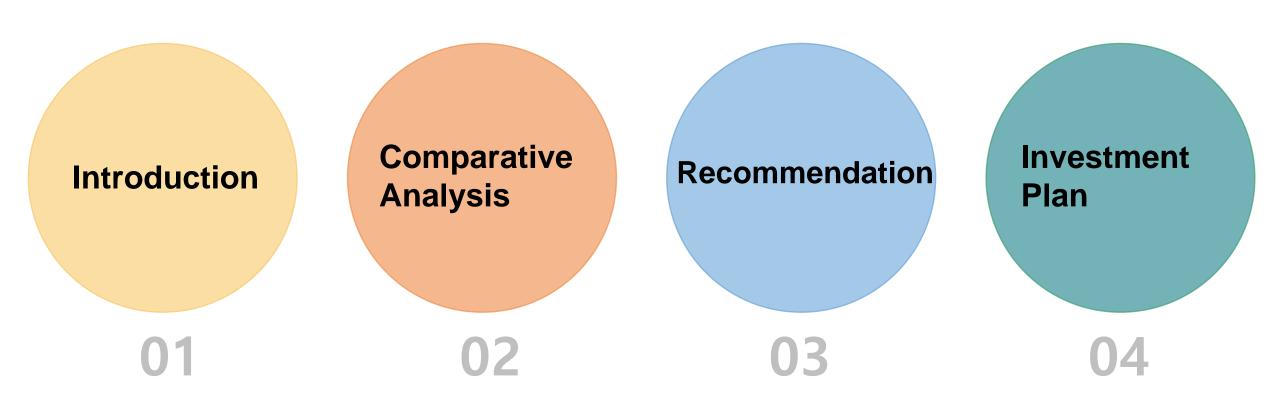
Carnival Cruise taking a voyage with a reasonable risk

Team D4 https://youtu.be/gT1sERrw4oY

Hyeonsong Kim Sangyun Kim

Minkyeong Kim Seonghyun Baek

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Introduction of Carnival Corporation & PLC

Carnival Corporation & PLC

Biggest cruise company providing Carnival cruise, Princess cruise lines and others.

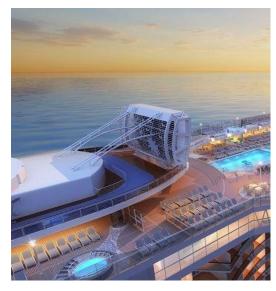
37.1% of market share

MSCI ESG

CCC

- ✓ Environmenta
- ✓ Social
- ✓ Governance

Carnival corporation, socially responsible?





Symbol of leisure and enjoyment

Introduction of Carnival Corporation & PLC

Carnival Corporation & PLC

Biggest cruise company providing Carnival cruise, Princess cruise lines and others.



37.1% of market share

(as of **Feb 2021**)

Symbol of leisure and enjoyment

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CCC

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Carnival corporation, socially responsible?

(Source: https://cruisemarketwatch.com/market-share/)



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Carnival corporation, socially responsible?

(Source: https://cruisemarketwatch.com/market-share/)



Cost of social irresponsibility

Ethical, operational harm leads to the drop of stock price, and hinder growth







(source: Yahoo finance CCL Interactive Stock Chart | Carnival Corporation & plc Stock - Yahoo Finance)



Cost of social irresponsibility

Ethical, operational harm leads to the drop of stock price, and hinder growth

2012, **1/13**² 1.10 ~ 1.30) **Costa Concordia** accidents Stock price dropped more than 15% immediately





(Source: Yahoo finance CCL Interactive Stock Chart | Carnival Corporation & plc Stock - Yahoo Finance)



Cost of social irresponsibility

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2012, 1/13² 1.1 **Costa Concordia** accidents Stock price dropped more than 15% immediately

2019, 6/3 (2019 6.1 ~ 9.1)
Illegal dumping

Stock price dropped nearly 18% in the 3rd quarter of 2019



(Source: Yahoo finance CCL Interactive Stock Chart | Carnival Corporation & plc Stock - Yahoo Finance)



Cost of social irresponsibility

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2019, 6/3 (2019 6.1 ~ 9.1)
Illegal dumping

Stock price dropped nearly 18% in the 3rd quarter of 2019

2020, 2/12/24/1 ~ 4.1)
Poor Covid-19
response

Stock price dropped
nearly 80% for 2
months after the
outbreak

(source: Yahoo finance CCL Interactive Stock Chart | Carnival Corporation & plc Stock - Yahoo Finance)







Components of CSR

Philanthropic Responsibility

Ethical Responsibility

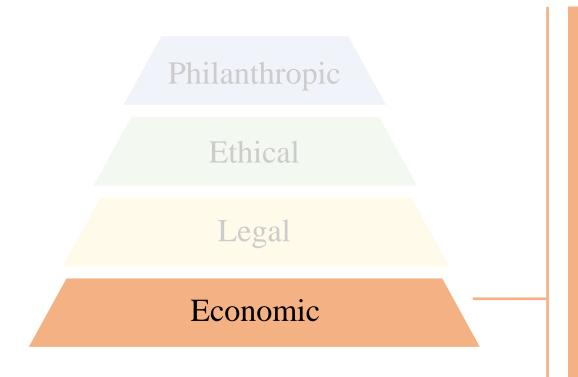
Legal Responsibility

Economic Responsibility

Source: Carroll, A. B., & Buchholtz, A. K. (2008). *Business and Society: Ethics and Stakeholder Management* (7th ed.). South-Western Cengage Learning.



Economic Responsibility



- ✓ Revenue
- ✓ Net income
- √ EPS
- √ P/E ratio
- ✓ Market capitalization

Economic Responsibility







Revenue (2019)	\$ 20,825 M	\$10,951 M	\$ 6,462 M
Net Income (2019)	\$3,041 M	\$ 2,003 M	\$ 930 M
EPS (2019)	\$ 4.4	\$ 9.54	\$ 4.3
P/E ratio (2019)	10.31	14.74	13.58
Market capitalization (2019/2021)	\$35.11 B /\$23.00 B	\$28.13B /\$16.05 B	\$12.58 B /\$7.43 B

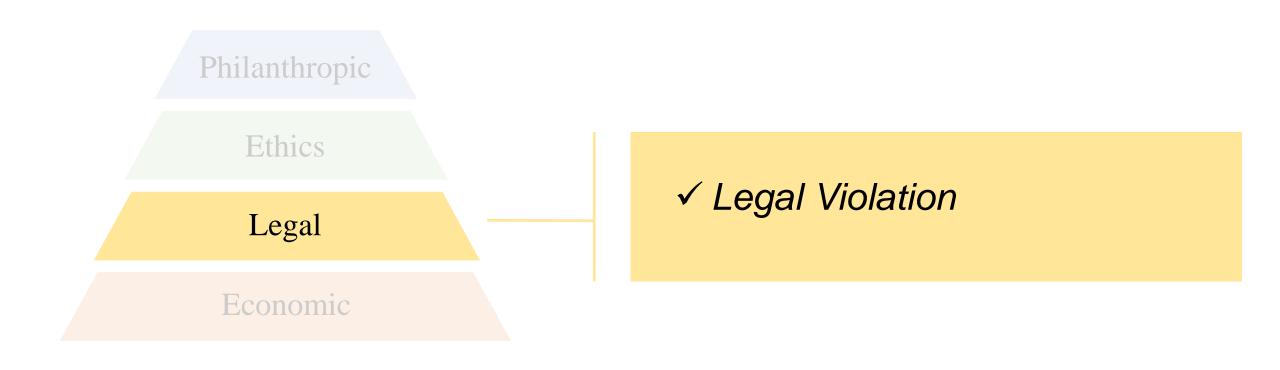
Source: 2019 Annual Report, macrotrends, Ycharts.com

(2019, December 26 / 2021, February 12)



#Appendix 1~3

Legal Responsibility



Legal Responsibility

Repeated violations of environmental regulations

- ✓ In 2016, \$40 million penalty fined for illegally dumping oil-contaminated waste
- ✓ In 2019, additional \$20 million fined for violating probation terms from 2016

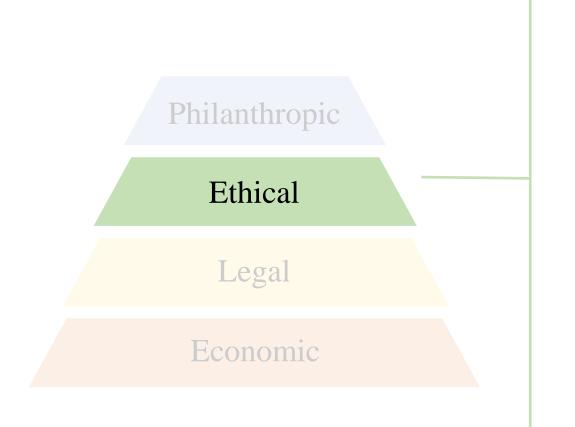
Repeated forms of corporate dishonesty

- ✓ Falsifying records
- ✓ Directing employees to lie during inspection
- ✓ Using a magic pipe to circumvent monitoring.
- ✓ Sending in teams ahead of court supervision

Source: New York Times (June 4, 2019)



Ethical Responsibility

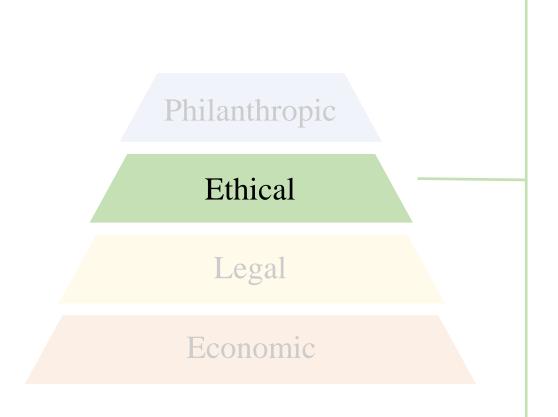


Environment

Safety & Quality

Labor Management

Ethical Responsibility



Environment

- ✓ Emission Gas Control System
- ✓ Cold Ironing System
- ✓ Advanced Water Treatment System
- ✓ Plastic Waste Reduction







Environment







Emission Gas Control System	77% (B)	60% (C)	91% (A)
Cold Ironing System	45% (A)	8% (C)	35% (B)
Advanced Water Treatment System	66% (C)	85% (B)	93% (A)
Single-use Plastic Item Reduction per vessel	0.77M (C)	1.60M (B)	2.36M (A)

Final Score

B-

C

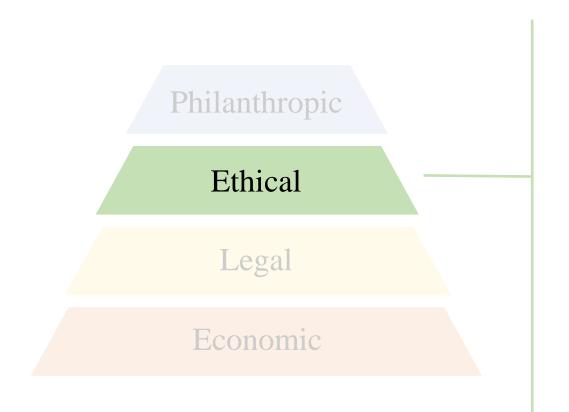
A

Source: 2019 Sustainability Report(CCL, RCL), 2019 Stewardship Report(NCL), Cruise Ship Report Card 2020(Friends of the Earth)

#Appendix 4~5



Ethical Responsibility



Safety & Quality

- ✓ On board crimes & accidents
- √ Sexual Assaults
- ✓ Covid-19 Response

Recommendation



Safety & Quality





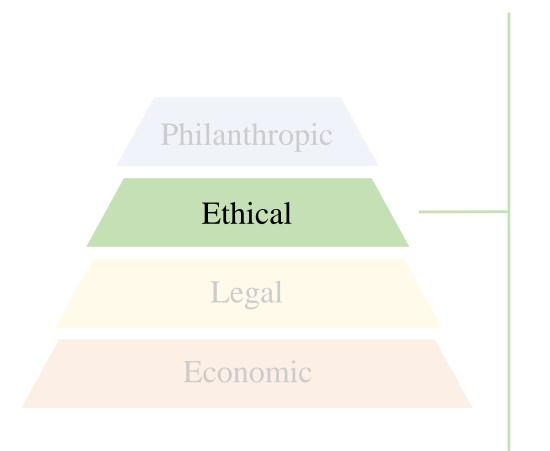


On Board Crimes & Accidents	В	B-	B-
		Source: U.S. Department of Transportation, C	ruise Line Incident Reports, CruiseJunkie.com
Sexual Assault	В	В	В
		Source: U.S. Department of	of Transportation, Cruise Line Incident Reports
Covid-19 Issues	С	_	_
Final Score	B-	В	В

#Appendix 6~12



Ethical Responsibility



Labor Management

- ✓ Employee Safety & Education
- ✓ Wage
- ✓ Employee Satisfaction & Welfare
- ✓ Diversity & Inclusion, Equality









Labor Management



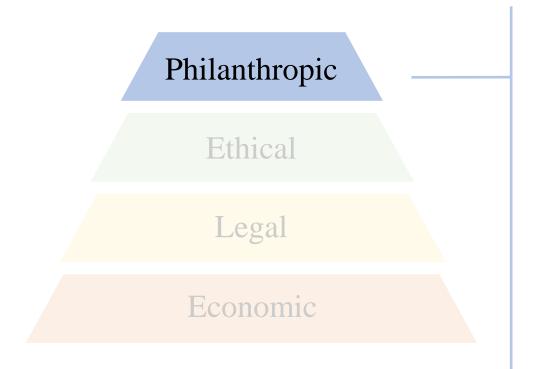




Employee Safety & Education	A	В	C
Wage	В	A	C
Employee Satisfaction & Welfare	A	A	В
	T	T	
Diversity, Inclusion & Equality	В	В	В
Final Score	B+	B+	B-
		Source: 2019	9 Sustainability Reports, Indeed, Careerbliss

#Appendix 13~20

Philanthropic Responsibility



- ✓ Disaster Relief
- ✓ Community Support
- ✓ Education & Children Support







Philanthropic Responsibility

Disaster Relief



Community Support



Education & Children Support



Source: 2019 Sustainability Reports





General view on Carnival corporation



General view on Carnival corporation



Philanthropic Responsibility

Ethical Responsibility

Legal Responsibility

Should be improved

- ✓ Economic achievements
- ✓ Labor Management

Economic Responsibility

✓ Dishonesty of the employees

General view on Carnival corporation

Sustainable Company?



X 15 Carbon

(160 kg a day per passenger)

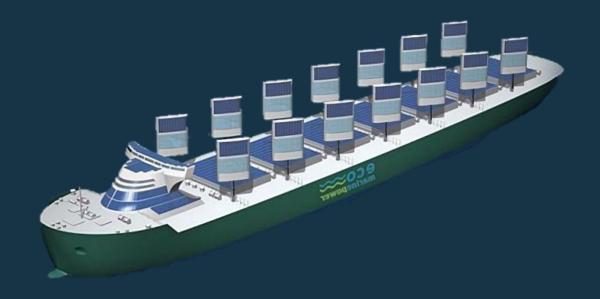
Recommendation

Sustainable Company!

With our recommendations, Carnival will grow into a paradigm shifter creating shared value



Introduction of Eco-Cruise Line



New Business Model, Carnival Eco-Cruise Line



(image source: Carnival.com)

Comparative Analysis



New Business Model, Carnival Eco-Cruise Line



(image source: Carnival.com)

Eco Project



Eco-Vessel

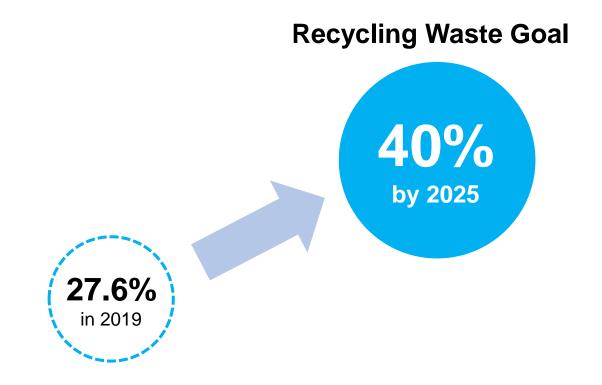


(image source: Greenmatters.com)

Deep inside of Eco project



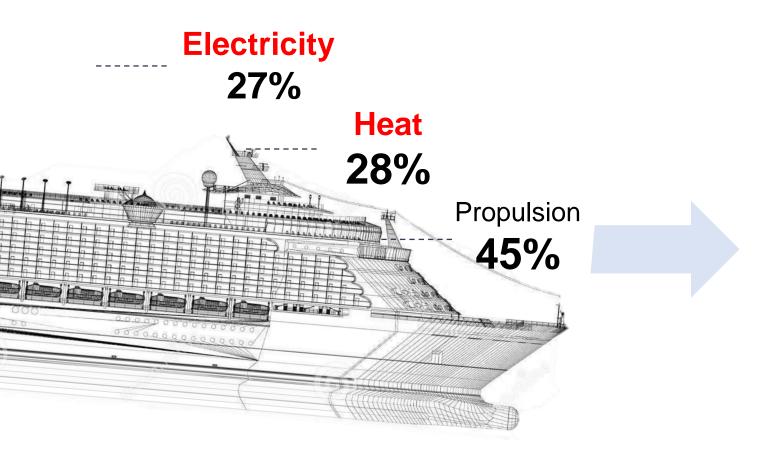
Passengers learn and experience recycling during the travel



#Appendix 24

Comparative Analysis

Deep inside of the Eco-Vessel



- ✓ Eco-friendly generation of energy
- ✓ Reducing energy consumption for heating

x3000 high sulfur oxide than gasoline

Source: Energy and Exergy Analysis of a Cruise Ship (2018), Francesco B., MDPI

Source: Samsung Heavy Industry



Deep inside of the Eco-Vessel

LNG



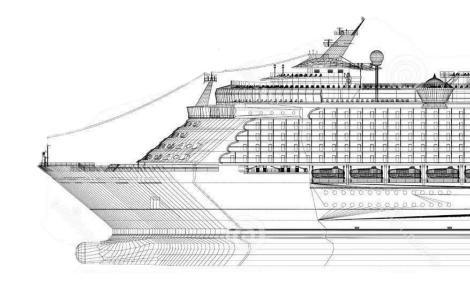
- ✓ Eliminating toxic emission(SOx, NOx, PM)
- √ CO₂ 20% reduction

Renewable **Energy**



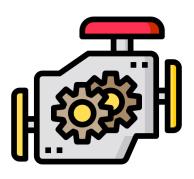
✓ Covering 100% of ship's electricity use

Comparative Analysis



Deep inside of the Eco-Vessel

Advanced Engine

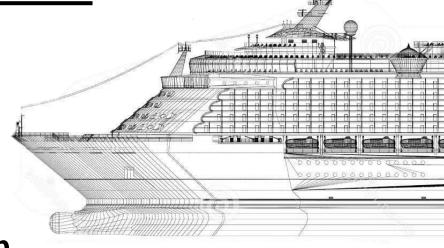


Efficient heating & Insulation



- ✓ Fixing inefficiency
- ✓ Engine electronic control system

- ✓ Utilizing engine heat for space heating
- ✓ Energy saved with insulation



Source: Baldi, F., Ahlgren, F., Nguyen, T., Thern, M., & Andersson, K. (2018). Energy and Energy Analysis of a Cruise Ship. MDPI Energies, 1–41. https://doi.org/10.3390/en11102508

Estimated cost and benefit for Carnival Eco-cruse line

By 2025, 11 Eco-cruises operating

\$ 46M per a vessel





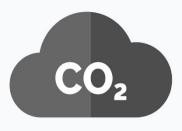
Estimated cost and benefit for Carnival Eco-cruse line



#Appendix 25~27

Environmental Impacts of Eco Cruise Line

In 2025, at least, annually



209,671 Metric ton GHG emission prevented



1.32M ton water saving



7447_{ton} fuel saving



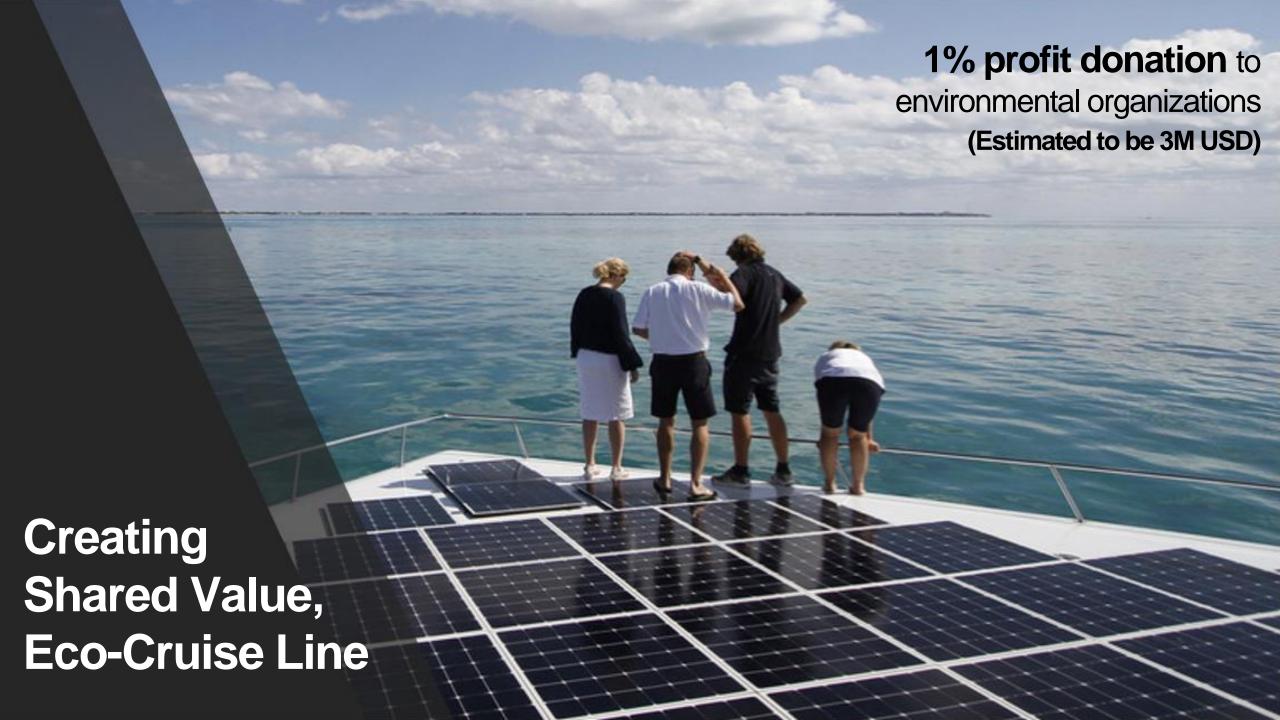


Metric tons of 8,947 SOx 22,692 NOx 177 PM

toxic emission prevented

#Appendix 28~30





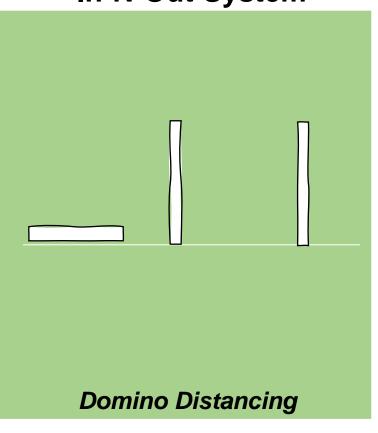
Dishonesty to Honesty

: Domino Model

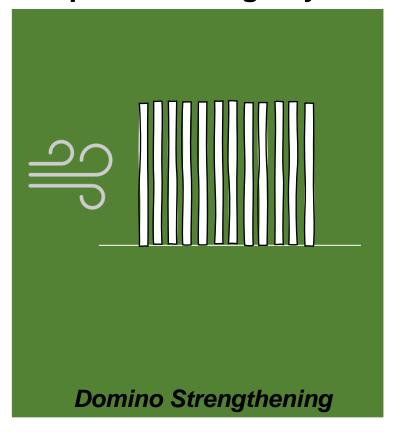


Introduction of the Domino Model

In-N-Out System



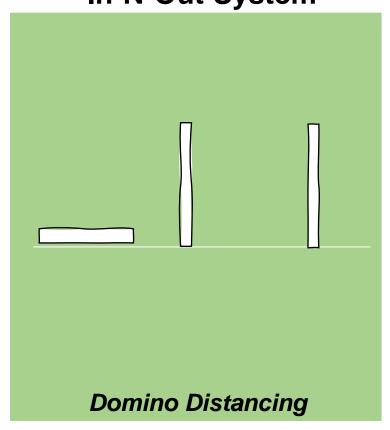
Responsible Wage System



Comparative Analysis

Distancing the Dominoes by In-N-Out System

In-N-Out System

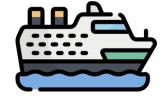




- ✓ People
- ✓ Resource



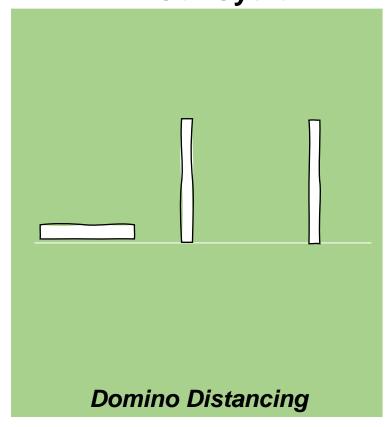
- ✓ Total NM sailed
- ✓ Sailing Condition

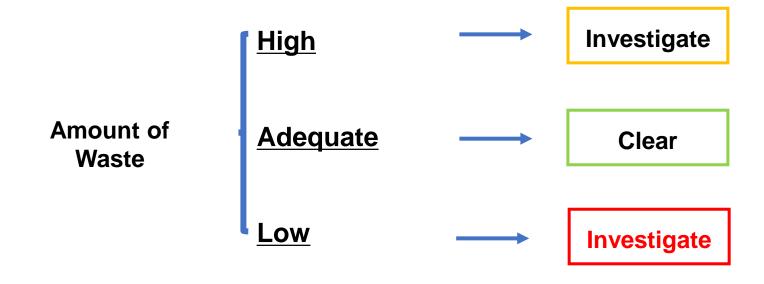


Amount of Waste

Distancing the Dominoes by In-N-Out System

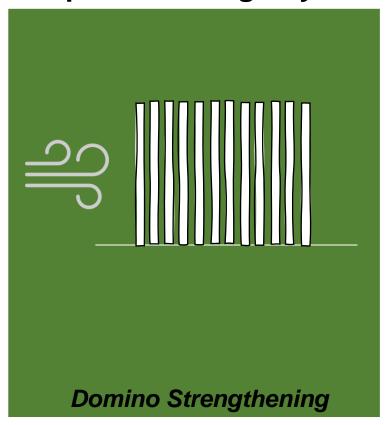
In-N-Out System





Strengthening the Dominoes by Responsible Wage System

Responsible Wage System



Ethical Performance
Bonus Policy
(short-term)

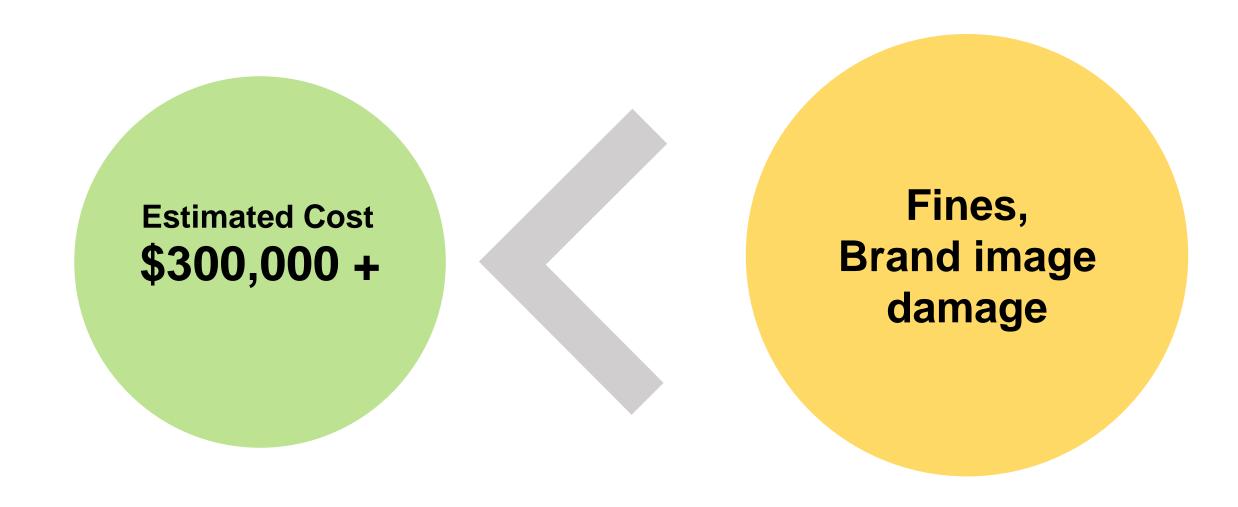


Wage based on KPI
with CSR scores
(long-term)

#Appendix 31



Estimated cost of implementing the Domino Model

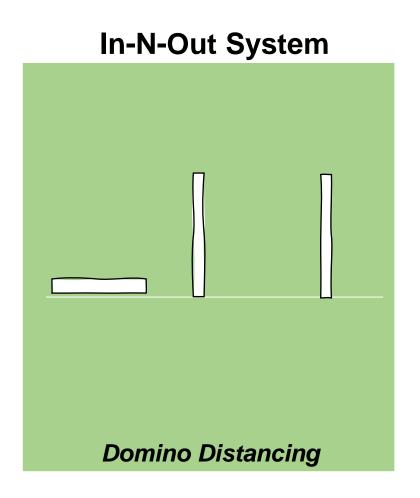


from 'WebFX, AI Pricing: How Much Does Artificial Intelligence Cost?'

#Appendix 32



Dishonesty to honesty with the Domino Model



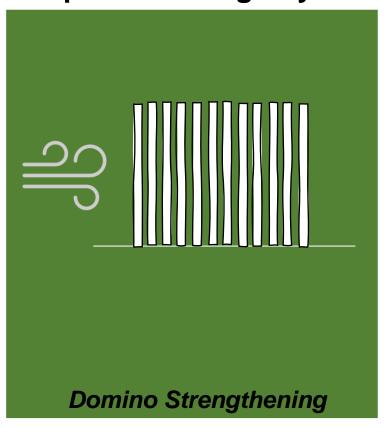


Comparative Analysis

Dishonesty to honesty with the Domino Model



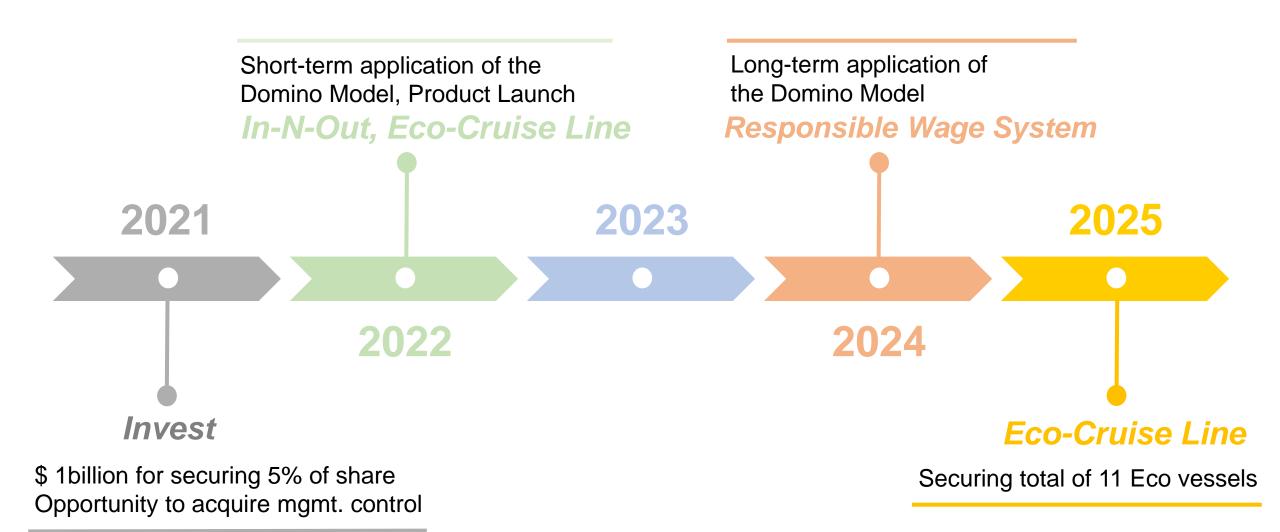
Responsible Wage System





Active Investment





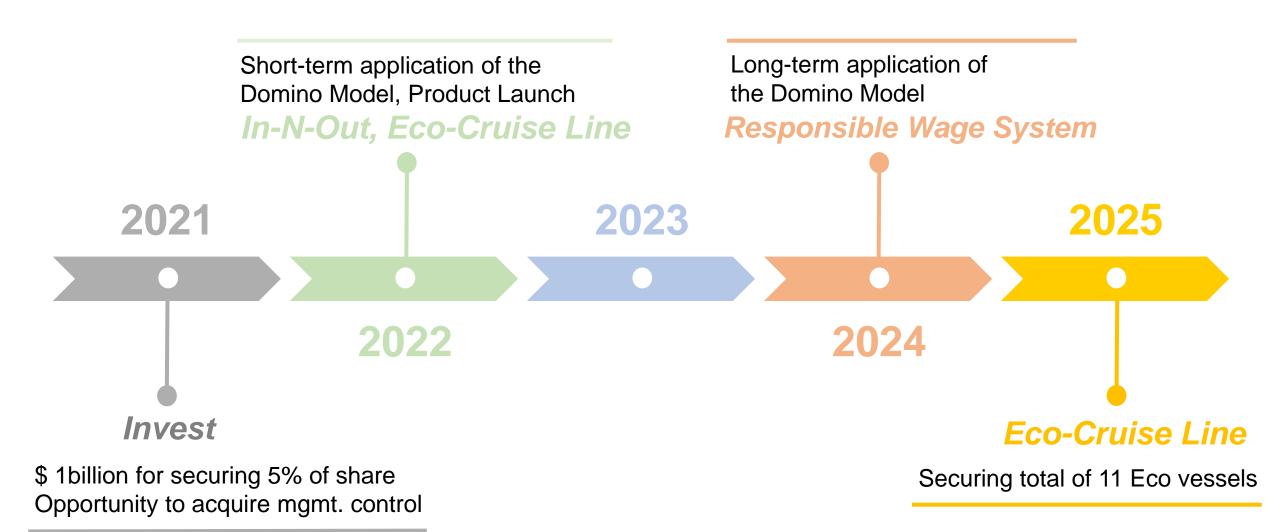


Introduction



Source: Yahoo Finance







Introduction

Short-term application of the Domino Model, Product Launch In-N-Out, Eco-Cruise Lin

Long-term application of the Domino Model

Responsible Wage System

Worries?

- ✓ Disagreement
- √ Failure to persuade

Introduction

Invest

\$ 1billion for securing 5% of share
Opportunity to acquire mgmt. control

2024

Eco-Cruise Line

Securing total of 11 Eco vessels

Short-term application of the Domino Model, Product Launch

Worries?

- ✓ Disagreement
- √ Failure to persuade

Invest

\$ 1billion for securing 5% of share Opportunity to acquire mgmt. control

Top Institutional Holders

Holder	Shares	% Out
Vanguard Group, Inc. (The)	57,454,742	6.16%
Public Investment Fund	50,830,926	5.45%
Truist Financial Corp	38,569,325	4.14%
Blackrock Inc.	37,971,692	4.07%
Northern Trust Corporation	25,201,837	2.70%
State Street Corporation	22,273,809	2.39%
Primecap Management Company	15,632,127	1.68%
Geode Capital Management, LLC	9,480,620	1.02%

Source: Yahoo Finance

#Appendix 33~36



Short-term application of the Domino Model, Product Launc

Worries?

Disagreement Failure to persuade

Not probable

\$ 1billion for securing 5% of share Opportunity to acquire mgmt. control

Top Institutional Holders

Holder

Holder	Shares	% Out
Vanguard Group, Inc. (The)	57,454,742	6.16%
Public Investment Fund	50,830,926	5.45%
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Primecap Management Company	15,632,127	1.68%
Geode Capital Management, LLC	9,480,620	1.02%

Source: Yahoo Finance

#Appendix 33~36



Expected Outcomes

Implementation of recommendation



- ✓ CSR Leader
- ✓ Improved ESG rating

Sustainable Funds Annual Flows



Source: Morningstar Direct. Date as of 6/30/2020



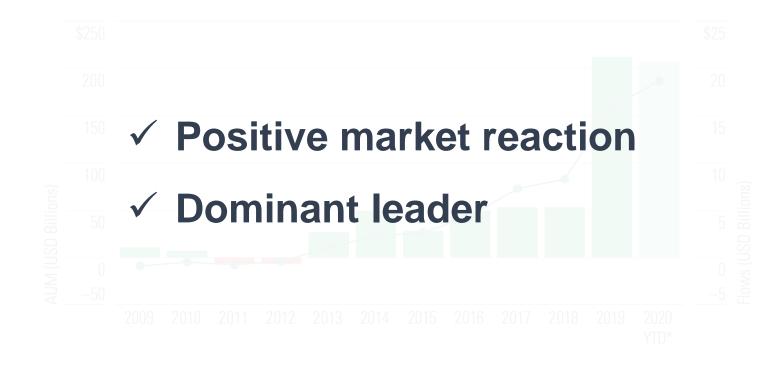
Expected Outcomes

Implementation of recommendation

Introduction



- ✓ CSR Leader
- √ Improved ESG rating





Expected Outcomes











Appendix 1 - Economic Responsibility (1/3)

Financial Comparison (2015~2019) – Carnival Corporation & PLC

CCL	2019	2018	2017	2016	2015	avg
Revenue (in millions)	\$ 20,825	\$ 18,881	\$ 17,510	\$ 16,389	\$ 15,714	
Revenue growth rate	0.102960648	0.078298115	0.068399536	0.042955326		7.32%
Net income (in millions)	\$ 3,041	\$ 3,029	\$ 2,770	\$ 2,580	\$ 2,106	
Net income growth rate	0.003961704	0.093501805	0.073643411	0.225071225		9.90%
EPS	\$ 4.40	\$ 4.26	\$ 3.82	\$ 3.45	\$ 2.70	
EPS growth rate	0.03286385	0.115183246	0.107246377	0.27777778		13.33%

Financial Comparison (2015~2019) – Royal Caribbean Cruises Ltd.

RCL	2019	2018	2017	2016	2015	avg
Revenue (in thousands)	\$ 10,950,661	\$ 9,494,849	\$ 8,777,845	\$ 8,496,401	\$ 8,299,074	
Revenue growth rate	0.153326504	0.081683374	0.033125084	0.02377699		7.30%
Net income (in thousands)	\$ 2,002,847	\$ 1,873,363	\$ 1,625,133	\$ 1,314,689	\$ 1,065,056	
Net income growth rate	0.069118478	0.152744422	0.236134934	0.234384859		17.31%
EPS	\$ 9.54	\$ 8.86	\$ 7.53	\$ 6.08	\$ 4.83	
EPS growth rate	0.076749436	0.176626826	0.238486842	0.258799172		18.77%

Source: 2019 Annual Report

Appendix 2 - Economic Responsibility (2/3)

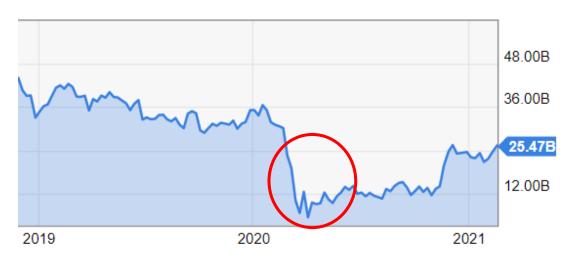
Financial Comparison (2015~2019) - Norwegian Cruise Line Holdings Ltd.

NCLH	2019	2018	2017	2016	2015	avg
Revenue (in thousands)	\$ 6,462,376	\$ 6,055,126	\$ 5,396,175	\$ 4,874,340	\$ 4,345,048	
Revenue growth rate	0.067257065	0.122114461	0.107057571	0.121814995		10.46%
Net income (in thousands)	\$ 930,228	\$ 954,843	\$ 759,872	\$ 633,085	\$ 427,137	
Net income growth rate	-0.025779107	0.256584004	0.200268526	0.48215912		22.83%
EPS	\$ 4.30	\$ 4.25	\$ 3.31	\$ 2.78	\$ 1.86	
EPS growth rate	0.011764706	0.283987915	0.190647482	0.494623656		24.53%

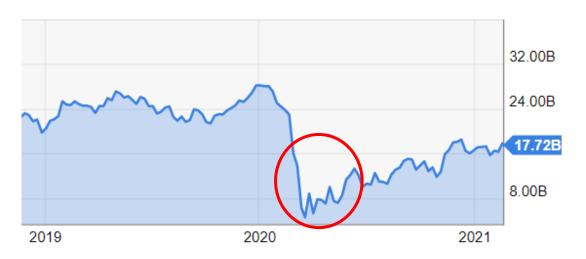
Source: 2019 Annual Report

Appendix 3 - Economic Responsibility (3/3)

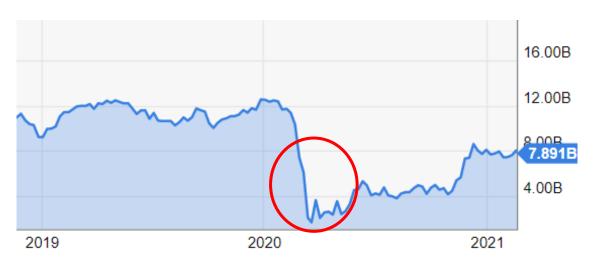
Market Capitalization - Carnival Corporation & PLC



<u>Market Capitalization – Royal Caribbean Cruises Ltd.</u>



Market Capitalization - Norwegian Cruise Line Holdings Ltd.



Source: Ycharts.com

Appendix 4 - Ethical Responsibility: Environment(1/2)

Cruise Line 💠	Sewage Treatment	Air Pollution Reduction	Water Quality Compliance	Transparency	Criminal Violations	2020 Final Grade
Disney Cruise Line	С	Α-	А	А		B-
Silversea Cruises	D-	F	А	А		с
Celebrity Cruises	С	F	F	А		D+
Virgin Voyages	С	F	F	А		D
Oceania Cruises	D	F	C+	F		D
Royal Caribbean Int'l	C-	F	F	А		D
Regent Seven Seas Cruises	С	F	А	F		D
Norwegian Cruise Lines	С	D-	F	F		D-
Holland America Line	С	F	F	F	~	D-
AIDA Cruises	C-	F	F	F	~	F
MSC Cruises	D-	F	F	F		F
Seabourn Cruise Line	С	F	D-	F	~	F
P&O Cruises	D-	F	F	F	~	F
Costa Cruises	F	F	F	F	~	F
Princess Cruises	C-	С	D+	F	~	F
Cunard Cruise Line	С	F	F	F	~	F
Crystal Cruises	F	F	N/A	F		F
Carnival Cruise Lines	F	D	F	F	~	F

Cruise Ship Report Card 2020 (AWTS)

Friends of the Earth Cruise Ship Report Card compares the environmental footprint of 18 major cruise lines and 193 cruise ships. Friends of the Earth relied on data gathered from the internet, government sources, the cruise line industry, and other public sources in order to determine the grades assigned to the cruise lines. Friends of the Earth did not independently verify that the technology graded in the report card was installed on the individual cruise ships.

To determine a cruise line's Sewage Treatment grade, we compared the number of cruise ships in the cruise line that have installed advanced sewage treatment systems against the total number of ships in the cruise line. Ships with AWTS were downgraded in 2020 since no companies publicly report on the performance of those advanced systems.

Source: Friends of the Earth, https://foe.org/cruise-report-card/

Appendix 5 - Ethical Responsibility: Environment(2/2)



2019 ANNUAL REPORT











2019 Annual Report NCL Single-use Plastic Items Reduction(66M)

Closing the loop
 CCL Single-use Plastic Items
 Reduction(80M)

Reduction(80WI)

A Plastic-Free Movement
 RCL Single-use Plastic Items
 Reduction(77M)

Source: 2019 Sustainability Reports

CLOSING THE LOOP

The phase-out and reduction plan has two phases and aligns with our Single-Use Item Policy. The first phase was completed by the end of 2019 with the sourcing of approximately 80 million plastic items reduced, including straws, cups, lids, stir sticks, cocktail picks, toothpicks, and plastic shopping bags, which have since been eliminated or replaced with sustainable alternatives such as plant-based products or reusable options.

A PLASTIC-FREE MOVEMENT

We closed-off 2019 with 60% less single-use plastic. A journey that started with our waste goals and management and became a movement throughout the organization and beyond. It began by debuting a straw upon request program. Then a single-use plastics task force emerged to conduct audits and set a plan in place. Our Supply Chain team diligently worked to remove 77 million plastic straws from the fleet in 2018 and introduced our first aluminum can water bottle on Celebrity Edge. We've replaced plastic stirrers and food picks, coffee creamer and condiments, and our plastics task force is now identifying ways to minimize and further eliminate the use of single-use plastic on board our ships.

Appendix 6 - Ethical Responsibility: Safety & Quality (1/3)

Philanthropic

Ethical

Legal

Economic

Safety & Quality



Carnival Corporation & PLC

CCL (market share 44.1%)	passengers	crews	others	sum	per market share
Assault with serious bodily injury	5	1		6	0.1361
Firing or tampering with vessels			2	2	0.0454
Theft > \$10,000	1		3	4	0.0907
Overboard		9	9	0.2041	
Sexual Assaults	39	9	2	50	1.1338

On board crimes & accidents: B Sexual Assaults: B

Source: U.S. Department of Transportation, Cruise Line Incident Reports, CruiseJunkie. com

Appendix 7 - Ethical Responsibility: Safety & Quality (2/3)

Philanthropic

Ethical

Legal

Economic

Safety & Quality



Royal Caribbean Cruises Ltd.

RCL (market share 23.9%)	passengers	crews	others	sum	per market share
Assault with serious bodily injury				0	0.0000
Firing or tampering with vessels				0	0.0000
Theft > \$10,000	2		7	9	0.3766
Overboard		10	10	0.4184	
Sexual Assaults	22	7	3	32	1.3389

On board crimes & accidents: B- Sexual Assaults: B

Appendix 8 - Ethical Responsibility: Safety & Quality (3/3)

Philanthropic

Ethical

Legal

Economic

Safety & Quality



Norwegian Cruise Lines Holdings

NCLH (market share 8.8%)	passengers	crews	others	sum	per market share
Assault with serious bodily injury	3			3	0.3409
Firing or tampering with vessels				0	0.0000
Theft > \$10,000		1	1	2	0.2273
Overboard		3		3	0.3409
Sexual Assaults	11	2		13	1.4773

On board crimes & accidents: B- Sexual Assaults: B

Appendix 9 - Covid-19 Response of Carnival (1/2)

Philanthropic Ethical

Legal

Economic

Safety & Quality

COVID 19 Issues

Updated Confirmed Cases

Diamond Princess	712
Ruby Princess	696+
Costa Atlantica	148
Grand Princess	103+

abc.net (2020, April 16) News.yahoo.com (2020, March 26) Safety4sea.com (2020, April 28)

Cruise ships with COVID-19 outbreaks

SHIP	PARENT COMPANY	COVID-19 CASES
Diamond Princess	Carnival Corp.	712
Ruby Princess	Carnival Corp.	612
Oasis of the Seas	Royal Caribbean Cruises	157
Grand Princess	Carnival Corp.	78
Celebrity Eclipse	Royal Caribbean Cruises	76
MS A'Sara	Gate 1 Travel	45
Disney Wonder	Walt Disney Company	38
Costa Luminosa	Carnival Corp.	36
Symphony of the Seas	Royal Caribbean Cruises	31
Artania	Phoenix Reisen	27
Voyager of the Seas	Royal Caribbean Cruises	26

Ovation of the Seas	Royal Caribbean Cruises	23
Carnival Freedom	Carnival Corp.	14
Celebrity Solstice	Royal Caribbean Cruises	11
Zaandam	Carnival Corp.	9
World Dream	Genting Hong Kong	8
Silver Explorer	Royal Caribbean Cruises	6
Costa Favolosa	Carnival Corp.	6
MS Braemar	Bonheur ASA	5
Marella Explorer 2	TUI Group	5
Majesty of the Seas	Royal Caribbean Cruises	2
Costa Magica	Carnival Corp.	2
Celebrity Apex	Royal Caribbean Cruises	2
MSC Opera	Mediterranean Shipping Company	2
Jewel of the Seas	Royal Caribbean Cruises	2
Sun Princess	Carnival Corp.	1
Carnival Valor	Carnival Corp.	1
Celebrity Infinity	Royal Caribbean Cruises	1
Explorer of the Seas	Royal Caribbean Cruises	1
Norwegian Bliss	Norwegian Cruise Line Holdings	1
Norwegian Breakaway	Norwegian Cruise Line Holdings	1
Silver Shadow	Royal Caribbean Cruises	1
Costa Victoria	Carnival Corp.	1
Norwegian Encore	Norwegian Cruise Line Holdings	1
MSC Fantasia	Mediterranean Shipping Company	1

Sources: CDC; The Guardian; KUSI; NBC News; CNN; Independent; Western Australia DOH; The New South Wales Ministry of Health; Australian Broadcasting Corporation; Holland America PR; Miami Herald; COVID-19 Cruise Tracker; NY Times; USA Today; Seatrade Cruise News; WKBN; South Florida Sun Sentinel; SILive.com; WESH; TUI Group; Cruise Law News; The Daily Mali; Axios

Updated as of April 9, 2020.

BUSINESSIN

Appendix 10 – Covid-19 Response of Carnival (2/2)

Carnival Cruise Lines (Covid 19 Issues)

The news, when it reached the *Grand Princess* early on March 4, barely registered at first. In a letter slipped under passenger cabin doors, Grant Tarling, Carnival Corp.'s chief medical officer, announced that the U.S. Centers for Disease Control had begun "investigating a small cluster" of Covid-19 cases in California that might have been linked to the ship. Thirteen days after leaving San Francisco for Hawaii, the vessel would be skipping a scheduled stop in Mexico on its return voyage and sailing back early to its Bay Area port.

That day, passengers noticed new hand sanitizer stations and crew members wearing gloves, but life on the *Grand Princess*, which advertises 1,301 cabins, 20 restaurants and lounges, about a dozen shops, and four freshwater swimming pools, otherwise went on as normal. Guests prepared for a ukulele concert, played bridge at shared tables, and took line-dancing classes. That night, Laurie Miller and her husband, John, attended *True or Moo*, a show featuring an emcee in a cow costume; the following morning, John joined about 200 other passengers in the ship's Broadway-style theater for a lecture on Clint Eastwood movies. "I'm surprised they're even letting this event happen," he whispered to a nearby friend. "This is a big crowd." (omitted)



President and Chief Executive Officer Arnold Donald says his company's response was reasonable under the circumstances. "This is a generational global event—it's unprecedented," he says. "Nothing's perfect, OK? They will say, 'Wow, these things Carnival did great. These things, 20/20 hindsight, they could've done better.' "Donald says that if his company failed to prepare for the pandemic, it failed in the same way that many national and local governments failed, and should be judged accordingly. "Each ship is a mini-city," he says, and Carnival's response shouldn't be condemned before "analyzing what New York did to deal with the crisis, what the vice president's task force did, what the Italians, Chinese, South Koreans, and Japanese did. We're a small part of the real story. We're being pulled along by it."

(Carr, A., Palmeri, C. (2020, April 16). Carnival Executives Knew They Had a Virus Problem, But Kept the Party Going. Retrieved February 18, 2021, from https://www.bloomberg.com/features/2020-carnival-cruise-coronavirus/)

Appendix 11 - Covid-19 policies of the three companies (1/2)

An Industrywide Approach - CLIA

The Cruise Lines International Association (CLIA) – with input from Carnival Corporation and our cruise line brands and fellow CLIA members – announced on Sept. 21, 2020, the adoption of a strong set of health protocols that represent core elements for returning to service in the Americas.

Highlights include:

- **Testing:** 100% testing of passengers and crew for COVID-19 prior to embarkation.
- **Mask-Wearing:** Mandatory wearing of masks by all passengers and crew onboard and during excursions whenever physical distancing cannot be maintained.
- **Distancing:** Physical distancing in terminals, onboard ships, on private islands and during shore excursions.
- **Ventilation:** Air management and ventilation strategies to increase fresh air onboard and, where feasible, using enhanced filters and other technologies to mitigate risk.
- Medical Capability: Risk-based response plans tailored for each ship to manage medical needs, dedicated cabin capacity allocated for isolation and other operational measures, and advance arrangements with private providers for shoreside quarantine, medical facilities and transportation.
- **Shore Excursions:** Only permit shore excursions according to the cruise operators' prescribed protocols, with strict adherence required of all passengers and denial of reboarding for any passengers that do not comply.

Source: Carnival Corporation & PLC, Carnival Corporation Update on Operations

Appendix 12 - Covid-19 policies of the three companies (2/2)

Carnival Corporation's CruiseHealth Program

- Health Screening, Illness Surveillance and Health Education
- Environmental Sanitization
- Guest Experience
- Health Care
- Ventilation Systems
- Partnership with Local stakeholders

RCL and NCLH's 'Healthy Sail Panel'

- Testing, screening, exposure reduction
- Sanitation, ventilation
- Responsem contingency planning & execution
- Desitination & excursion planning
- Mitigating risks for crew members

Norwegian Cruise Line's Health&Safety Protocols

- All-new air filtration
- Enhanced screening protocols
- Increased sanitation measures
- Responsible social distancing
- Enhanced medical resources
- Extended ship to shore safety



Source: carnivalcorp.com, royalcaribbean.com, ncl.com, Royalcaribbeanblog

Appendix 13 - Ethical Responsibility: Labor Management (1/8)

Philanthropic

Ethical

Legal

Economic

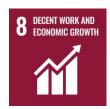
Norwegian Cruise Lines Holdings

- Safety of Life at Sea (SOLAS)
 & International Safety
 Management (ISM) standard
- Safety Officer & Training

Labor Management

Employee Safety & Education Program





Carnival Cruise Lines

- CSMART Academy: SAFETY4SEA Award for 2nd consecutive year
- HESS (Health, Environment, Safety, Security) Event Report System
- Worker Health & Safety
 Committee: preemptive action
 & inspection
- Global Learning & Development Information System, Crew Tube

Royal Caribbean Cruises Ltd.

- Personal 24 days training per year
- Security officer certified from outside organization
- Crew member drill & emergency training
- Safety Command Center (SCC)

Appendix 14 - Ethical Responsibility: Labor Management (2/8)

Philanthropic

Ethical

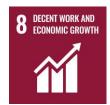
Legal

Economic

Labor Management

Employee Safety & Education





Norwegian Cruise Lines Holdings

Safety Training	В
Report System	-
Preemptive Action	-
Employee Development	-
Education System	-

C

Carnival Cruise Lines

Safety Training	Α
Report System	В
Preemptive Action	Α
Employee Development	В
Education System	Α
^	•

Royal Caribbean Cruises Ltd.

Safety Training	Α
Report System	В
Preemptive Action	-
Employee Development	В
Education System	-
D	

B

Appendix 15 - Ethical Responsibility: Labor Management (3/8)

Philanthropic

Ethical

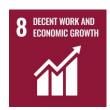
Legal

Economic

Labor Management

Wage





Norwegian Cruise Lines Holdings

Average

\$40,000

Lowest

[Server] \$17,000 (\$8.5/h) (-52% than average)

<u>C</u>

Carnival Cruise Lines

Average

\$40,000

Lowest

[Reservation Agent] \$20,000 (\$10/h) (-18% than average)

B

Royal Caribbean Cruises Ltd.

Average

\$60,000

Lowest

[Pier Agent] \$24,000 (\$12/h) (+8% than average)

<u>A</u>

Appendix 16 - Ethical Responsibility: Labor Management (4/8)

Philanthropic

Ethical

Legal

Economic

Norwegian Cruise Lines Holdings

- Insurance (100/100)
- Flexibility (100/100)
- Retirement (100/100)
- Leave (50/100)
- Financial Perk (100/100)
- Meal (100/100)

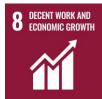
Labor Management

Employee Welfare Survey Result



- Insurance (95/100)
- Flexibility (100/100)
- Retirement (67/100)
- Leave (67/100)
- Financial Perk (86/100)
- Meal (100/100)
- Childcare (100/100)
- Health & Wellness (100/100)





Royal Caribbean Cruises Ltd.

- Insurance (95/100)
- Flexibility (100/100)
- Retirement (67/100)
- Leave (67/100)
- Financial Perk (86/100)
- Meal (100/100)
- Childcare (100/100)
- Health & Wellness (100/100)
- Reimbursement (100/100)

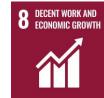
Appendix 17 - Ethical Responsibility: Labor Management (5/8)



Labor Management

Employee Satisfaction Survey Result





	Norwegian Cruise Lines Holdings (n=205)	Carnival Cruise Lines (n=304)	Royal Caribbean Cruises Ltd. (n=269)
Happiness	68 (Average)	77 (Above Average)	71 (Above Average)
Learning	72 (Above Average)	82 (High)	79 (Above Average)
Support	71 (Above Average)	81 (High)	80 (Above Average)
Appreciation	69 (Average)	80 (Above Average)	82 (High)
Inclusion	65 (Average)	80 (Above Average)	80 (High)
Compensation	65 (Average)	75 (Above Average)	77 (Above Average)
Management	64 (Average)	77 (Above Average)	76 (Above Average)
Trust	62 (Average)	76 (Above Average)	76 (Above Average)

Appendix 18 - Ethical Responsibility: Labor Management (6/8)

Philanthropic

Ethical

Legal

Economic

Norwegian Cruise Lines Holdings

Employee Satisfaction

536/800

Employee Welfare

of recognized welfare 6

Satisfaction: 550/600



Labor Management

Employee
Satisfaction & Welfare



Employee Satisfaction

628/800

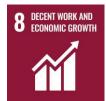
Employee Welfare

of recognized welfare 8

Satisfaction: 715/800







Royal Caribbean Cruises Ltd.

Employee Satisfaction

621/800

Employee Welfare

of recognized welfare 9

Satisfaction: 842/900



Appendix 19- Ethical Responsibility: Labor Management (7/8)

Philanthropic

Ethical

Legal

Economic

Norwegian Cruise Lines Holdings

- 44.4 % female employee
- 44 % ethnic minority employee
- 77 % employees are
 Democratic party supporter

Labor Management

Diversity & Inclusion Equality Program





Carnival Cruise Lines

- America's Best Employer for Diversity by Forbes
- Corporate Equality Index 100 for 3 consecutive years (LGBTQ Equality)
- 100 Best Corporate Citizen by Corporate Responsibility Magazine
- 20% female employee (Both onboard & shore employee)

Royal Caribbean Cruises Ltd.

- First women captain
- Women crew increase from 3% (2015) to 22% (2019) in Celebrity Cruise
- 77,000 employees from 126 nations
- UN Standard of Conduct for Business

Appendix 20 - Ethical Responsibility: Labor Management (8/8)

Philanthropic

Ethical

Legal

Economic

Labor Management

Diversity & Inclusion Equality





Norwegian Cruise Lines Holdings

Gender Equality	Α
National Diversity	В
Minority Employees (include LGBTQ)	В
Respect Human Right	-

B

Carnival Cruise Lines

Gender Equality	В
National Diversity	-
Minority Employees (include LGBTQ)	Α
Respect Human Right	В

B

Royal Caribbean Cruises Ltd.

Gender Equality	В
National Diversity	Α
Minority Employees (include LGBTQ)	1
Respect Human Right	В

B

Appendix 21- Philanthropic Responsibility (1/3)

Philanthropic

Ethical

Legal

Economic

Hurricane Dorian (2019)

- \$ 2 M USD donation for Bahama
- Partner with Tropical Shipping and 10 M pound food donation
- Partner with World Center Kitchen and 25,000 meal donation a day
- Total \$ 180 M USD investment plan in Bahama

Philanthropic Support

Disaster Relief

Venice Flood (2019)

 € 100,000 donation to the port of Venice foundation for recovery of city







Ocean Rescue

- Costa Cruises Captain, Pietro Sinisi rescued cargo ship on fire in Aegean sea
- 11 people saved

Appendix 22 - Philanthropic Responsibility (2/3)

Philanthropic

Ethical

Legal

Economic

Caribbean Region Support Effort Program

- Carnival Foundation
- Revitalization of Play Park
- Donation of laptop & stationery donation
- \$ 10 M USD donation pledge

Philanthropic Support

Community Support

Sahara Forest Project Support

- Collaboration with Sahara Forest Project Foundation
- Costa Cruise & AIDA cruise
- 3 hectares of eco-friendly farm
- Use salt-water cooled greenhouse, and solar energy.







Sanitary Donation

- Collaboration with Clean the World & Soap Aid
- 400,000 soap donated

Appendix 23 - Philanthropic Responsibility (3/3)

Philanthropic

Ethical

Legal

Economic

Joy of Moving

- Collaboration with Kinder & Ferrero
- Motoric skill development
- Cognitive, emotional, relational skill development

Philanthropic Support

Education & Children Support



- AIDA Cruise
- 7 schools financed with partnership







ST. Jude Children's Research Hospital

- \$ 33 M USD donation until 2024
- \$ 18 M USD accumulated donation as of 2019

Appendix 24 - Environmental officer of Carnival

- Each ship in our fleet has a full-time Environmental Officer (EO), who monitors environmental compliance and the implementation of environmental procedures. Each EO reports directly to the ship's Captain, and has a direct line of communication with their Operating Line Compliance Manager (OLCM).
- Our brands also encourage our guests to be aware of their own impacts on the environment. We provide, for example, environmental awareness information to passengers across a range of media.
 Our EOs are glad to answer any environmental questions our guests may have and provide insight into maritime environmental management for interested guests.

Source: https://carnivalsustainability.com/environmental-officer-responsibilities

Appendix 25 - Cost and Benefit of Eco-vessel (1/3)

Cost of Eco-vessel

Renewable Energy

Item	Calculation	Result
Average energy consumption on electricity generation per day	 Average annual energy consumption per vessel of Carnival Cruise Line: 368,247,941 kW Average proportion of energy used for generating electricity: 27% Average daily energy consumption on electricity: {(368,247,941) * (0.27)} / 365 	272,402 kW
- Estimated operation hours of solar panel - "wind power	During daytime 2/3 day	8 hour 16 hours
Needed production capacity of solar and wind energy per hour	272,402 kW / (8+16 hour) = 272,402 / 24	11,350 kW

Appendix 26 - Cost and Benefit of Eco-vessel (2/3)

Cost of Eco-vessel

Renewable Energy

Item	Calculation	Result
Facility cost of solarwind	\$ 1,356 (per kW) * 11,350 kW \$ 2,712 (per kW) * 11,350 kW	\$ 15,390,600 \$ 30,781,200
Average fuel consumption and price for electricity per day	Average daily fuel consumption of Carnival Cruise Lines vessel: 87 metric ton (MT) Average fuel consumed for electricity generation: (87) * (0.27) Average Bunker fuel price per MT (Oct. 2019 – Feb. 2021): \$437.5	23.5 Metric ton \$10,281 per day
Discounted pay back Period (r=1%)	Initial Invest. = \$ 46,171,800 Cash Flow per year = \$10,281 * 365 = \$3,752,565 (Calculated by annuity NPV equation)	13.2 years
Discounted net cash flow (useful year of 20)	Same as above	\$ 21,545,310

Appendix 27 - Cost and Benefit of Eco-vessel (3/3)

Economic Benefit of Eco-vessel

	Cash Flow	Net Cash Flow	Discounted Cash Flow	Net Discounted Cash Flow
Year 0	\$-46,171,800.00	\$-46,171,800.00	\$-46,171,800.00	\$-46,171,800.00
Year 1	\$3,752,565.00	\$-42,419,235.00	\$3,715,410.89	\$-42,456,389.11
Year 2	\$3,752,565.00	\$-38,666,670.00	\$3,678,624.64	\$-38,777,764.46
Year 3	\$3,752,565.00	\$-34,914,105.00	\$3,642,202.62	\$-35,135,561.85
Year 4	\$3,752,565.00	\$-31,161,540.00	\$3,606,141.21	\$-31,529,420.64
Year 5	\$3,752,565.00	\$-27,408,975.00	\$3,570,436.84	\$-27,958,983.80
Year 6	\$3,752,565.00	\$-23,656,410.00	\$3,535,085.98	\$-24,423,897.82
Year 7	\$3,752,565.00	\$-19,903,845.00	\$3,500,085.13	\$-20,923,812.70
Year 8	\$3,752,565.00	\$-16,151,280.00	\$3,465,430.82	\$-17,458,381.88
Year 9	\$3,752,565.00	\$-12,398,715.00	\$3,431,119.62	\$-14,027,262.25
Year 10	\$3,752,565.00	\$-8,646,150.00	\$3,397,148.14	\$-10,630,114.11
Year 11	\$3,752,565.00	\$-4,893,585.00	\$3,363,513.01	\$-7,266,601.10
Year 12	\$3,752,565.00	\$-1,141,020.00	\$3,330,210.90	\$-3,936,390.20
Year 13	\$3,752,565.00	\$2,611,545.00	\$3,297,238.52	\$-639,151.68
Year 14	\$3,752,565.00	\$6,364,110.00	\$3,264,592.59	\$2,625,440.91
Year 15	\$3,752,565.00	\$10,116,675.00	\$3,232,269.89	\$5,857,710.80
Year 16	\$3,752,565.00	\$13,869,240.00	\$3,200,267.22	\$9,057,978.02
Year 17	\$3,752,565.00	\$17,621,805.00	\$3,168,581.41	\$12,226,559.42
Year 18	\$3,752,565.00	\$21,374,370.00	\$3,137,209.31	\$15,363,768.74
Year 19	\$3,752,565.00	\$25,126,935.00	\$3,106,147.83	\$18,469,916.57
Year 20	\$3,752,565.00	\$28,879,500.00	\$3,075,393.90	\$21,545,310.47

Appendix 28 - Environmental impact of recycling ratio increase



SAIL & SUSTAIN



ENVIRONMENTAL MANAGEMENT SUPPLY CHAIN 2019 STEWARDSHIP REPORT INTRODUCTION **PUBLIC HEALTH & SAFETY** COMMUNITY INVOLVEMENT WORKING WITH WASTE MANAGEMENT: In 2019, vessels who offloaded with Waste Management® in Florida were able to recycle over 2,300 tons of aluminum, cardboard/paper, scrap metals, plastics, wood pallets, and glass. These recycling efforts conserved the following resources: 6,442 CUBIC YARDS OF 4,442,702 KW-HRS PREVENTED 3,714 METRIC 4,490,500 GALLONS 7.698 **MATURE TREES** LANDFILL AIRSPACE **OF ELECTRICITY** TONS OF GHG EMISSIONS **OF WATER**

Represents enough saved timber resources to produce 130,866,000 sheets of printing and copy paper.

Enough airspace to fulfill the annual municipal waste disposal needs for 8,272 people.

Enough power to fulfill the annual electricity needs of 425 homes.

The recycling of these materials prevented these GHG emissions.

Represents enough saved water to meet the daily fresh water needs of 59,873 people.

Multiplying conversion constant 20 leads to the impacts shown in the presentation slide

- Recycling 2,300 tons of recyclable wastes generated following environmental impacts
- Carnival's total wastes in 2019: 371,091 metric tonnes
- Carnival's current recycling ratio: 27.6%
- Increment of recycled wastes when the 40% recycling ratio goal achieved
- $: 371,091 \times 12.4\% = 46,000 \text{ metric tonnes}$
- Conversion Constant of 2300 tons \rightarrow 46,000 metric tonnes: approximately 20



Appendix 29 - Environmental Impacts of LNG-Powered Ship(1/2)

Total Emission of CO2 and toxic waste of Carnival Corporation

	2017	2018	2019
Total CO2 Emission	10,687,646	10,697,602	10,769,826
Total Sulfur Oxides Emission	99,622	99,543	91,953
Total Nitrogen Oxides Emission	257,665	258,410	258,102
Totla Particulate Matter Emission	2,099	2,086	2,021

[✓] No meaningful changes in the annual emission

Calculating Reduction Factor

	CO2	Sulfur Oxides	Nitrogen Oxides	Particulate Matter
Operation rate	10%	10%	10%	10%
Generation from fuel usage	97.3%	97.3%	97.3%	97.3%
Reduction rate with LNG	20%	100%	90%	90%
FACTOR	1.946%	9.730%	8.757%	8.757%

- ✓ Lng-powered ships are assumed to account for 10% of total operation
- ✓ Emission generation from fuel usage(97.3% as of 2019) is assumed to be consistent for the future

Appendix 30 - Environmental Impacts of LNG-Powered Ship(2/2) & Estimated Donation

Reduction amount of CO2 and toxic waste emission calculation

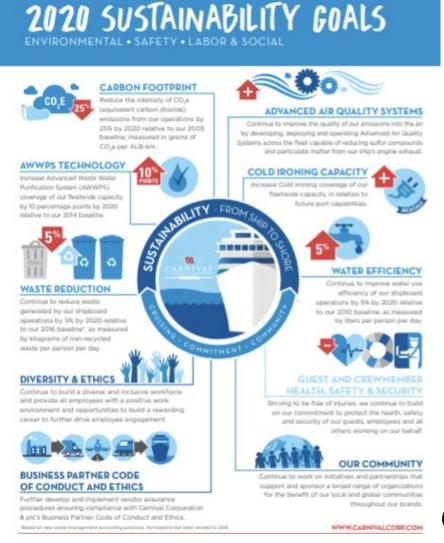
	Total Emission	FACTOR	Reduction amount
CO2	10,769,826	1.946%	209,580.81
Sulfur Oxides	91,953	9.730%	8,947.03
Nitrogen Oxides	258,102	8.757%	22,601.99
Particulate Matter	2,021	8.757%	176.98

Estimated Donation to Environmental Organizations from 2023

- ✓ Fully covering from Covid-19 operation risks from 2023
- ✓ Estimated profit of Eco-Cruise line to be 10% of same or more than net income in 2019
 - : \$3,041 M * 10% = \$30M
- ✓ Total donation to be 1% of the profit: \$ 3M

Appendix 31 - Carnival Corporation Sustainability KPIs 2020

Carnival Corporation Sustainability Goals



- Carbon Footpring 25% ↓
- AWWPS technology 10T% points ↑
- Waste Reduction 5% ↓
- Diversity & Ethics
- Business Partner Code of Conduct and Ethics
- Advanced Air Quality Systems
- Cold Ironing Capacity[↑]
- Water Efficiency 5% ↑
- Guest and Crewmember Health, Safety & Security
- Our Community

(source: Carnival Corporation & PLC, Sustainability Key Performance Indicator)

Appendix 32 - The Domino Model

Carnival Corporation & PLC Management Incentive Plan

'This Carnival Corporation & plc Management Incentive Plan (the "Plan") is designed to focus the attention of certain officers and employees of Carnival Corporation & plc and/or its subsidiaries (the "Corporation") on achieving outstanding performance results as reflected in the operating income of the Corporation and, to the extent applicable, the operating income of one or any combination of the following entities, operating companies or business divisions: (1) the Holland America Group, (2) Holland America Line, (3) Seabourn Cruise Line, (4) Carnival Australia, (5) Carnival Cruise Line, (6) Carnival UK, (7) Cunard Line, (8) P&O Cruises, (9) Princess Cruises, (10) Global Fine Arts, (11) Costa Cruises, (12) Costa Asia, (13) AIDA Cruises, or (14) any other operating company of the Corporation (each individually and, as applicable, collectively a "Brand"), as well as other relevant measures.'

(from the Carnival Corporation & PLC Management Incentive Plan')

Costs for 'Domino Distancing' and 'Domino Strengthening'

Items	\$	
AI Simulator development	300000*	
Investigation Costs	(only when waste amount is abnormal)	
* from 'WebFX, AI Pricing: How Much Does Artificial Intelligence Cost?'		

Appendix 33 - ESG Investors investing in Carnival corporation (1/4)

Vanguard (6.16%)

Vanguard has been managing ESG investment products for over 20 years, starting with our FTSE Social Index Fund, which launched in 2000. It's now the largest ESG-screened index fund in the United States.*

For more than 45 years, we've taken a stand for all investors while advocating for improved corporate governance in the market. As a signatory to the <u>United Nations-supported Principles</u> <u>for Responsible Investment</u>, we encourage companies to conduct business in a socially conscious way.

Public Investment Fund (5.45%)



Appendix 34 - ESG Investors investing in Carnival corporation(2/4)

BlackRock (4.07%)



ESG integration at BlackRock

Our activities to integrate sustainability considerations into the investment process mirror the diversity of clients we serve, as well as the range of investment strategies and asset classes we offer. Across BlackRock, we provide all of our investment teams with data and insights to keep them well informed of sustainability considerations.

Each of our investment teams is responsible for implementing ESG approaches in line with its investment mandate and is required to have a formal ESG integration statement to underpin its respective approach. Our portfolio managers are able to bring useful ESG information into their investment processes, discounting or emphasising this information as they would any other financial input.

Appendix 35 - ESG Investors investing in Carnival corporation(3/4)

Northern Trust (2.7%)



State Street (2.39%)





Appendix 36 - ESG Investors investing in Carnival corporation(4/4)

Geode capital management, LLC (1.02%)



Responsible Investment Statement

Geode Capital Holdings LLC (with its subsidiaries, "Geode")

Geode is a process-driven asset manager providing global investment solutions across multiple asset classes. Geode's investment experience, flexibility and insights can assist investors both by providing beta exposure and generating alpha.

Geode excels at providing customized solutions to meet investors' needs. We recognize that Environmental, Social and Governance (ESG) factors may have an impact on a portfolio's risk and return profile, and that clients may also have other motivations for ESG investing. Geode believes it can best address these preferences through client-specific mandates that are customized to each investor's unique preferences and circumstances.

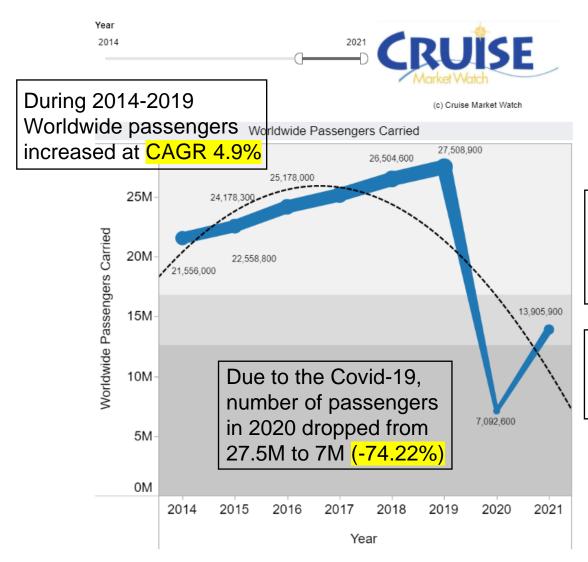
Geode's priority is fulfilling its fiduciary duty to its clients. Geode manages funds and accounts with the overriding goal of providing the greatest possible return to investors consistent with the investment guidelines for each fund and account. By becoming a Principle for Responsible Investing (PRI) signatory, Geode has committed, where consistent with its fiduciary duty to clients and each client's mandate, to the following principles:

- Geode will incorporate ESG issues into investment analysis and decision making processes, as appropriate.
- Geode will be active owners and incorporate ESG issues into our ownership policies and practices.
- 3. Geode will seek appropriate disclosure on ESG issues by the entities in which we invest.
- Geode will promote acceptance and implementation of the Principles within the investment industry.
- 5. Geode will work together to enhance our effectiveness in implementing the principles.
- 6. Geode will report on our activities and progress towards implementing the Principles.

Primecap Odyssey Funds (1.68%) – Not an apparent ESG investor but values long-term perspective investment



Appendix 37 - Stock Price Estimation(1/2)



From 2023, we expect passengers to grow annually 5%, at the BAU rate

In 2022, we expect number of passengers to be 28M, increasing 100% from the year before due to massive demand increase and recovers demand just before Covid19

In 2021, number of passengers is expected as 14M, increasing 100% from the year before

Stock Price Estimation

+\$70 till 2025

* Hit the ceiling

\$50 in 2022

\$20 currently

Source: Cruise Market Watch, https://cruisemarketwatch.com/growth/

Appendix 38 - Stock Price Estimation(2/2)

Optimistic view toward cruise industry recovery based on survey conducted by Cruise **Line Industry Association**

2020 INDUSTRY TRENDS

RESILIENCY AND OPTIMISM

One of the defining characteristics of the cruise industry is its resiliency. Despite a challenging year in 2020, there is reason for hope and optimism heading into 2021.

of cruisers are likely to cruise in the next few years

74% 2 out of 3

cruisers are willing to cruise within a year

58%

of international vacationers who have never cruised are likely to cruise in the next few years

Source: CLIA-Qualtrics Survey December 2020- 4,000 International vacationers each, eight countries, U.S. Canada, Australia, UK, Germany, France, Italy and Spain

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