

# Cruise Sector as a Global Tourism Player

## 'Mass Class' under the 'Magnifying Glass'

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Cruise Research Society



# CRUISE SECTOR DEVELOPMENTS

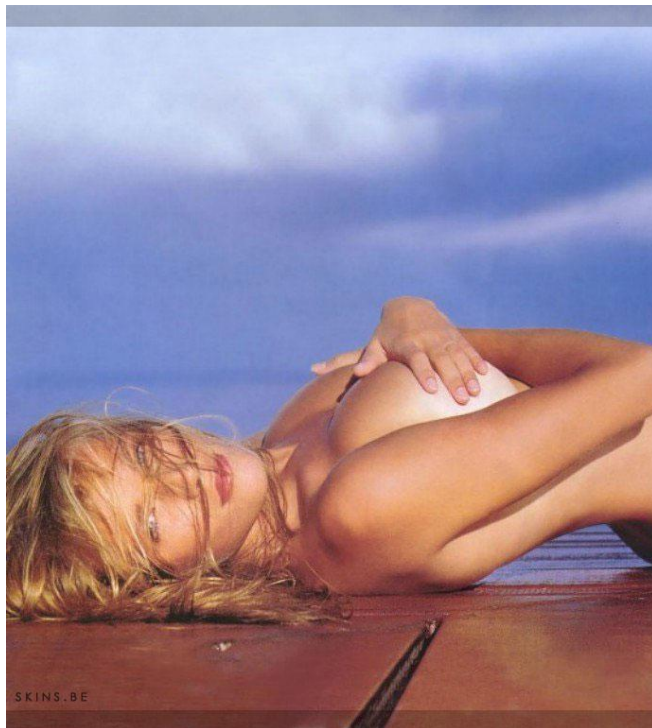
*Growth... Of What? For How Long?*

# What is your image of the typical cruiser? This...





... Or this?!!



## Carnival Cruises' Boobiedecks May or May Not Disappoint

February 1, 2007 at 11:52 AM | by [djk](#) | [Comments \(2\)](#)



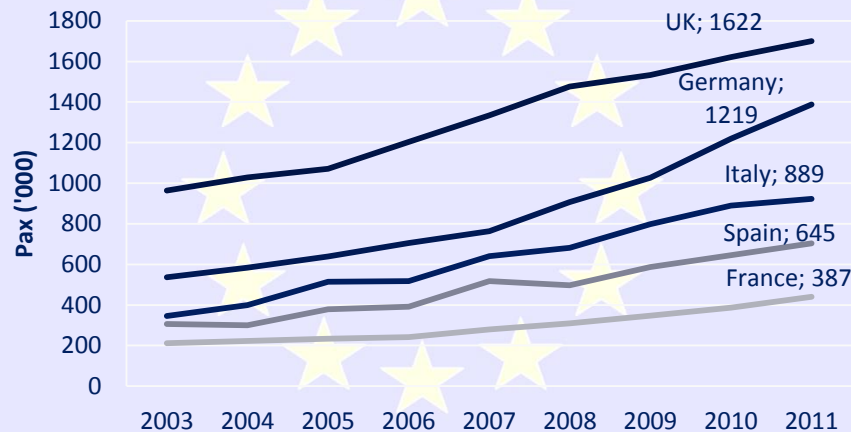
Cruises are becoming more  
**differentiated**, appealing  
to a **wider population** of  
holiday makers

# Source Market Perspective:

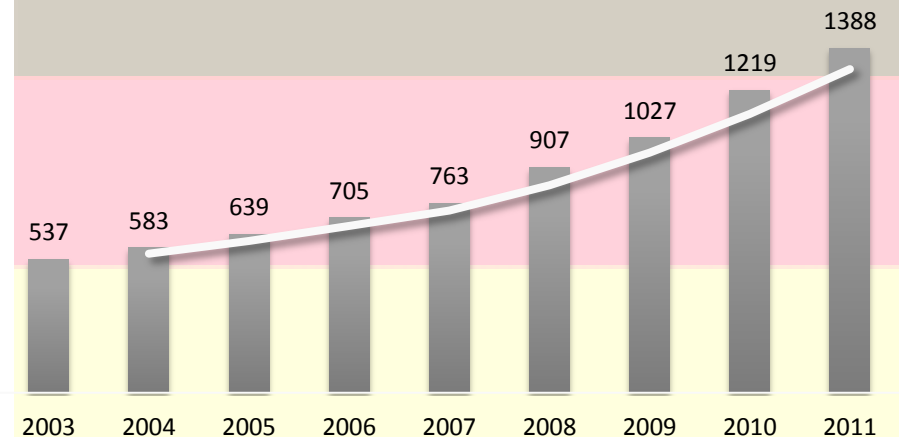
## Cruise Sector Growth & Pax Developments

**Top 5 Source Markets = 83%  
of Total EU**

### European Pax Development



### German Pax Development ('000)



### European Average Growth Rate

- 2008-2011 = 11.8%
- 2010-2011 = 13%

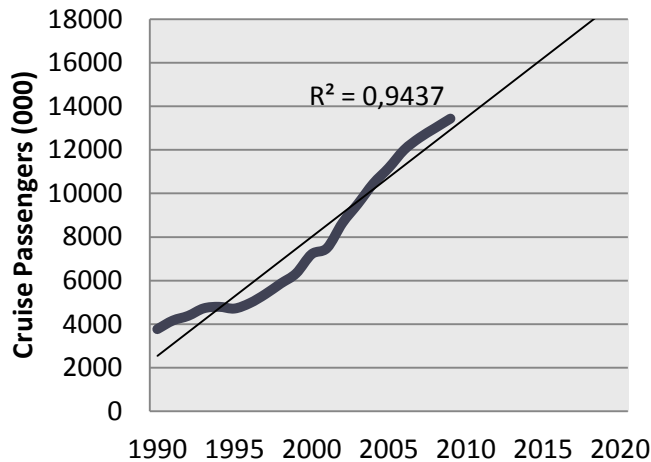
### German Average Growth Rate

- 2006-2010 = 15.2%
- 2010-2011 = 14%

Cruises equal a licence  
to print money!

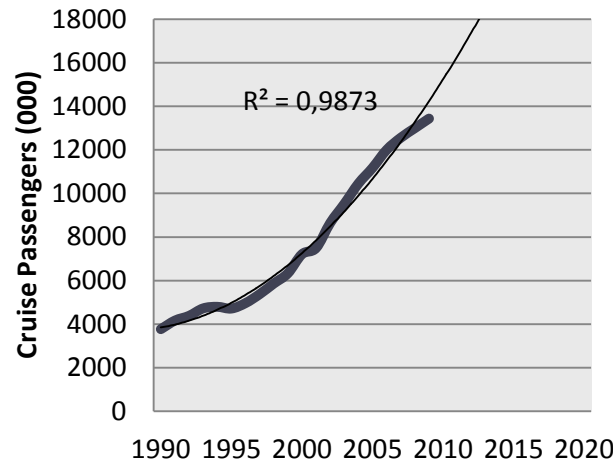
# A Critical View on Growth: Extrapolation of Historical Data

## Linear Extrapolation



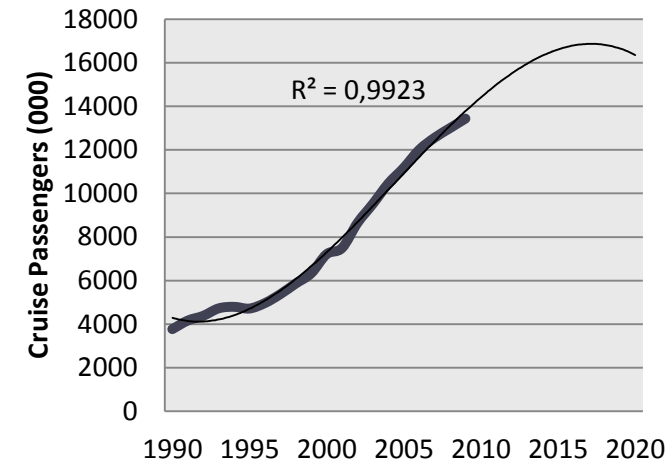
- ▶ Least data fit ( $R^2 = 94\%$ )
- ▶ 30 Million Pax by 2041
- ▶ Indefinite growth assumption

## Quadratic Extrapolation



- ▶ Second best data fit ( $R^2 = 98\%$ )
- ▶ 69 Million Pax by 2041
- ▶ Indefinite growth assumption

## Cubic Extrapolation (S-Shaped Curve)



- ▶ Best data fit ( $R^2 = 99\%$ )
- ▶ Compatible with the Product Life Cycle concept
  - ▶ Historically applicable for tourist destinations (Butler 1980, 2006) and
  - ▶ Tourism segments (Zimmermann 1997)

## Forecast Implications?

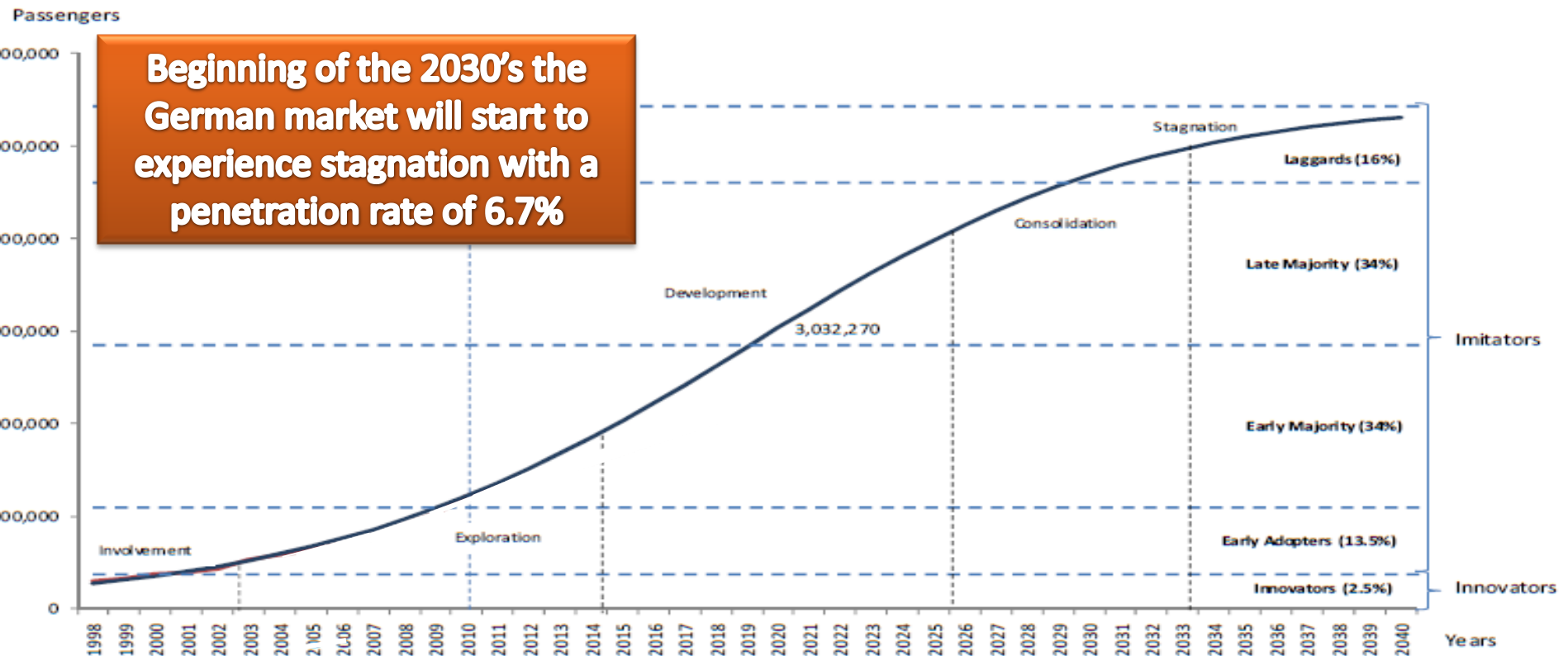
**Weak signals (e.g. ticket price reductions; mega-ships / onboard revenue)**

**Validity of forecasting demand on the basis of supply**



# Another Forecast

## A PLC-Based Forecasting Model



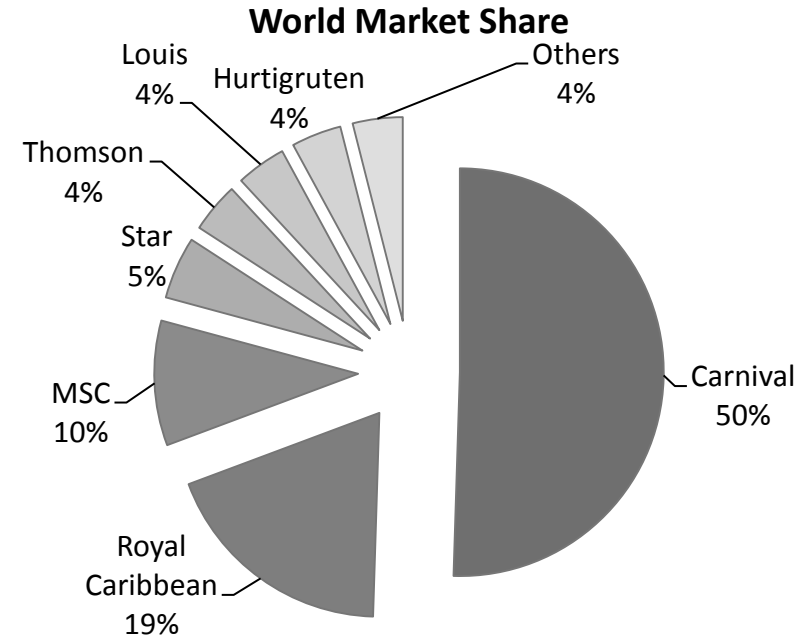
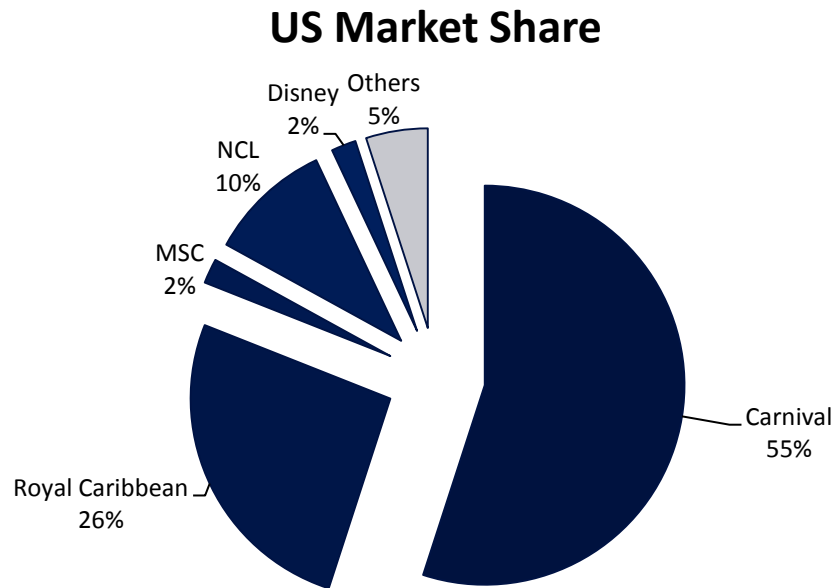
- Bass Diffusion Model (1968):
  - Represents an S curve – Just like the Product- or Destination- Life Cycle
  - Can be used for forecasting the slope of the S curve, on the basis of the market potential and the degree of imitation and innovation

- Assumptions:
  - Market Potential in Germany approx. 5 million
    - Travellers spending more than €1700 on a vacation
    - Demographic structure remains the same
  - Innovation and imitation coefficients are calculated from the historical data (currently demand is determined by imitators – cruise market has left the introduction phase)

The only form of  
continuous **growth** is  
taxation... but not for  
**cruises!**

# Concentration through M&A

## *“Cruise Sector Duopoly?”*



- ▶ Leverage over suppliers & destinations
- ▶ Economies of scale
- ▶ Risk-spreading & financial reserves
- ▶ Difficult for new entrants due to shipbuilding sector concentration

# Capacity Development

## *Mega-Ship Trend... Why?*

### ► 2010\*:

- Global cruise fleet 298 vessels amounting > 400,000 berths
- About half operate in Europe

### ► 2012-2016\*\*:

- Total Ships: 20
- Total Berths: 57,751
- Total Order Book Value: \$13,468,000,000.00
- Average Price Per Berth: \$273,183

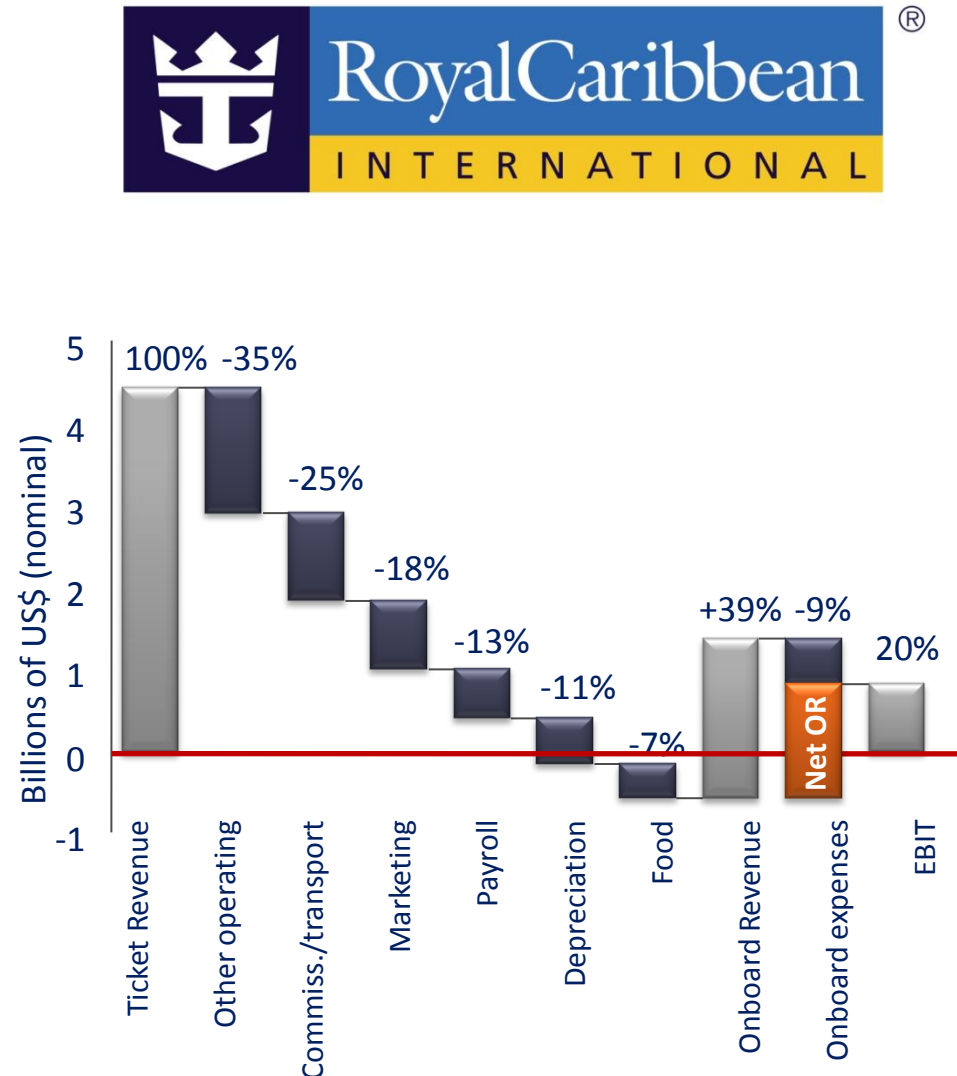
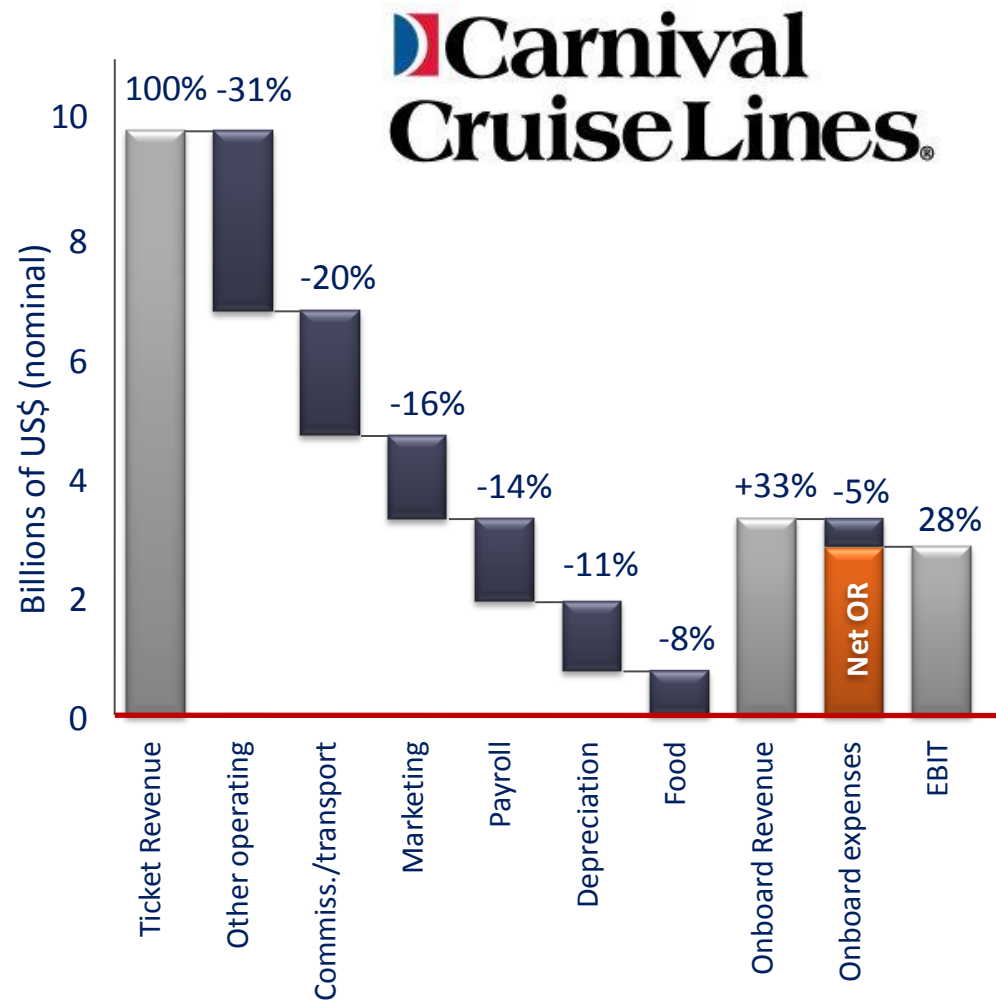


# Competition on land monopoly at sea



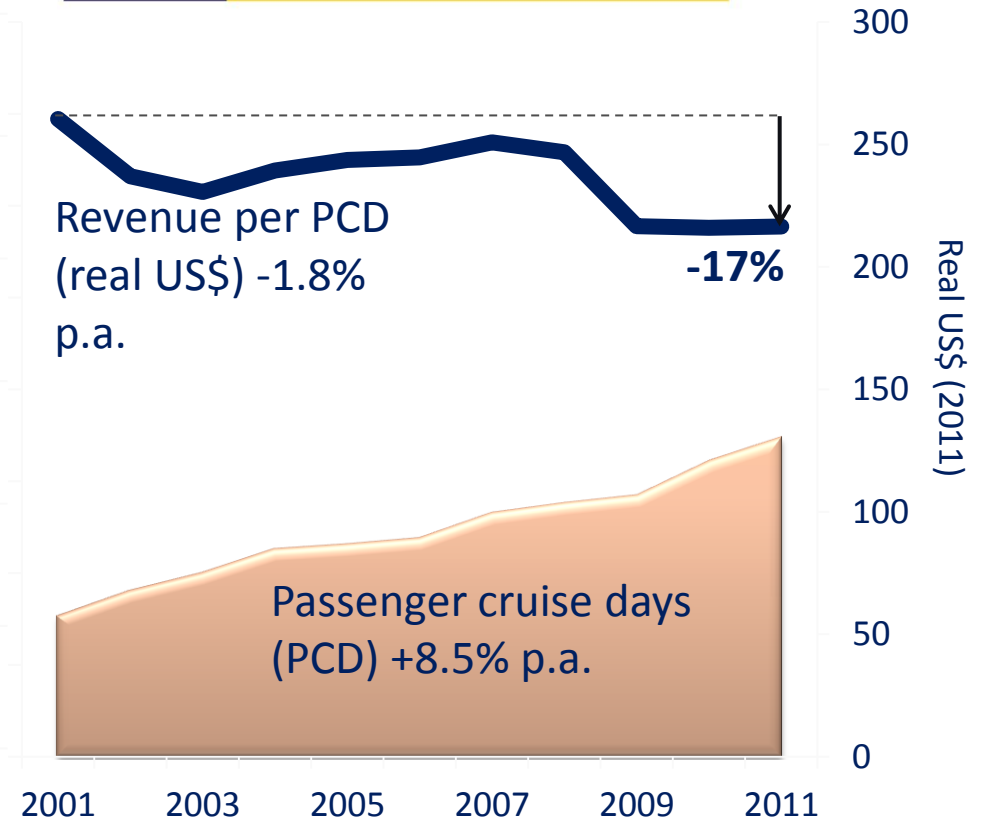
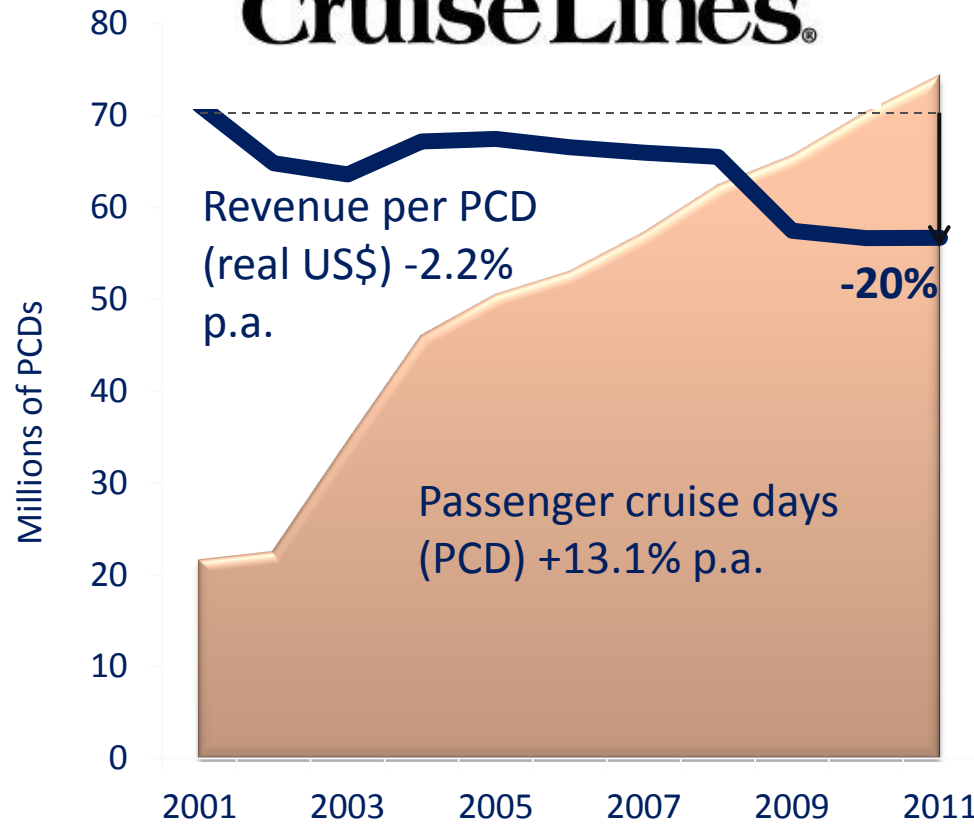
# Balance Sheet Analyses (RCL & Carnival) 2007\*

## *Dependence on Onboard Revenue*



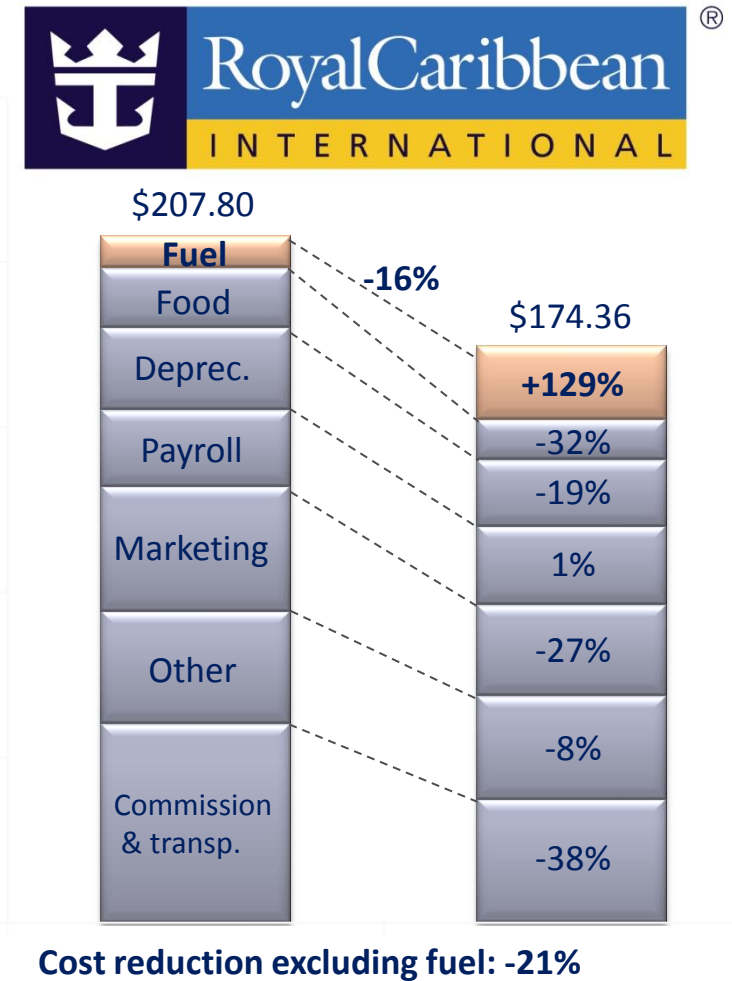
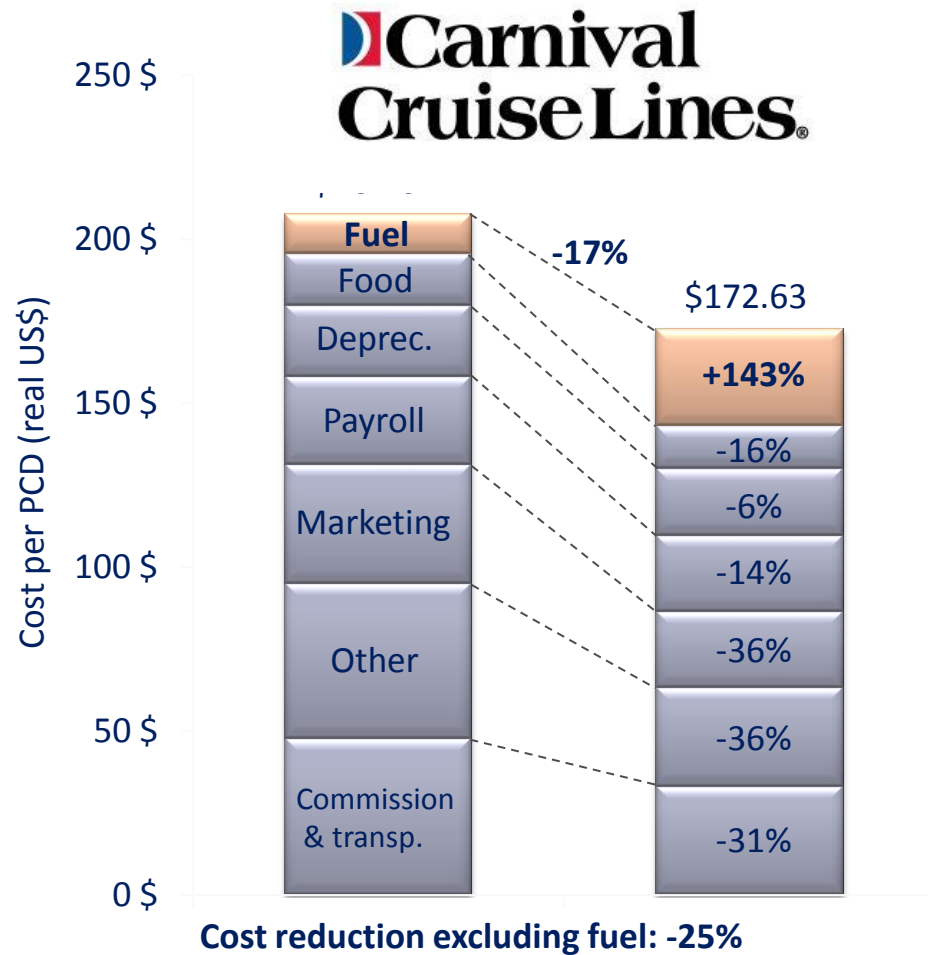
# Balance Sheet Analyses (RCL & Carnival) 2011\*

## *Dependence on Onboard Revenue*



# Balance Sheet Analyses (RCL & Carnival) 2011\*

## Cost-Saving Pressures?!



**Costs per PCD 2001 vs. 2011 excluding cost of onboard sales**

**Profit** margins have  
decreased by approx. **4%**  
over the last decade and  
are following a downward  
trend



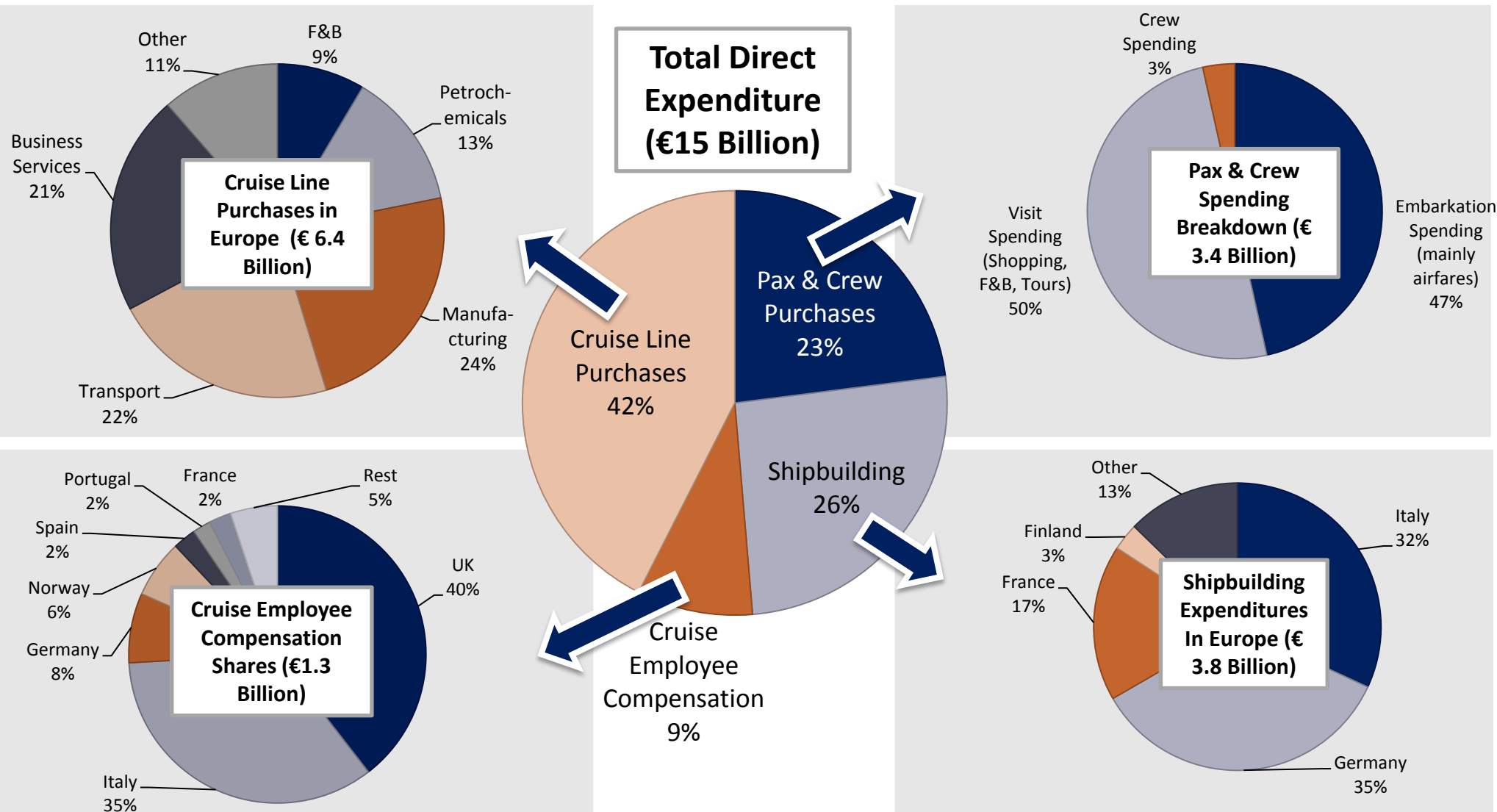
# ECONOMIC IMPACT

*... And Externalities*



# The Cruise Economy 2012:

## *Direct Economic Impact of Cruise Tourism in Europe*



Cruise **Income** is primarily  
created by **production** at  
the **source markets**; not  
by consumption at the ports!

# Cruise Sector and the Environment

## *"Clean Ships?"*

### Main Sources:

- Incinerators
- Engines

### An average cruise ship's daily emissions

- = 12.000 automobiles

### 401g of CO2 is emitted per Cruise Pax / Km

- 36 times more than a Eurostar Pax / Km
- 3 times more than a Boeing 747 Pax / Km
- An estimated 60,000 people die worldwide each year as a result of under-regulated shipping air emissions
- This estimated to grow by 40 percent by 2012

### Black Water:

- Human Waste (Toilets, Medical Facilities)
- 30 Litres per Cruise Pax / day

### Gray Water:

- Wastewater from sinks, showers, galleys, laundry, and cleaning activities
- 340 Litres per Cruise Pax / Day

### Solid Waste:

- Plastic, paper, wood, cardboard, food waste, cans, glass, etc.
- 1990s: 3.5 Kg per Cruise Pax / Day
- 2010: 1.7 Kg per Cruise Pax / Day

### Oily Bilge Water

- Water containing fuel, oil, wastewater from engines and other machinery
- Average cruise ship produces 8 tons in 24 hours of operation

### Ballast Water:

- To stabilize the vessel during transport
- Often taken on in one location after a ship discharges wastewater or unloads cargo and then discharged at the next port of call
- Contains a variety of biological materials, including non-native plants, animals, viruses and bacteria

# Friends of the Earth: 2010 Cruise Ship Report Card\*

Cruise Lines	Sewage Treatment	Air Pollution Reduction	Water Quality Compliance	Web Enviro Info*	Change From 2009	2010 Final Grade
Holland America Line	B+	C-	B+	✓	↓	B-
Norwegian Cruise Lines	A	C-	C+	✓	↔	B-
Princess Cruises	C+	A-	D+	✗	↓	C+
Cunard Cruise Line	A	F	no Alaska voyages	✗	↔	C-
Disney Cruise Line	A	F	no Alaska voyages	✗	↑ Most Improved	C-
Regent Seven Seas Cruises	C+	F	A	✗	↔	C-
Celebrity Cruises	A	F	n/a	✓	↔	D+
Royal Caribbean Int'l	D+	F	A-	✓	↑	D+
Carnival Cruise Lines	F	F	A	✗	↔	D-
Silversea Cruises	F	F	B-	✗	↔	D-
Crystal Cruises	F	F	no Alaska voyages	✗	n/a	F

Whether a cruise line has installed the most advanced sewage and wastewater treatment systems available instead of dumping raw or minimally treated sewage directly into the water

Whether a cruise line has retrofitted its ships to "plug in" to available shore-side electrical grids instead of running polluting engines when docked

To what degree cruise ships violated 2009 water pollution standards designed to better protect the Alaskan coast

How easy the cruise lines have made it for the average consumer to find information on their websites about cruise industry environmental practices and technology

# Cruise Employment

## *"24/7 for 500 Dollars a month!?"*



### Costs of getting a

#### Cruise Job\*

Applicants from poor countries (Philippines, Indonesia, India)  
 Between \$1500-2000 to get the job  
 Job start with a credit  
 Money sent home = \$300 / month (7 months' work + 2-3 months' lay-off)

### Indicative Wage levels\*\*

F&B: Low paid, non-customer facing staff = \$350-500 / month  
 Housekeeping: Low paid, non-customer facing staff = \$600-800 / month  
 Cruise staff: Staff organising activities for passengers = \$1800-2100 / month

### Working Conditions:

Long-working hours

- ... But tax free income!?

Private quarters & crew facilities – quality of life

- ... But no extra living costs (accomm & catering)

Long absence from family & friends



# “Barbarians at the Gate(ways)”

## The Price of Cost-Cutting & Profitability

### Environment

- Image issue (‘From Paper to Practice’)
  - Friends of the Earth Scorecard
  - Cruise Operators’ sustainability reports
- Integration of new technologies on existing fleets

### Overcrowding & Itineraries

- Customer satisfaction deterioration
- Relationship between locals & tourists (Antagonism)
- Destination limitations (Seasonal, infrastructural)

### Cost Pressures & Competition

- Rising fuel prices
- Safety & security regulations
- Personnel costs
- Fusion packaged tourism – cruise tourism (extended competitive scope)

### Social Responsibility

- Tax avoidance – Flags of convenience
- Image issue (‘Sweatships’)
  - Intl Transport Workers’ Federation (ITF)
  - International Labour Organisation (ILO)
- Crew living & employment conditions
- Criminality on board (Balancing security with recreation)

Sailing on **'mainstream**  
open sea' is different than  
sailing on the niche lakes'...  
There are 'undercurrents' and  
'large waves'!

Greek Proverb:

“Only the rough sea can prove  
a **good captain**”.

“Ο καλός ο καπετανιος στη φουρτουνα φαινεται”

# Thank You for your Attention



## ► Research Functions:

- Founder & Chairman of the **Cruise Research Society**  
(<http://www.cruiseresearchsociety.com>)
- Co-Director of the **Institute for Maritime Tourism (IMT)**  
(<http://www.imt.hs-bremerhaven.de/>)
- Editorial Board Member of the Journal of the European Journal of Tourism, Hospitality and Recreation (EJTHR) –  
(<http://www.ejthr.com/>)
- Reviewer of the Tourism Management Journal  
(<http://journals.elsevier.com/02615177/tourism-management/>)

## ► Administrative Functions:

- Dean of Studies – Faculty of Business & Economics
- Chairman of the CIM Examinations Committee
- Member of the CIM Study Affairs Committee

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