

ROYAL CARIBBEAN CRUISES LTD.

CRUISE INDUSTRY

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COMPANY REPORT

03 JANUARY 2018

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Entering the Cruising Golden Age

Sizing the opportunity in the Asia-Pacific region

- With an average 8.5% annual growth in the last 20 years, the cruise industry is the fastest growing segment of the tourism industry, surpassing the later with an average annual growth of 5.6%.
- To tackle the growing market demand, which is expected to increase by 60% until 2025, the capacity of Royal Caribbean will increase by 30%.
- The Chinese cruise market is the most underpenetrated market, experiencing a compounded annual passengers' growth rate of 76% over the past five years, being this outlook also designed as the *Golden Age* in the cruise industry.
- As a consequence, Royal Caribbean has invested significantly in this market with the deployment of four China-based ships, each costing one billion dollars, and a \$400 million investment in a two-acre cruise terminal in Taiwan.
- From 2014 to 2017, Royal Caribbean doubled its EPS and increased its ROIC from 6% to 10% due to growing revenues yields, cost cutting measures and moderate capacity growth.
- Based on the DCF Model, the estimated share price for the end of 2018 is \$123.76, which represents a return of 2.80%, when compared to the share price in the end of 2017. Moreover, the shareholder cash gain in 2018 is predicted to be \$2.28, hence, the total expected return would be 4.69%.

Company description

Royal Caribbean Crises Ltd. is the seconds largest cruise company in the world. Founded in 1985, it currently operates 49 ships worldwide and it is known by being the most innovative company in the industry. Its ships cover 535 destinations and it was a pioneer in deploying ships to China.

¹ Source: World Bank

² Source: Company Reports

Recommendation: **HOLD**

Price Target FY18: **\$ 123.76**

Price (as of 3-Jan-18) **\$ 120.39**

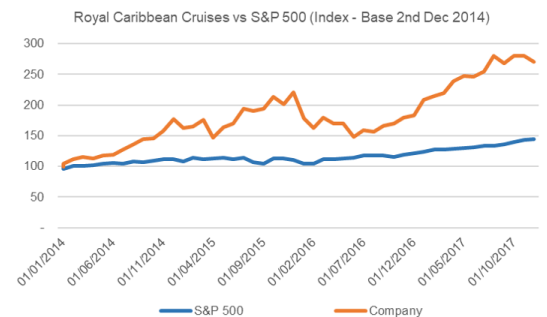
Reuters: RCL.N , Bloomberg: RLC.US

52-week range (\$) **81.59-133.75**

Market Cap (\$m) **25 536 529**

Outstanding Shares (m) **214 090**

Source: Bloomberg



Source: Bloomberg

(Values in \$ millions)	2016	2017E	2018F
Revenues	8 496	9 098	9 707
EBITDA	4 489	4 842	5 165
EBITDA margin	52.8%	53.2%	53.2%
Net Profit	1 695	1 546	1 680
EPS (\$)	7.92	7.22	7.85
P/E	10.36	16.67	16.64
EV / EBITDA	5.98	5.55	5.2
EV / Revenues	3.16	2.98	2.77
Net Debt to EBITDA	2.08	1.83	1.68

Source: Company Annual Report, Analyst Estimate

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Executive summary

Executive summary

- This report is aimed at explaining the valuation made to Royal Caribbean Cruises Ltd., the second largest cruise company in the world with three global brands associated and three joint ventures.
- The Discounted Cash Flow (DCF) method and the Multiples method was used to perform its valuation. In addition, the main revenues drivers for the company are the Number of Passengers, Onboard Spending of each Passenger, Cruise Daily Price, the Average Cruise Length of each Passenger and the Company's Capacity.
- The industry is expanding considerably: since 2007, its capacity has increased 40% and is expected to increase up to 50% from 2016 to 2027, mainly due to the significant increase in the Chinese cruise market. In a 20 years time span, from 2007 to 2027, designated as the "Golden Age", the market capacity is expected to increase by 117%¹, due to the growing demand.
- Royal Caribbean has finished, successfully, in 2017, its Double-Double program, which aimed to set its ROIC above 10% and double its earning per share (compared to 2014) – due to this, the company underwent into several cost saving measures and was able to improve its gross margin from 34%, in 2014, to 41%, in 2017, while the average cruise industry gross margin went from 26% to 31%². Since then, the company is more efficient than it ever was, it is unlikely that it will be able to improve more its efficiency, so the gross margin is expected to remain the same.
- As the Asian and Pacific market is expected to grow 122% from 2017 to 2025, it is estimated that Royal Caribbean has invested \$2,332 billion in the Asian and Pacific market, more specifically in China, and it is forecasted a 12% ROIC for that investment³.
- For the past five years, the number of North American and European Royal Caribbean passengers rose 2.4% annually and, from 2016 to 2025, it is expected a compounded annual passenger growth rate for North America of 2.5% and of 1.5% for the European market.
- This valuation conclusion is twofold: Royal Caribbean Cruises Ltd. is traded at a discount price on 31st of December 2017 and the Expected Return in the end of 2018 would be 4.69%, considering the Shareholder cash gain.

Company Overview

Founded in 1985, Royal Caribbean Cruises Ltd. **operates 49 ships** that cover approximately **535 destinations worldwide**. With its headquarters located in Miami, United States, it is the second largest cruise company in the world. Currently, it not only operates under three global brands - **Royal Caribbean International, Celebrity Cruises** and **Azamara Club Cruises** - but also owns a 50% joint venture in TUI Cruises, a 49% ownership of the Spanish company Pullmantur and a 35% ownership of the Chinese company SkySea Cruises.

Company description

It was 1988 when Royal Caribbean Cruises Ltd. (referred as Royal Caribbean in this report) launched the world's first "megaship", at the time with five decks. Nevertheless, the company continued to invest in its innovative reputation throughout the years: it not only has the biggest ships in the industry, but it is also known for its exclusive on-board activities, such as ice-skating rings, rock climbing walls, surf wave simulators (Flowrider), bumper cars, robot bartenders or exclusive movie theatres where movies are projected in ultra-HD. In fact, Royal Caribbean invested more than any other cruise company in building the biggest ships for Royal Caribbean International. In 2016, six of the ten biggest ships worldwide, were from Royal Caribbean⁴. This brings numerous advantages for the company: it is able to achieve more efficiently economies of scale, carry more passengers and have higher on-board revenues⁵. Due to the fact that its ships have the biggest capacity in the industry, Royal Caribbean International carries more passengers per voyage than any other cruise line. Nevertheless, Celebrity Cruises is also in this cruise line group that accommodates more passengers per cruise⁶. Furthermore, in 2016, Royal Caribbean had 24.5% of market share⁷ in the cruise industry.

Figure 1: Average number of passengers per voyage in 2016

Cruise Line	Passengers per Voyage
Royal Caribbean International	2 991
Carnival Cruise Line	2 722
Disney Cruise Line	2 600
Norwegian Cruise Line	2 422
Celebrity Cruises	2 193

Source: Lee, Scott, and Sherie Brezina. "Cruise Line Efficiency"

In 2014, Royal Caribbean launched its Double-Double program aimed at doubling the 2014 earnings per share (EPS) and increase ROIC above 10% by 2017. Royal Caribbean successfully achieved what was proposed doubling its earnings to \$7.22 per share and increasing its ROIC from 6% to 10%⁸. Royal Caribbean successfully achieved what was proposed by not only

¹ Source: "2017 Cruise Industry Infographic." *Cruise Industry News*, Aug. 2017

² Source: Bloomberg

³ Analyst Estimates

⁴ Refer to Appendix 1: Largest ships by capacity in 2016

⁵ Source: Lee, Scott, and Sherie Brezina. "Cruise Line Efficiency." *Tourism Economics* 22.5 (2016)

⁶ Source: Lee, Scott, and Sherie Brezina. "Cruise Line Efficiency." *Tourism Economics* 22.5 (2016)

⁷ Source: "2016 Cruise Industry Infographic." *Cruise Industry News | Cruise News*, Aug. 2016

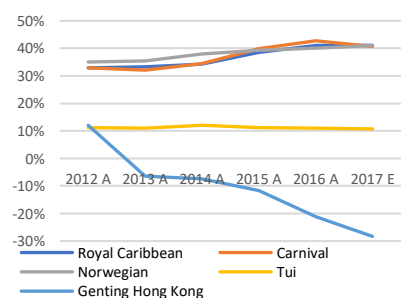
⁸ Source: Company Report; Analyst Estimates

Figure 2: Royal Caribbean - EPS and ROIC

Year	EPS (\$)	ROIC
2014	3,43	6,02%
2015	3,02	5,57%
2016	5,93	8,91%
2017 E	7,22	10,10%

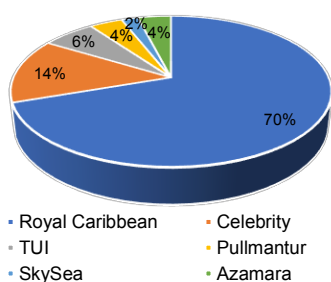
Source: Company Report; Analyst Estimates

Figure 3: Cruise industry - Margin costs



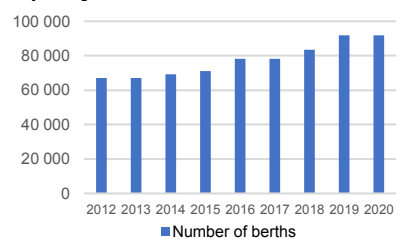
Source: Company Report; Analyst Estimates

Figure 4: Revenues by brand in 2016



Source: Company Report

Figure 5: Royal Caribbean International capacity



Source: Company Report

increasing its revenues but also due to the adoption of cost cutting measures and low oil prices. In fact, from 2014 to 2017, there was a reduction in food expenses, commissions and transportation costs⁹, explained by the cut in commissions given to travel agencies and a decrease on passengers' shuttle transportation to the docked ships. Moreover, the addition of four new ships, 40% more cost efficient, also enabled a reduction in fuel expenses¹⁰. The company's gross margin increased from 34%, in 2014, to 41%, in 2017, while the weighted average gross margin of the industry grew from 26% to 31%¹¹. In fact, the reason why Royal Caribbean, Carnival Corporation and Norwegian Cruise Line have the highest gross margins in the industry is due to their capacity. Being considerable higher than other cruise lines, their capacity allows them to take more advantage of scale economies, as it will be analysed later on this report. In addition, Genting Hong Kong negative gross margin can be explained not only by the start-up costs incurred to launch Crystal Cruises, a new cruise line operating in the luxury cruise market, but also by the increasing competitive environment of this market, causing a slowdown on the company's revenues. Furthermore, each Royal Caribbean Ltd. brand in only has a strong brand recognition, being ranked by Forbes as one of the world's top regarded companies¹², but also allows the company to have the capacity to enter several cruise market segments¹³.

Global Brands

Royal Caribbean International (70% of total revenues)

It is considered the best positioned brand within the company generating the biggest bulk of Royal Caribbean's total revenues¹⁴ (70% in 2016). It covers every customer segment due to its attractions for families with children but also for older and younger couples and it is known for delivering the industry's biggest innovations such as surf wave simulators and rock-climbing walls. Currently, it operates 25 ships, possessing approximately 78,150 berths¹⁵, and its strategy is focused on having a wide variety of itineraries, including 77 visiting port countries around six continents. Cruises can range from two to twenty-four nights, however most cruise lengths are less than seven nights – on average, their length is five nights. At the moment, there are four ships under construction that will enter in service in 2019 and 2020, each with a capacity of

⁹ Source: Company Report

¹⁰ Source: Jordan, Todd, Felix Wang, and David Benz. "The Math behind Double-Double." Dec. 2014

¹¹ Source: Bloomberg; Analyst Estimates

¹² Source: "Royal Caribbean Cruises #111 on the Forbes Top Regarded Companies List." Forbes, May 2017

¹³ Source: Isemo, Erik, Mats Rosén, and Alexander Svensson. "Segment Transition within the Cruise Line Industry." (2008)

¹⁴ Source: Company Report

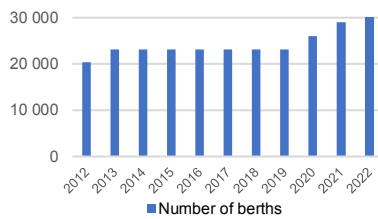
¹⁵ The capacity of each ship is measured by the number of berths (berths are considered a cabin with double occupancy)

5,450 berths, comprising Royal Caribbean International’s total capacity to 91,900 berths.

Celebrity Cruises (14% of total revenues)

Offering a more luxurious cruise vacation than Royal Caribbean International, Celebrity Cruises is known for providing highly personalized customer service, generating 14% of the company’s total revenues. It also delivers upscale destinations, such as Alaska and the Galapagos Islands, on-board amenities that comprise restaurants with Michelin-starred chefs and extensive spa facilities. Cruise lengths can range from two to eighteen nights; however, fifteen nights is the average cruise length of a cruise taken on Celebrity Cruises. It currently operates twelve ships, offering a capacity of 23,170 berths, and until 2022, three more ships are expected, adding an aggregate capacity of 8,700 berths. Each Celebrity Cruise ship can take around 2,000 passengers, nevertheless, the new expected ships will have a capacity of 2,900 berths.

Figure 6: Celebrity Cruises capacity

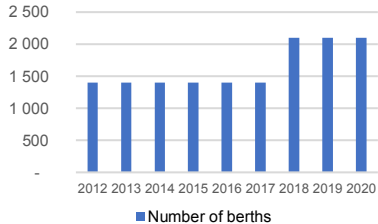


Source: Company Report

Azamara Club Cruises (4% of total revenues)

Currently, Azamara Club Cruises only operates two small ships, each with a capacity of 700 berths, being accountable for 4% of the company’s total revenues. Being part of a deluxe, boutique cruising niche, the brand delivers an exclusive cruise experience to its guests. Azamara Club Cruises covers the up-market segments due to its high standards accommodations, higher prices and more exotic itineraries. It offers longer cruise itineraries that can range from three to twenty-one nights, but usually have a length of around seventeen nights. It differentiates itself due to its cruises itineraries with more overnights and longer stays in ports, as guests can spend more time in each port and, consequently, enjoy each city for a longer period. In addition, it has also started, in 2017, the Country Intensive Voyages, a program with itineraries focused in one single country, so that guests can have a full immersive experience in that country, in this case, New Zealand, Mexico, Norway, Japan and Spain. Azamara Club Cruises is expecting a new ship, with a capacity for 700 passengers, to enter in service in 2018.

Figure 7: Azamara Cruises capacity



Source: Company Report

Partner Brands

TUI Cruises (6% of total revenues)

TUI Cruises is a joint venture in which Royal Caribbean owns 50% and TUI AG, a German tourism and shipping company, owns the remaining 50%. It comprises 6% of the total revenues of the company and it was designed to serve the German demand for cruises and activities, consequently, the

itineraries and services provided are suited to the German market. It currently operates five ships and has a capacity of 1,300 berths and, until 2019, three more ships are expected.

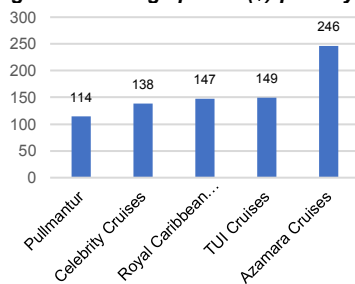
Pullmantur (4% of total revenues)

Pullmantur, responsible for 4% of the company's total revenues, is a Spanish-based cruise line designed to attract the Spanish-speaking guests, being its main itineraries the Caribbean Sea, the Mediterranean Sea and the Baltic Sea. It was fully owned by Royal Caribbean until August 2016, when this sold 51% of its stake to Springwater Capital. Having Spain and Latin America as target customers, Pullmantur needed to have a different management team that could bring more cultural authenticity to the brand and better tailored experiences for Spanish and Latin American tourists. Nonetheless, the four ships that Pullmantur currently operates are fully owned by Royal Caribbean.

SkySea Cruises (2% of total revenues)

Founded in 2014, SkySea Cruises is a joint venture between Royal Caribbean and a Chinese online travel agency, Ctrip, that represents 2% of the company's total revenues. Each owns 35% of the SkySea Cruises and it represents the first investment made by Royal Caribbean in the "Golden Age", since SkySea Cruises will only serve the Chinese market. Currently, it only operates one ship, with a capacity of 1,800 berths, and on-board activities and services are all tailored to the Chinese market.

Figure 8: Average prices (\$) per day



Source: Company website

Lastly, prices per day are significantly different within each brand¹⁶, as there are distinct target markets searching for particular on-board experiences and services. Azamara Club Cruises, being a boutique cruise line, with a limited capacity of 700 passengers per ship, sets prices higher than any other cruise line within Royal Caribbean Cruises Ltd.

Shareholder structure

In 1993, Royal Caribbean Cruises Ltd. had its IPO and, currently, its ownership is divided among institutions (62%), mutual funds (37%) and insiders (1%). Furthermore, Vanguard Group Inc. (7.99% of shares), PRIMECAP Management Company (4.9%) and Baillie Gifford & Co. (4.67%)¹⁷ are the biggest owners of Royal Caribbean Cruises Ltd.

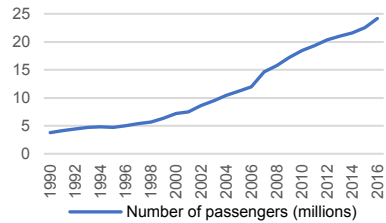
¹⁶ Source: Company Report

¹⁷ Source: Bloomberg

The Sector

Industry Growth

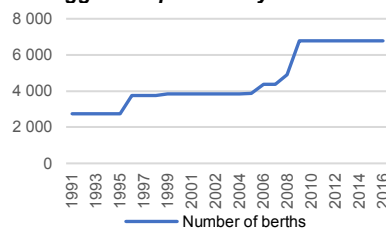
Figure 9: Passengers carried worldwide



Source: "2016 Cruise Industry" *Cruise Industry News* | *Cruise News*, Aug. 2016

In the last 20 years, the cruise industry has been growing with an average annual growth rate of 8.5%, meaning that there were more 90 million passengers cruising over that period. From this additional number of passengers, 54 million (60%) were generated over the past ten years¹⁸. In fact, in 1996, the cruise industry only comprised 4.97 million passengers, however, this number started rising - in 2006, it reached 12 million passengers and, in 2016, 24.2 million passengers cruised globally.

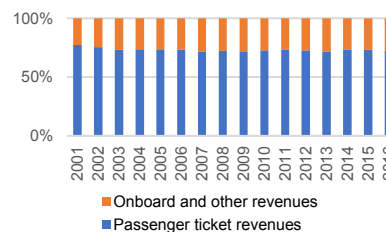
Figure 10: Cruise industry - Capacity of the biggest ship in each year



Source: *Company Report*

Furthermore, the cruise industry has been under a considerable expansion since 2000 due to several reasons: firstly, the increase in ships capacity, followed by the development of new portfolios of cruise itineraries and lastly, the growth in the cruise market in the Asiatic region. Regarding the first reason, the turning point of the cruise industry was when "mega" ships started being built and launched in the market. This began with the debut, in 2004, of Cunard's Queen Mary 2, owned by Carnival Corporation, with a total capacity of 3,800 berths, being the biggest ship ever built. Nevertheless, in 2006, Royal Caribbean surpassed it with the launch of the Freedom of the Seas that comprised 4,370 berths, recognizing it as the biggest ship in the world, and, for the following two years, debuted other two ships with the same capacity¹⁹. After these events, the biggest cruise line companies started building ships with larger capacity, allowing them to take advantage of economies of scale by lowering their operating expenses and, consequently, decreasing cruise prices. Hence, it was possible to transform the cruise tourism from a luxury tourism to a mass tourism, affordable to the middle class. In addition to this, cruise lines with bigger ships can have more on-board activities, attracting more tourists and different generations, and, as capacity increases, on-board revenues also increase which helps companies to lower cruise prices.

Figure 11: Cruise industry - Historical revenues by segment



Source: *Company Report*

Moreover, as mentioned before, the second reason that lead to this expansion was the addition of new destinations to cruise itineraries. Currently, on average, cruise companies cover 500 destinations per year while, in 1998, on average, they were only able to cover 50 destinations. In fact, one way for cruise lines to differentiate themselves is through its itineraries. Thus, companies are investing more and more in bringing new and different

¹⁸ Source: "2016 Cruise Industry" *Cruise Industry News* | *Cruise News*, Aug. 2016

¹⁹ Source: Brida, Juan Gabriel, and Sandra Zapata. "Cruise Tourism: Economic, Socio-cultural and Environmental Impacts." (2010)

destinations to its itinerary portfolio not only to appeal to passengers that already did a cruise but also to attract first-timers²⁰. Some of these new destinations that are starting to be explored are, for instance, the African West Coast, Central Africa, the Norwest Coast of South America, the Indonesian Islands and Madagascar.

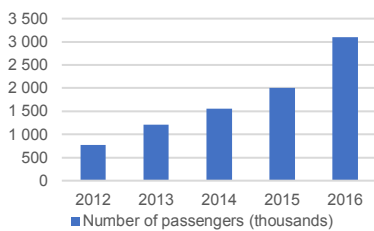
Furthermore, the third most important reason that contributed for the major growth of the cruise industry is due to the Asiatic region that has seen the biggest travel's sector growth on the last ten years. From 2012 to 2016, the number of passengers increased from 775,000 to 3.1 million²¹, which can be translated into a compounded annual growth of 41% for the past four years. The cruise industry started investing significantly in Asiatic ports and destinations in 2012²². In addition, the growing middle class and rising disposable income in China, Japan and India, as it will be analysed later on in this report²³, are the main reasons behind the growth in this market. Besides that, the Chinese market is the biggest contributor for the increase in the Asiatic cruise market as 67.8% of passengers are Chinese²⁴.

Lastly, the cruise industry enjoys unique advantages when compared to other industries – in fact, ships are considered floating cities and cruise companies use this element when marketing cruises²⁵, by considering them as destinations by themselves, giving more emphasis to the ship than ports of call. In addition to this, cruise line itineraries have direct and significant effect on each ship's occupancy rate²⁶. Being able to change itineraries flexibly, exploiting what is best in a certain time, gives them an advantage when compared to hotels and resorts, which are fixed to one destination.

Existing Competition

The major players of the industry, in terms of market share, are Carnival Corporation (whose main brand is Carnival Cruise Line), Royal Caribbean Cruises Ltd., Norwegian Cruise Line, Genting Hong Kong, Disney Cruise Line (owned by Walt Disney Parks and Resorts) and MSC Cruise Line (a privately held company). Nevertheless, it is still important to consider the hotel industry

Figure 12: Cruise passengers from Asia



Source: "Asia Cruise Trends 2017" Cruise Line International Association. July 2017

²⁰ Source: Chua, Bee-Lia, Sanghyeop Lee, and Heesup Han. "Consequences of Cruise Line Involvement: A Comparison of First-time and Repeat Passengers." (2016)

²¹ Source: "Asia Cruise Trends 2017" Cruise Line International Association. July 2017

²² Source: "Asia Cruise Trends 2017" Cruise Line International Association. July 2017

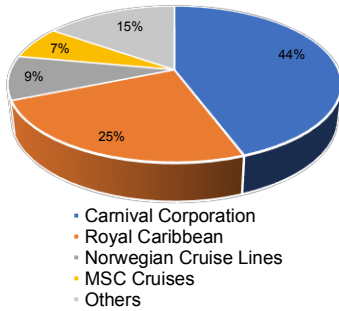
²³ Source: "Asia Cruise Trends 2017" Cruise Line International Association. July 2017

²⁴ Source: "Asia Cruise Trends 2017" Cruise Line International Association. July 2017

²⁵ Source: Lee, Scott, and Sherie Brezina. "Cruise Line Efficiency" Tourism Economics 22.5 (2016)

²⁶ Source: Lee, Scott, and Sherie Brezina. "Cruise Line Efficiency" Tourism Economics 22.5 (2016)

Figure 13: 2016 Market share by cruise company

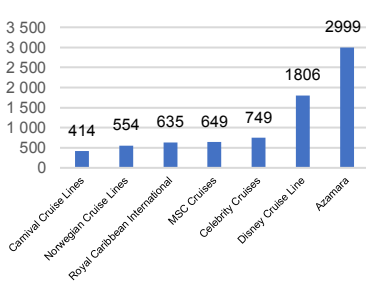


Source: Lee, Scott, and Sherie Brezina. "Cruise Line Efficiency" *Tourism Economics* 22.5 (2016)

as a competitor, more specifically, all-inclusive resorts since those are the ones that have more similarities to cruises as both are all-inclusive.

Due to the industry's need to incur in higher costs to finance its development by building bigger ships, the industry had several merges in the 1990s. However, as it happened in the automobile industry, cruise line companies kept different brands within each cruise line holder. For instance, Royal Caribbean International merged with Carnival Cruises, originating a new company named Royal Caribbean Cruises Ltd. that would be the holding corporation of Royal Caribbean International and Carnival Cruise lines. The consolidation of the cruise industry created few cruise line holdings, however, each holding kept different brands within itself.

Figure 14: 7 nights cruise - Average price (\$)



Source: Company website

Moreover, prices within cruise lines can be significantly different as companies compete under a differentiation strategy employing distinctive branding and marketing campaigns. For instance, Carnival Cruise Line is known for being a low-cost firm and having the best private owned island, while Azamara Club Cruises offers a luxury experience. In addition, Celebrity Cruises has been recognised for its exceptional food, Royal Caribbean International for the best facilities, MSC Cruises for the best European style and Disney Cruise Line for its resemblance of its famous Orland Park²⁷.

Bargaining Power of Suppliers

In this oligopoly, the size of the market affects the players' ability to exploit economies of scale in contrasting ways: firstly, since there are only a few shipbuilders and technology developers in the cruise industry, cruise companies are forced to accept the price charged and have almost no power regarding that, however, as there is a large number of suppliers for needs like equipment, food and fuel, cruise companies can have a lot of power to negotiate the prices charged by those²⁸.

Threat of New Entrants

The strong industry growth could have brought a lot of new players to the industry, however, it is an industry with high entry barriers, such as heavy capital requirements, license restrictions and increasing economies of scale. In 2016, only five companies supplied 80% of the market²⁹, being considered an oligopoly since few major companies are responsible for its supply.

²⁷ Source: Brida, Juan Gabriel, and Sandra Zapata. "Cruise Tourism: Economic, Socio-cultural and Environmental Impacts." (2010)

²⁸ Source: Brida, Juan Gabriel, and Sandra Zapata. "Cruise Tourism: Economic, Socio-cultural and Environmental Impacts." (2010)

²⁹ Source: Brida, Juan Gabriel, and Sandra Zapata. "Cruise Tourism: Economic, Socio-cultural and Environmental Impacts." (2010)

Furthermore, all the existing main players detain a competitive advantage that would be hard to beat by a potential new player in the market. As mentioned before, by possessing the biggest ships in the industry, Royal Caribbean holds a competitive advantage due to not only its wide range of activities and amenities on board, but also due to its ability to efficiently take advantage of economies of scale³⁰. In addition to that, with a strong brand, Carnival Cruise Line is the world's largest cruise line with the biggest share of supply in the industry, providing the widest variety of itineraries and ships compared to others. Disney Cruise Line, owned by Walt Disney Parks and Resorts, can be considered the company with the biggest competitive advantage. Although it only possesses four ships, its ships are designed so that all cabins can take more than two passengers, making it the ideal option for families with children. On the other side, the typical ship cabin of Carnival Corporation and Royal Caribbean can only accommodate two passengers, being unable to provide a more practical solution to this segment. Hence, the design of Disney Cruise Line ships gives them a strategic advantage when targeting families that prefer to travel together. As a matter of fact, this aspect is very hard to replicate by competitors in a nearby future since building the ship is one of the most expensive phases of these companies' value chain. Moreover, if competitors were to change their current ships in a way that its berths would accommodate more passengers it would be a very costly process, which would also imply that they would have to increase the number of lifeboats, seats in the on-board restaurants and so on³¹.

Threat of Substitutes

As all-inclusive resorts are more similar to cruises, due to their all-inclusive element, which regular hotels or other types of resorts do not include, in this valuation, **all-inclusive resorts** will be considered the main indirect competitor for cruise lines when considering other kind of land-based vacation. However, there are many characteristics that distinguish both. While the cruise industry is in a growth stage, land based resorts are in a maturity stage of the tourism industry³². In one hand, resorts, having more physical space, can provide more and a wider range of activities to its guests. They are also able to provide more comfort since rooms and facilities can be bigger. On the other side, cruises' greatest advantage is the possibility of providing guests the opportunity to visit different cities in one single journey in a short

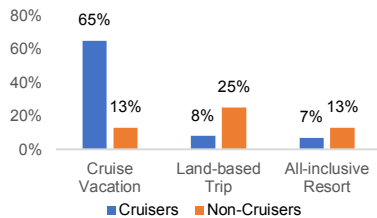
³⁰ Source: Lee, Scott, and Sherie Brezina. "Cruise Line Efficiency." *Tourism Economics* 22.5 (2016)

³¹ Source: Lee, Scott, and Sherie Brezina. "Cruise Line Efficiency." *Tourism Economics* 22.5 (2016)

³² Source: Toh, Rex S., Mary J. Rivers, and Teresa W. Ling. "Room Occupancies: Cruise Lines Out-do the Hotels." (2005)

period of time. Another factor that enables cruises to provide a different experience to its guests³³ is the existence of a casino on-board, which is barred to resorts due to local legislations. In terms of prices, a factor that can be decisive for many consumers³⁴, cruises can offer cheaper packages than resorts³⁵. Studies have found that 65% of people that already experienced a cruise holiday believe this is the best type of vacation, while only 5% prefer an all-inclusive land based resort³⁶. Moreover, regarding the best type of vacation for people that have never taken a cruise, the *non-cruisers*, 13% of these rated all-inclusive resorts, 25% rated land-based vacation trips and 13% rated cruise vacations³⁷. This demonstrates that cruise guests are loyal, and, after their first cruise vacation, it is very likely that they repeat the experience. In fact, 92% of cruise guests rated that they will probably do it again and 60% rated that they will definite do it again³⁸. Considering the facts stated, it is assumed that, in the following years, the demand growth will not be affected by the hotel and resort industry.

Figure 15: Best overall type of vacation

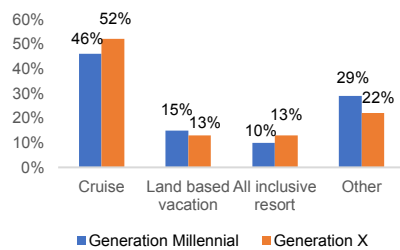


Source: "Cruise Travel Report 2017" Cruise Line International Association. January 2017

The Future of the Cruise Industry

The cruise industry is now experiencing its largest growth and it is only expected to stabilize in 2030. The events that the industry is now undergoing are behind the main reasons that support this argument:

Figure 16: Favourite type of vacation by Generation



Source: "Cruise Travel Report 2017" Cruise Line International Association. January 2017

- There is a significant increase in the overall industry supply³⁹, as companies not only build bigger ships, but also invest in better amenities, create theme cruises and cover more destinations, leading to the increase of the attractiveness of going on a cruise for vacations, which consequently, leads to an increase in the number of passengers⁴⁰.
- The industry has been able to attract different segments to go into cruise vacation, as 46% of the Millennials⁴¹ and 52% of Generation X⁴², rated cruises as the best type of vacation⁴³, which may be translated into more 100 million potential cruise passengers from both generations⁴⁴.

³³ Source: Santos, VERÔNICA. "Turismo Brasileiro Contemporâneo: O Conflito Entre Cruzeiros E Resorts." (2009)

³⁴ Source: Masiero, Lorenzo, and Juan L. Nicolau. "Price Sensitivity to Tourism Activities: Looking for Determinant Factors." (2012)

³⁵ Source: Santos, VERÔNICA. "Turismo Brasileiro Contemporâneo: O Conflito Entre Cruzeiros E Resorts." (2009)

³⁶ Source: "Cruise Travel Report 2017" Cruise Line International Association. January 2017

³⁷ Source: "Cruise Travel Report 2017" Cruise Line International Association. January 2017

³⁸ Source: "Cruise Travel Report 2017" Cruise Line International Association. January 2017

³⁹ Refer to Appendix 2: Cruise industry - Passengers capacity

⁴⁰ Source: Hung, Kam, and James F. Petrick. "Why Do You Cruise? Exploring the Motivations for Taking Cruise Holidays, and the Construction of a Cruising Motivation Scale." *Tourism Management* 32.2 (2011)

⁴¹ Millennials are considered the demographic group which date of birth is between 1982 - 1998

⁴² Generation X are considered the demographic group which date of birth is between 1967- 1981

⁴³ Source: "Cruise Travel Report 2017" Cruise Line International Association. January 2017

⁴⁴ Source: Analyst Estimates

- Consumers are increasingly using certified cruise travel agents, which will help to increase the awareness of cruises and, consequently, increase the number of passengers⁴⁵. In 2016, 82% of cruisers booked their trip with travel agents⁴⁶ and, while in 2010 there were only 12,000 travel agents, in 2016 there was 25,000 and it is estimated that by 2015 that number reaches 50,000⁴⁷.
- There is still a low market penetration ratio that can be seen has an opportunity to explore – approximately, only 18% of the US population has experienced a cruise vacation. Also, 86% of cruise travellers want to take another cruise in the next 3 years, and 52% of non-cruise travellers want to take a cruise⁴⁸.
- Demand will keep increasing in the long-run, mainly due to increasing awareness, raising penetration in developing countries, the aging population in developed markets and the growing middle-class, which, in 2016, represented respectively 56% and 25% of cruise guests⁴⁹.

The Cruise Industry Challenges

There are some challenges that can affect the exponential growth of the cruise industry: firstly, almost 70% of passengers are from North America and Europe - therefore, if there is a setback in the recovery of the American and European economy, it can be a headwind for the industry growth. In addition to this, a hindrance in the economy of Asia, specifically in the Chinese economy, can also affect the cruise industry growth. Besides, the cruise industry has taken advantage of low fuel prices for the past three years, however, since it is one of the biggest variable costs for cruise lines, a sizable increase in fuel prices can increase daily cruise fares and, consequently, provoke a loss in passengers. Terrorisms attacks, adverse weather and natural disasters as hurricanes also offer obstacles to the industry. Nevertheless, companies have demonstrated its flexibility when facing these adversities, changing cruise itineraries and strengthening cruise ports.

⁴⁵ Source: "2017-2018 Cruise Industry Annual Report." Cruise Industry News. 2017

⁴⁶ Source: "Cruise Travel Report 2017" Cruise Line International Association. January 2017

⁴⁷ Analyst Estimates

⁴⁸ Source: "Cruise Tourism White Paper." Cruise Lines International Association. 2014

⁴⁹ Source: "Cruise Travel Report 2017" Cruise Line International Association. January 2017

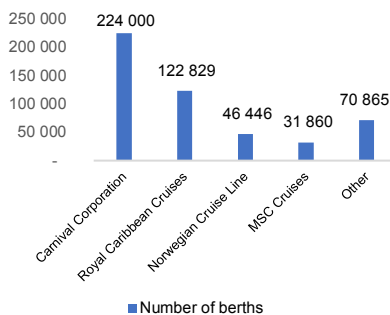
Valuation

To value Royal Caribbean Cruises Ltd., two valuation methods were chosen: the DCF Model for the valuation of its core operations and for the valuation of its Financial Investments, the three joint ventures, the Multiples Model was used. Since the industry is growing significantly, the DCF Model was divided in predicting cash flows until 2030; whereas until 2025 there is high and unstable growth and from 2025 to 2030 there is a stable but still high growth rate. Then, the prediction of the company's terminal value is based on 2030, year in which the industry growth is expected to stabilize and match the economy growth rate.

The Capacity of Royal Caribbean Cruises Ltd.

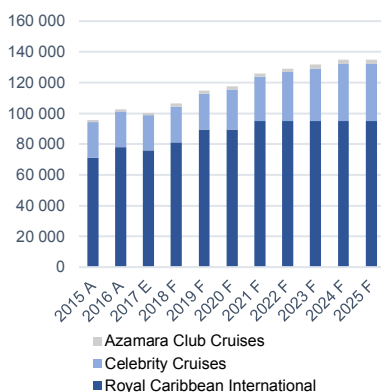
In 2016, Royal Caribbean Cruises Ltd. comprised a total capacity of 122,128 berths, which represented **25% of the industry total capacity**. Currently, the cruise industry has a total capacity of 496,000 berths, being Carnival Cruise Line the company with the largest capacity, 44% of the total industry capacity, while 9% resides with Norwegian Cruise Lines and MSC cruises encompasses 6%⁵⁰.

Figure 17: 2016 Capacity by cruise line



Source: "State of the Industry 2016 Report." Cruise Industry News | Cruise News. Mar. 2016

Figure 18: Royal Caribbean - Total berth capacity



Source: Company Report; Analyst Estimates

As it was mentioned, it is estimated a **growing demand for cruises**: assuming an average industry occupancy rate of 103%⁵¹, there will be an increase from 24.18 million passengers, in 2016, to 38.68 million, in 2025, **corresponding to a 60% increase**⁵². To answer this event, it is expected that **Royal Caribbean Cruises Ltd. increases its capacity by 31%** from 2016 to 2025, reflecting an incremental investment in ships of \$7.5 billion. Accordingly, Royal Caribbean announced that eight new ships would be added to Royal's fleet until 2022⁵³. Nonetheless, to the growing demand and the supply trend within the industry in previous years, this valuation forecasts that ten new ships will be added to the fleet until 2025. As part of the company's investment in China, Royal Caribbean International is expecting four new ships to operate until 2022. In like manner, one of these ships, *Spectrum of the Seas*, is designed specifically for guests in China⁵⁴. This investment can be translated into a total incremental berth capacity of 22% for Royal Caribbean International. In the same fashion, Celebrity Cruises is expecting six new generation ships, constituting a 60% incremental berth capacity, while

⁵⁰ Source: "State of the Industry 2016 Report." Cruise Industry News | Cruise News. Mar. 2016

⁵¹ Source: Lee, Scott, and Sherie Brezina. "Cruise Line Efficiency." Tourism Economics 22.5 (2016)

⁵² Analyst Estimates

⁵³ Source: Company Report

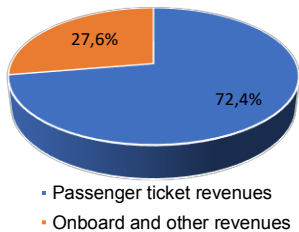
⁵⁴ Source: Royal Caribbean Aug 2017 Press Release

Azamara Club Cruises will increase from two to four its exclusive fleet, generating an incremental berth capacity of 10%.

Revenues

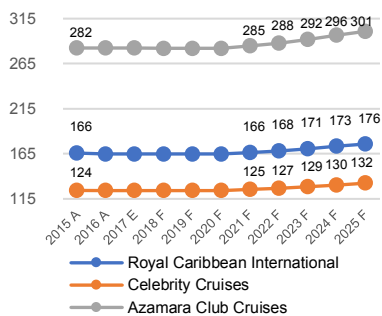
Being total revenues segmented into Passengers Ticket Revenues and On-board Revenues, it was assumed that the main revenues drivers for the business would be the Number of Passengers, On-board Spending of each Passenger, Cruise Daily Price, the Average Cruise Length of each Passenger and the Company’s Capacity. The **passenger ticket revenues** depend on the cruise daily prices and passenger cruise days, which consequently relies on the number of passengers and on the length of each passengers’ cruise.

Figure 19: Royal Caribbean - 2016 Segmented revenues



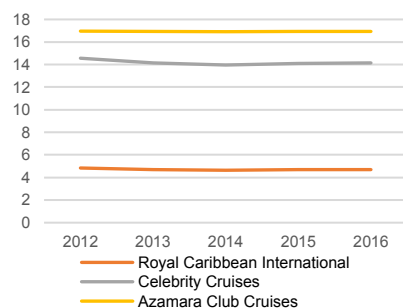
Source: Company Report

Figure 20: Average daily cruise price (\$)



Source: Company Report; Analyst Estimates

Figure 21: Average cruise length (number of nights)



Source: Company Report

Cruise’s Daily Price and Average Length

Overall, **cruise daily prices have been stable during the past years**. As a matter of fact, for the past four years, the annual growth prices for Azamara Club Cruises was 0%, while Celebrity Cruises and Royal Caribbean annual growth prices were, respectively, 0.1% and -0.4%⁵⁵. The main reason behind stable daily prices was the increase in supply⁵⁶ and, consequently, the pressure was reflected in final prices. Taking into consideration the price sensitivity of passengers when choosing between cruise lines⁵⁷, prices did not increase in the past years. For the years forecasted, as industry supply increases⁵⁸, pressure in prices increase as well, nevertheless daily cruise prices are expected to remain stable until 2021, despite the growing demand. In 2021, as the market supply starts to level up, it is expected that daily prices will start to stabilize in real terms, until 2025. **From 2025 onward, daily prices will fully stabilize in real terms** as they are expected to mirror the expected inflation⁵⁹ in different countries.

Furthermore, the **average cruise length** for Royal Caribbean International is six nights, while for Celebrity Cruises is ten nights and for Azamara is 21 nights. Since Royal Caribbean International, Celebrity Cruises and Azamara Club Cruises have been experiencing a steady average number of nights for the past 5 years and as it is not expected any fundamental change in the length of itineraries for the near future, the average length of each cruise was assumed to remain constant for the forecasted period.

⁵⁵ Source: Company Report

⁵⁶ Refer to Appendix 2: Cruise industry - Passengers capacity

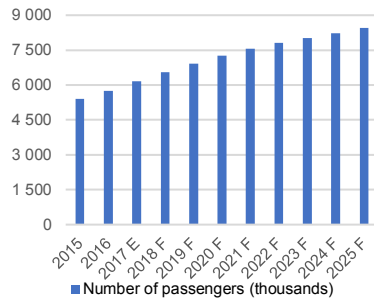
⁵⁷ Source: Masiero, Lorenzo, and Juan L. Nicolau. "Price Sensitivity to Tourism Activities: Looking for Determinant Factors." Tourism Economics 18.4 (2012)

⁵⁸ Source: "2017 Cruise Industry Infographic." Cruise Industry News | Cruise News, Aug. 2017

⁵⁹ It is assumed the country inflation where the biggest source of passengers are from (United States, Euro zone, China and Australia)

Number of Passengers Forecast

Figure 22: Royal Caribbean Passengers carried

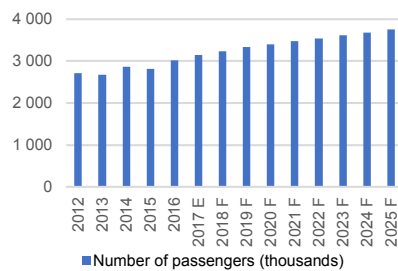


Source: Company Report; Analyst Estimates

From 2016 to 2025, it is forecasted a **45% increase** in the number of passengers carried by Royal Caribbean, expanding from 5.7 million passengers to 8.5 million passengers. Nevertheless, to forecast the number of passengers for the future years, it was necessary to carry a geographic split so that the passengers' origin could be further analysed. Hence, North American, European, Asia-Pacific and other regions were examined. Due to the predicted passengers' growth in the Asia-Pacific region, it is expected that the source of Royal Caribbean passengers' changes significantly in regard to passengers from Europe, Asia and Pacific⁶⁰.

North American Passengers

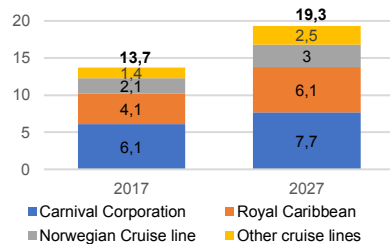
Figure 23: Royal Caribbean Passengers carried from North America



Source: Company Report; Analyst Estimates

In 2016, 52% of the total Royal Caribbean passengers were originally from North America⁶¹. For the past four years, the market has seen a 2.7% average annual growth of North America passengers. Despite being the biggest in the world, there is still a very low industry penetration ratio in the North American cruise market. In 2016, only 3.5% of the North America population went on a cruise vacation⁶². The North American prospective passengers demand is expected to keep increasing due to the expected economy growth in the region⁶³, with an average annual growth of 1.9% until 2022, and increased market supply. As a matter of fact, in 2025, 4.1% of North American population is expected to go on a cruise vacation, representing a 25% market penetration increase compared to 2016⁶⁴.

Figure 24: North America – Industry passenger capacity (millions)



Source: Company Report; Analyst Estimates

Moreover, based on ship orders from cruise companies⁶⁵, it is expected that the **North American capacity will increase by 47% until 2027**. In fact, Royal Caribbean is increasing its capacity in North America by 49%, while Carnival is increasing by 26% and Norwegian Cruise Lines by 42%. Disney Cruise Lines, MSC Cruises and other cruise lines are also increasing their capacity.

As Royal Caribbean will increase significantly its supply in the next few years in North America, it is expected that, until 2019, the growth in passengers will increase more than the United States economy. However, after 2019, despite the still low penetration in the market, the significant increase in the industry supply will start to be perceived and the growth in Royal Caribbean

⁶⁰ Refer to Appendix 3: Royal Caribbean – Passengers source analysis

⁶¹ Source: Company Report

⁶² Source: Company Report

⁶³ Source: International Monetary Fund

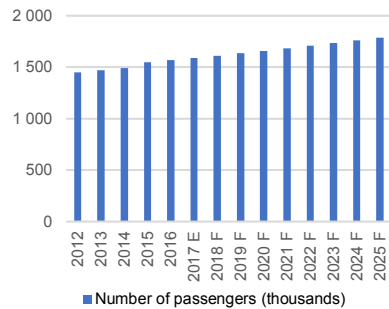
⁶⁴ Analyst Estimates

⁶⁵ Source: "2017-2018 Cruise Industry Annual Report." Cruise Industry News. 2017

passengers for the forecasted years is expected to be aligned with the United States' GDP growth forecast⁶⁶.

European Passengers (27% of Royal Caribbean Passengers)

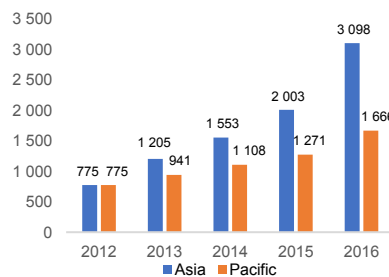
Figure 25: Royal Caribbean Passengers carried from Europe



Source: Company Report; Analyst Estimates

For the past four years, the average annual growth of passengers from Europe was 2%. In 2016, Europe was a very underpenetrated market - only 1.24% of the population went on a cruise vacation⁶⁷. Royal Caribbean strategy for the future is not focused on increasing its market share in Europe but to increase its capacity in the region at the same pace as the industry grows. Moreover, the European passenger growth depends mainly on the European economy recovery. For that reason, the annual growth of passengers is forecasted to be the same as the growth of the European economy and, in 2025, it is estimated that 1.4% of the European population goes on a cruise vacation, implying a 15% market penetration (number of passengers per total population in that year) increase compared to 2016⁶⁸. While, in 2016, Royal Caribbean carried 1.569 million European passengers, it is expected to carry 1.778 million passengers by 2025.

Figure 26: Cruise industry – Passengers carried from Asia - Pacific regions (thousands)

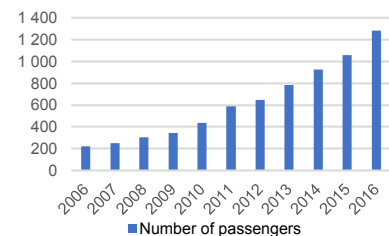


Source: Company Report

Asia-Pacific Passengers (15% of Royal Caribbean Passengers)

Between 2012 and 2016, there was an annual passenger growth of 21% in the Pacific Region, increasing from 774,944 to 1.7 million passengers. In addition, the number of passengers from Asia increased 41% annually, from 775,000 passengers, in 2012, to 3.1 million passengers, in 2016⁶⁹. Furthermore, the main origins of Asia-Pacific passengers are Australia and China. In the Asia-Pacific region, there was a market penetration ratio of 0.09% in 2016⁷⁰, however, as it will be explained further on, it is estimated that, in 2025, 0.28% of the Asia-Pacific population will go on a cruise⁷¹.

Figure 27: Cruise industry – Passengers carried from Australia (thousands)



Source: "Australia 2016 - Source Market Report." Cruise Lines International Association. May 2017

Referring to the Australian market, it is the most penetrated worldwide, e.g. in 2016, 5.3% of the Australian population went on a cruise. In 2016, there was a 21% increase in passengers from Australia when compared to 2015, and a 500% increase when compared to 2006⁷². For the past 10 years, the compounded annual growth of the Australian market was 20% and, as it is unlikely to keep growing at that rate, it is assumed that the passengers' growth is expected to decrease until 2030 and adopt the Australian economy growth.

⁶⁶ Assumed to be 2% based on International Monetary Fund

⁶⁷ Source: Company Report

⁶⁸ Analyst Estimates

⁶⁹ Source: "Asia Cruise Trends 2017" Cruise Line International Association. July 2017

⁷⁰ Source: Company Report

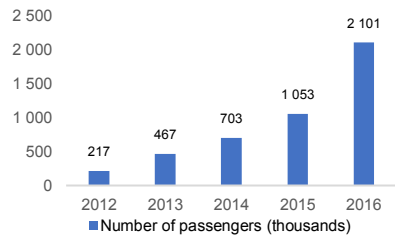
⁷¹ Analyst Estimates

⁷² Source: "Australia 2016 - Source Market Report." Cruise Lines International Association. May 2017

Furthermore, it is estimated that, in 2025, 7.3% of the Australian population will go on a cruise, a 55% increase compared to 2016⁷³.

China – The driver for the “Golden Age” of the Cruise Industry

Figure 28: Cruise industry – Passengers carried from China (thousands)

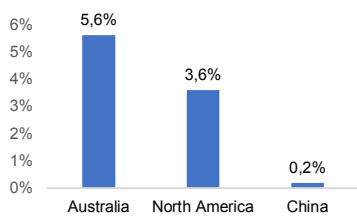


Source: "Asia Cruise Trends 2017." Cruise Line International Association. July 2017

The large growth in the cruise industry is mainly justified by the growth in the Chinese cruise industry. For the past five years, the compounded annual growth rate of cruise passengers from China was 76%⁷⁴.

As a matter of fact, China currently possesses the biggest market cruise potential being the most underpenetrated market in the world - only 0.2% of the Chinese population took a cruise in 2016⁷⁵. In addition to this, in the past ten years, it also enjoyed the highest growth in terms of passengers, and this trend is expected to remain until 2030⁷⁶. For the above reasons, the growth potential for Royal Caribbean in this regional environment is tremendous. In 2015, 9% of Royal Caribbean total capacity was comprised in the Chinese market⁷⁷. Since then, Royal Caribbean has invested highly in this market - in 2015, it deployed four ships to offer numerous regional cruises and started building new ships designed to address the Chinese regional market requirements⁷⁸.

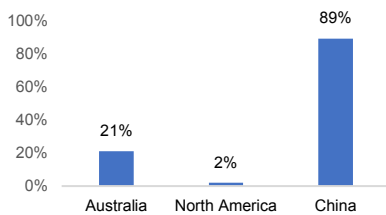
Figure 29: 2016 Market penetration ratio by origin



Source: "Australia 2016 - Source Market Report." Cruise Lines International Association. May 2017

Moreover, Royal Caribbean and Carnival Corporation were the first cruise companies to deploy several ships in order to tap this growing market. The cruise lines that own 80% of the world’s cruise share, currently possess a 95% share of the Chinese market⁷⁹. For that reason, it is forecasted that, in the following two years, Royal Caribbean, retaining 30% of the Chinese market share, will take advantage of the exponential increase in demand.

Figure 30: 2016 Market growth by origin



Source: "Australia 2016 - Source Market Report." Cruise Lines International Association. May 2017

As the Chinese demand is predicted to keep growing, the Chinese market is expected to become the world biggest cruise market, overcoming the North American market. In 2025, the market penetration ratio in China is estimated to be 0.6%, which means that, in 2025, it is envisioned a 230% increase of Chinese cruise passengers when compared to 2016⁸⁰. The Chinese demand is expected to thrive, not only due to the increasing awareness of the cruise industry caused by the increasing number of Chinese passengers cruising, but also due to the Chinese government measures to promote an increase in

⁷³ Analyst Estimates

⁷⁴ Source: "Asia Cruise Trends 2017" Cruise Line International Association. July 2017

⁷⁵ Source: "Australia 2016 - Source Market Report." Cruise Lines International Association. May 2017

⁷⁶ Source: "Australia 2016 - Source Market Report." Cruise Lines International Association. May 2017

⁷⁷ Source: Kalosh, Anne. "Royal Caribbean Continues to Battle China Skeptics." Aug. 2016

⁷⁸ Source: Royal Caribbean Mar 2015 Press Release

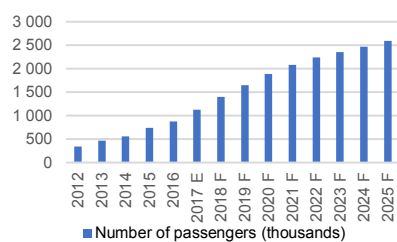
⁷⁹ Source: Xu, Ke. "China's Cruise Industry: Progress, Challenges and Outlook." (2016)

⁸⁰ Analyst Estimates

worker holidays with the purpose of boosting tourism⁸¹. Moreover, the Chinese Ministry of Transport plans to upgrade the infrastructure of 12 ports before 2030, in order to receive several mega cruise ships at the same time⁸². In addition to this, the noticeable increase of the Chinese middle class and its disposable income are also important factors to take into consideration: in 2015, 15.28 million Chinese people were considered rich, being estimated that this group will be potential customers for the Chinese cruise industry⁸³. In a joint venture with the Taiwanese government, Royal Caribbean invested in a \$530 million two-acre cruise terminal on a former military base that opened in 2017⁸⁴.

Nevertheless, there are several challenges Royal Caribbean still encounters in China: firstly, there is still a limited overall port capacity; secondly, being an American company, Royal Caribbean faces numerous challenges with Chinese regulations; lastly, the biggest challenge is considered to be the increasing local market competition, as Chinese companies are starting to build their own ships⁸⁵. These companies can possess competitive advantage as they are Chinese based which can help them in adapting to the fast-changing tastes of Chinese consumers thus better addressing their specific needs. Simultaneously, they are able to better adjust shipment requirements for the Chinese market cultural sensitivities, i.e., ships that are assigned to the Chinese market need to have bigger shopping areas rather than open docks⁸⁶.

Figure 31: Royal Caribbean - Passengers carried from Asia – Pacific region



Source: Company Report; Analyst Estimates

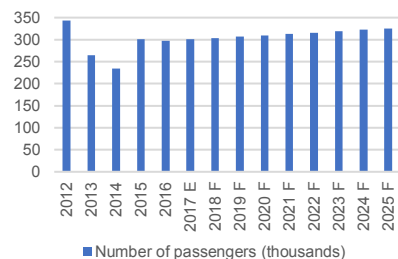
For these reasons, it was assumed a declining growth rate for Royal Caribbean passengers from Asia and Pacific, as the supply in the market increases. Even though the penetration ratio in the region will increase significantly, it is expected an increasing market supply - in 2020, Chinese cruise companies will enter the market, surpassing other cruise companies, due to their competitive advantage, already mentioned before⁸⁷. For that reason, it is assumed that Royal Caribbean will decrease its initial market share of 30% to 20% in China. Nevertheless, despite the slowdown in the passengers' growth rate, Royal Caribbean, in 2019, will carry the same number of European passengers and Asia-Pacific passengers. Withal, from

⁸¹ Source: "China Encourages Worker Holidays to Boost Domestic Consumption." Financial Times, 12 Aug. 2015
⁸² Source: Xu, Ke. "China's Cruise Industry: Progress, Challenges and Outlook." (2016)
⁸³ Source: Xu, Ke. "China's Cruise Industry: Progress, Challenges and Outlook." (2016)
⁸⁴ Source: Smith, Oliver. "China Plots Domination of the Global Cruise Market." The Telegraph. Feb. 2016
⁸⁵ Source: Lyu, Dong. "Cruises Boom as Millions of Chinese Take to the Seas." Bloomberg Report, May 2017
⁸⁶ Source: Xu, Ke. "China's Cruise Industry: Progress, Challenges and Outlook." (2016)
⁸⁷ Analyst Estimates

2020 onward, the Asia-Pacific region will be the second region where more passengers from Royal Caribbean will be sourced⁸⁸.

Other source of Passengers (5% of Royal Caribbean Passengers)

Figure 32: Royal Caribbean - Passengers carried from Latin America

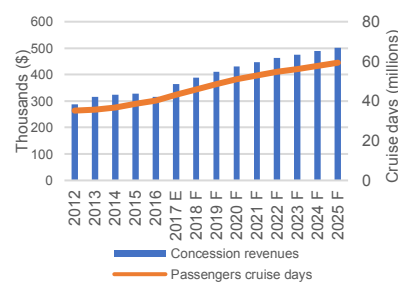


Source: Company Report; Analyst Estimates

This group represents passengers from Latin America, embodying a small part of Royal Caribbean’s carried passengers. The recent decline in passengers originally from this area, in 2013 and 2014, was due to the economic turmoil in that region. In fact, after that, there was an average annual growth of 4.2% from 2004 to 2013 and the Latin America economy only expanded 2.8% and 1.3% in 2013 and 2014 respectively⁸⁹. Due to the lack of specific investment to attract passengers from the region and due to the small relevance for the company’s revenues⁹⁰, it is forecasted, based on the previous growth, that the growth in passengers for the future is 1%.

On-board Revenues

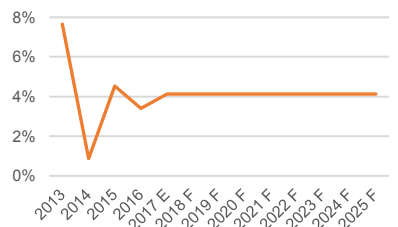
Figure 33: Concession revenues and Passengers cruise days analysis



Source: Company Report; Analyst Estimates

On-board Revenues depend on concessions revenues and on the spending of each passenger during the cruise. There are certain on-board services which cruise lines prefer to sell concessions, as the casino, spa, and gymnasium, and these services are available for guests at an additional cost. These concession revenues depend directly on the number of passenger cruise days, hence, it is forecasted that revenues from concessions will increase as the passenger cruise days increases. Based on the assumptions stated before referring to the average passenger number of overnights and the forecasted number of passengers, passengers’ cruise days was forecasted. On-board spending revenues depend directly on the spending of each passenger and on the number of passengers. As on-board spending per passenger as remained constant for the past years, it is estimated to remain constant for the years forecasted⁹¹.

Figure 34: Royal Caribbean - Effective tax rate



Source: Company Report; Analyst Estimates

Taxes

After analysing the taxation of Royal Caribbean, based on the source of its Revenues, a nominal tax rate of 12% was assumed. Its revenues from North America are taxed in the USA with a nominal tax rate of 6%, as followed by the law of Florida State, being assumed that the rest of the revenues were taxed at the UK and Australian tax rate, 19%. Chinese revenues are taxed at the UK tax rate due to U.K / China double Tax treaty. Moreover, cruise ships

⁸⁸ Refer to Appendix 3: Royal Caribbean – Passengers source analysis

⁸⁹ Source: Deloitte "2015 Latin America Outlook." (2015)

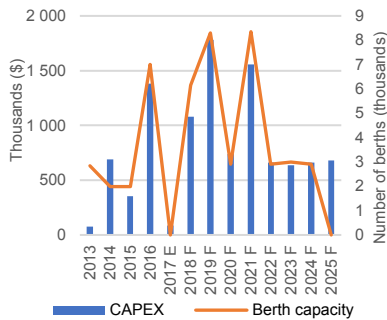
⁹⁰ Source: Company Report

⁹¹ Refer to Appendix 4: On-board passenger spending revenues

are registered in Liberia, providing numerous tax benefits to Royal Caribbean⁹². The effective tax rate used for the years forecasted was 4.1%.

Capital Expenditure

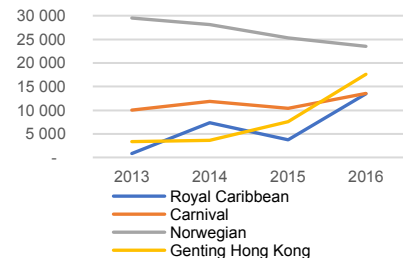
Figure 35: Capex and berth capacity variation



Source: Company Report; Analyst Estimates

The capital expenditure (CAPEX) is composed by the investment in new ships, but also by the investment in equipment and software, in improvements on the current fleet and in others non-current assets. Since, on average, 93% of the investment is made on tangible assets, the investment is highly dependable on the total capacity of Royal Caribbean. The largest capital expenditure made so far was in 2016, when there was a 7.31% increase in capacity⁹³. Moreover, the biggest capital expenditure is expected to be made in 2019 and in 2021, as there is a 7.8% and 7% capacity increase, respectively, with the addition of two ships to the Royal's fleet. It is also part of capital expenditures the amount invested every year in ships improvements. The current trend in the cruise industry is not only to build bigger ships, but also to invest more on improvements of the existing fleet⁹⁴. Since 2012, the amount invested in ship improvements per berth has increased⁹⁵ and, as this growth trend is not sustainable, it is assumed a steady state in 2020⁹⁶.

Figure 36: Capital expenditure (\$) per berth



Source: Company Report

When analysing Royal Caribbean's CAPEX per berth with its competitors for the past four years, it is possible to conclude that Royal Caribbean has a lower capital expenditure per berth than its competitors. This is explained due the fact that Royal Caribbean builds bigger ships than its competitors and consequently, despite the higher costs in building a bigger ship, it can take advantage of economies of scale and have a lower expenditure per berth built⁹⁷.

Gross Margin

As explained before, the Double-Double program, which successfully ceased in 2017, generated short and long-term costs savings, transforming Royal Caribbean in a much more efficient company through the measures executed before. In fact, the company cost cutting program also benefited from the approximately 60% decrease in oil prices that occurred from 2014 to 2017. To fully understand the efficiency increase, the gross margin without fuel costs

⁹² Source: Company Report

⁹³ Refer to Appendix 5: Royal Caribbean berth capacity

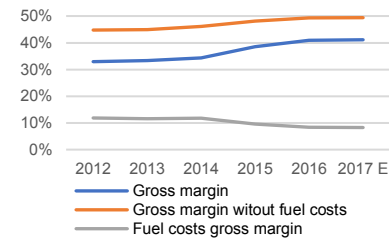
⁹⁴ Source: "Cruise Trends 2017." Cruise Critic, Dec. 2017

⁹⁵ Source: Company Report

⁹⁶ Refer to Appendix 6: Improvements per average berth

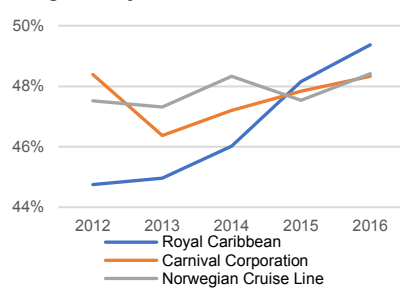
⁹⁷ Source: Lee, Scott, and Sherie Brezina. "Cruise Line Efficiency." Tourism Economics 22.5 (2016)

Figure 37: Royal Caribbean - Gross margin analysis



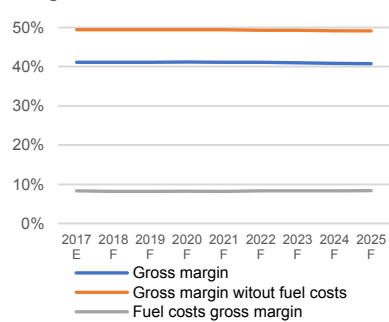
Source: Company Report

Figure 38: Cruise industry - Gross margin analysis



Source: Company Report

Figure 39: Royal Caribbean - Gross margin forecasted



Source: Analyst Estimates

Figure 40: WACC inputs

Risk Free	2,5%
Beta	105,2%
Market risk premium	5,7%
Re	8,4%
Rd	3,4%
Debt / Equity	42,3%
Number of shares	214 090 000
WACC	6,81%

Source: Company Report; Analyst Estimates

was plotted. From 2014 to 2017, the gross margin without fuel costs is expected to increase from 34.3% to 42.2%, showing that only half of the increased gross margin was justified by an increase in internal efficiency, while the other half was a consequence of the decreasing fuel costs. Taking into consideration that all cruise lines benefited from low fuel prices, it possible to understand its major internal efficiency accomplishments if one compares Royal Caribbean's gross margin with its main competitors in terms of market capacity, excluding all fuel related costs. In addition, from 2014 to 2017, Royal Caribbean increased internal efficiency in 7.2%, while Carnival only attained a 2.3% growth and Norwegian Cruise Lines 0.2% increase.

Furthermore, Royal Caribbean has been benefiting significantly from the decrease in fuel price since 2015. Fuel costs represented 14% of total variables costs in 2016, while in 2014 they represented 18% of that total. Based on fuel cost predictions, it was assumed that until 2020 fuel price variations would be irrelevant, being forecasted a minor increase on its prices but, simultaneously, being assumed that company ships will become more fuel efficient. However, from 2020 until 2030, fuel prices are expected to increase significantly. Nevertheless, the fuel price per cruise day was maintained stable for the years forecasted, taking into consideration that, despite the fuel price increase, the new ships will become more fuel efficient and will start using LNG fuel. Royal Caribbean aims, following several methods, building each new ship at least 15% more fuel efficient than the previous one⁹⁸. Hence, it was assumed a constant fuel cost per cruise day. For 2017, Royal Caribbean is expected to have a gross margin of 41.1% and it is expected to remain constant for the forecasted years. This expectation is based on the fact that the company is already leading in terms of internal efficiency, being unlikely to become more efficient, as all the cost saving measures were executed from 2014 to 2017 and due to the fuel cost assumptions explained before.

Calculating WACC

Cost of Debt

In order to estimate the cost of debt, the yield to maturity of a Royal Caribbean bond maturing in 2028 was used as a proxy as well as its rating. The bond's yield to maturity (YTM) maturing in 2028 is 3.7% and, as Royal Caribbean's bonds are rated Baa3 (Moody's) and the equivalent BB+ (S&P), it is assumed

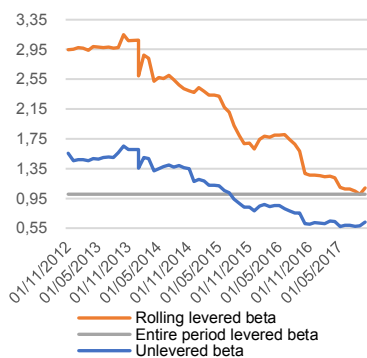
⁹⁸ Source: Jordan, Todd, Felix Wang, and David Benz. "The Math behind Double-Double." Dec. 2014

that the company debt has a default probability (Pd) of, approximately, 0.93% and a recovery rate (RR) of 37.5%. Consequently, the cost of debt is computed: $R_d = YTM - (Pd \cdot (1 - RR))$. Based on this, the cost of debt is 3.4%.

Cost of Equity

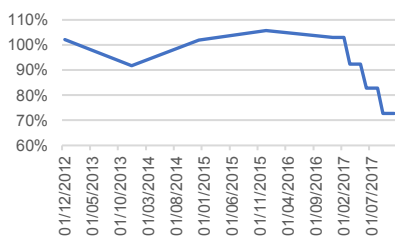
The Capital Asset Pricing Model (CAPM) was applied to assess Royal Caribbean’s cost of equity and a thorough analysis of the company’s beta was performed. For that reason, the raw beta of the company (1.097) was found through a regression of the company returns with the market returns⁹⁹. With a 95% confidence level, the true beta lies between 0.30 and 1.89. As this range is very wide, it was necessary to increase the beta’s accuracy. By plotting and conducting an analysis of the company’s rolling levered and unlevered beta for the past five years, it was possible to understand that, until 2013, the company was highly dependent on the market return, having a levered beta above 2. Nonetheless, it decreased significantly, until 2017, to 1.09, due to changes in the company’s capital structure and to the company’s decreasing operating risk. Moreover, the unlevered beta of Royal Caribbean has decreased since 2013, in other words, the company has been able to better diversify its operating risks, which can be justified with the capacity deployment in Asia.

Figure 41: Rolling betas – five years period



Source: Bloomberg; Analyst Estimates

Figure 42: Royal Caribbean current debt-to-equity ratio



Source: Bloomberg; Analyst Estimates

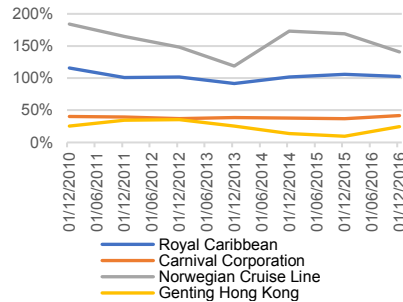
To improve the beta’s accuracy, it was necessary to unlever the raw beta of the five similar companies within the industry using their current debt to equity ratio. Although the unlevered betas of the cruise companies are very similar, Royal Caribbean’s unlevered beta is slightly higher than the others, meaning that the company’s returns are more dependent on the market’s performance than other companies¹⁰⁰.

As the target debt-to-equity, 42%, is different from the actual debt-to-equity, 75%, it was calculated an average of the company’s unlevered beta (0.87) and the industry’s unlevered beta (0.61). Royal Caribbean’s beta (1.05) was computed by relevering the resultant unlevered beta (0.74) using the target debt-to-equity of 42%, which was achieved by using the book value of debt as a proxy for the market value of debt.

⁹⁹ Based on monthly returns and on a standard 60-month rolling window starting on November 2012 until October 2017. S&P 500 returns were used as a market return proxy

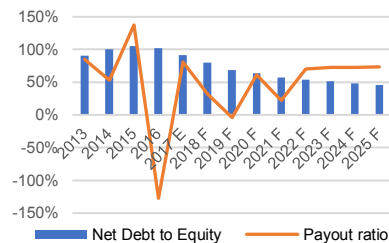
¹⁰⁰ Refer to Appendix 7: Beta analysis

Figure 43: Cruise industry – Debt-to-equity ratio



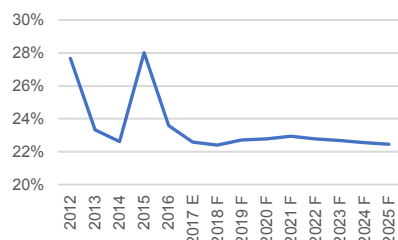
Source: Bloomberg

Figure 44: Payout ratio and net debt-to-equity analysis



Source: Bloomberg; Analyst Estimates

Figure 45: Other operating costs as a % of total revenues



Source: Company Report; Analyst Estimates

Debt-to-Equity

Currently, the debt-to-equity ratio of Royal Caribbean is 65%. When comparing Royal Caribbean’s ratio with its peers, it is possible to conclude that the company is more leveraged than most of these. This puts Royal Caribbean in a riskier position than companies like Carnival Corporation, as possessing a higher level of leverage places them as a more vulnerable company when there is an increase in Fed interest rates or problems within the industry. However, Royal Caribbean’s debt-to-equity ratio is expected to decrease since its payout ratio is expected to stabilize in 70%. Also, for the past five years, the company has been funding its news ships through debt and, as a consequence, it is expected that another major contribution for the decrease in debt will arise when Royal Caribbean capacity starts stabilizing. Furthermore, the current company trend is to decrease its debt in terms of equity, which is consistent with the forecasted payout ratio. In fact, since equity increases more than debt, it means that the company will start to finance itself more with equity rather than debt.

The target debt-to-equity ratio was calculated based on the debt market value, considering the market value of the company’s bonds and non-traded debt, and on the equity market value. As the yield to maturity of the company bond and the coupon bonds are not considerably different, the book value of debt and the outstanding company’s bond price is considered a good proxy for the market value of debt¹⁰¹. Furthermore, the target debt-to-equity ratio is 41.9%.

All in all, throughout this analysis it was possible to reach a WACC value for Royal Caribbean of 6.81%.

Cash Flows

The remaining costs not included in the gross margin will remain constant as a % of total revenues following their trend for the past four years. As from 2022, a decrease is observed due to a similar depreciation costs decrease as a percentage of ticket revenues since the investment in tangible assets starts to stabilize, being accompanied by an increase in cruise prices, as previously stated.

Furthermore, it is forecasted that the annuity calculated for the cash flows between 2025 and 2030, has a Net Operating Less Adjusted Taxes

¹⁰¹ Refer to Appendix 8: Royal Caribbean bonds

Figure 46: Valuation summary

Enterprise Value (USDm)	35 059 897
NFA as of 2018 (USDm)	-9 247 431
Joint Ventures (USDm)	682 927
Market Value of Equity (USDm)	26 495 393
# Shares outstanding	214 090 000
Estimated Share Price (USD)	123,76
Real Share Price (USD)	120,39
Expected Capital Gain	2,80%
Difference (USD)	3.37
Shareholders' Cash Out (USD)	487 250 011
Shareholders' Cash Out (\$ per share)	2.28
Expected "Cash" Gain	1,9%
Total Shareholders Expected Return	4,69%
Investment Advice	HOLD

Source: Bloomberg; Analyst Estimates

(NOPLAT) growth of 3.8%, based on the expected passengers' growth, and a ROIC of 8.9%, while the industry's average ROIC is assumed to be 6.6%¹⁰².

The terminal value of the company, which summarizes the cash flows after 2031, was calculated assuming a growth rate of 2% and a ROIC of 7.4%, while the industry's ROIC is estimated to be 5.3%¹⁰³. Moreover, the growth rate was assumed to be equal to the expected economy growth rate, since it was not reasonable to assume that Royal Caribbean would keep growing at a higher rate than the economy¹⁰⁴. As the investment rate was assumed to remain constant, ROIC in perpetuity is above WACC (6.81%), validating Royal Caribbean's competitive advantage assumption made on this valuation.

Being based on the expected total return, the investment advice is to hold, since the expected total return is below 10%. Moreover, the estimated share price is 2.8% higher than the real share price. As matter of fact, the real share price has dropped 2%, from \$ 123.02 (on the 6th of December 2017) to \$ 120.39, since 195 and 332 passengers on Royal Caribbean cruises in Australia and Florida, respectively, contracted a stomach-related illness on the week of 4th of December. Nevertheless, it is assumed that the price is expected to rise as these outbreaks are a frequent event in a cruise and the company will take all the necessary precautions to overcome these.

Scenario Analysis

Moreover, since future cash flows of Royal Caribbean are very dependable on external factors, it is highly important to develop a Scenario Analysis to understand the impact that different scenarios can have on the share price of Royal Caribbean Cruises Ltd. There are two important variables that the Scenario Analysis will consider - passenger growth and the gross margin, as the assumptions made to perform this valuation are highly linked to both. Regarding the gross margin, the volatility of fuel prices and the ability of the company to efficiently use less fuel in new ships is also analysed.

"Golden Age" Scenario

The "*Golden Age*" Scenario is the best possible scenario, since it considers that, in 2019, there will be a 7% increase in the passengers growth rate, and an average annual growth rate of 2.9% until 2030. It also assumes that the company will be able to improve its gross margin from 40.5% to 45%. Nevertheless, this is only possible if **fuel prices decrease up to 50%** or if

Figure 47: Scenario Analysis

Scenario	Target Price	Weight
Golden Age	\$144,33	10%
Base	\$127,42	80%
Worst	\$96,39	10%
Overall Valuation	\$123,11	

Source: Analyst Estimates

¹⁰² Source: Bloomberg

¹⁰³ Source: Bloomberg

¹⁰⁴ Refer to Appendix 9: Royal Caribbean DCF Model

Royal Caribbean is able to use fuel more efficiently. However, the probability for this scenario to occur is only 10%, and the estimated share price would then be \$144.33.

Base Scenario

Furthermore, the *Base Scenario*, with a 80% probability of occurrence, is the one followed during the Discounted Cash Flow Valuation method in which it is assumed a 5.5% passengers' growth in 2019, an average annual growth of 2.3% annual growth until 2030 and a constant gross margin of 41.2%.

Worst Case Scenario

The *Worst Case Scenario* considers passengers growth rate of only 4%, in 2019, and until 2030 an annual growth rate of 1.7%. This might be due to a slowdown of the Chinese economy or a deceleration on the European and American economy recovery. In this scenario, it is also considered a gross margin of 35% as a consequence of higher fuel costs - if prices go up by 67%, or if there is a commitment failure in delivering ships that can use fuel more efficiently. Hence, the share price would be of \$96.39, considering that this scenario has a 10% probability occurrence.

Multiples Valuation

Furthermore, the Multiples method was used, based on companies from the hospitality industry with ROIC values similar to Royal Caribbean's ROIC. Thus, it is possible to conclude that Royal Caribbean is currently traded at discount. In fact, the 4% difference between the Multiples Valuation and the DCF Valuation, in which the price computed by the DCF Valuation is lower, can be explained by the fact that the DCF relies on the assumptions made while the Multiples method relies on the industry financials. Therefore, the price computed by the Multiples Valuation is 7% higher than the real share price. In addition, the multiples chosen were only based on the peer's operating performance. This is the reason why the price-to-earnings multiple was not used as it is affected by the company's capital structure and non-operating items, not being affected solely by the company's operating performance.

Figure 48: Market Multiples

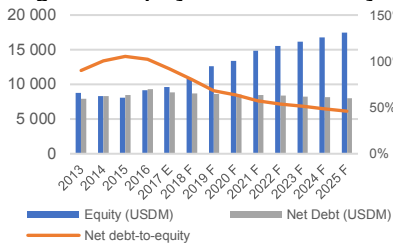
Company	Current Multiples				1-year Forward Looking Multiples	
	EV / Revenues	EV / Operating Income	EV / EBITA	EV / EBITDA	EV / Revenues	EV / Operating Income
Carnival Corp	2,82	15,04	14,86	9,53	2,65	15,51
Norwegian Cruise Line	3,27	17,22	17,22	11,47	3,00	14,17
The Walt Disney	3,02	11,88	12,21	10,08	2,87	10,99
Hilton	3,11	19,46	16,55	14,22	3,99	26,12
Marriott International	2,32	28,93	28,70	25,76	1,72	15,80
Expedia Inc	2,26	42,99	25,48	15,80	1,96	19,69
Industry Average	2,80	22,59	19,17	14,48	2,70	17,05
Royal Caribbean EV Estimated (USDm)	28 733 436	42 808 255	45 985 063	40 519 168	29 093 648	33 881 426
Royal Caribbean Estimated Enterprise Value (USDm)	36 836 833					
Estimated Price per Share (\$)	128,87					

Source: Company Report; Analyst Estimates

Financials

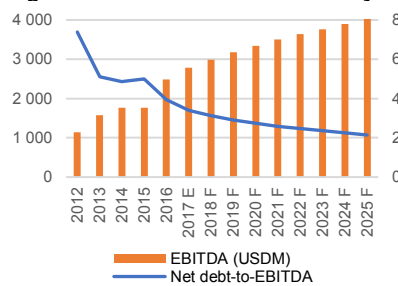
Debt Structure

Figure 49: Equity and net debt analysis



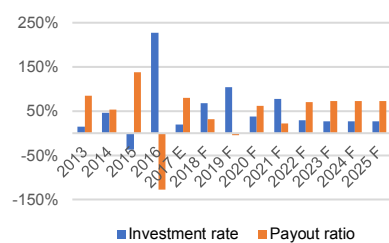
Source: Company Report; Analyst Estimates

Figure 50: Net debt-to-EBITDA analysis



Source: Company Report; Analyst Estimates

Figure 51: Payout ratio analysis



Source: Company Report; Analyst Estimates

Being the cruise industry highly capital-intensive, cruise ships can cost around \$1.5B and renovations are required along their 30 years of life¹⁰⁵. Moreover, building more expensive ships with better amenities but also invest more in improving their current fleet are the current trends present in the cruise industry, leading to an increasing need of capital to finance these capital expenditures. In fact, by analysing the net debt-to-equity ratio, it is observable that Royal Caribbean has always relied as much on debt financing as on equity financing to support its expenditures. In addition, the higher ratio matches the years in which more ships were added to the fleet. In 2017, the current net debt starts to decrease as the company starts to rely more on equity to finance its capital expenditures.

Furthermore, it is important to also analyse the net debt-to-EBITDA, an indicator of Royal Caribbean’s ability to pay off its debt. As there is a higher increase in operating income than the increase in debt, the net debt-to-EBITDA decreases and, as a result, Royal Caribbean will take less time to pay off its debt, which could mean a better credit rating for the company.

Moreover, the payout ratio, being more volatile between 2015 and 2020 and extremely low in 2016 (-145%), confirms the need for financing at that point, as the company occurs in higher capital expenditures. From 2021 onwards, as it is assumed that the growth in capital expenditures will stabilize, being no longer present the need for a higher investment rate, the payout ratio starts to follow a consistent trend, around 70%, demonstrating the company’s willingness to share more of the its earnings with investors.

¹⁰⁵ Source: Company Report

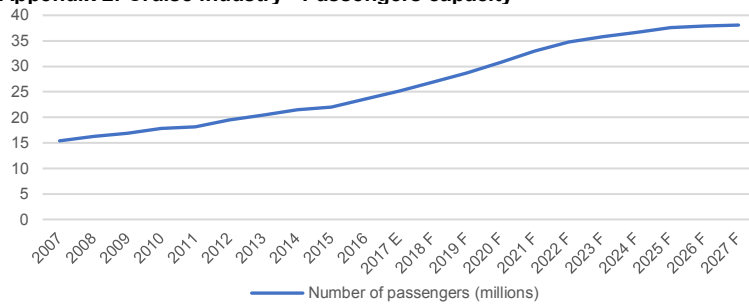
Appendices

Appendix 1: Largest ships by capacity in 2016

Rank #	Ship	Cruise Line	Maximum Capacity
1	Harmony of the Seas	Royal Caribbean International	6 687
2	Allure of the Seas	Royal Caribbean International	6 780
2	Oasis of the Seas	Royal Caribbean International	6 780
4	MSC Meraviglia	MSC Cruise Line	5 714
5	Quantum of the Seas	Royal Caribbean International	4 905
5	Anthem of the Seas	Royal Caribbean International	4 905
5	Ovation of the Seas	Royal Caribbean International	4 905
8	Norwegian Joy	Norwegian Cruise Line	4 500
9	Norwegian Escape	Norwegian Cruise Line	4 200
10	Liberty of the Seas	Royal Caribbean International	4 375

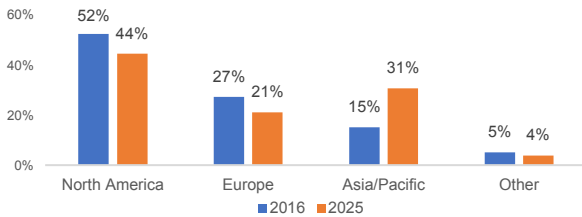
Source: Company Report

Appendix 2: Cruise industry - Passengers capacity



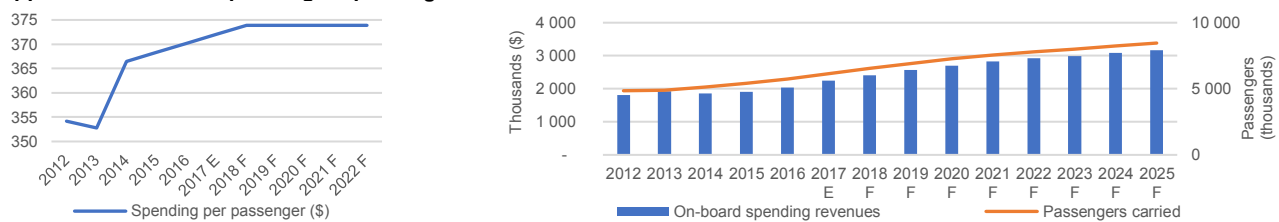
Source: "2017 Cruise Industry Infographic." Cruise Industry News | Cruise News, Aug. 2017; Analyst Estimates

Appendix 3: Royal Caribbean - Passengers source analysis



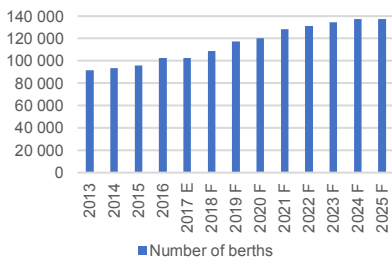
Source: Company Report; Analyst Estimates

Appendix 4: On-board passenger spending revenues

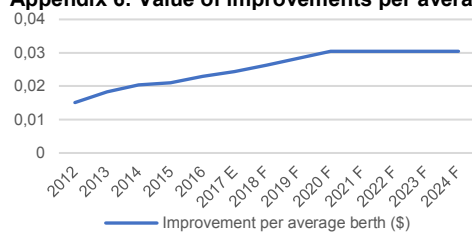


Source: Company Report; Analyst Estimates

Appendix 5: Royal Caribbean berth capacity



Source: Company Report; Analyst Estimates

Appendix 6: Value of improvements per average berth

Source: Company Report; Analyst Estimates

Appendix 7: Beta analysis

Company	Raw Beta	Current Debt-to-Equity Ratio	Unlevered Beta
Royal Caribbean	1,53	75%	0,87
Carnival Corporation	0,62	38%	0,45
Norwegian Cruise Line	1,15	119%	0,53
TUI	0,88	82%	0,48
Genting Hong Kong	0,71	27%	0,56
The Walt Disney Company	1,20	61%	0,75

Source: Analyst Estimates

Appendix 8: Royal Caribbean bonds

Bond	Maturity Date	Amount (USDm)	Price (\$)	Coupon %	Coupon Type	Callable	Yield to Maturity
1	15/3/18	150 000	102	7,25%	Fixed	No	1,474%
2	15/11/22	650 000	111	5,25%	Fixed	Yes	2,950%
3	15/10/27	300 000	131	7,50%	Fixed	No	3,717%

Source: Bloomberg

Appendix 9: Royal Caribbean DCF model

USDm	2016	2017 E	2018 F	2019 F	2020 F	2021 F	2022 F	2023 F	2024 F	2025 F	Terminal Value
NOPLAT	1 426 793	1 617 458	1 744 505	1 817 313	1 905 693	1 975 397	2 064 231	2 144 435	2 229 209		
Depreciation	894 915	907 660	964 439	1 062 447	1 130 930	1 209 320	1 240 931	1 271 518	1 302 127		
Capex	-1 401 876	-188 236	-1 109 977	-1 800 235	-770 413	-1 589 506	-685 617	-663 422	-687 099		
Δ NWC	189 636	-107 876	80 680	76 989	61 099	84 132	78 810	80 236	84 110		
Free cash flow	1 109 468	2 229 006	1 679 651	1 156 515	2 327 308	1 679 344	2 698 354	2 832 767	2 928 347		
Discount factor				0,94	0,88	0,83	0,77	0,73	0,68		
Discounted FCF				1 084 856	2 047 840	1 386 125	2 089 215	2 057 387	1 995 027	4 193 486	21 672 377

Source: Company Report; Analyst Estimates

Financial Statements

Balance Sheet - Consolidated

USDm	2015	2016	2017 E	2018 F	2019 F	2020 F	2021 F	2022 F	2023 F	2024 F	2025 F
Total Current Assets	837 022	748 305	752 367	789 756	825 155	866 283	908 637	947 379	985 789	1 025 993	1 068 084
Cash and cash equivalents	121 565	132 603	90 983	97 078	102 650	107 842	113 011	117 642	122 121	126 803	131 698
Trade and other receivables	238 972	291 899	307 542	327 734	346 117	363 167	381 200	397 960	414 875	432 598	451 173
Inventories	121 332	114 087	113 123	113 451	112 758	118 313	124 188	129 648	135 158	140 932	146 983
Prepaid expenses and other assets	220 579	209 716	240 718	251 493	263 629	276 961	290 238	302 130	313 634	325 659	338 230
Derivative financial instruments	134 574	0	0	0	0	0	0	0	0	0	0
Total Non-Current Assets	19 945 021	21 562 019	21 857 160	23 091 950	25 071 131	25 862 923	27 474 236	28 182 096	28 868 206	29 578 446	30 309 035
Property and equipment	18 777 778	20 161 427	20 247 853	21 329 475	23 110 670	23 850 582	25 409 714	26 068 126	26 705 228	27 364 819	28 043 045
Goodwill	286 764	288 386	288 386	288 386	288 386	288 386	288 386	288 386	288 386	288 386	288 386
Other assets	880 479	1 112 206	1 320 922	1 474 089	1 672 075	1 723 955	1 776 135	1 825 584	1 874 591	1 925 241	1 977 604
Total assets	20 782 043	22 310 324	22 609 527	23 881 706	25 896 285	26 729 205	28 382 873	29 129 475	29 853 995	30 604 439	31 377 119
Total Current Liabilities	3 393 150	3 155 866	3 257 569	3 427 047	3 629 196	3 769 923	3 946 008	4 107 808	4 269 224	4 438 350	4 615 591
Customer Deposits	1 742 286	1 965 473	1 910 467	2 035 900	2 150 093	2 256 010	2 368 033	2 472 143	2 577 222	2 677 320	2 802 705
Accounts payable	302 072	305 313	304 144	296 779	294 974	291 283	305 747	319 189	332 756	346 972	361 870
Accrued interest	38 325	46 166	78 078	83 308	88 090	92 545	96 982	100 955	104 800	108 817	113 018
Accrued expenses and other liabilities	658 601	692 322	769 440	858 800	935 232	982 528	1 029 628	1 071 815	1 112 628	1 155 284	1 199 880
Derivative financial instruments	651 866	146 592	195 440	152 259	160 806	147 556	145 618	143 706	141 819	139 957	138 119
Total Non-Current Liabilities	9 325 854	10 033 046	9 717 988	9 627 152	9 622 715	9 562 612	9 551 547	9 486 003	9 428 173	9 366 508	9 303 866
Bank Loans	8 527 243	9 387 436	8 844 383	8 695 030	8 637 086	8 527 139	8 466 436	8 356 431	8 255 589	8 148 969	8 039 329
Other Non Current Liabilities	798 611	645 610	873 605	932 122	985 628	1 035 473	1 085 111	1 129 572	1 172 584	1 217 539	1 264 537
Total Liabilities	12 719 004	13 188 912	12 975 557	13 054 199	13 251 911	13 332 535	13 497 555	13 593 812	13 697 398	13 804 858	13 919 457
Equity	8 063 039	9 121 412	9 633 970	10 827 507	12 644 375	13 396 670	14 885 318	15 535 663	16 156 597	16 799 581	17 457 662
Total Equity and Liabilities	20 782 043	22 310 324	22 609 527	23 881 706	25 896 285	26 729 205	28 382 873	29 129 475	29 853 995	30 604 439	31 377 119

Income Statement - Consolidated

USDm	2015	2016	2017 E	2018 F	2019 F	2020 F	2021 F	2022 F	2023 F	2024 F	2025 F
Total revenues	8 299 074	8 496 401	9 098 343	9 707 778	10 265 036	10 784 153	11 301 120	11 764 165	12 212 122	12 680 317	13 169 793
Passenger ticket revenues	6 058 821	6 149 323	6 478 877	6 904 254	7 291 512	7 650 704	8 030 601	8 383 664	8 740 013	9 113 385	9 504 684
Onboard and other revenues	2 240 253	2 347 078	2 619 466	2 803 524	2 973 524	3 133 449	3 270 519	3 380 502	3 472 109	3 566 933	3 665 109
Total cruise operating expenses	5 099 393	5 015 539	5 357 683	5 713 535	6 038 323	6 340 333	6 648 892	6 929 763	7 206 680	7 496 432	7 799 691
Commissions, transportation and other	839 678	779 377	821 145	875 058	924 140	969 665	1 017 814	1 062 562	1 107 726	1 155 048	1 204 642
Port Costs	561 100	570 300	615 671	656 093	692 893	727 026	763 127	796 678	830 541	866 021	903 205
Onboard and other	553 104	493 558	550 837	589 542	625 291	658 921	687 745	710 873	730 136	750 077	770 722
Payroll and related	861 775	882 891	939 114	1 000 772	1 056 905	1 108 970	1 164 036	1 215 213	1 266 866	1 320 986	1 377 705
Food	480 009	485 673	511 701	545 297	575 883	604 252	634 256	662 141	690 285	719 774	750 679
Fuel	795 801	713 676	751 923	801 291	846 236	887 923	932 013	972 988	1 014 345	1 057 678	1 103 091
Other operating expenses	1 007 926	1 090 064	1 167 291	1 245 480	1 316 975	1 383 576	1 449 901	1 509 309	1 566 780	1 626 849	1 689 647
Other operating costs	2 324 779	2 003 657	2 053 694	2 174 771	2 331 303	2 456 233	2 591 942	2 681 465	2 768 854	2 858 879	2 955 078
Marketing, selling and administrative	1 086 504	1 100 290	1 146 034	1 210 332	1 268 856	1 325 303	1 382 622	1 440 534	1 497 336	1 556 753	1 618 920
Depreciation and amortization expense	827 008	894 915	907 660	964 439	1 062 447	1 130 930	1 209 320	1 240 931	1 271 518	1 302 127	1 336 157
Restructuring charges	411 267	8 452	-	-	-	-	-	-	-	-	-
EBIT	874 902	1 477 205	1 686 966	1 819 472	1 895 409	1 987 587	2 060 286	2 152 938	2 236 588	2 325 006	2 415 025
Interest income	12 025	20 856	17 661	18 844	19 925	20 933	21 936	22 835	23 705	24 613	25 564
Interest expense	- 277 725	- 307 370	- 312 322	- 320 080	- 341 538	- 358 810	- 376 011	- 391 417	- 406 321	- 421 899	- 438 185
Other income (expense)	67 681	112 797	193 469	206 808	218 456	227 444	238 347	248 113	257 560	267 435	277 758
Total other income (expense)	- 198 019	- 173 717	- 101 193	- 94 428	- 103 157	- 110 433	- 115 727	- 120 469	- 125 056	- 129 851	- 134 863
Total other comprehensive income	- 431 439	411 949	3 314	3 314	3 314	3 314	3 314	3 314	3 314	3 314	3 314
EBT	245 444	1 715 437	1 589 087	1 728 558	1 795 566	1 880 467	1 947 873	2 035 783	2 114 846	2 198 469	2 283 475
Taxes	- 11 100	- 20 100	- 42 346	- 47 571	- 48 751	- 50 980	- 52 493	- 54 983	- 57 146	- 59 447	- 61 752
Comprehensive Income	234 344	1 695 337	1 546 741	1 680 787	1 746 816	1 829 488	1 895 380	1 980 800	2 057 700	2 139 022	2 221 723

Cash-Flow Statement - Consolidated

USDm	2015	2016	2017 E	2018 F	2019 F	2020 F	2021 F	2022 F	2023 F	2024 F	2025 F
Revenues	8 299 074	8 496 401	9 098 343	9 707 778	10 265 036	10 784 153	11 301 120	11 764 165	12 212 122	12 680 317	13 169 793
<i>Growth rate</i>	2,8%	2,4%	7,1%	6,7%	5,7%	5,1%	4,8%	4,1%	3,8%	3,8%	3,9%
EBITDA	1 701 910	2 372 120	2 594 626	2 783 911	2 957 856	3 118 517	3 269 606	3 393 868	3 508 106	3 627 132	3 751 182
<i>EBITDA margin</i>	20,5%	27,9%	28,5%	28,7%	28,8%	28,9%	28,9%	28,8%	28,7%	28,6%	28,5%
EBIT	874 902	1 477 205	1 686 966	1 819 472	1 895 409	1 987 587	2 060 286	2 152 938	2 236 588	2 325 006	2 415 025
Tax	-39708	-50412	-69508	-74967	-78096	-81894	-84889	-88707	-92154	-95797	-99506
NOPLAT	835 194	1 426 793	1 617 458	1 744 505	1 817 313	1 905 693	1 975 397	2 064 231	2 144 435	2 229 209	2 315 519
Depreciation	827 008	894 915	907 660	964 439	1 062 447	1 130 930	1 209 320	1 240 931	1 271 518	1 302 127	1 336 157
CAPEX	- 252 092	- 1 401 876	- 1 888 236	- 1 109 977	- 1 800 235	- 770 413	- 1 589 506	- 685 617	- 663 422	- 687 099	- 706 984
Δ NWC	- 25 354	189 636	- 107 876	80 680	76 989	61 099	84 132	78 810	80 236	84 110	88 192
Operating CF	1 384 756	1 109 468	2 229 006	1 679 646	1 156 515	2 327 309	1 679 342	2 698 354	2 832 767	2 928 347	3 032 884
Δ non-operating assets and liabilities	627 521	- 686 675	19 061	- 78 634	- 93 967	12 666	23 356	18 032	16 238	17 653	19 153
FCF	2 012 277	422 793	2 248 067	1 601 013	1 062 548	2 339 975	1 702 698	2 716 387	2 849 005	2 945 999	3 052 037

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Buy	Expected total return (including expected capital gains and expected dividend yield) of more than 10% over a 12-month period.
Hold	Expected total return (including expected capital gains and expected dividend yield) between 0% and 10% over a 12-month period.
Sell	Expected negative total return (including expected capital gains and expected dividend yield) over a 12-month period.

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