

ECONOMIC CRISIS AND GREEK CRUISE SECTOR FINANCIAL ANALYSIS

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In this study we analyze the tendencies of the cruise sector in Greece during the last eight years -in which the economic crisis predominates. The financial ratio analysis shows that cruise sector in Greece has been facing a downward tendency from 2008 to 2014, with serious financial problems. Our case study is the Cypriot cruise company Celestyal Cruises (former Louis Cruises), which reflects to a considerable extent the Greek cruise market, since it has operating offices in Greece and pays taxes to the Greek state.

The results of the financial analysis for the years 2007–2014 show that total Assets and Liabilities have decreased over the eight years of study. Revenues declined to 70% and Operating results to 45%. Return on Equity and Return on Assets declined rapidly, up to -60% and -11.60% respectively, and Liquidity ratios have worsened in 2014 (between -40% to -70%). The Net Profit in 2007 turned rapidly in the following years, to Net Losses, up to -33,95%, which were constrained in 2012, 2013, and even more in 2014 (-0.45%), while Interest expenses increased to 260% by 2014.

Keywords: *financial analysis, cruise sector, economic crisis, Greece.*

JEL: G140, L830, M100

THE CRUISE MARKET IN NUMBERS

Cruise tourism is one of the most dynamic sectors of modern tourism, with prospects of continuous and rapid growth playing an important role in the economies of the countries where it has developed (Diakomihalis et al., 2009; Vaggelas & Stefanidaki, 2015). The cruise industry began to develop in 1980 and has continuously expanded worldwide. However, it is not necessarily growing with the same pace in all countries of Europe and likely not is in Greece.

During 2014, there were 42 cruise lines domiciled in Europe, operating 123 cruise ships with a capacity of around 146,000 lower berths. Another 60 vessels with a capacity of around 89,000 lower berths were deployed in Europe by 18 non-European lines. The vast majority of these cruises visited ports in the Mediterranean, the Baltic, and other European regions, generating 29 million passenger visits at a total of around 250 European port cities, a decrease of 7.1% from 2013. In addition, an estimated 14.4 million crew also arrived at European ports. As a result of the European cruise operations and the investment in new cruise ships by the global cruise industry, this industry generated significant economic impacts throughout Europe (ECC, 2015).

The world economic crisis appears to affect individual markets of the cruise industry, mainly those that are supported by the clientele markets of countries that have suffered important consequences of the crisis. Within the framework of this reflection, the investigation of the course of the Greek cruise industry over the last eight years is attempted.

According to Cruise Lines International Association's (CLIA) European 2015 Economic Contribution Report, the cruise industry's

economic output in Europe reached a new record of €40.2 billion in 2014, up 2.2% from the previous year, and included €16.6 billion in terms of direct expenditures by the industry. Greece is the third most popular destination in the Mediterranean, with 4.075 million passenger visits in 2014: 14.1% of the total cruise passenger visits to Europe (CLIA Europe, 2014). Despite its high ranking, Greece has not succeeded to materialize its attractiveness into similar revenues as the country was eighth place in 2014 with regards to the cruise industry's direct expenditures at €506 million, a 3.05% share of the total (2014), according to figures released by the ECC (<http://news.gtp.gr>). Greece serves primarily as a destination market with some cruise maintenance activities. The cruise industry in Greece created 10,136 jobs with an estimated €190 million in total compensation for employment.

Table 1 presents the direct expenditures of the cruise sector in Greece for the years 2008 to 2014:

Table 1: Direct Expenditures of the Cruise Sector in Greece, 2008 - 2014							
	2008	2009	2010	2011	2012	2013	2014
Direct expenditures (in million €)	471	598	580	605	588	574	506
Share of Total Europe	3.3%	4.30%	4.00%	4.00%	3.80%	3.55%	3.05%

Source: Authors' elaboration of European Cruise Council (ECC) data, 2008- 2014

Table 2 presents the passengers embarkations in Piraeus for the years 2008–2014:

Table 2: Piraeus Home Port, 2008-2014, Passengers embarkations						
2008	2009	2010	2011	2012	2013	2014
1.290.000	1.500.000	1.210.000	1.560.000	1.198.047	1.302.581	1.055.556

Source: ECC, 2009 - 2014

The objective of this paper is to analyze the evolution of the Greek cruise market over the last eight years. Since there are no Greek owned cruise operators and Louis Cruises (renamed to Celestyal Cruises) is the Cypriot cruise company which has operating offices in Greece and pays taxes to the Greek state, it is considered the only Greek cruise company, despite flying the flag of Malta. Besides it is the only cruise company that offers both itineraries in the Aegean and Ionian seas with homeporting Greek ports, and itineraries in the Mediterranean with homeporting in Cyprus or Italy, which produces approximately 60% of cruises in the context of the Greek market. For all the aforementioned reasons, we select the case study of Celestyal Cruises financial analysis. The purpose of the analysis is to reveal how Celestyal Cruises (Louis Cruises), which reflects to a considerable extent the Greek cruise market, is affected by the economic crisis in Greece and by the overall cruise market economic development.

THE CRUISE SECTOR IN GREECE

The cruise industry in Greece consists of programs including Greek ports as part of Mediterranean cruise itineraries, and cruises mainly in the Greek territory of the Aegean and Ionian seas (Diakomihalis, 2009). The Greek cruise market is considered part of the East Mediterranean market, including four destinations: 1) Aegean Sea; 2) Black Sea; 3) Eastern Mediterranean (Cyprus, Holy land, Egypt); and 4) Venice, Adriatic, Ionian Sea. Piraeus is one of the seven leading European ports with respect to embarkations, with 1,055 million passenger embarkations in 2014 (ECC, 2015).

The number of passengers that disembarked on Greek cruise destinations from circular cruises that homeported in Greece increased in 2009, declined in 2010 almost to the level from 2008, but showed remarkable increase in 2011, which exceeded the level of 2009. The duration of stay of the cruisers at the Greek ports ranged

from 5–6 h (Katakolo, Iraklio) to 9 h (Corfu), and 10 h (Rhodes, Piraeus). Of them, 20% of the cruisers (17 of the 84 recorded cruisers) remained at the port of Piraeus for at least 24+ hours (Diakomihalis, 2009; Diakomihalis et al., 2009:9).

In terms of employment, there were 10,136 jobs attributed to direct, indirect and induced work activity in the cruise sector, for 2014, and 11,215 jobs for 2013, accounting for 3.3% of the total 348,930 jobs in the cruise industry in Europe, and 2.9% of the 339,417 jobs in the cruise industry in Europe, respectively. Approximately 23.5% of these jobs were in manufacturing, 19.2% were in Financial and Business services, 12.5% were in the transportation sector and the remaining 45% in all other sectors.

METHODOLOGY

The methodological approach constitutes a financial analysis of the producers of Greek cruises, evaluating the asset structure, capital structure, liquidity, activity, and efficiency. The frame of reference required for our analysis is grounded on recent years' evolution of the main economic values of the cruise industry in Greece.

The focus of our study is on Celestyal Cruises as it is reflecting the Greek cruise market. Data were obtained from the consolidated financial statements including the five cruise ships owned by Celestyal Cruises, former Louis Cruises group. This is considered a main limitation of the present study, since there are a lot more cruise firms offering itineraries in Greece, which though, have neither any financial obligation to the Greek state nor significant effect on the GDP of Greece.

The study period selected is from 2007, the last year before the economic crisis trigger, up to 2014. In 2014 the economic crisis remained, and, with the same severity as the previous five years in Greece.

FINANCIAL ANALYSIS

The basic accounting figures for this period of study are presented per account aggregated in the following table:

Assets								
Accounts	2007	2008	2009	2010	2011	2012	2013	2014
Deposits	34.130	14.680	15.020	29.680	11.650	20.330	18.620	19.570
Receivables	42.560	55.030	49.510	52.640	61.760	46.690	48.700	20.560
Other assets	32.150	40.600	27.100	26.500	82.960	57.600	55.250	30.940
Vessels, property & equipment	517.080	617.170	643.930	593.730	467.930	457.360	443.360	474.150
Non-current assets	84.950	85.870	87.000	94.980	88.000	86.030	85.920	87.370
Total Assets	710.870	813.350	822.560	797.530	712.300	668.030	651.860	632.600
Liabilities & Equity								
Accounts	2007	2008	2009	2010	2011	2012	2013	2014
Total Equity	293.390	245.830	255.020	236.980	137.510	100.440	71.530	64.650
Trade & other payables	41.940	59.970	54.570	58.620	66.730	60.920	55.890	30.460
Other liabilities	88.000	124.960	100.040	121.840	163.930	160.220	188.220	194.000
Borrowings	143.990	313.710	340.150	311.460	281.680	110.620	98.750	104.260
Non-current liabilities	143.550	68.880	72.780	68.630	62.450	235.830	237.470	239.230
Total equity & liabilities	710.870	813.350	822.560	797.530	712.300	668.030	651.860	632.600

From the above Table 3 we derive some very important and interesting information concerning the influence of the economic crisis on the Greek cruise sector, and specifically how the Assets, the Liabilities and the Total Equity have been affected during the eight years of the study:

- ✓ Large drop in cash flow in 2008. Besides, cash has increased sharply in 2010 to pursue a more significant drop in 2011 and a nearly constant position in the next three years.

- ✓ The level of Receivables followed a mixed trend with continuous variations to reach the highest point of the eight years in 2011 and the lowest in 2014.
- ✓ Ships are the greatest part of the assets and showed an upward trend until 2009 and decrease in 2010. The value appears almost stable during the next four years, mainly because of the economic crisis that has pushed down the value of assets. Two vessels were excluded in 4 of the 8 years of the period under investigation due to the fact that the “Aegean Pearl” in May 2010 and the “Aquamarine” in December of the same year changed owner and geographical area of activity.
- ✓ The fall in value observed in owners’ equity from 2011 onwards is noteworthy. This is mainly due to capitalisation of accumulated losses from previous years.
- ✓ Liabilities toward suppliers show a slight upward trend up to 2011 and in subsequent years, which are reduced almost by half.
- ✓ Within the eight-year period, other short-term liabilities have increased more than twice.
- ✓ Long-term bank debt had increased significantly by the year 2010, while it was reduced in the last four years, to a lower level than that of 2007.
- ✓ Non-current liabilities show significant reduction up to 2011. The opposite happened from 2012 to 2014.

The development of the basic values of the profit and loss statement is presented below:

Accounts	2007	2008	2009	2010	2011	2012	2013	2014
Revenue	314.750	273.160	267.590	275.670	244.290	193.890	205.170	226.850

Expenses	257.960	233.070	207.390	219.780	198.330	157.200	154.370	164.900
Operating profits	56.790	40.090	60.200	55.890	45.960	36.690	50.790	61.950
Finance expenses	23.940	25.100	29.330	23.120	25.330	25.800	25.080	25.330
Loss for the year	13.290	-31.140	-13.510	-10.240	-82.940	-40.190	-29.530	-1.030

Table 4 gives some very important and interesting information concerning the Income, the Earnings and the Losses of the Greek cruise sector as they are depicted during the eight years of the study and under the influence of the economic crisis:

- ✓ Revenue derived largely from cruise ticket sales reached in 2012 the lowest level of the eight years, while the last two years show slightly recovery. This is due firstly to the sale of two cruise ships and, on the other hand, the forced dislocation of another ship because of political turmoil in Egypt. A series of unfortunate affairs in the summer of 2011 in Athens and Piraeus (strikes) have also been affected negatively, as well as the intensity of competition across the Mediterranean.
- ✓ In 2011 there was a notable reduction in operating costs, which continued up to 2014.
- ✓ Financial expenses (payments for interest on loans) is relatively stable throughout the eight years.
- ✓ The operating profitability (profit before tax, interest and depreciation, EBITDA) during the whole period under examination remained at satisfactory levels and at a relatively stable level.
- ✓ 2007 is the one and only financial year with net profits. The rest of the seven years showed steady losses, reaching in 2011 the highest value of almost 83 million euros, mainly due to non-operating results and exceptional provisions for debtors

and for settlement for a vessel purchase, totalling approximately 20 million euros. A continuous decrease in losses followed in the upcoming years that reached its minimum in 2014.

FINANCIAL RATIO ANALYSIS

The major financial ratios of the company are calculated, presented, and assessed in the following section. The time period of the analysis is the years 2007–2014.

Ratios of assets' structure

The ratios of assets structure of the cruise industry for the period under examination, are given in the following table:

	2007	2008	2009	2010	2011	2012	2013	2014
Fixed asset ratio	84.70	86.40	88.90	86.40	78.00	81.34	81.20	88.76
Fixed to current asset ratio	553.20	702.80	797.80	632.90	355.50	535.97	531.78	889.98

The fixed asset ratio until 2010 followed a constant trend, varying around 85%. This value is very high and shows the difficulty in assets liquidation. In 2011 the ratio fell to 78% despite the reduction of assets, due to the sale of two cruise ships and the impoverishment of the value of the remaining, as a consequence of the economic crisis. Similarly, the ratio of fixed-to-current assets is characterized by a corresponding trend, while in 2011 the ratio is reduced in nearly half compared to the previous year, but reached its highest value in 2014. The very large values of the ratio, which are far higher than 100%,

show that the industry is clearly fixed-asset intensive, although the purpose of the industry is the provision of services.

Capital structure ratios

The following ratios have been estimated:

	2007	2008	2009	2010	2011	2012	2013	2014
Leverage	142.30	230.90	222.50	236.50	418.00	565.10	811.31	878.50
Financial autonomy	41.30	30.20	31.00	29.70	19.30	15.04	10.97	10.22
Foreign capital stress	58.70	69.80	69.00	70.30	80.70	84.96	89.03	89.78
Debt interest coverage	237	160	205	242	181	142	203	245

The leverage ratio shows the extremely high exposure to foreign borrowing. It is consistently greater than 100% and shows the high dependence on foreign capital. Leverage has been growing steadily in all of these years, and in 2014 after the capitalization of high losses attributed to the economic crisis, the ratio has skyrocketed to 878%. This raises serious risks and questions for future funding in view of the economic crisis and the resulting difficulty in gaining access to bank lending. If the industry seeks new capital, it will be forced to turn to its shareholders. The sector seems to have exhausted the scope of financing and certainly would require another rationalization in the administration of leverage.

The above conclusions are reinforced by the analysis of the ratio of financial autonomy, as well as its additional ratio of foreign capital stress. These ratios show the small degree of dependence of the industry from equity capital. The downward trend that continued up to 2014 intensifies the concerns and certainly requires action in order to increase the degree of autonomy and reduction of foreign capital stress.

Throughout this bleak shape for the capital structure of the cruise industry as indicated by the leverage and economic autonomy ratios, the debt interest coverage ratio highlights the contrast. For the eight-year period under review the industry manages to cover the interest payments from operating profitability and thus succeeds not to pose a far greater risk to the credit rating of the sector.

The positive impression of the industry in this area is reflected in the depiction of debt interest coverage earned by operating profits. However, it is not enough to reverse the unfavourable image in regards to the capital structure, which is in poor condition. Financial autonomy in 2014 has fallen four times compared to 2007, and foreign capital stress has increased 50% for the same period of time.

Liquidity ratios

The liquid ratios of the sector for the period 2007 – 2014 are presented in the following table:

	2007	2008	2009	2010	2011	2012	2013	2014
General liquidity	0.84	0.60	0.59	0.60	0.68	0.68	0.56	0.50
Current liquidity	0.59	0.38	0.42	0.46	0.32	0.30	0.28	0.18
Cash liquidity	0.26	0.08	0.10	0.16	0.05	0.09	0.08	0.09

The general liquidity ratio is continuously worsened through the whole period under review. The ratio takes values well below the unit and it is far away from a satisfactory value. In fact, if the conclusions drawn from the above analysis of the leverage are taken into account, it is likely very possible to encounter serious difficulties if it is necessary to repay short-term liabilities.

The sufficient amount of inventory stocks reduce even more the cash ratio liquidity reflecting the fact that the liquidity problem is even more acute.

The cash liquidity ratio reflects a similar image with very low liquidity in relation to the short-term liabilities, except for the year 2007. In the case where liabilities will become immediately due, major problems will appear in repaying them.

Summarizing the above analysis, it becomes obvious that the liquidity problem is very serious for the total period of eight years.

Activity ratios

The activity ratios under study are presented in the following table:

	2007	2008	2009	2010	2011	2012	2013	2014
Inventory turnover ratio	9.79	7.51	7.90	10.29	4.46	2.76	3.64	5.26
Days of inventory stay	37	49	46	35	82	132	100	69
Receivables turnover ratio	7.40	5.00	5.40	5.20	4.00	4.15	4.21	11.03
Days of receivables stay	49	74	68	70	92	88	87	33
Debtors turnover ratio	7.50	4.60	4.90	4.70	3.70	3.18	3.67	7.45
Days of credit	49	80	74	78	100	115	99	49
Asset Turnover Ratio	0.44	0.34	0.33	0.35	0.30	0.29	0.31	0.36
Owner's Equity Turnover Ratio	1.10	1.10	1.10	1.20	1.80	1.93	2.87	3.51
Cash Turnover Ratio	38	42	40	27	75	105	87	53

There is the conservation of inventory that is manageable, and thus manageable to satisfactory use. The number of days required for recycling inventory is small. The effective or ineffective use of inventory is not sufficient evidence of the effectiveness of the overall management, since the analysis concerns service providers.

Receivables turnover ratio follows a general downward trend up to 2011, followed by an upward trend from 2011 to 2014. This is reflected in the increase of the number of days, followed by a drop to a minimum of 33 days, required to receive claims from customers,

demonstrating the change in the receivables collection within the eight-year period.

The debtors' turnover ratio has been reduced for the seven out of the eight-year period of study, but increases in 2014 to the level of 2007. Respectively, the days of credit had increased up to 2012 and reached down to the levels of 2007 in the last year.

Receivables turnover ratio is greater than debtors' turnover ratio with the exception of 2007. This shows a positive situation for the industry, since the time required for the payment of suppliers is longer than the time of collecting claims from customers. Thus, the management of short-term assets and liabilities is satisfactory.

The asset turnover ratio kept falling from 0.44 in 2007 to 0.29 in 2012, mainly because of the large increase in assets after 2008 and the subsequent non-raising of the revenue. In the last two years the ratio increased and almost reached the level of 2007. Nevertheless, the values of the ratio cannot be described as highly satisfactory in the intensity of assets used in the industry.

On the other hand, sufficiently high is the Owner's Equity Turnover Ratio with an extraordinary increase from 1.10 in 2007, 2008 and 2009 to 3.51 in 2014. However, this increase is not due to an improvement in sales but mainly to a substantial fall in the value of the denominator, i.e., capital. Thus, the theoretically good trend is rejected in practice because of the causes that led to this trend.

Finally, the Cash Turnover Ratio followed by a constant downward trend until 2010, which is due mainly to the increase in the days of credit and an upward value in 2011 and 2012, which continued in 2013, to decline again in 2014. This increase shows the consequences of the economic crisis and cash shortage, while the reduction marks the beginning of the sector recovery.

Profitability ratios

The profitability of a company is of high and direct interest of its shareholders as well as its creditors and employees.

The profitability ratios, which have been calculated and analyzed in this work are:

	2007	2008	2009	2010	2011	2012	2013	2014
Gross profit margin	18.00	14.70	22.50	20.30	18.80	18.92	24.76	27.31
Net profit margin	4,22%	- 11,40 %	-5,05%	-3,71%	- 33,95 %	- 20,73 %	- 14,39 %	- 0,45%
Return on Equity (ROE)	4.50	-12.67	-5.30	-4.32	-60.32	-40.01	-41.28	-1.59
Return on Assets (ROA)	1.90	-3.83	-1.64	-1.28	-11.64	-6.02	-4.53	-0.16

The first observation concerns the maintenance of positive gross profit results throughout the eight years. After the fall of 14.70% in 2008, an upward trend followed to result in greater value in 2014, at 27.31 %. Therefore, the management over time might be considered satisfactory and the cost of the services provided might be considered as efficiently used for the sales volume.

Nevertheless, the other sizes of profit and loss account are not sufficient to maintain the operating profitability for the industry. So, with the exception of 2007 all other financial years resulted in losses. Therefore, the other three profitability ratios have been calculated for the other years just to reflect the level of losses.

DISCUSSION - CONCLUSIONS

The results of all financial years, with the exception of 2007, were loss-making. Losses peaked in 2011, although this was due in

large part to an exceptional provision against risk of non-recovery. However, throughout the period in question noted operating profitability (positive gross profit), sufficient to cover financial liabilities.

The analysis of the financial ratios showed some significant structural problems of the sector, such as the difficult situation of liquidity for the whole period. The short-term liabilities exceeded constantly the current assets. The industry operated with negative working capital, which is very difficult in general, but particularly for a services supplier sector.

In direct connection with the adverse liquidity is the very high leverage observed. Foreign capital outweighs constant owners' equity with the gap getting wider and culminating in 2014 following a capitalization of past year's losses. The difficult stock market situation due to the economic crisis does not leave much room for the increase in share capital, which may lead the industry to an extremely difficult position in the case of required additional funding. Due to the failure of banks to finance companies with high degree leverage, the options of restructuring capital structure of the industry should be considered.

The use of the assets and liabilities of the sector is relatively satisfactory. This has the effect of creating a positive time gap between receipts from customers and payment liabilities to suppliers. The cash turnover ratio is also considered satisfactory.

Generally, the analysis showed that the industry in this area is obviously influenced more than in other regions by the crisis. The losses continued from 2008 onwards and peaked in 2014. The liquidity is recorded in difficult level while the high leverage leaves no scope for access to bank lending in the future, and the credit risk of the industry gradually deteriorating.

The industry of the Greek cruise is already and remains to be facing the consequences of the economic crisis. The economic circumstances have affected the contraction of the industry, which has

been reflected by the reduction of the fleet offering itineraries in the Aegean and Ionian seas. The market value of active cruise ships has also fallen to clear negative effect on fixed assets.

As mentioned earlier, the case study of only one cruise company is a significant limitation of this research, even though it might be considered the only company connected to the Greek cruise sector. On the other hand, it is not possible to include any financial data from the fifteen other firms offering itineraries in Greece, since their ownership and taxation status concerns different countries and required data are neither obtainable nor comparable.

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