-notice/covid-19-guest-protocols>

Center for Disease Control and Prevention, & Department of Health and Human Services. (2020, October 5). The Federal Register. Federal Register:: Request Access. Retrieved April 7, 2023, from <https://www.federalregister.gov/documents/2020/10/05/2020-22030/no-sail-order-and-suspension-of-further-embarkation-third-modification-and-extension-of-no-sail>

Cepal, N. (2022, November 30). *Economic survey of Latin America and the Caribbean 2022: Trends and challenges of investing for a sustainable and inclusive recovery*. Inicio. Retrieved April 22, 2023, from <https://hdl.handle.net/11362/48078>

Central Bank of the Bahamas. (2021, March 15). *Quarterly Economic Review - Central Bank of the Bahamas*. Quarterly Economic Review. Retrieved March 20, 2023, from <https://www.centralbankbahamas.com/index.php/viewPDF/documents/2021-03-17-12-21-56-QER-December-2020-final.pdf>

Central Bank of the Bahamas. (2022, March 21). *Quarterly Economic Review - Centralbankbahamas.com*. Quarterly Economic Review. Retrieved March 20, 2023, from <https://www.centralbankbahamas.com/index.php/viewPDF/documents/2022-03-21-15-18-26-QER-December-2021-Final.pdf>

Central Bank of the Bahamas. (2023, March 15). *Cdn.central bank bahamas.com*. Quarterly Economic Review. Retrieved March 20, 2023, from <https://cdn.centralbankbahamas.com/documents/2023-03-15-09-45-16-Quarterly-Economic-Review-December-2022.pdf>

Central Bank of the Dominican Republic. (2021). *Turísticas2021-12*. Banco Central de la República dominicana. Retrieved March 22, 2023, from <https://bancentral.gov.do/Publicaciones/Consulta?CategoryId=89>

Central Bank of the Dominican Republic. (2022). *Sector turismo*. Banco Central de la República Dominicana. Retrieved March 22, 2023, from <https://www.bancentral.gov.do/a/d/2537-sector-turismo>

Centers for Disease Control and Prevention. (2022). CDC Museum Covid-19 Timeline. Centers for Disease Control and Prevention. <https://www.cdc.gov/museum/timeline/covid19.html#:~:text=March%2011%2C%202020,declar es%20COVID%2D19%20a%20pandemic>.

Chang, D.-S., & Wu, W.-D. (2021). Impact of the COVID-19 Pandemic on the Tourism Industry: Applying TRIZ and DEMATEL to Construct a Decision-Making Model. *Sustainability*, 13(14), 7610. MDPI AG. <http://dx.doi.org/10.3390/su13147610>

Covid-19 effects and impacts on the Bahamas estimated at \$9.5 billion. IADB. (2022, July 6). Retrieved April 20, 2023, from <https://www.iadb.org/en/news/covid-19-effects-and-impacts-bahamas-estimated-95-billion>

Covid-19 information for the Bahamas and Turks and Caicos Islands. U.S. Embassy in The Bahamas. (2022, October 6). Retrieved March 15, 2023, from <https://bs.usembassy.gov/covid-19-information/>

Coronavirus information for the Dominican Republic. U.S. Embassy in the Dominican Republic. (2022, October 6). Retrieved April 7, 2023, from <https://do.usembassy.gov/u-s-citizen-services/covid-19-information/>

DiPietro, R. B., & Peterson, R. (2017). Exploring Cruise Experiences, Satisfaction, and Loyalty: The Case of Aruba as a Small-Island Tourism Economy. *International Journal of Hospitality & Tourism Administration*, 18(1), 41–60. <https://doi.org/10.1080/15256480.2016.1263170>

Dominican today. (2020, July 25). *Tourist industry has most layoffs in Dominican Republic*. Dominican Today. Retrieved April 21, 2023, from <https://dominantoday.com/dr/economy/2020/07/25/tourist-industry-has-most-layoffs-in-dominican-republic/>

Fridriksson, J., Wise, N., & Scott, P. (2020). Iceland's burgeoning cruise industry: An economic opportunity or a local threat? *Local Economy*, 35(2), 143–154. <https://doi.org/10.1177/0269094220911369>

Lin, L.-Y., Tsai, C.-C., & Lee, J.-Y. (2022). A Study on the Trends of the Global Cruise Tourism Industry, Sustainable Development, and the Impacts of the COVID-19 Pandemic. *Sustainability*, 14(11), 6890. MDPI AG. Retrieved from <http://dx.doi.org/10.3390/su14116890>

Little, J. (2021, April 15). *An unwelcome visitor: Covid-19 and the Caribbean's tourism collapse*.

Wilson Center. Retrieved April 20, 2023, from <https://www.wilsoncenter.org/blog-post/unwelcome-visitor-covid-19-and-caribbeans-tourism-collapse>

Nogue-Alguero, B. (2020). Growth in the docks: ports, metabolic flows and socio-environmental impacts. *Sustainability Science*, 15(1), 11. <https://doi.org/10.1007/s11625-019-00764-y>

Peručić, D. (2020). Analysis of the world cruise industry. DIEM: *Dubrovnik International Economic Meeting*, 5(1), 89-99. <https://hrcak.srce.hr/236765>

Peručić, D., & Greblički, M. (2022). Key Factors Driving the Demand for Cruising and Challenges Facing the Cruise Industry in the Future. *Tourism* (13327461), 70(1), 87–100. <https://doi.org/10.37741/t.70.1.6>

Royal Caribbean Group. (2023). Key statistics. Key Statistics | RCCL Investors. Retrieved March 1, 2023, from <https://www.rclinvestor.com/financial-info/key-statistics/> (*Key statistics*)

Scheyvens, R., & van der Watt, H. (2021). Tourism, Empowerment and Sustainable Development: A New Framework for Analysis. *Sustainability*, 13(22), 12606. MDPI AG. <http://dx.doi.org/10.3390/su132212606>

Syriopoulos, T., Tsatsaronis, M., & Gorila, M. (2020). The Global Cruise Industry: Financial Performance Evaluation. *Research in Transportation Business & Management*.

Unemployment, total (% of total labor force) (modeled ILO estimate) - Bahamas, the. World Bank Open Data. (2023). Retrieved April 27, 2023, from

<https://data.worldbank.org/indicator/SL.UEM.TOTL.ZS?end=2021&locations=BS&start=2018&view=chart>

Unemployment, total (% of total labor force) (modeled ILO estimate) - Dominican Republic. World Bank Open Data. (2023). Retrieved April 26, 2023, from

<https://data.worldbank.org/indicator/SL.UEM.TOTL.ZS?end=2021&locations=DO&start=2018>

Wikimedia Foundation. (2023, April 5). Icon of the Seas. Wikipedia. Retrieved April 5, 2023, from

https://en.wikipedia.org/wiki/Icon_of_the_Seas#:~:text=The%20ship%20will%20have%20a,pools%20and%206%20water%20slides.

Zhang, X., Wang, C. (2021). Prevention and Control of COVID-19 Pandemic on International Cruise Ships: The Legal Controversies. *Healthcare*, 9(281), 281.

<https://doi.org/10.3390/healthcare9030281>