Eurozone, Corporate Governance and Corporate Restructuring in Shipping

Thalassinos.I. Eleftherios, Zampeta. S. Vasiliki

Abstract— The main aim of this paper is to investigate the latest developments in European Union (EU), the new corporate governance schemes, as they are imposed by the capital markets and the corporate restructuring in the shipping sector in the new European financial environment (Basel I, II and III).

European Monetary Union (EMU) is expected to influence the corporate governance and the corporate structure of the financial institutions by imposing new borrowing criteria for major clients among them shipping companies. Immediately after the establishment of EMU some new initiatives have been approved leading to a better system in terms of corporate structure and control. Among these initiatives were, an action plan for financial services, concerning the corporate law and the corporate governance for the enforcement of the obligatory accounting control and some initiatives related to structural organization in all borrowing stages.

These developments forced the financial institutions to impose new borrowing criteria as well as more detailed controls in loans. Shipping industry, a highly capital intensive sector, has to follow closely these developments in order to keep in track with the banking industry. In addition shipping industries have to adjust their organizational schemes to fulfil these requirements in the best possible way.

The present study grasps on a doctoral thesis aiming to analyze the adjustments associated with these developments of the Greek owed shipping companies and how these adjustments have been evaluated by the top management based on a market research we have contacted.

Index Terms— Corporate Governance, corporate restructuring, shipping industry, EMU, European banking industry

JEL classification: G3, F3, M14

I. INTRODUCTION

The foundation and the establishment of European Monetary Union (EMU) in 1999 commence an era where both monetary and fiscal policies in the Eurozone became more coordinated. Capital markets represent the economic conditions in each country and thus capital markets in EMU should be more integrated as a result of more similar conditions across the countries. Additionally, during recent years there has been a

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positive progress towards financial integration in the EU with the implementation of single market legislation. Corporate governance has been a crucial issue regarding the independent performance of public and private industries in Eurozone among them the shipping industry as well.

Moreover, the shipping industry had to adjust its structure to a modern more legislative way compare to the period before the European integration.

The EU's stock markets are still governed by different legal systems and other major obstacles such as legal, regulatory, tax or technical obstacles to cross border activity within the EU result in some degree of segmentation.

To date, several methods have been developed in dealing with this challenge. The fields of international macroeconomics and international finance have developed differently but related methodologies to test financial integration, ranging from simple empirical methodology tests to more complex models such as time series models, asset pricing models and others.

Therefore, in order to investigate the macroeconomic and financial environment where a shipping company operates, it is required to check the surrounding measures related to recent developments either from international institutions, organizations, public authorities or the private sector regarding the methodologies of evaluation that have been used immediately after the harmonization in Eurozone.

II. LITERATURE REVIEW

The importance given to the subject of corporate governance and corporate restructuring in shipping reflected by the extensive and recent research on business issues such as organization, leadership, ownership structure, strategy development and financial management. Despite the growing stream of related studies, research on corporate governance in shipping sector remains still understudied. The empirical findings of the reviewed studies should be treated with caution, since theoretical frameworks in corporate governance have been in progress. The most important findings based on resent literature is analyzed as follows.

Syriopoulos and Tsatsaronis (2011) supported that a fundamental prerequisite for a shipping company to get listed on a stock market is its compliance with a core set of practices of corporate governance. They said that the effectiveness of corporate governance mechanisms has been a matter of debate in academic research with contradictory empirical conclusions. The main internal control mechanism, namely managerial monitoring by BoDs, has been criticized for being ineffective and the directors for being "hostages" of CEOs, whom they are supposed to monitor.

They also proved that in many countries with a large maritime sector, family-owned firms account for the largest proportion of maritime business. This seems to apply both for listed and non-listed maritime companies. Many of the firms have been able to remain family owned for decades despite high risk, volatility and capital intensity. This is the case in Greece where the great majority of shipping firms are family-owned, basing their internal integration on a strong corporate culture. Koufopoulos *et al.* (2010) indicate the current corporate governance practices in Hellenic shipping companies illustrating the roles of Board of Directors in the corporate strategy process, the relationship between the board, the CEOs and the top management. They have also evaluated the importance of each component of Corporate Governance in the performance of the company.

Syriopoulos (2010) found that shipping companies, which were previously private and family-owned firms, are transformed into publicly listed, in well-established stock exchanges being multi-shareholder entities after some years of operation especially in the last two decades.

Merikas *et al.* (2012) have argued that shipping companies have to adjust to a dynamic and rapidly changing environment, appropriate financial methods and tools. In addition they should be available to increase funding and implementation of vital investment funds, to seek for new innovative financial ways and to adjust their financial structure according to the latest developments in the international capital markets.

Solomon (2007) argued that there was a change towards a stakeholder-centric perspective as some researchers contend that the traditional Anglo-American view of the firm's objectives is too narrow and it should be extended in order to include the interests of other non-shareholding stakeholders such as employees, community groups, governments.

According to the Green Paper Promoting a European framework for Corporate Social Responsibility (CSR)' by the European Union, CSR is essentially a concept whereby companies decide voluntarily to contribute to a better society and a cleaner environment and a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis (Commission of the European Communities, 2001).

The majority of Hellenic-owned publicly listed companies apply a corporate governance model based on a concentrated ownership structure with major shareholders directly represented on the Board of Directors or even holding managerial positions themselves as it has been pointer out by Theotokas (2007); Harlaftis and Theotokas (2004); Thalassinos (2010); Zampeta (2011) and Thalassinos and Zampeta (2012). The family tends to have a high degree of control, either through large ownership stakes or through strong influence on decisions.

Syriopoulos and Theotokas (2007) investigated the implications of corporate governance mechanisms for shareholder value in corporate takeovers, adopting an 'event study' methodology for Stelmar Shipping Ltd, an international tanker company, publicly listed on the NYSE since March 2001.

Syriopoulos (2007) has found that the fundamental business strategy of shipping companies in recent years is the gradual shift from simple profit maximization to the increment of firm market value. This is probably the model followed by the shipping industry because of the developments in the global financial environment.

III. EUROZONE DEVELOPMENTS

A change in the way the European Union measures Gross Domestic Product (GDP) has left governments with slightly smaller deficits and debts. Many governments increased their borrowing and thus sovereign debt levels, while at the same time the tax revenues declined. The expenditures increased and the fiscal deficits were enlarged.

The most significant change is that spending on research and development—whether by companies or the government—will be counted as an investment that creates value or assets for the future, just like spending on new machinery or infrastructure. Previously, this was recorded as "intermediate consumption" meaning it was deemed to be consumed at the end of each year or quarter. Another boost to GDP figures will come from a similar change in the treatment of military expenditure, which will also be viewed as an investment for the future.

The average fiscal deficit in Eurozone in 2007 was only 0.6 per cent before it augmented to 7.0 per cent during the financial crisis as it is shown in Figure 1 below.

In the period 1995-2011 the Eurozone Budget Deficit curve has three clear segments. From 1995 to 2000 there was a remarkable decrease in budget deficit from 8% to 0%, then an increase to almost 4% in 2004 and back to 1% in 2007. The Eurozone crisis created high deficits again in the period of 2008-2010, the figure was close to 7% and back again to 4% in 2011.

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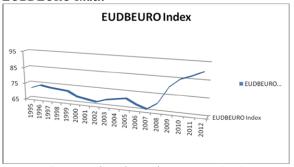
Figure 1: The Fiscal Deficit in Eurozone as a EUBDEURO Index

Source: Eurostat 2012, the statistical office of the European Union

Generally, Government Debt as a percent of GDP is used by investors to measure a country's ability to make future payments on its debt, thus affecting the country borrowing costs and government bond yields.

The budget deficit in the Eurozone, as an Optimum Currency Area (OCA), as shown in Figure 2 is also important to be mentioned. Needless to say that the Eurozone sovereign debt to gross domestic product ratio for the year 2010 reached 85 per cent, almost 90 per cent in 2012, which is about the same level with that of the US economy, however much above the 60 per cent level of the Maastricht Treaty. Furthermore, the debt of the private sector across Eurozone is significantly higher compared to highly force Anglo-Saxon economies.

Figure 2: The Sovereign Debt as % of GDP in Eurozone as a EUBDEURO Index



Source: Bloomberg Finance L.P., 2012

IV. THEORETICAL FRAMEWORK

From a theoretical or an empirical point of view, many studies analyze the linkages among national stock market indices. The empirical results usually testify to significant correlation between markets located in near geographic areas. This is frequently attributed, among others, to a number of different factors such as the relaxation of controls on capital movements and foreign exchange transactions, improvements in computer and communication technology that have lowered the cost of cross border information flows and financial transactions and expansion in the multinational operations of major corporations.

This globalization of financial transaction has meant that stock markets are becoming more synchronized and the adjustment delays in international prices are increasingly shorter (Thalassinos *et al.* 2013) These developments have affected the shipping financing criteria, the availability of funds as well as the corporate structure of the shipping industry.

Based on the market analysis conducted for this research, a Corporate Governance Index in Shipping has been calculated consisting of five major items (five sub-indices as described below) related to CG as they are indicated in the definition given by OECD (May 1999) according to which: "Corporate governance is the system by which business corporations are directed and controlled. The corporate governance structure specifies the distribution of rights and responsibilities among different participants in the corporation, such as, the board, managers, shareholders and other stakeholders, and spells out the rules and procedures for making decisions on corporate affairs. By doing this, it also provides the structure through which the company objectives are set, and the means of attaining those objectives and monitoring performance. "In general, it refers broadly to the rules, processes, or laws by which businesses are operated, regulated, and controlled".

Corporate Governance is crucial in every major strategic and operational decision (Lambertides and Louca, 2008).

V. EMPIRICAL RESULTS

Corporate Governance

A Corporate Governance Index (CGI) in Shipping has been used and is consisting of five sub-indices, the Board of Directors index, the Ownership index, the Procedures index, the Transparency index and the Defense index following Thalassinos (2010). The present study has used the results of a market research consisting of 56 questionnaires among top executives in the Greek shipping industry covering the period 2001-2015. Based on this analysis we have concluded the following results:

Conclusions Based on CGI and Financial Indices for all Shipping Companies participating in the sample.

2011: Total Sample:

Significant variables for ROE: External investor share >10%, Ownership index and Defense index.

Significant variables for ROA: CEO Chairman of BoD, CEO ownership, External investor share >10%, Ownership index.

Significant variables for TOBINS'Q: Members of BoD, External investor share >10%.

Significant variables for MARKET CAP: Members of BoD, CEO share < 10%, External investor share >10%, ownership index, procedures index, CG index.

Significant variables for STOCK PERF: External investor share >10%.

2012: Total Sample:

Significant variables for ROE: % of non-Exec BoD members, External investor share >10%.

Significant variables for ROA: External investor share >10%.

Significant variables for TOBINS'Q: CG index.

Significant variables for MARKET CAP: Members of BoD, External investor share >10%, CG index.

Significant variables for STOCK PERF: External investor share >10%.

Based on the findings above the final conclusion is that the External investor share> 10% is by far the MOST important variable for the TOTAL SAMPLE's financial indices.

Conclusions Based on CGI and Financial Indices for the Greek Shipping Companies participating in the sample.

2011: Greek Shipping Companies Sample:

Significant variables for ROE: External investor share >10%, Ownership index and Defense index.

Significant variables for ROA: CEO Chairman of BoD, CEO ownership, External investor share >10%, Ownership index.

Significant variables for TOBINS'Q: Members of BoD, External investor share >10%.

Significant variables for MARKET CAP: Members of BoD, CEO share < 10%, External investor share >10%, Ownership index, Procedures index, CG index.

Significant variables for STOCK PERF: External investor share >10%.

2012: Greek Shipping Companies Sample:

Significant variables for ROE: % of non-exec BoD members, External investor share >10%.

Significant variables for ROA: External investor share >10%.

Significant variables for TOBINS'Q: CG index.

Significant variables for MARKET CAP: Members of BoD, External investor share >10%, CG index.

Significant variables for STOCK PERF: External investor share >10%.

As in the case above referring to the total sample of shipping industries participating in the sample the External investor share > 10% is by far the MOST important variable for the GREEK SHIPPING COMPANIES SAMPLE's financial indices.

Econometric Analysis

In addition to the analysis above regarding the Corporate Governance Index, the present study has analyzed macroeconomic and international trade figures in order to justify other findings from the initial research in general and the existence of a structural change in particular using Panel Data Analysis. In fact it has analyzed two different groups of countries in Eurozone, the South West Euro Area Periphery-5 consisting of Portugal, Italy, Ireland, Greece and Spain (SWEAP-5 or PIIGS) and the North Euro Area Center-6 consisting of Belgium, Germany, France, Austria, Finland and the Netherlands (NEAC-6 or CORE). The results are shown in Tables 1-6 below.

Conclusions Based on Econometric Analysis of International Trade with Panel Data Analysis Fixed Effect without Cross Section (Tables 1-2).

Table 1: Model 1.1: Fixed Effects without Cross Section SWEAP-5

Dependent Variable: CA?

Method: Pooled EGLS (Cross-section SUR)

Date: 01/24/15 Time: 21:45 Sample (adjusted): 2003 2013

Included observations: 11 after adjustments

Cross-sections included: 5

Total pool (balanced) observations: 55

Iterate coefficients after one-step weighting matrix

Convergence achieved after 34 total coef iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	-0.011037	0.007743	-1.425329	0.1610
ROG?	-0.199927	0.063793	-3.133991	0.0030
INF?	-0.552263	0.126247	-4.374466	0.0001
CA?(-1)	0.556845	0.125483	4.437604	0.0001
@RECODE(@YEAR>20	11,			
1, 0)	0.027530	0.005734	4.801344	0.0000
AR(1)	0.458767	0.164148	2.794842	0.0076
Fixed Effects (Cross)				
ELC	-0.013798			
ESC	0.000167			
PTC	-0.013493			
ITC	0.009898			
IEC	0.009898			
	Effects Spe	ecification		
Cross-section fixed (dum	<u> </u>	ecification		
Cross-section fixed (dum	<u> </u>			
Cross-section fixed (dum	my variables) Weighted	Statistics		
R-squared	my variables) Weighted 0.963320	Statistics Mean depe		2.115854
R-squared Adjusted R-squared	my variables) Weighted 0.963320 0.955984	Statistics Mean depersus S.D. depersus	ndent var	5.612483
R-squared Adjusted R-squared S.E. of regression	my variables) Weighted 0.963320 0.955984 1.069684	Statistics Mean deper S.D. deper Sum squar	ndent var ed resid	5.612483 51.49003
R-squared Adjusted R-squared S.E. of regression F-statistic	my variables) Weighted 0.963320 0.955984 1.069684 131.3139	Statistics Mean depersus S.D. depersus	ndent var ed resid	2.115854 5.612483 51.49003 2.038454
R-squared Adjusted R-squared S.E. of regression	my variables) Weighted 0.963320 0.955984 1.069684	Statistics Mean deper S.D. deper Sum squar	ndent var ed resid	5.612483 51.49003
R-squared Adjusted R-squared S.E. of regression F-statistic	my variables) Weighted 0.963320 0.955984 1.069684 131.3139	Statistics Mean deper S.D. deper Sum squar Durbin-Wa	ndent var ed resid	5.612483 51.49003
R-squared Adjusted R-squared S.E. of regression F-statistic	my variables) Weighted 0.963320 0.955984 1.069684 131.3139 0.000000	Statistics Mean deper S.D. deper Sum squar Durbin-Wa	ndent var ed resid	5.612483 51.49003
R-squared Adjusted R-squared S.E. of regression F-statistic	my variables) Weighted 0.963320 0.955984 1.069684 131.3139 0.000000	Statistics Mean deper S.D. deper Sum squar Durbin-Wa	ed resid tson stat	5.612483 51.49003

Table 2: Model 2.1: Fixed Effects without Cross Section NEAC-6

Dependent Variable: CA?

Method: Pooled EGLS (Cross-section SUR)

Date: 01/24/15 Time: 22:20 Sample: 2001 2013 Included observations: 13

Cross-sections included: 6

Total pool (balanced) observations: 78

Linear estimation after one-step weighting matrix

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Variable	Coefficient	Otd Error	t-Statistic	: Prob.	Variable	Coefficient	Std. Error	t-Statistic	Prob.
Valiable	COCIIICICIII	Olu. EIIUI	เ-อเสแจแน	FIUU.	С	-0.044829	0.004718	-9.502130	0.0000
ROG?	0.237806	0.033932	7.008231	0.0000	ROG?	-0.075776		-2.243141	
C	0.037682	0.001526	24.69214		INF?	-0.385649	0.081885	-4.709613	0.0000
INF?	-0.473765		-6.756697		EL (@RECODE(@YEAR>2011, 1,				
@RECODE(@YEAR>20		0.070110	0.100001	0.0000	(@rccobe(@rearv2011, 1, 0))	0.073925	0.019448	3.801114	0.0004
7,1,0)	-0.004696	0.001210	_3 880008	0.0002	ES	*******			
Fixed Effects (Cross)	-0.00 1 030	0.001210	-0.000000	0.0002	(@RECODE(@YEAR>2011, 1,				
BEC	-0.017072				0))	0.034339	0.014560	2.358476	0.0226
DEC	0.020274				PT (@RECODE(@YEAR>2011, 1,				
FRC	-0.035109				(@NEOODE(@1EAN>2011, 1, 0))	0.058760	0.017848	3.292180	0.0019
ATC	-0.005971				IT(@RECODE(@YEAR>2011,				
FIC	0.003971				1, 0))	0.026742	0.004422	6.047026	0.0000
-					IE(@RECODE(@YEAR>2011,		0.045070	0.000070	0.0056
NLC	0.036554				1, 0)) AR(1)	0.046131 0.629195	0.015870 0.080500	2.906870 7.816101	
	Effects Sp	acification			Fixed Effects (Cross)	0.023130	0.000000	7.010101	0.0000
	Lileus op	comoanon			ELC	-0.040147			
Cross-section fixed (dum	my variahles)				ESC	0.001163			
OTOGO GOGIOTI INCU (GUITI	my variables;				PTC	-0.030135 0.029928			
	Weighted	Statistics			== IT-C				
R-squared	0.953910	Mean deper	ndent var	3.510535		Effects Spe	ecification		
Adjusted R-squared	0.948567	S.D. depend	dent var	5.287819	Cross-section fixed (dummy varia	ables)			
S.E. of regression F-statistic	1.033137 178.5099	Sum square Durbin-Wat		73.64874 1.745497	Weighted Statistics				
Prob(F-statistic)	0.000000	Duibili-wag	3011 3tat	1.140431					
Unweighted Statistics		R-squared Adjusted R-squared	0.964520 0.955461	Mean deper	ndent var	0.461365 5.290274			
R-squared	0.596742	Mean deper	ndent var	0.028936	S.E. of regression F-statistic		Sum squar Durbin-Wa		57.48081 1.771849
Sum squared resid	0.031379			0.426758	Prob(F-statistic)	0.000000			
					Unweighted Statistics				
onclusions Based	on Econo	metric Ai	nalysis	of Inter	R-squared	0.885421	Mean depe		

Conclusions Based on Econometric Analysis of International Trade with Panel Data Analysis Fixed Effect with Cross Section (Tables 3-4).

Table 3: Model 1.2: Fixed Effects with Cross Section, SWEAP-5

Dependent Variable: CA?

Method: Pooled EGLS (Cross-section SUR)

Date: 01/29/15 Time: 12:11 Sample (adjusted): 2002 2013

Included observations: 12 after adjustments

Cross-sections included: 5

Total pool (balanced) observations: 60

Iterate coefficients after one-step weighting matrix Convergence achieved after23 total coef iterations

Table 4: Model 2.2: Fixed Effects with Cross Section NEAC-6

0.013872 Durbin-Watson stat 1.286532

Sum squared resid

Dependent Variable: CA?

Method: Pooled EGLS (Cross-section SUR)

Date: 01/17/15 Time: 23:13 Sample: 2001 2013 Included observations: 13

Cross-sections included: 6 Total pool (balanced) observations: 78

Linear estimation after one-step weighting matrix

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Variable	Coefficient	Std. Error	t-Statistic	Prob.			
ROG? C INF? BE	0.105148 0.035398 -0.228795	0.027185 0.001237 0.049077	3.867835 28.60799 -4.661963	0.0000			
(@RECODE(@YEAR>2007,1, 0)) DE	-0.034836	0.005780	-6.026947	0.0000			
(@RECODE(@YEAR>2007,1, 0)) FR	0.028564	0.009833	2.904867	0.0050			
(@RECODE(@YEAR>2007,1, 0)) AT	-0.017491	0.004172	-4.192003	0.0001			
(@RECODE(@YEAR>2007,1, 0)) FI	0.010627	0.006167	1.723227	0.0897			
(@RECODE(@YEAR>2007,1, 0)) NL	-0.044395	0.010612	-4.183604	0.0001			
(@RECODE(@YEAR>2007,1, 0)) Fixed Effects (Cross)	0.016385	0.011819	1.386361	0.1704			
BEC`	-0.004398						
DEC	0.004356						
FRC	-0.029920						
ATC	-0.013837						
FIC	0.018884						
NLC	0.024916						
	Effects Spe	ecification					
Cross-section fixed (dummy vari	ables)						
Weighted Statistics							
R-squared	0.960133	Mean depe	endent var	3.181594			
Adjusted R-squared	0.952035	S.D. deper		4.152183			
S.E. of regression	1.098106	Sum squar		77.17360			
F-statistic	118.5656	Durbin-Wa		2.013903			
Prob(F-statistic)	0.000000						
Unweighted Statistics							
R-squared	0.765261	Mean depe		0.028936			
Sum squared resid	0.018266	Durbin-Wa	tson stat	0.917300			

Conclusions Based on Econometric Analysis of International Trade with Panel Data Analysis Fixed Effect with Cross Section (Tables 5-6).

Table 5: Model 1.3: Fixed Effects without Time Variable (Dummy)

Dependent Variable: CA?

Method: Pooled EGLS (Cross-section SUR)

Date: 01/24/15 Time: 22:04 Sample (adjusted): 2002 2013

Included observations: 12 after adjustments

Cross-sections included: 5

Total pool (balanced) observations: 60

Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.			
С	0.010805	0.002847	3.795451	0.0004			
ROG?	-0.372926	0.034962	-10.66651	0.0000			
INF?	-0.216651	0.075926	-2.853432	0.0062			
CA?(-1)	0.971934	0.047225	20.58089	0.0000			
Fixed Effects							
(Cross)							
ELC	-0.001971						
ESC	0.002008						
PTC	0.000296						
ITC	-0.005958						
IEC	0.005626						
Effects Specification							
Cross-section fixed (dummy variables)							
Weighted Statistics							
R-squared	0.959874	Mean depe	endent var	1.388718			
Adjusted R-squared	0.954472	S.D. deper		4.619156			
S.É. of regression	1.021577	Sum squar	ed resid	54.26823			
F-statistic	177.7012	Durbin-Wa	tson stat	1.980436			
Prob(F-statistic)	0.000000						
Unweighted Statistics							
R-squared	0.881323	Mean depe	endent var	0.046350			
Sum squared resid	0.001323	Durbin-Wa		1.675519			

Table 6: Model 2.3: Fixed Effects without Time Variable (Dummy)

Dependent Variable: CA?

Method: Pooled EGLS (Cross-section SUR)

Date: 01/24/15 Time: 22:26 Sample (adjusted): 2002 2013

Included observations: 12 after adjustments

Cross-sections included: 6

Total pool (balanced) observations: 72

Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.			
ROG? C INF? CA?(-1) Fixed Effects (Cross) BEC DEC FRC ATC NLC	0.119380 0.013617 -0.330886 0.711229 -0.008495 0.010931 -0.012715 0.000864 -0.006509 0.015924	0.036500 0.001726 0.063607 0.050311	3.270674 7.888332 -5.202074 14.13670	0.0000			
	Effects Spe	ecification					
Cross-section fixed (dummy varia	bles)					
	Weighted	Statistics					
R-squared Adjusted R-squared S.E. of regression F-statistic Prob(F-statistic)	0.950892 0.944656 1.048389 152.4855 0.000000	Mean deper S.D. deper Sum squar Durbin-Wa	ndent var ed resid	1.816999 4.096080 69.24450 2.326835			
Unweighted Statistics							
R-squared Sum squared resid	0.879468 0.008764	Mean depe Durbin-Wa		0.029306 2.203360			

CONCLUSIONS

The main conclusions in this article can be summarized as follows: The shipping industry has adjusted its financial structure accordingly following the latest developments in the global financial market as well as the developments regarding issues in corporate governance. Eurozone countries followed a different adjustment process in their international trade during the debt crisis. It seems that the two different groups of countries SWEAP-5 and NEAC-6, have applied different

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models in international trade balances using three different types of models: Panel Data Analysis with a Common Dummy, Panel Data with a Cross Section Dummy and Panel Data without Dummy and two different methods of estimation. The Fixed Effects Models and the Random Effects Models. During the study period we have found two different structural changes one in 2011 for SWEAP-5 and one in 2007 for NEAC-6.

Moreover, this study has proved different effects regarding the benefits after the establishment of the Eurozone and different effects regarding the financial crisis in the Eurozone between the two groups. Greece and France, from the two groups, seems to be the countries that have been hit most from the crisis.

REFERENCES

- [1] Akelof, A.G. and Shiller, J.R. (2009), "Animal Spirits: How Human Psychology Drives the Economy and Why It Matters for Global Capitalism", Princeton University, Press, NY.
- [2] Baek J.S., Kang, J.K. and Park, K.S. (2004), "Corporate Governance and Firm Value: Evidence from the Korean Financial Crisis", Journal of Financial Economics 71, N2.
- [3] Bebchuk, L., Cohen, A. and Ferrell, A. (2004), "What Matters in Corporate Governance", Harvard Law School, John Olin Center.
- [4] Beiner, S., Drobetz, W., Schmid, M. and Zimmermann, H. (2004), "An Integrated Framework of Corporate Governance and Firm Valuation - Evidence from Switzerland", ECGI - Finance Working Paper No.34.
- [5] Black, B., Kim, W., Jang, H. and Park, K.S. (2008), "How Corporate Governance Affects Firm Value: Evidence on Channels from Korea European Corporate Governance Institute", Finance Working Paper No. 103.
- [6] Brennan, N. and Solomon, J. (2008), "Corporate Governance, Accountability and Mechanisms of Accountability: An Overview", Accounting, Auditing & Accountability Journal, Vol. 21 Issue 7, 885 – 906.
- [7] Brown, L. and Caylor, M. (2006), "Corporate Governance and Firm Valuation", Journal of Accounting and Public Policy, 409-434.
- [8] Carlson, R. (2007), "Swedish Corporate Governance and Value Creation: Owners still in the Driver's Seat", Corporate Governance: An International Review, 15(6), 1038–1055.
- [9] Commission of the European Communities (2001), "Green Paper: Promoting a European framework for CSR".
- [10] Giannakopoulou, E.N., Thalassinos, E.I. and Stamatopoulos, T.V. (2015), "Corporate Governance in Shipping: An Overview", Maritime Policy & Management, 1-20.
- [11] Harlaftis, G. and Theotokas, I. (2004), "European Family Firms in International Business: British and Greek Tramp Shipping Firms", Business History, 46, 219–255.
- [12] Havlíček, K., Břečková, P. and Zampeta, V. (2013), "Quality Management as a Part of CRM", European Research Studies Journal, 16(4), 15-28.
- [13] Karpoff, J., Malatesta, P. and Walkling, R. (1996), "Corporate Governance and Shareholder Initiative: Empirical Evidence", Journal of Financial Economics 42, 365-395
- [14] Koufopoulos, D., Lagoudis, I., Theotokas, I. and Syriopoulos, T. (2010), "Corporate Governance and Board Practices by Greek Shipping Management Companies", Corporate Governance, Vol. 10(3): 261 – 278.

- [15] Krugman, P. (2009), "The Return of Depression on Economics and the Crisis of 2008", Chicago University Press, Chicago.
- [16] Lambertides N. and Louca, C. (2008), "Ownership Structure and Operating Performance: Evidence from the European Maritime Industry", Maritime Policy & Management 35(4): 395–409.
- [17] La Rocca, M. (2007), "The Influence of Corporate Governance on the Relation between Capital Structure and Value", Corporate Governance, Vol. 7(3): 312 325.
- [18] Lyridis, D.V., Fyrvik, T., Kapetanis, G.N., Vertikos, N., Anaxagorou, P., Uthaug, E. and Psaraftis, H.N. (2005), "Optimizing Shipping Company Operations Using Business Process Modeling", Maritime Policy Management, Vol. 32, No 4.
- [19] McLellan, R. (2006), "Liner Shipping Development Trends", Maritime Policy Management, Vol. 33, No 5.
- [20] Merikas, A. Tsionas, M. and Merika, A., (2012), "Concentrated Ownership and Corporate Performance Revisited: The Case of Shipping", Transportation Research Part E 48, 843–852.
- [21] Organization for Economic Cooperation and Development, (1999), "OECD Principles of Corporate Governance", OECD Publication Services, France.
- [22] Organization for Economic Cooperation and Development, (2004), "OECD Principles of Corporate Governance", OECD Publication Services, France.
- [23] Randoy, T., Down, J. and Jensen, J.J. (2003), "Corporate Governance and Board Effectiveness in Maritime Firms", Maritime Economics and Logistics, 30, 40–54.
- [24] Solomon, J.F. (2007), "Corporate Governance and Accountability", 2nd edition, Wiley, New York, NY.
- [25] Syriopoulos, T. and Tsatsaronis, M. (2011), "The Corporate Governance Model of the Shipping Firms: Financial Performance Implications', Maritime Policy and Management, 38(6), 586-604.
- [26] Syriopoulos, T. (2007), "Corporate Social Responsibility and Shareholder Effects: The Greek Paradigm", Journal of International Business and Economics, 8(1), 161-174.
- [27] Syriopoulos, T. and Theotokas, I. (2007), "Value Creation through Corporate Destruction? Corporate Governance in Shipping Takeovers", Maritime Policy and Management, 34(3), 243-258.
- [28] Syriopoulos, T., Merika, A. and Vozikis, G. (2007), "Corporate Social Responsibility and Shareholder Value Implications", Journal of Corporate Ownership & Control, 5(2), 96-108.
- [29] Thalassinos, I. (2010), "Operational Activities and Financial Innovations to be Adopted by the Shipping Companies in order to Provide Quality Services", Ph.D. Thesis, Department of Maritime Studies, University of Piraeus, Greece, 1-350.
- [30] Thalassinos, I.E. and Zampeta, V. (2012), "How Corporate Governance and Globalization Affect the Administrative Structure of the Shipping Industry", Journal of Global Business and Technology, 8(1), 48-52.
- [31] Thalassinos, E.I., Venediktova, B., Staneva-Petkova, D. and Zampeta, V. (2013), "Way of Banking Development Abroad: Branches or Subsidiaries", International Journal of Economics & Business Administration (IJEBA), 1(3), 69-78
- [32] Theotokas I. (2007), "On top of world shipping: Greek shipping companies organization and management", Research in Transportation Economics, vol. 21, no.1,
- [33] 63-93
- [34] Zampeta, V. (2011), "The Recent Financial Crisis and its Consequences on Globalization, International Trade and Shipping: The Case of the Greek Shipping Sector", M.Sc. Thesis, Department of Maritime Studies, University of Piraeus, Greece, September, 1-118.