Royal Caribbean Cruises Ltd (RCL)

SELL: € 59.9 (-14.3%)

Equity Research Division 1st May 2022

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Key Financials

Market Cap	$19.826B
52-Wk High	$98.27
52-Wk Low	$61.45
Fiscal Year End.	31 December 2022

($billion)	FY19A	FY20A	FY21A	FY22E
Gross Profit	3.64	-1.84	-2.42	1.75
EBITDA	3.40	-1.65	-2.45	1.42
EBIT	2.17	-2.93	-3.75	0.04
Net Income	1.88	-5.80	-5.26	-0.66

Key Executives

Mr. Jason T. Liberty	Chief Executive Officer
Mr. Naftali Holtz	Chief Financial Officer

Basic Information

Last Closed Price	$ 69.85
Target Price	$ 59,9
+/- Potential	-14.4%
Bloomberg Ticker	RCL
GICS Sector	Consumer Cyclical
GICS Sub-Industry	Travel Services

12 Month Price Performance (Yahoo Finance)

Data provider

FACTSET

Company Description

Royal Caribbean Cruises Ltd, is an American-based cruise holding company that owns and operates three global cruise vacation brands, including Royal Caribbean International, Celebrity Cruises and Silversea Cruises. It also owns joint venture interest in the TUI Cruises and Hapag-Lloyd Cruises. The company offers a global service, and it is the second world largest cruise company in the world. The company is mainly focused on vacation cruises and its itineraries include cruises sailing to Alaska, Australia & New Zealand, the Caribbean, the US eastern and western coast, the Orient, the Mediterranean and more. In 2022 It debuted the world's largest cruise ship, which sailed for the first time in March 2022.

Summary

Royal Caribbean Cruises Ltd is the second largest cruise company in the world and is listed in on the New York Stock Exchange. The company was heavily impacted by Covid-19 pandemic, which resulted in a dangerously weak financial position: for example, one of the subsidiaries was put in liquidation in 2021. In general, the whole market experienced a very sharp decline in revenue (from $27.409 billion in 2019 to $3.355 billion in 2020), though the sector is expected to recover quickly in the next future (CAGR 36% up to 2025). The main problematic aspects of the company are not only the weak financial position, but also the fact that it is extremely vulnerable to external events, like new Covid-19 variants, zero-covid policies of some countries, and rising oil prices. Capacity to pay back the huge amount of debt that has raised during the pandemic is key for the solvency of the company, and the scenario of raising interest rate across the globe is not encouraging. From a valuation standpoint, we performed both absolute and relative valuation. For the absolute one, we used FCFF through 2026 plus TV, discounted at a WACC of 7,45% (estimated using a risk-free rate of 1.91%, a beta of 1.8, cost of debt of 4.17% and cost of equity of 10.41%). The final price per share of the company resulting from the analysis is 59.9$, down of 14.4% from today value of $69.85. A similar result is obtained through the relative analysis: using both equity and asset side multiples, we obtained a final price per share of 63.48$. Therefore, our recommendation is a SELL.

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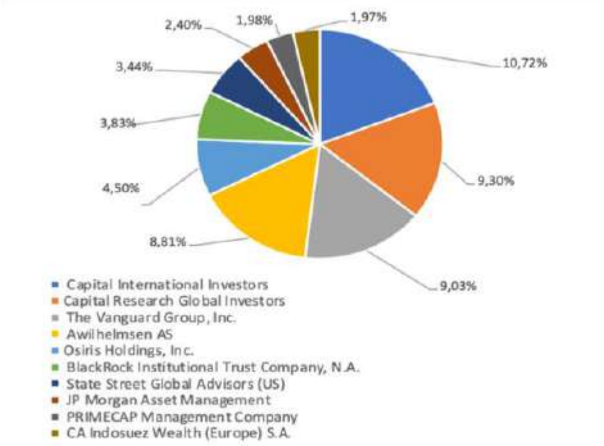
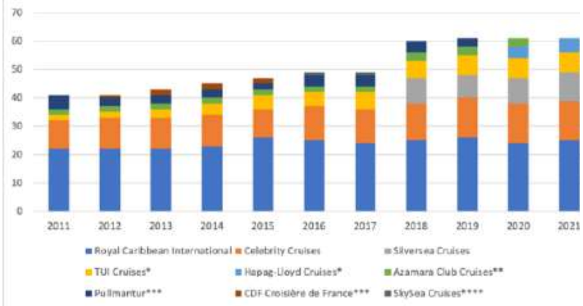
Figure 1. Shareholder composition



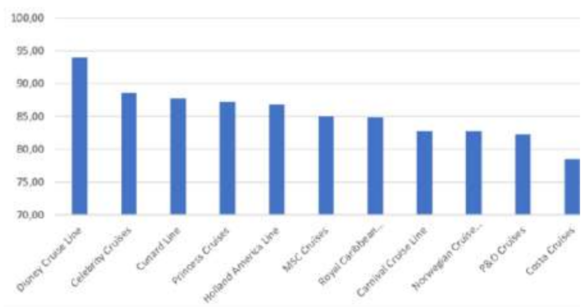
Source: 10K 2021

Figure 2. Number of Royal Caribbean Cruises ships 2011 - 2021, by brand



Source: 10K 2021

Figure 3. Best-rated large-ship cruise lines by travelers in the U.S. as of May 2021



Source: Statista

Company Overview

Royal Caribbean Cruises Ltd, was first incorporated in Liberia in 1985 and then formed in 1997 when Royal Caribbean Cruise Line purchased Celebrity Cruises. Royal Caribbean Cruises Ltd was established as the new parent company of both cruise lines. The Company is based in Miami and employes around 85,000 people all around the world. The firm has established itself as one of the most known and biggest in the sector, becoming the world's second-largest cruise line operator. In recent years the Company has expanded its influence in several other countries, such as Germany forming the TUI Cruises in joint venture with TUI AG.

Royal Caribbean Cruises is listed on the New York Stock Exchange as Royal Caribbean Group (RCG), the 87.89% of float is held by Institutions, the main institutional holder is Capital International Investors with 10.73% of share capital. The mission statement of the Company is "to provide relaxation, security, class, and freedom in the form of high value cruising options to families and individuals". The company is often ranked as one of the top leaders in the sector, in fact it is ranked as the second in "Best Cruises Lines for Families" by the US News Travel. In recent years the Group has begun to focus on some sustainability targets, such as the Ocean Conservation and the Sustainable Tourism. These goals are the main principles of the Save the Waves Foundation created by the Company in 1992 with the purpose to Reduce, Reuse and Recycle. The 2020 Report shows how the firm has been able to reduce single-use plastics across their fleet and in two years reduced their consumption by 60%. Royal Caribbean is currently working on new project like the Royal Beach Club, which is set to open In Nassau, Bahamas. The Company thinks that the beach will be a major new option for the guests and is set to launch in 2023. Other several projects include the Wonder of the Seas which is currently the largest cruise ship in the world and sailed for the first time on March 4, 2022.

The Company in the last years has pursued and finalized deals in the European market, in 2006 the Group acquired the Spanish Pullmantur Cruises, which in 2020 due to the COVID-19 pandemic was filed for reorganization. By December 2020, a reorganization plan had been developed, to restart some cruises, with financial assistance from Royal Caribbean. Since mid-July 2021 it is in liquidation.

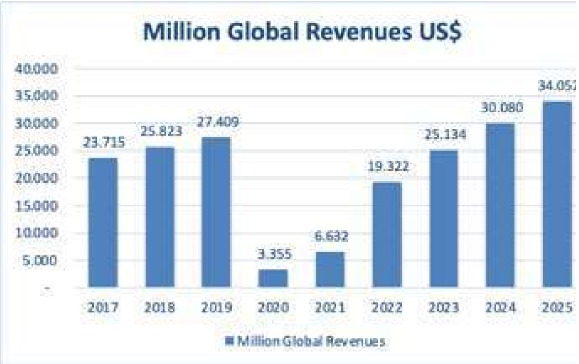
Industry Outlook

The cruises industry had been hit very strongly by the Covid-19 pandemic, reaching in 2020 its absolute lowest level of revenues, which plumbed at 3,313 million US$. However, thanks to its resilience, it is already experiencing a solid recovery. As a matter of fact, analysts expect the cruises segment to grow steadily in the years after the current pandemic, expanding their destination and service portfolio according to the needs of the younger generations. Indeed, the business is expected to overcome pre-pandemic levels of revenues in 2024 and should hit 36,084 million US$ of revenues in 2025, experiencing a yearly average growth rate of 36%.

Trends

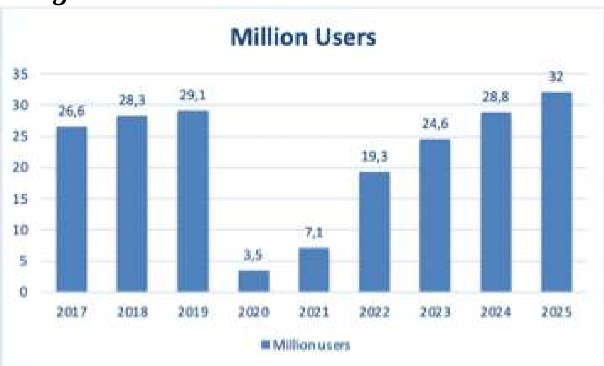
<u>Market size and future development</u>: the cruises segment worldwide is expected to grow from US$24 billion to US$36 billion from 2017 to 2026. The revenues are the highest in Europe with US$1.4 billion in 2020, followed by the United States, having a market volume of US$1.2 billion. The country with the second largest revenue is Germany ($1 billion).

Figure 4. Global Revenues



Source: Statista

Figure 5. Million users



Source: Statista

Figure 6. SWOT analysis

Source: Minerva Investment Management Society

Although the Chinese Cruises market has a smaller market size ($0.3 billion) than the United States and Europe, the prognosed Chinese growth rate is the highest for the period 2017-2026.

Wealthy population: Taking a cruise as vacation is typically only affordable for that layer of the society which have the highest income, so the future developments of the cruise industry are highly dependent on the demand and consumer behavior of a relatively low number of potential customers compared to other segments.

According to Statista, the United States is expected to become the largest market with the most users for cruises in the upcoming years. The main reason for this is the high number of wealthy people in the United States. The U.S. is the number one by far in the world when it comes to the number of millionaires and a cruise vacation is still a very attractive type of vacation for the rich.

Modern trends: industry’s outcome will depend on its ability to change and adapt its business to the most recent trends, one of which is the so-called “Instagram ability”. Cruise guests expect cruise lines to have internet connection on the entire ship throughout the whole trip, and cruise lines can also benefit from the millions of Instagram posts about cruise trips.

Another important trend which is influencing the cruise industry is the solo travel: Multiple cruise lines are trying to position themselves as the ideal vacation for solo travelers with their exclusive solo cruise deals, offering a pleasant environment to get acquainted with new people.

Lastly, cruise companies are targeting Generation Z with their offers, since they are expected to become one of the biggest consumer generations in the near future. Cruise lines organize extraordinary programs, e.g., music festivals on board, and various destinations to attract the newest generation of (potential) customers.

SWOT Analysis

Strengths

Worldwide presence and solid market position
Royal Caribbean International is the second largest company by total passengers and revenue in the cruise industry in 2021. During 2021 it had 2,278,500 passengers (23.6% of the whole market) and $5,054,210,000 revenue which represent 37.1% of the total revenues of the market. As of January 2022, it operates twenty-six ships spread all over the World and has the three largest passenger ships with a mean of 6,816 total seats.

Strong ESG performance
In October 2021, Royal Caribbean Group announced "Destination Net Zero," a strategy that includes a commitment to achieve net zero emissions by 2050. The fundamental points through which the company will reach this milestone are:

- Firstly, the modernization of the global brands fleet through the introduction of 13 new alternatively fueled vessels, including "Project Evolution": the industry's first ship to remove all local emissions while at port.
- Secondly, the continued investment in energy efficiency programs for its fleet, including energy saving technologies, enhanced data systems and digitalization.
- Thirdly, the development of alternative power solutions.
- Finally, the optimized deployment and integration of strategic supply chains.

Weaknesses

Capital intensive business model

Royal Caribbean is characterized by a capital intensive business model. In fact, in 2021 it had $32.26 billion in total assets. This causes also high fixed costs that consists in cruise-maintenance costs: the firm, in 2018, stated that the annual operating costs per ship were US$360 million per year. Considering that the company had 26 cruise ships the overall amount was around US$9.5 billion only for maintenance costs. These costs are mainly due to commissions and transportation expenses, onboard expense, payroll expenses, food expenses and fuel expenses.

Opportunities

Attracting Millennials and Gen Z

According to a 2020 GlobalData survey, 37% of Gen Z and Millennials would book an international trip on a cruise ship this year. In comparison, only 22% of those older than 35 responded with the same sentiment, highlighting that the younger generation may be more likely to travel in the following years.

Higher purchases in-app or on site

After the Covid-19 pandemic, many travelers are opting to book directly with the operator rather than through an intermediary such as an OTA (Online Travel Agency). While in 2019, 44% of consumers said they typically book through OTAs, in 2021 the percentage declined to 24%. Furthermore, respondents who said they had booked directly with a travel provider increased from 32% to 36%, showing that this method (on the site or on-app) is becoming more reliable and popular. This will surely increase the company's revenue as they do not have intermediary agencies that take part of the profits.

Threats

Covid-19 pandemic

The covid-19 pandemic has brought major losses in the past two years. Expectations for the 2022 summer season are positive, but the threat of new variants is ever-present and undermines the recovery of companies in the cruising sector.
Furthermore, the importance of Covid-19 safety protocols on cruise ships is critical. According to GlobalData, there is a continuous demand from consumers to have constant information about Covid-19 initiatives. This data shows that consumers want to be updated from cruise providers in order to decide whether or not to book the trip. indeed, if the rules are too strict, it is less likely that they will book the trip. For this reason, cruise companies will need to develop robust communication strategies.

Sharply increase in oil prices

The war in Ukraine, with the possibility of an halt to oil imports from Russia to the EU as a new economic sanction, sent the value of oil soaring. In fact, WTI reached a price of $130 a barrel on 6 March 2022, the highest level since September 2008.
As fuel expenses are one of the biggest costs for cruse-ships companies, the skyrocketing oil prices will consequently increase the firm's costs, reducing earnings.

Financial Analysis

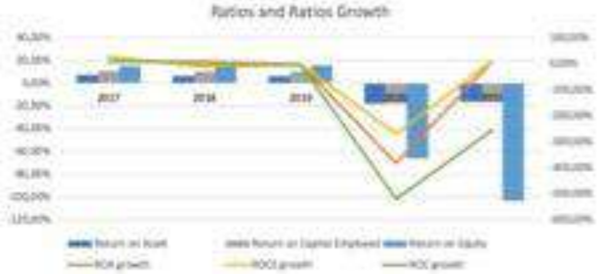
Profitability

Before the pandemic, RC showed a good profitability, aligned with that of its peers. With a balanced portion of debt and equity, the company could achieve a strong Return on Assets; breaking it down into its components, we see that it was gained through a high profit margin, which more than balances the weak asset turnover: RC succeeded in transforming almost 20% of its revenues into income after taxes. Also the Return on Equity was competitive, and high enough to satisfy the shareholders' expectations and also retain some earnings to be reinvested (earning retention rate around 70%). Furthermore, this result was achieved with a strong stability: it can be inferred both observing the stable equity multiplier (see DuPont analysis in the next page) and the spread between the return on capital employed and the interests paid year by year. Both the latter figures remained almost unchanged through the period from 2017 to 2019. Unfortunately, the excellent position of RC was hardly impacted by the pandemic, and two significative figures can highlight this circumstance: the 80% revenues drop from normal levels, and the 33% labor workforce reduction. First of all, the Return on Asset drastically lowered: with its business reduced to a minimum level, the asset turnover approached zero, and the revenues, barely enough to sustain the fixed assets (ships) depreciation, triggered negative margins; the leverage ratio increased, due to both rising debt and decreasing equity. The situation seemed to improve when Pfizer BioNTech, at the beginning of November 2020, announced the greater-than-expected effectiveness of the first COVID-19 vaccine ever; thus, the company decided to do a stock buy-back, financed by debt, but after a few months into 2021 the positive expectations had to be downsized. Bottom line, a negative Return on Capital Employed and increased interest expenses triggered a diminishing Return on Equity, which explored deep negative territory.

Cash Conversion Cycle

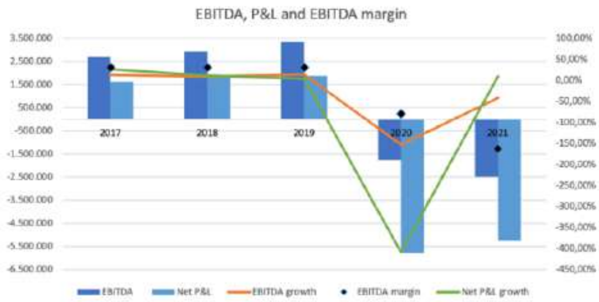
The first figure to note is the negative Net Working Capital: the company operates with net operating borrowings from suppliers, thus having money to generate financial (positive) interests. Two other figures to highlight are the extremely high inventories turnover, explained by the common nature of inventories in each cruise company (mainly, goods consumed during the journeys and fuel), and the receivables turnover, high as well, which is again explained by their nature: tickets paid by the clients. Lastly, we evidence the negative Cash Conversion Cycle before COVID-19, which turned positive due to the outbreak of the pandemic: indeed, the days of sales outstanding were pumped up by the fall of the revenues.

Figure 7. Ratios ad Ratios Growth



Source: Minerva Investment Management Society

Figure 8. EBITDA, P&L and EBITDA margin



Source: Minerva Investment Management Society

Figure 9. DuPont Analysis

DuPont Analysis	2017	2018	2019	2020	2021
Net Profit Margin (Net income/Sales)	18,56%	19,18%	17,44%	-261,54%	-343,79%
Asset Turnover (Sales /Total Asset)	0,39	0,34	0,36	0,07	0,05
Equity Multiplier or Financial Leverage	2,09	2,49	2,49	3,71	6,34
ROE	15,23%	16,38%	15,71%	-65,98%	-103,34%

Source: Minerva Investment Management Society

Figure 10. Current Ratio with and without costumer advances

Current ratio	2021	2020	2019	2018	2017
Royal Caribbean Cruises Ltd	0,49	0,95	0,15	0,17	0,19
Norwegian Cruise Line Holdings Ltd	0,89	1,86	0,2	0,17	0,21
Carnival Corp	0,97	1,22	0,23	0,24	0,18

Current ratio w/o customer advances	2021	2020	2019	2018	2017
Royal Caribbean Cruises Ltd	0,87	1,57	0,26	0,31	0,36
Norwegian Cruise Line Holdings Ltd	1,52	4,42	0,45	0,35	0,44
Carnival Corp	1,39	1,57	0,47	0,46	0,33

Source: Minerva Investment Management Society

Figure 11. Solvency measures

SOLVENCY	2021	2020	2019	2018	2017
Debt to assets	65,4%	59,5%	35,2%	38,2%	32,4%
Debt to equity	414,7%	220,6%	87,8%	95,3%	67,7%
Interest Coverage Ratio	-3,29	-3,78	5,19	5,75	5,76

Source: Minerva Investment Management Society

Liquidity

In the years preceding Covid, current liabilities were in much greater amount than current asset, meaning that the ability to sustain current liabilities with current assets was relatively small. This characteristic is common also among the other two main competitors. Does this represent a problem? Not necessarily, since a significant amount of current liabilities is represented by customer advances/deposits and customer deposit liabilities are not a real risk for the company, as for the most part they will end up as assets within 12 months. This usually happens either because the customer will go on the cruise and then the company will keep the deposit and deduct it from the total cost of the client's cruise; or because the customer will cancel the cruise and the company will keep the security deposit; or because the company will cancel the cruise and the customer will be credited with the deposit. However, most companies will insure against this happening and any loss of earnings on the company's part will be paid out by the insurer. To better investigate the issue, we need to see how much customer deposit advances are counted in BS, remove them and computer once again the current ratio. The result is shown in the following table: in 2021 the liquidity improves when netting out costumers' advances, but it still remains under 1, while for the other two main competitor the ratio is quite above 1. Therefore, we can conclude that liquidity, at least in the last two years, is not a major issue for the company, and it is aligned approximately with the other companies of the market. In pre-covid period however, all the companies had an adjusted current ratio well below 1, showing that there are some structural weaknesses for all the companies, since they are heavily subject to market risk (their ability of financing current asset is heavily influenced by market conditions). In years of Covid, the current ratio increased significantly due to the ability of the company of borrowing long term to finance short term and use of reserves, to ensure stability and liquidity in those months of complete shutdown of the business. The ratio is progressively slowing down and returning to pre-pandemic levels. This type of trend also appears with reference to competitors of RC, even though in even greater amounts.

Solvency

Solvency position is also weak and has progressively got worse during the last five years, totally exacerbating the solvency situation during the pandemic. In 2017 the company had relatively good solvency ratios and a great ability to cover its obligations and payment of interests. All the figures drastically worsened during Covid, with a total leverage of 4 and negative ICR, that poses serious questions to ability to sustain the business in the long term. It will be of paramount importance to see in the next quarters the repayment capacity of the company, and to see whether it is able to reduce it in a resolute way, thanks to the full re-opening of the cruise business around the world. As of now, by traditional measures, Royal Caribbean's creditworthiness is abysmally low. The company currently has an operating loss of around $1B per quarter and, after its immense debt buildup, faces around ~$240M in quarterly interest costs. This means that even if its operating income recovers to an annual $2B, its annual net income will still be around $1B since half will go to interest expense. Using the Altman Z-score, a metric of credit data that is a strong predictor of bankruptcy, we can clearly see that Royal Caribbean is most likely headed for financial restructuring. An Altman Z-score below 1.8 signals distress, and 1.1 signals high bankruptcy risk. Royal Caribbean's is currently an extremely low 0.38, which would typically signal definite bankruptcy. Of course, this is a bit skewed since Royal Caribbean faces a one-off situation and will almost certainly see its sales continue to recover over the coming year. Even still, it is unlikely that it rises back up above 1.1, considering its "financial debt/EBITDA" will still be at an incredibly high 8-10X even if its EBITDA returns to normal. Additionally, the company has a credit rating of B1 with a negative outlook from Moody's. This places it in "highly speculative territory" and means it must borrow at very high rates - decreasing its future cash-flow potential and exacerbating its default risk

Valuation

Free Cash Flow to Firm Approach

Among different valuation methods, we choose the DCF asset side model. Indeed, the DCF is a quantitative method used to estimate the value of an investment based on its expected future cash flows. If the value obtained from the DCF is lower than the current trading price of shares, then the stock is overvalued and qualifies for a sell and vice versa.

We opted to use the FCFF instead of the FCFE because, since the company raised an unprecedented amount of debt during the Covid-19 pandemic (going from 10.68bn in 2019 to 21.09bn in 2021), the estimate of debt repayments and the consequent interest expenses would make the FCFE computation cumbersome and uncertain.

The target price, compared with the current share price and considering the previous qualitative analysis, leads to a "Sell" recommendation. Proceeding step by step, the first element we compute is the cost of equity and cost of debt, based on the following assumptions and estimates:

Figure 12. Valuation Summary

Cost of equity	10,41%
Cost of debt	4,17%
Weigh Equity	53%
Weight Net Debt	47%
WACC	7,45%
TV growth rate	3%
data in $ millions	
TV	33.577,20
PV TV	23.437,80
Enterprise Value	28.274,70
Net Financial Value	18.390,00
Equity Value	15.274,70
N° of shares (in millions)	255,06
Share Price Target	59,90

Source: Minerva Investment Management Society

Risk-free rate (1.91%)

It expresses the average yield to maturity of the 10 years T-bond during the period that goes from 21/03/2017 to 21/03/2022, thus taking into account both periods of high uncertainty like the one characterized by the Covid-19 pandemic and the Russian-Ukraine conflict, and more stable periods.

Equity Risk Premium (4.72%)

According to Damodaran's analysis on equity risk premia, the aforementioned value denotes the premium an investor will require to invest in the stock rather than in the risk-free security.

Beta (1.80)

To compute the beta two methods could be implemented: i) regression against the MSCI Global index as a proxy for the market portfolio; ii) bottom-up beta based on the comparables selected for the relative valuation.

Even though data providers such as Refinitiv suggest an estimate for the Beta of 2.44, considering that this value is almost twice as it was before the Covid-19 pandemic, we opted to revise downward this estimate to a value that is halfway between the current one and the 1.4 of March 2020, since we expect a convergence to the long-term mean.

Figure 13. Sensitivity Analysis

		Growth rate				
		2,70%	2,85%	3%	3,15%	3,30%
WACC	7,15%	57,1	59,2	61,4	63,7	66,1
	7,30%	56,4	58,5	60,7	62,9	65,3
	7,45%	55,7	57,7	59,9	62,2	64,6
	7,60%	55,0	57,0	59,2	61,4	63,8
	7,75%	54,3	56,3	58,4	60,7	63,0

Source: Minerva Investment Management Society

Cost of Debt (4.17%)

As a proxy for the cost of debt, we adopt the synthetic rating approach, using Interest Coverage Ratio as of 2019 year-end (5.1) as input of the model. According to Damodaran, a default spread of 1.33% should be associated with such a ratio, thereby obtaining a cost of debt equal to the sum of the current long-term Government bond rate (2.84%) and this spread.

Cost of Equity and WACC (10.41% and 7.45%)

We use the Capital Asset Pricing Model (CAPM), a theory based on stock's volatility and level of risk compared to the general market. Thus, we assumed that that the expected cost of capital Ke is:

Ke = $rf + \beta \times [E(rm) - rf]$ = 10.41%

Accounting for the cost of debt, we estimate a WACC of 7.45%, which results from an equity market value of 20,844 mln and a debt market value of 18,390.

Findings

In the valuation, we apply a three-stage growth model. For what concerns the explicit forecast stage we used estimates provided by analysts, who expect the revenues to reach pre-pandemic level by the end of 2023.

Figure 14. Inputs for multiple analysis (Royal Caribbean data)

Share Price	77,73
Share outstanding	255.060.065
Equity Value	19.825.818.852
Net Debt	18.388.570.000
Enterprise Value	38.214.388.852
Revenue (FY1)	9.269.219.000
Revenue (FY2)	12.605.998.000
EBITDA (FY1)	1.424.013.210
EBITDA (FY2)	1.424.013.210
Net Income (FY2)	1.380.210.000
Net Income (FY3)	2.090.000.000

Source: Minerva Investment Management Society

In the implicit forecast we assumed, according to external industry estimates, an average annual growth rate of 6% which was applied to both revenues and costs.
Finally, to compute the terminal value, we applied a long-term growth rate of 2.8%, slightly lower than the expected US GDP growth rate of 3% (according to Fed estimates).
Discounting the FCFFs (calculated subtracting from EBIT net CAPEX, taxes, and YoY delta working capital and adding non-cash D&A) at the WACC, we estimated the Enterprise Value, and, once obtained it, we subtracted Net Debt and Minority Interests. Regarding the former, it is important to highlight that, as exposed talking about the WACC weights, we believed the current debt to be abnormal; hence, we opted to adjust the net financial position downwards, to reflect our expectation that it will progressively decrease over the short-medium term towards pre-pandemic levels

Figure 12 summarizes the results of the asset-side DCF model, while Figure 13 offers a sensitivity analysis to analyze how the value might change by changing the assumptions regarding the terminal growth rate and the WACC.

Relative valuation

We decided to focus our attention on the main competitors of Royal Caribbean, as well as the main American multinational hospitality companies.

Carnival Corporation & PLC is a British-American cruise operator, founded in 1972 as Carnival Cruises Line. It is a dual-listed company which function as one entity. The Group comprises nine cruise line brands and one cruise experience brand operating a combined fleet of 91 ships. It is headquartered in the United States with operational headquarters in Florida. Due to the Covid-19 pandemic, in 2020 and 2021 revenues plummeted respectively to $5.6 billion and $1.91 billion (down from $20.83 billion of 2019), posting a net loss of $10.236 billion in 2020 and $9.501 billion in 2021 (down from $2.99 billion of 2019). The company's market cap is $ 21.72 billion.

Norwegian Cruise Line is a holding company that is domiciled in Bermuda and based in the United States. It operates three cruise lines as wholly owned subsidiaries: Norwegian Cruise Line, Oceania Cruises, and Regent Seven Seas Cruises. With its subsidiaries combined, it is the third-largest cruise operator in the world. Due to the pandemic, in 2020 and 2021 revenues plummeted respectively to $1,28 billion and $650 million (down from $6,46 billion of 2019), posting a net loss of $4 billion in 2020 and $4,51 billion in 2021 (down from $930 million of net profit in 2019). The company's market cap is $ 8.57 billion.

Hilton Worldwide Holdings is an American multinational hospitality company that manages and franchises a broad portfolio of hotels and resorts. It was founded in 1919 as Hilton Hotels Corporation. Due to the Covid-19 pandemic, in 2020 and 2021 it posted revenues respectively for $4.307 billion in 2020 and $5.788 billion in 2021 (down from $9.452 billion in 2019), posting a net loss of $715 million in 2020 and a net profit of $410 million in 2021 (down from $881 millions in 2019). The company's market cap is $ 42.1 billion.

Marriott International: Marriott International, Inc. is an American multinational company that operates, franchises, and licenses lodging including hotel, residential, and timeshare properties. Marriott operates 30 brands internationally. Due to the pandemic, in 2020 and 2021 the company posted revenues respectively for $2.12 billion and $3.42 billion (down from $5.37 billion of 2019), posting a net loss of $270 million in 2020 and a net profit of $1.10 billion in 2021 (down

Figure 15. Multiple analysis

Company	Valuation					
	EV/Revenue (FY1)	EV/Revenue (FY2)	EV/EBITDA (FY1)	EV/EBITDA (FY2)	P/E (FY2)	P/E (FY3)
Royal Caribbean	4,2x	3,1x	27,1x	10,2x	13,8x	9,4x
Norwegian Cruise Line	3,5x	2,5x	26,3x	8,8x	11,1x	8,0x
Carnival Corporation & PLC	3,0x	2,0x	21,0x	8,0x	12,5x	8,3x
Marriott International	3,4x	3,0x	19,4x	[illegible]	[illegible]	[illegible]
Hilton Worldwide Holdings Inc	6,1x	5,2x	21,5x	[illegible]	[illegible]	[illegible]
Average	4,0x	3,2x	22,0x	8,4x	11,8x	14,5x
Median	3,4x	2,7x	21,3x	8,4x	11,8x	8,2x

Royal Caribbean Valuation	EV/Revenue (FY1)	EV/Revenue (FY2)	EV/EBITDA (FY1)	EV/EBITDA (FY2)	P/E (FY2)	P/E (FY2)
Implied Enterprice Value	31.839.707.265	34.540.434.520	30.267.400.779	31.768.002.040	33.258.873.800	34.054.400.000
Net Debt (estimated next year)	17.000.000.000	17.000.000.000	17.000.000.000	17.000.000.000	17.000.000.000	17.000.000.000
Implied Market Value	14.839.707.265	17.540.434.520	13.267.400.779	14.768.002.040	16.258.873.800	17.054.400.000
Shares Outstanding	255.060.065	255.060.065	255.060.065	255.060.065	255.060.065	255.060.065
Implied Value Per Share	58,18	68,77	52,02	57,90	63,75	66,86
		63,48		54,96		65,30
Median Implied Value per Share	63,48					

Source: Minerva Investment Management Society

from $1.27 billion of net profit in 2019). The company's market cap is $56.14 billion.

In order to check the results obtained through the DCF model, we perform a market multiples approach analysis. We decide to use both equity and asset side multiples to have a more complete view on the value of the company. For all the multiples we decided to use, we opted for forward ones, since using current values would have given, in the best case, non-realistic results, and in the worst, impossible ones (e.g. with negative earnings, P/E is impossible to compute). For the equity side we used Forward (in FY2 and FY3) P/E. For Asset side, EV/EBITDA (FY1 and FY2) and EV/Sales (FY1 and FY2). It is important to notice that the outcome is not very reliable, since for each of the multiple computed the denominator is extremely volatile (due to recovery from the pandemic). However, a median/average of the multiples obtained gives us a result that is almost in line with our fundamental analysis.

For each set of multiples, we calculated a median of the values obtained, and then applied the value of Royal Caribbean to obtain Enterprise Value. Then, subtracting net debt and dividing for number of shares outstanding, we got a series of prices. The table on the left summarize the results

We decided, for P/E forward multiples and EV/EBITDA (FY2) forward multiple, not to consider Hilton and Marriott, since their multiples were completely out of range from those of the cruise business. Therefore, for these multiple, we restricted our analysis only to Carnival and Norwegian. As the result shows, there is a lot of variability in the outcomes, driven basically by the sudden changes, from one year to the other, of the values at the denominator of each multiple. However, using the median value, the price obtained is in line with the value obtained in the fundamental analysis. The final price is 63.48$.

Investment Risks

COVID-19 and risk of new waves of infections

The main risk for the company is a new surge of Covid cases. In particular, the rise of a new, more lethal, variants pose significant risk of new lockdowns around the globe. Moreover, even if no new variants emerge, some countries, like China, adopt aggressive Zero-Covid policies, that force to lockdown of populations even if only few cases are discovered.

Surge in Oil prices

Due to Russian aggression against Ukraine and subsequent sanctions imposed on Russia's oil by US, price of oil reached approximately 130$ a barrel. JPMorgan estimates that, if Europe will impose sanctions too (which they are likely to do in the near future), Oil prices will reach 185$ a barrel. That would be disastrous for the company, because will erode even further the margins.

Interest rate risk

With Central Banks rising interest rates globally, the already compromised financial position of the company, due to high refinancing cost, will worsen even more. The expects to repay a large amount of debt (around $10 billions of principal in 2023 and 2024). If rate rises the difficulty of refinancing the debt will increase, as well as the risk of default.

Risk of recession around the globe

With inflation rising abruptly around the globe, Central banks, more and more hawkish, are planning to implement restrictive monetary policy. There are growing concerns of a recession, and reduced consumption. Clearly the first services impacted by such scenario are non-essential ones, including cruise trips.

Appendix

Restatement of P&L (in billion $)	2017	2018	2019	2020	2021
Turnover	**8,78**	**9,49**	**10,95**	**2,21**	**1,53**
Cost of operating revenue	5,85	6,30	7,31	4,04	3,95
Gross profit	**2,93**	**3,20**	**3,64**	**-1,84**	**-2,42**
Selling and amministrative expenses	1,19	1,30	1,56	1,20	1,37
Operating Profit before Non-Recurring Income/Expense	**1,74**	**1,89**	**2,08**	**-3,04**	**-3,79**
Financing Income/(Expense) - Net - Total	-0,27	-0,30	-0,37	-0,85	-1,14
Equity Earnings/(Loss) - before Taxes including Non-Recurring	0,16	0,21	0,23	-0,21	-0,14
Other Non-Operating Income/(Expense) - Total	-0,07	0,14	0,00	-0,03	0,03
Normalized Pre-tax Profit	**1,56**	**1,95**	**1,94**	**-4,13**	**-5,03**
Non-Recurring Income/(Expense) - Total	0,07	-0,13	-0,03	-1,65	-0,23
Of which: COVID-19 Non-Recurring Income/(Expense) - Total				-1,57	-0,08
Income before Taxes	**1,63**	**1,82**	**1,91**	**-5,78**	**-5,26**
Income before Discontinued Operations & Extraordinary Items	1,63	1,82	1,91	-5,78	-5,26
Net Income after Minority Interest	1,63	1,81	1,88	-5,80	-5,26
Income Available to Common Shares	**1,63**	**1,81**	**1,88**	**-5,80**	**-5,26**

Restatement of Balance Sheet	2017	2018	2019	2020	2021
Total Assets	**22,36**	**27,70**	**30,32**	**32,47**	**32,26**
Current assets	**0,91**	**1,24**	**1,16**	**4,30**	**3,60**
Cash & cash equivalents	0,12	0,29	0,24	3,68	2,70
Derivative Financial Instruments - Short-term	0,10	0,02	0,02	0,07	0,05
Loans & Receivables - Net - Short-Term	0,32	0,32	0,31	0,28	0,41
Inventories	**0,11**	**0,15**	**0,16**	**0,12**	**0,15**
Prepaid Expenses - Short-Term	0,26	0,46	0,43	0,15	0,29
Non-current assets	**21,46**	**26,46**	**29,16**	**28,16**	**28,60**
Derivative Financial Instruments - Long-term	0,22	0,04	0,02		
PP&E	19,74	23,47	26,15	25,85	26,45
Other Non-Current Assets	1,21	1,57	1,60	1,50	0,91
Intangible Assets	0,29	1,38	1,39	0,81	1,24
Total Liabilities	**11,66**	**16,59**	**18,16**	**23,70**	**27,17**
Current Liabilities	**4,86**	**7,12**	**7,96**	**4,54**	**7,28**
Accounts Payables & Accruals - Short-Term	1,26	1,39	1,64	0,97	1,43
Short-Term Debt & Current Portion of Long-Term Debt	1,12	2,42	2,55	1,37	2,24
Derivative Liabilities - Hedging - Short-Term	**0,12**	**0,12**	**0,17**	**0,06**	**0,13**
Operating Lease Liabilities - Current Portion/Short-Term			0,10	0,10	0,07
Other Current Liabilities - Total	2,36	3,19	3,50	2,04	3,41
Non-Current Liabilities	**6,81**	**9,47**	**10,20**	**19,17**	**19,89**
Debt - Long-Term - Total	6,13	8,17	8,13	17,96	18,85
Derivative Liabilities - Hedging - Long-Term	0,29	0,40	0,45		
Operating Lease Liabilities - Long-Term			0,60	0,56	0,53
Other Non-Current Liabilities - Total	0,39	0,36	0,45	0,65	0,51
Minority Interest - Non-Equity		0,54	0,57		
Equity	**10,70**	**11,11**	**12,16**	**8,76**	**5,09**

		Explicit Forecast Period			Implicit Forecast Period		TV
$ million	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**
Revenues	**1.532**	**9.269**	**12.606**	**14.508**	**15.379**	**16.302**	
COGS	-2.658	-7.522	-8.547	-9.681	-10.262	-10.878	
Operating margin	-1.125	1.747	4.059	4.827	5.117	5.424	
SG&A	-1.327	-323	-279	-366	-388	-411	
EBITDA	**-2.452**	**1.424**	**3.780**	**4.462**	**4.729**	**5.013**	
D&A	-1.293	-1.379	-1.444	-1.480	-1.568	-1.663	
EBIT	**-3.745**	**45**	**2.336**	**2.982**	**3.161**	**3.351**	
Taxes	0	8	-0	-0	-0	-1	
D&A	1.293	1.379	1.444	1.480	1.568	1.663	
Capex	-2.054	-2.207	-2.310	-2.659	-2.818	-2.987	
Delta NWC		-82	57	6	6	6	
A/R	408	297	404	465	493	522	
A/P	546	527	599	679	719	762	
Inventories	150	160	182	206	219	232	
FCFO		**-857**	**1.526**	**1.808**	**1.917**	**2.032**	**33.577**
Discount factor		1,07	1,15	1,24	1,33	1,43	1,43
DCF		**-798**	**1.322**	**1.457**	**1.438**	**1.418**	**23.438**

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