CAYMAN ISLANDS
GOVERNEMT

THE ECONOMIC IMPACT OF CRUISE TOURISM IN THE CAYMAN ISLANDS

Prepared by :

The Economics and Statistics Office

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List of Abbreviations and Acronyms

BREA	Business Research and Economic Advisors
ESO	The Economics and Statistics Office
F-CCA	Florida-Caribbean Cruise Association
GDP	Gross Domestic product
MOT	Ministry of Tourism and Ports
DOT	Department of Tourism
CSDF	Cruise Ship Departure Tax
EPFF	Environmental Protection Fund Fee

Executive Summary

- Despite a robust economic performance in recent years, as a small open and service-based economy, Cayman is susceptible to economic shocks. The loss or sustained decline of cruise tourism will exacerbate the lack of economic diversity and limit the Island's resilience.
- For the seven years between 2013 and 2019, Cayman's cruise visitor arrivals grew by an average of 3.2% per year.
- In the two full calendar years following the pandemic, the contribution of the two major cruise lines declined noticeably to 40.2% compared to 54.0% in the two full pre-pandemic years. The aggregated total cruise passenger arrivals between the two periods fell by 33.9%. Four of Cayman's six major cruise lines are transitioning to larger-class ships that have not been visiting the Islands.
- The estimated expenditure from cruise activities peaked at $178.1 million in 2018 before falling to $166.8 million in 2019. The total spending in 2023 was estimated to be $132.8 million and is expected to be $128.9 million in 2024.
- Shopping and excursions account for more than 86% of cruise passenger spending, followed by food, beverage, and other recreation.
- The majority of cruise spending supports the wholesale and retail industry, followed by other services. Caymanians account for 46% of employed persons in the wholesale and retail sector and 43% in other services.
- For 2018, cruise spending generated an estimated value added of $191.1 million (or 4.4% of total nominal GDP at basic prices). Activities induced by cruise spending supported an estimated 2,587 jobs or 5.8% of total annual employment. The gross value added in 2023 is estimated at $142.5 million (or 2.5% of total GDP), while in 2024, gross value added is expected at $138.3 million (or 2.4% of GDP). In 2023, 1,622 jobs were supported (or 2.8% of total employment), while 1,537 (or 2.6%) are expected to be supported in 2024.
- The cruise industry is estimated to have contributed $30.5 million to government revenue in 2018, representing 3.9% of total tax revenue for the year. For 2023, induced revenue is estimated at $22.1 million or 2.3% of tax revenue.
- Cruise arrivals are expected to fall by 4.8% in 2024 before increasing by 5.2% in 2025. Arrivals are projected to decline by an average of 5.2% annually in the ensuing years. Gross value added is projected to fall to $128.9 million or 1.8% of GDP by 2029. The total supported jobs are projected to decline by an aggregated 19.3% from 2023 to 1,169 by 2029. Government revenue from cruises is projected to fall by an average of 4.3% annually after 2025.
- By not having a cruise port, Cayman lost between 17,621 and 419,026 visitors in 2024. This is expected to worsen as cruise lines increase the number of larger-class vessels in their fleet.

Background

Cruise tourism has become a significant part of the Caribbean tourism landscape. Leveraging its natural beauty and strategic location, the region has become one of the world's leading cruise destinations. According to the Florida-Caribbean Cruise Association (F-CCA)[1] 2019 Cruise Industry overview, the Caribbean was the largest regional destination for cruises, accounting for 34.4% of global deployment. The region's appeal is boosted by the diverse cultures, pristine beaches, and favourable weather conditions year-round. Consequently, cruise tourism has evolved from a niche market to a major segment of the region's tourism industry.

Since the discovery of the Cayman Islands by Christopher Columbus in 1503, the Islands became a favoured haunt of pirates, and "The Caymanes" are named frequently in pirate literature. Sir Henry Morgan is known to have watered his ship in the Cayman Islands before sailing off to a raid on Panama. After the 1713 Treaty of Utrecht brought peace between England, France and Spain and ended privateering, the Cayman Islands became an even more popular lair for pirates, among them Edward Teach (or Thatch), better known as Blackbeard, Thomas Anstis, Edward Low, George Lowther and Neal Walker[2].

In more recent years, the Islands have become known for its prowess on the high seas in a more legitimate form. Through the expertise of its sailors, Caymanians became world-renowned captains and seamen. Whether through its initial exploits with pirates or the recent exploits as sailors and seamen, Caymanians have long relied heavily on the high seas for their prosperity. More recently, the Islands have benefited from an influx of cruise tourism visitors, eager to explore the region and, more specifically, visit the serene paradise of Cayman's shores. However, the influx of visitors has brought challenges, including overcrowded beaches and a perceived degradation of local resources.

These concerns have forced residents to question whether the benefits gained from cruise tourism are worth the cost. Consequently, efforts to construct Cayman's first cruise port in 2019 were thwarted by a people-initiated referendum. Since then, the desired direction of the Islands for cruise tourism has remained uncertain. To ensure that the government can plan for the development of the industry in a manner that is congruent with the people's wishes, the Cabinet resolved to conduct a referendum on the issue. To aid residents and stakeholders in deciding the strategic direction of the industry, this assessment seeks to estimate, in a quantitative way, the total economic contribution of Cruise Tourism in the Cayman Islands. The report will also present a projection for the industry. No attempt will be made to evaluate the total direct or opportunity costs of cruise.

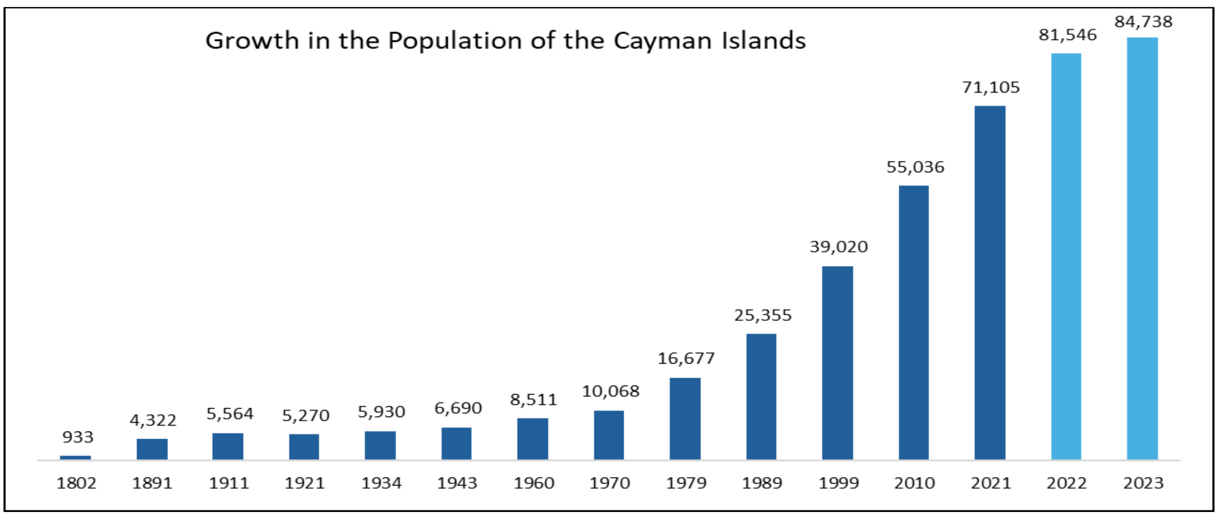
[1] According to their website FCCA) is a not-for-profit trade organization composed of 23 Member Lines operating nearly 200 vessels in Floridian, Caribbean and Latin American waters. https://www.f-cca.com/

[2] Excerpts taken from the Cayman islands Economic Development Plan 1986-1990.

Socio-Economic Overview of Cayman

Demographic Characteristics

At the end of 2023, the total resident population of Cayman was 84,738, of which 46.1% were Caymanians and 53.9% were non-Caymanians. The total working population in 2023 was 58,504; 36.9% were Caymanians, and 63.1% were non-Caymanians. Between 1979 and 2010, Cayman's population expanded by an average of 49.0% every ten years. This rate fell to 29.2% for the eleven years leading up to 2021. Since then, the population has shown signs of an uptick in growth, with increases of 14.7% in 2022 relative to 2021 and 3.9% in 2023 relative to 2022. Given this sharp uptick and the persistent expansion over the last four decades, there is a rising concern that the island's population is growing at an unsustainable pace. These concerns have been exacerbated by the need for additional housing, road networks, and other infrastructure requirements that have encroached on the island's wetlands and changed the natural scenery that locals are accustomed to. It is worthwhile to reiterate that this is also an essential part of the tourism product. Along this line, some residents argue that continued increases in cruise arrivals will further encroach on and limit the Islands' natural resources.



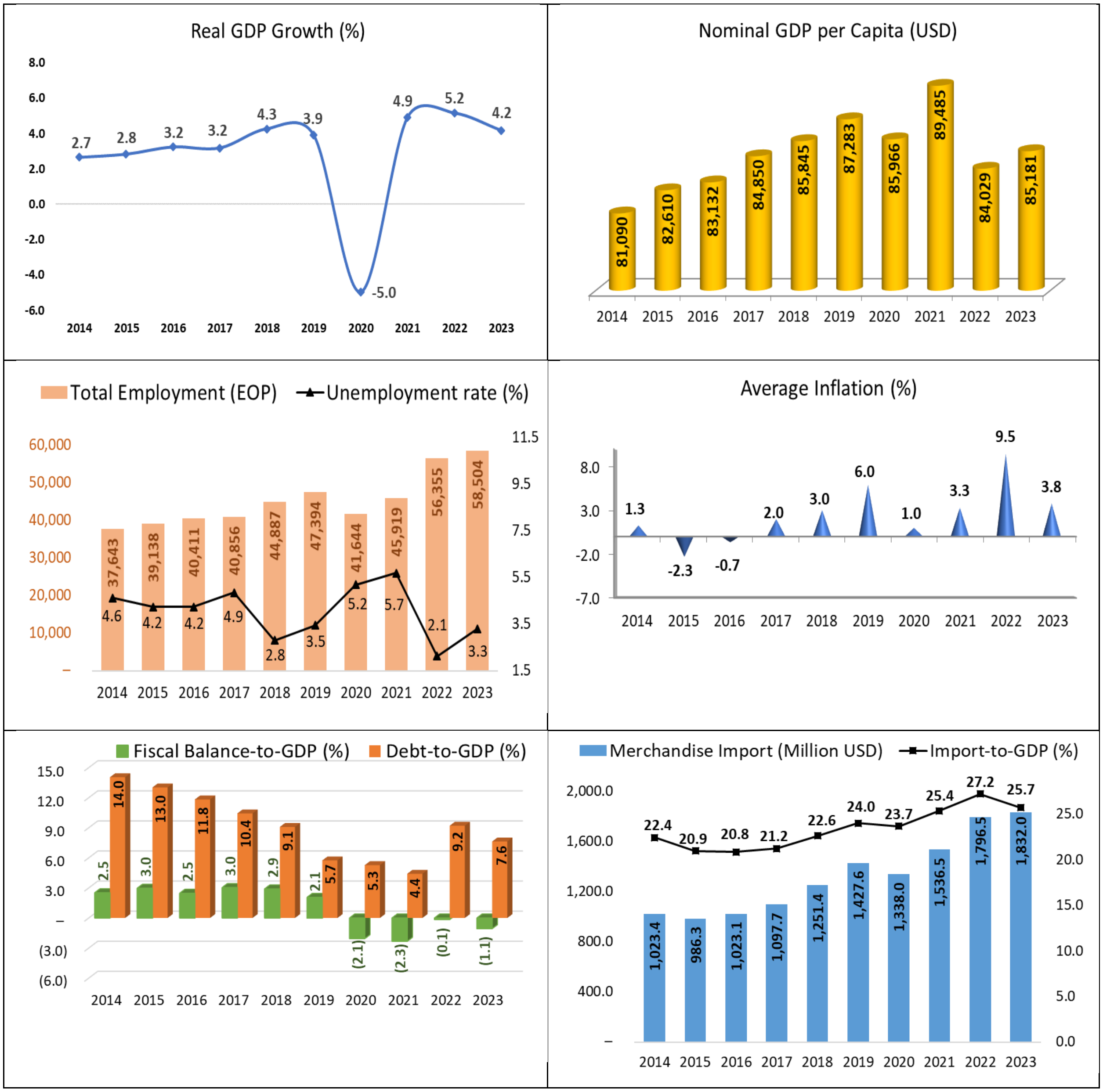
Economic Characteristics

Over the last two decades, the Islands have experienced robust economic growth that has supported the expansion of the general population. Notwithstanding the population growth, the three small Islands of Cayman boast one of the highest per capita incomes in the region and are among the highest worldwide at US$85,181[3] in 2023. The Islands' GDP (at current prices) was estimated at US$5.94 billion at the end of 2023. In reaffirming Cayman's Aa3 credit rating in 2022, Moody's Investor Services noted that Cayman's per capita income is among the highest of its

[3] GDP per Capita is calculated using the midyear population figure and the US dollar equivalent is calculated as the currency GDP per Capita multiplied by pegged exchange rate 1.2 USD: 1 KYD.

rated sovereigns. Between 2014 and 2023, real economic growth in the Islands averaged 2.9% per year, including 2020, when the global COVID-19 pandemic occurred. For the six years immediately preceding the pandemic, the Island's real GDP grew by an average of 3.3% per year.

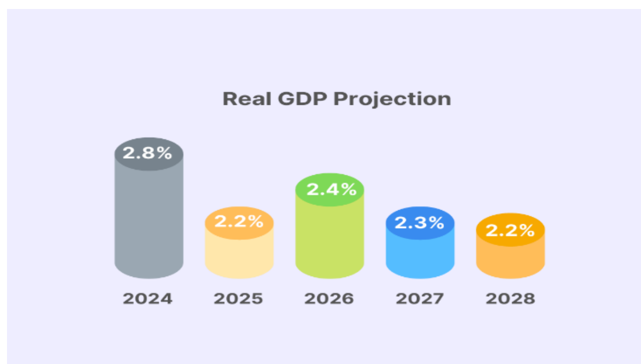
Selected Economic Indicators



The recent economic performance of the Islands has been characterised by robust economic expansion supported by the two core economic sectors of financial services and tourism. While recent years have been characterised by strong growth in construction, real estate and utilities, their growth has been predominantly to support the human and physical demands of core sectors. Notably, Over the last eight years, more than six hotels have been constructed or are under construction, each with a capacity of more than 100 rooms. Similar growth has also been seen in residential and other commercial developments. Between 2015 and 2022, the number of properties sold in the Islands grew by an average of 7.3%, boosted by investments in the Island's real estate as a financial asset class and demand for housing.

The Cayman Islands' solid economic performance has resulted in the employed labour force rising in each of the last ten years, except in 2020, when several businesses were mandated to close temporarily due to the pandemic. Consistently, the overall unemployment rate has remained below 5.0% except in 2020 and 2021, when the rate rose to 5.2% and 5.7%, respectively. In the last two years, as the tourism industry recovered, the rate fell to 2.1% and 3.3%, respectively.

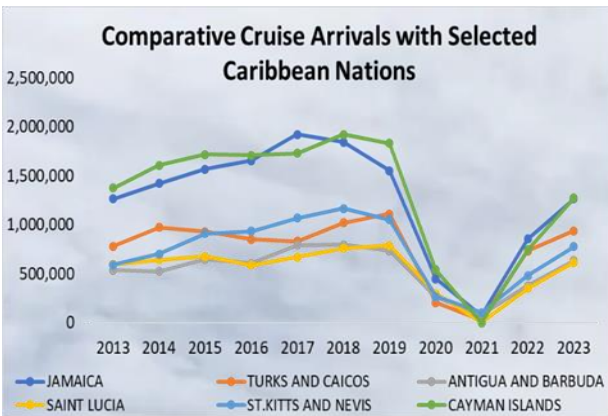
For the six years leading up to the pandemic, the central government operated with a fiscal surplus of roughly 2.6% of GDP annually. With the impact of the pandemic and the need to inject additional spending, the government operated with an average fiscal deficit of 1.4% per year over the last few years. In the six years preceding the pandemic, the government gradually reduced its debt from roughly 14.0% of GDP in 2014 to 4.4% in 2021. In 2022, the government accessed a standby loan agreement, which increased the debt-to-GDP ratio to 9.2%, which declined to 7.6% in 2023.



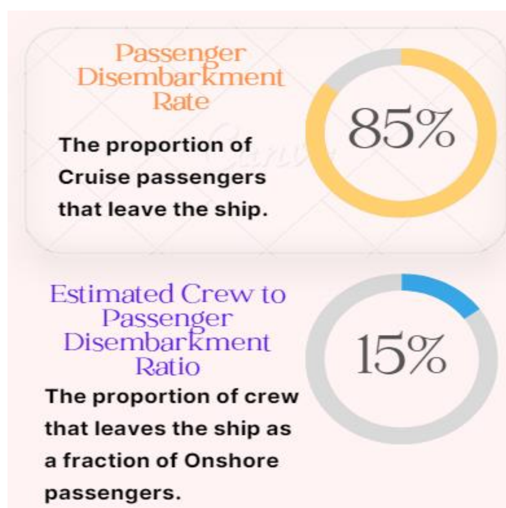
Small Service Economy: Given the size of the population and land mass, Cayman's economy is likely to remain small for the medium term, with most businesses achieving growth through a heavy reliance on tourists, financial services and the largely transient labour force. The economy is projected to grow at an average pace of 2.4% per year over the next five years. As a result of the small economy and limited natural resources, most consumables in the Cayman Islands are imported, except for what is generated by the secondary industries. Over the last 10 years, merchandise imports have increased by an average of 6.7% per year. In 2023, imports amounted to 25.7% of GDP, up from 22.2% in 2014. The reliance on services creates a unique challenge for the Islands by making it difficult to find alternative sectors to diversify the economy. Services accounted for 88.8% of real GDP in 2023. Diversification, among economic sectors, creates an additional layer of robustness and protection from shocks in any of the core sectors. Simultaneously, it stands to reason that losing any core sector in Cayman would increase vulnerability. Moody's in its 2021 rating update noted that "We would consider a positive outlook if developments alleviated the constraints the Cayman Island's small and relatively undiversified economy poses to the sovereign credit profile."

Cruise Visitor Arrivals

For the seven years between 2013 and 2019, Cayman's cruise visitor arrivals grew by an average of 3.2% per year. Similar increases were observed across the region, with Cayman being a dominant player. During the seven years, the Islands were among the top cruise destinations in the region, rivalled only by the Bahamas, Jamaica, Puerto Rico, and Mexico. Cruise arrivals in Cayman peaked in 2018 at just over 1.92 million visitors. Visitor arrivals then plummeted between 2020 and 2022 as lockdown measures impacted the industry for a period in each of the three years. Despite a full reopening of the sector in 2023, arrivals lagged behind its pre-pandemic levels. Because cruises are scheduled and booked long in advance, we can reasonably estimate the arrivals for 2024 with a fair degree of accuracy, given only three (3) months remain in the year. Historical analysis shows a relatively consistent passenger load for vessels and a low cancellation level, barring exceptional and unpredictable circumstances.



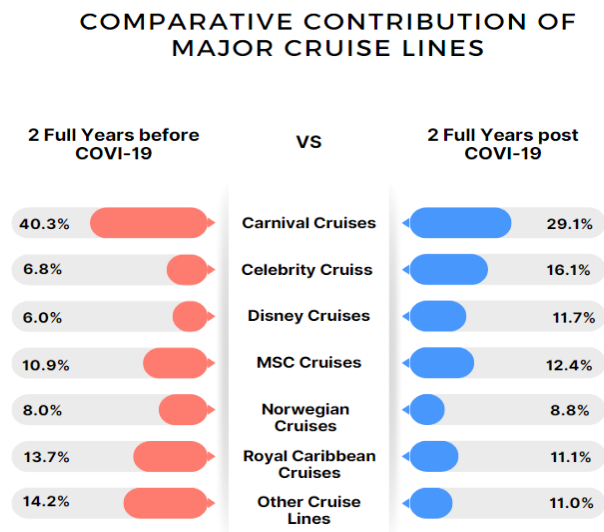
A 2017/18 survey conducted by Business Research and Economic Advisors (BREA)[4] indicated that approximately 85% of cruise passengers in the region disembarked at the destinations. That report also estimated that during the survey year, approximately 248.6 thousand cruise ship crew members disembarked their respective ships in Cayman. This is equivalent to roughly 15% of passengers who disembarked. For the purpose of this assessment, we assume that a similar proportion of passengers and crew disembarked in Cayman for each year analysed. As the survey was conducted over a year, all



[4] https://www.f-cca.com/downloads/Caribbean-Cruise-Analysis-2018-Vol-I.pdf

idiosyncratic factors associated with different ships and passenger moods were likely captured in the indicated rates.

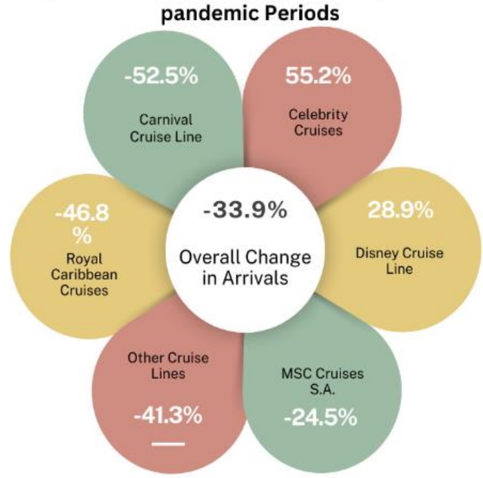
Since January 2018, approximately 194 unique cruise vessels have made an aggregated total of 5,204 visits to Cayman shores. These vessels represent the interests of roughly 35 distinct cruise lines. The diversity in cruise vessels and their respective cruise lines underscores the demand for accessing the Cayman Islands as a destination. Notwithstanding the diversity, the larger cruise lines have traditionally dominated port calls and passenger loads to the Islands. Specifically, in the two full calendar years before the pandemic, 2018 and 2019, Carnival Cruise Line accounted for approximately 40.3% of passengers visiting the islands, while Royal Caribbean Cruises accounted for approximately 13.7%. The top six cruise lines account for roughly 86% of all passengers.



In the two full calendar years following the pandemic, the contribution of the two major cruise lines declined noticeably. For the post-pandemic period, the combined passenger contributions of Carnival Cruise Line and Royal Caribbean Cruises fell to 40.2% compared to 54.0% in the pre-pandemic years. Increased passenger loads from other lines partly mitigated the impact of the passenger reduction from these two cruise lines. Specifically, over the two periods, the number of passengers visiting Cayman's shores on Celebrity Cruises and Disney Cruise Line increased by 55.2% and 28.9%, respectively. Notably, the two cruise lines were the only ones to emerge with higher passenger loads to the Islands in the post-pandemic period relative to the pre-pandemic period.

Recent Cruise Line trends

The aggregated total cruise passenger arrivals between the two calendar years before and after the pandemic period declined by 33.9%. A trend analysis of the vessels visiting Cayman shows a lower proportion of the newer and larger vessels visiting the Islands. Only two of the last 12 new vessels introduced by Royal Caribbean have visited the Islands. The two new vessels that visit the Islands have an average maximum capacity of 5,208 passengers per vessel. Notably, none of Royal Caribbean's largest class of vessels visit Cayman, and these vessels have an average maximum capacity of 6,740 passengers per vessel. The cruise line is scheduled to launch one new vessel in 2025 with a maximum passenger capacity of 7,600. The move by Royal Caribbean Cruise Line to larger vessels has contributed to its reduced contribution, as its newer in-demand vessels are not visiting the Islands.

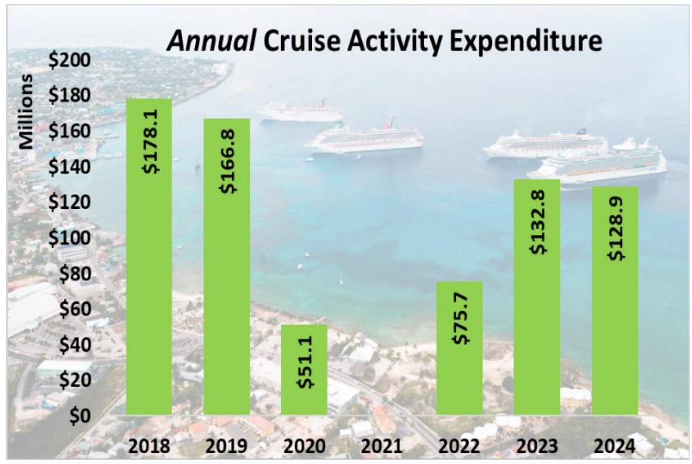


Of the 12 newest vessels that Carnival Cruise Line introduced, only 5 visited the Islands. Of those that visit, two (2) have not visited since the pandemic, while one made no port call in 2024. The average capacity of the three new vessels that have called on Cayman ports since the pandemic is 3,626 passengers per vessel. Carnival's six (6) newest vessels (none of which call on Cayman's port) average capacity is 4,310 passengers per vessel. Carnival Cruise Line has three additional cruise vessels scheduled between 2027 and 2029, with maximum passenger capacity between 7,000 and 8,000 passengers per vessel.

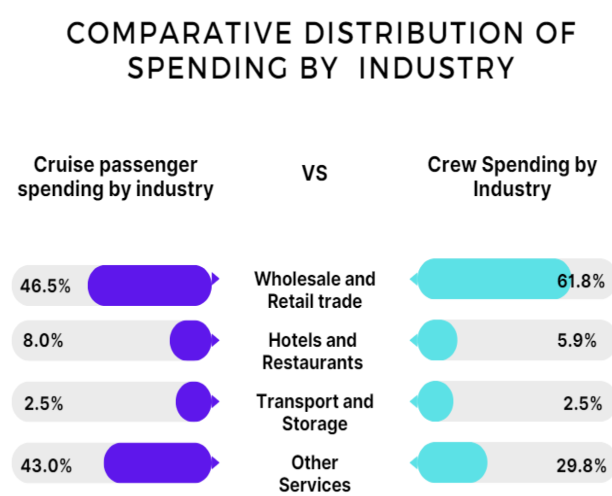
MSC Cruise Line has a similar trend, with only one of its most recent six vessels visiting Cayman's port; that vessel has not returned since the pandemic. MSC Cruise is scheduled to add three additional ships to its fleet over the next three years (2025-2027). The three new vessels will be among its largest class of ships. Most of Norwegian's fleet has visited the Islands at some point, and the cruise line is one of the most consistent over the two review periods. Notably, only 3 Norwegian vessels have a passenger capacity of over 4,000.

Disney Cruise Line and Celebrity Cruise Line are the only two lines with increased passenger loads to the Islands over the two periods. The maximum ship capacity of both fleets is 4,000 passengers. Disney is scheduled to receive its largest class of ship in December 2025, with a capacity of 6,000 passengers. Over the subsequent six years, Disney is scheduled to receive four new vessels, all expected to join its larger class of ships. Of note celebrity cruise line is wholly owned subsidiary of Royal Caribbean.

Expenditure Contribution of Cruise Visitors[5]

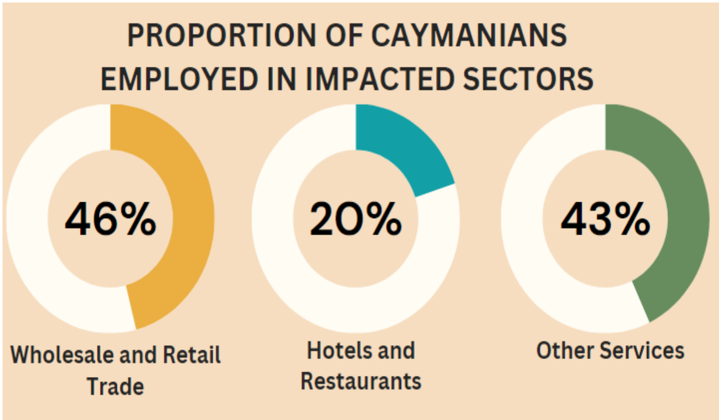


To estimate the annual cruise visitor spending, the disembarked passengers are multiplied by the average yearly spending per visitor. The average expenditure per passenger for 2019 was taken from the Department of Tourism (DOT) 2019 Destination Snapshot Report. In the subsequent years, we adjusted the spending per visitor by moving it in line with the average inflation of the previous three years. A three-year moving average is used to smooth the price adjustments and support the assumption that passengers will not change their spending patterns over the period. In addition to the spending of passengers, the annual spending of disembarking crew members was also estimated, using the established ratio of crew to passengers that disembark and the average spending of crew members onshore. The average spending by cruise passengers in 2019 was $113.40, while crew members, on average, spent $58.58[6] in 2018. The total spending by the two groups was then adjusted to include direct payments to the port authority and tendering services. The estimated expenditure from cruise activities peaked at $178.10 million in 2018 before falling to $166.8 million in 2019. The total spending in 2023 was estimated to be $132.8 million and is expected to be $128.9 million in 2024. The DOT's 2017 Annual Report presented a distribution of cruise visitor expenditure on different products and services. This assessment assumes that cruise passengers favour the Islands for similar reasons since the Cayman experience and products have not changed materially. The report showed that shopping and excursions accounted for more than 86% of cruise passenger spending, followed by food and beverage and other recreation. The spending categories outlined



[5] All expenditures are quoted in the local current CI$, where necessary the official exchange rate of US$1.2 to CI$1.0 used for conversions.
[6] The average spending of crew members is taken from the 2017/2018 BREA report.

were assigned to their respective industrial classification[7] based on primary activities. BREA's 2018 report also presented a distribution for crew spending in the region. This distribution was also adopted for the assessment period. The report indicated that crew members used approximately 62% of their onshore expenditure for shopping, followed by excursions and food & beverage. Similar to the spending by passengers, these were also assigned to respective industries. Notably, the majority of spending by both passengers and crew supported the wholesale and retail industry, followed by other services, which, for simplicity, include private arts and entertainment[8]. The 2021 census of the Cayman Islands indicated that Caymanians account for 46% of employed persons in the wholesale and retail sector and 43% of persons employed in other services. Caymanians accounted for 20% of employed labour in the hotels and restaurants sector.

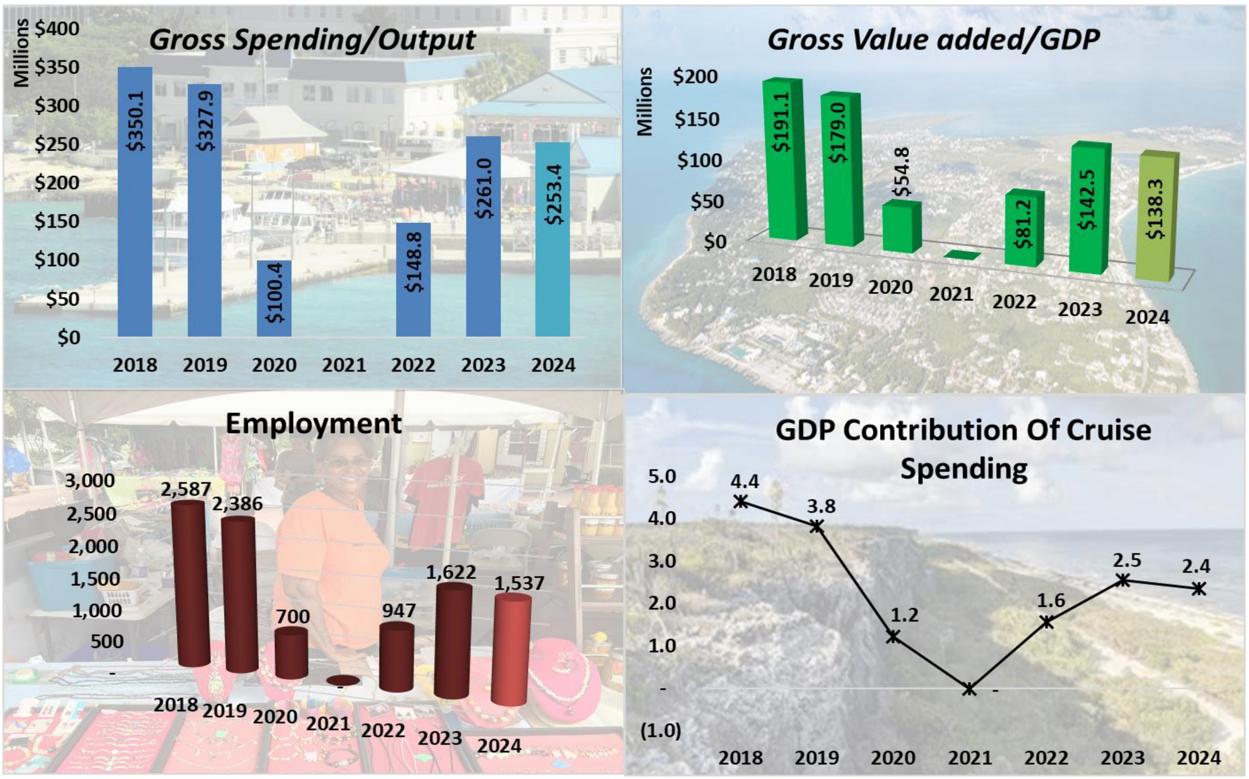


[7] Cayman uses the International Standard Industrial Classification of Economic Activity (ISIC) for industrial classifications.

[8] Private arts and entertainment include excursions, entertainment events and leisure tours.

Contribution to GDP and Employment

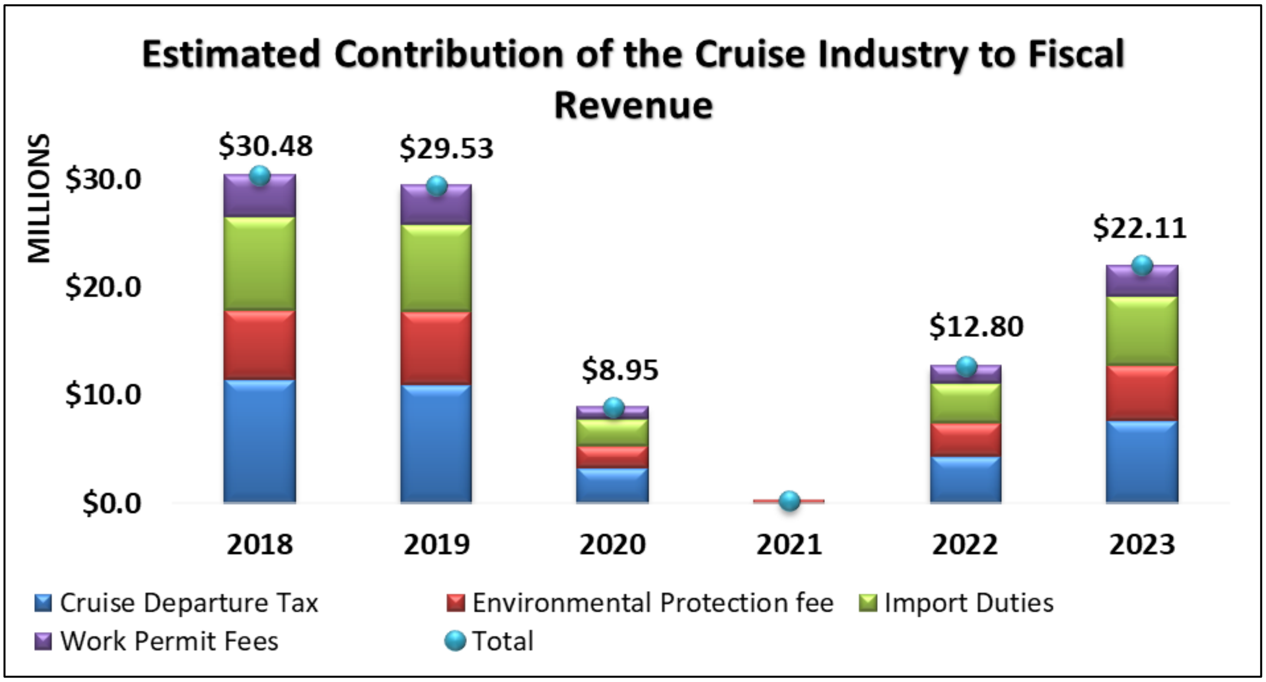
Sectoral output multipliers allow us to estimate the total impact of any spending on the economy. The gross output calculated from applying the multiplier includes the direct, indirect and induced impact of the annual expenditure. Application of the multipliers to the identified sectoral spending distribution above showed that cruise spending in 2018 generated gross output of $350.1 million. Gross output declined to $327.9 million in 2019. In the post-pandemic period, cruise spending is estimated to have generated $261.0 million in gross production for 2023 and is expected to generate $253.4 million in 2024.



For 2018, cruise spending generated an estimated value added of $191.1 million, representing roughly 4.4% of total nominal GDP at basic prices in that year. Activities induced by cruise spending supported an estimated 2,587 jobs or 5.8% of total annual employment. Gross value added contracted to $179.0 million in 2019, representing approximately 3.8% of the overall GDP at basic prices. This supported an estimated 2,386 jobs (or 5.0% of total employment). For 2020 and 2021, the average value added from the industry was $68.0 million, with an average of 823 jobs supported. The gross value added in 2023 is estimated at $142.5 million (or 2.5% of total GDP), while in 2024, gross value added is expected at $138.3 million (or 2.4% of projected GDP). A total of 1,622 jobs were supported in 2023 (or 2.8% of total employment), while 1,537 (or 2.6% of projected employment) are expected to be supported in 2024.

Contribution to Government Revenue

The cruise industry is estimated to have contributed $30.5 million to government revenue in 2018, representing 3.9% of total tax revenue for the year. For 2023, revenue was $22.1 million or 2.3% of tax revenue. The industry contributes to government revenue both directly and indirectly. On the direct side, the government levies a cruise departure charge and an environmental protection fee on all passengers of cruise vessels. The Port Authority of the Cayman Islands lists these charges on their website. Each passenger on a cruise ship must pay a cruise ship fee (CSDF) of $6.00, regardless of the nature of the cruise ship. For the environmental protection fund fee (EPF), seasonal cruise ship passengers pay $3.20, and yearly cruise ship passengers pay $1.60. In 2018, the government grossed $11.5 million in CSDF and $6.4 million in EPF. The collected revenue declined to $11.0 million for the CSDF in 2019 but rose to $6.8 million for the EPF. For 2022, the government collected $4.4 million in CSDF and $5.2 million in EPF. Similarly, in 2023, it collected $7.6 million and $5.2 million, respectively.



The government also collects revenue from imports induced by the industry. Based on the expenditure and the associated sectors identified, induced imports generated $8.6 million in import duties for the government in 2018[9]. The estimated duty collection accounts for 4.8% of the import duty collected in the year. For 2019, estimated import duty collection contributed $8.1 million to government revenue, while in 2022 and 2023, import duties contributed $3.6 million and $6.4 million, respectively. Employment generated from the industry creates a demand for

[9] The Assessment uses an import duty rate of 17%, among the lowest rates charged on imports.

expatriate workers. Estimated work permit fees induced by the industry contributed $3.9 million to government revenue in 2018, reflecting approximately 4.5% of revenues from work permit and residency fees.[10] Induced work permit fees are estimated at $3.9 million in 2019, while in 2022 and 2023, they are estimated at $1.7 million and $2.9 million, respectively.

Projected Performance of the Industry in a Status Quo Scenario

Based on the current cruise schedule, the trend of newer ships not calling on Cayman's ports, and assuming no changes or unforeseen events, cruise arrivals are expected to decline by 4.8% in 2024 before increasing by 5.2% in 2025. Arrivals are expected to decrease by an average of 5.2% annually in the ensuing years. Under current projections, it is estimated that by 2029, gross value added from the industry will fall to $128.9 million or 1.8% of GDP. Similarly, the total supported employment is projected to fall by 19.3% to 1,169 by 2029. Additionally, government revenue from cruises is projected to decline by an average of 4.3% annually after 2025.

Scenario Analysis for 2024

As noted above, gross value added in 2024 is expected at $138.3 million (or 2.4% of the projected GDP), with an expected 1,537 jobs (or 2.6% of projected employment) supported.

In 2024, Carnival Cruise Line is expected to make 95 total visits to Cayman, while Royal Caribbean Cruise Line and MSC Cruises are expected to visit 45 times and 37 times, respectively. If the islands had attracted the larger cruise vessels for the year, total arrivals from those three lines would have increased by an estimated 179,621. This would generate an additional $37.6 million in gross spending and result in gross value-added rising to 158.8 million (or 2.7% of projected GDP). A total of 1,766 employment would have been supported.

A scenario where Cayman had returned to its peak number of visits for 2024 but with the larger classes of ships from the three main cruise lines would generate a gross output of $490.6 million and gross value added of $267.7 million (or 4.6% of total GDP for the year). The increase would have supported 2,977 jobs and contributed $39.0 million in fiscal revenue.

Under the two scenarios above, it is estimated that if Cayman had a port and attracted larger vessels from existing cruise lines, it could have received between 17,621 and 419,026 additional visitors in 2024. The potential new visitors foregone is expected to continue in all subsequent years under a status quo scenario, with higher demand fuelling the addition of larger ships to the fleet of most cruise lines. Consequently, the growth in cruise is not expected to benefit the islands fully. Despite the rise in arrivals from Disney Cruise Line and Celebrity Cruises, the scheduled

[10] The average cost of existing work permits in the respective sectors is combined with the proportion of expatriates in the sector to estimate work permit fees.

addition of larger ships to Disney’s fleet could also impact the projections if the larger vessels cannibalise existing demand.

Acknowledgement and Sources

The ESO gratefully acknowledges the assistance and source material of the following institutions and reports in generating the data sets and estimates used in this report.

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