An **Eye** on Cruises
Cruise Market Overview 2012

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University of the Aegean – Chios 13.09.2012
What is your image of the typical cruiser? 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*

**European Pax Development**
- UK; 1622
- Germany; 1219
- Italy; 889
- Spain; 645
- France; 387

**German Pax Development ('000)**
- 2003: 537
- 2004: 583
- 2005: 639
- 2006: 705
- 2007: 763
- 2008: 907
- 2009: 1027
- 2010: 1219
- 2011: 1388

**European Average Growth Rate**
- 2008-2011 = 11.8%
- 2010-2011 = 13%

**German Average Growth Rate**
- 2006-2010 = 15.2%
- 2010-2011 = 14%

* River Cruises are not included in the data

Base data: European Cruise Council (2012 Online)
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

* Source Data: Cruisecommunity.com, Accessed: 10.10.2011
Cruises equal a licence to print money!
“Evil - Eye” belief, that a look of envy can cause misfortune to the fortunate ones.

Let’s put the cruise sector to the test!
The Cruise Economy 2012: Direct Economic Impact of Cruise Tourism in Europe

Cruise Line Purchases in Europe (€6.4 Billion)
- Cruise Line Purchases 42%
- F&B 9%
- Petrochemicals 13%
- Manufacturing 24%
- Other 11%

Shipbuilding 26%

Cruise Line Purchases 23%

Pax & Crew Spending (Shopping, F&B, Tours) 50%

Embarkation Spending (mainly airfares) 47%

Pax & Crew Spending Breakdown (€3.4 Billion)
- Visit Spending (Shopping, F&B, Tours) 50%
- Crew Spending 3%

Cruise Line Expenditures
- Transport 22%
- Business Services 21%
- F&B 9%
- Petrochemicals 13%
- Manufacturing 24%
- Other 11%

Cruise Line Purchases in Europe (€6.4 Billion)
- UK 40%
- Rest 5%
- Norway 6%
- Spain 2%
- Germany 8%
- Portugal 2%

Cruise Employee Compensation Shares (€1.3 Billion)
- Italy 35%
- Germany 35%
- Portugal 6%
- Spain 2%
- France 2%

Cruise Employee Compensation 9%

Total Direct Expenditure (€15 Billion)

Cruise Employee Compensation Shares (€1.3 Billion)

Shipbuilding Expenditures in Europe (€3.8 Billion)
- Finland 13%
- Germany 35%
- France 17%

Pax & Crew Spending Breakdown (€3.4 Billion)

Visit Spending (Shopping, F&B, Tours) 50%

Embarkation Spending (mainly airfares) 47%

Base data: European Cruise Council (2012: Online)
The Cruise Economy 2012:
Total Cruise Employment In Europe (315,500 Employees)

Where do they work?

For whom do they work?

Base data: European Cruise Council (2012: Online)
Cruise Income is primarily created by production at the source markets; not by consumption at the ports!
A Critical View on Growth: Extrapolation of Historical Data

**Linear Extrapolation**
- Least data fit (R² = 94%)
- 30 Million Pax by 2041
- Indefinite growth assumption

**Quadratic Extrapolation**
- Second best data fit (R² = 98%)
- 69 Million Pax by 2041
- Indefinite growth assumption

**Cubic Extrapolation (S-Shaped Curve)**
- Best data fit (R² = 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?**

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Source data: CLIA (2010)
Another Forecast
A PLC-Based Forecasting Model

Beginning of the 2030’s the German market will start to experience stagnation with a penetration rate of 6.7%

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!
Balance Sheet Analyses (RCL & Carnival) 2007*

Dependence on Onboard Revenue

Billions of US$ (nominal)

Ticket Revenue Other operating Commiss./transport Marketing Payroll Depreciation Food Onboard Revenue Onboard expenses EBIT

Billions of US$ (nominal)

Ticket Revenue Other operating Commiss./transport Marketing Payroll Depreciation Food Onboard Revenue Onboard expenses EBIT

© Alexis Papathanasssis * Source: Vogel (2008)
Competition on land monopoly at sea
Balance Sheet Analyses (RCL & Carnival) 2011*

Dependence on Onboard Revenue

© Alexis Papathanassis
* Source: Vogel (2012)
Balance Sheet Analyses (RCL & Carnival) 2011*
Cost-Saving Pressures?!

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

© Alexis Papathanasssis  * Source: Vogel (2012)
Profit margins have decreased by approx. 4% over the last decade and are following a downward trend.
“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)
The age of online transparency has arrived... What happens at sea does not stay at sea anymore!
Perhaps the ‘evil eye’ is not a superstition...

... But a metaphor for the inevitability of systemic laws in the age of a technological diffusion and digital democracy!
Thank You for your Attention

- **Research Functions:**
  - Founder & Chairman of the Cruise Research Society ([http://www.cruiseresearchsociety.com](http://www.cruiseresearchsociety.com))
  - Co-Director of the Institute for Maritime Tourism (IMT) ([http://www.imt.hs-bremerhaven.de/](http://www.imt.hs-bremerhaven.de/))

- **Administrative Functions:**
  - Dean of Studies – Faculty of Business & Economics
  - Chairman of the CIM Examinations Committee
  - Member of the CIM Study Affairs Committee
BACKUPs

- **Clean Ships?**
- **Sweatships?**
- **Friends of the Earth Scorecard**
- **References**
**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

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**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

*Source: Ross (2009)*
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

* ITF (2001)
### Friends of the Earth: 2010 Cruise Ship Report Card*

<table>
<thead>
<tr>
<th>Cruise Lines</th>
<th>Sewage Treatment</th>
<th>Air Pollution Reduction</th>
<th>Water Quality Compliance</th>
<th>Web Enviro Info*</th>
<th>Change From 2009</th>
<th>2010 Final Grade</th>
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<td>no Alaska voyages</td>
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<td>n/a</td>
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</tbody>
</table>

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.

* Source: Friends of the Earth – http://www.foe.org/cruisereportcard
References