THE CONTRIBUTION OF ORGANIZED FOOD RETAIL TO THE GREEK SOCIO-ECONOMIC DEVELOPMENT DURING THE YEARS OF ECONOMIC CRISIS

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Abstract

The economic crisis in the EU had severe impacts not only on the performance of the domestic economy but also on the living standard for the citizens. The extended spread of this crisis resulted in limitation in the disposable income and significant negative changes have taken place with negative consequences for the corporate economic performance and competitiveness (de Jorge Moreno, Castillo, & de Zuani Masere, 2010). Within the dominance of certain conditions of economic crisis, there are a few firms that act as lighting exceptions. The present work makes an effort, to unveil the role of selected supermarket retail chain stores in the performance of certain macroeconomic parameters and therefore to illustrate the mechanism through which the restoration of the economy in Greece becomes feasible. More specifically, based on data derived by Eurostat and Greek National Statistics with the assistance of the findings of present analysis that validate a significant contribution of the firms studied to macroeconomic parameters such as national income or employment it may provide policymakers with knowledge tools to promote corporate efforts of this type and in sequence to lead the macroeconomic system in a trajectory of economic growth.

Keywords: Economic Crisis, Unemployment, Investments, Disposable Income

Authors' individual contribution: Conceptualization — N.Z. and E.Z.; Methodology — N.Z. and A.G.; Software — N.Z.; Validation — A.G.; Formal Analysis — A.G., S.G., and K.S.; Investigation — N.Z. and K.S.; Resources — N.Z. and S.G.; Data Curation — N.Z., E.Z., and S.G.; Writing — Original Draft — N.Z.; Writing — Review & Editing — E.Z.; Visualization — A.G., K.S., and S.G.; Supervision — E.Z.; Project Administration —N.Z., E.Z., A.G., K.S., and S.G.

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1. INTRODUCTION

The economic crisis in Greece initiated in 2009, has been an issue difficult to be solved. The origins of the Greek financial crisis can be found in the huge imbalances, not only fiscal but also current-account deficits, being generated in the post-euro-area entry era starting in 2001 (Gibson, Hall, & Tavlas, 2012). Within this economic crisis, the business economic performance in all sectors has deteriorated with a few bright examples.

A firm's profitability and investment decision-making are strongly related to the conditions of "policy, institutional, and behavioural environment, both present and expected" (Stern, 2002, p. 141). This means that in an era of economic crisis, high unemployment rates and a severe decline in the gross national product behaviour raise senses of uncertainty and risk in the investments limiting in sequence the business plans of the domestic firms. In addition, the grocery retail chain stores are a significant particle of the Greek economy, in terms of macroeconomic figures and in particular the value-added and the rate of employment (Sarantopoulos, Min, Calado, & Componation, 2013). Therefore, the performance of the retail sector and its respective firms is of great importance nowadays for the economy, while the decision-making is vital not only for the firm's performance but also for economic growth as a whole. Finally yet importantly, it has to be mentioned that the productivity and efficiency of these firms have been used for macroeconomic comparisons among the regions or countries (Reynolds et al., 2005; de Jorge Moreno, 2008; de Jorge Moreno et al., 2010).

In the times of economic crisis among the problems that arose confronted by the companies were the decrease in sales volumes, the increase in operating costs, the difficulties in collection receivables while lack of financial resources had become an intense phenomenon. Therefore, the firms necessitate the implementation of strategies, with comprehensive socio-economic information and determination, so that they can cope with the unpleasant economic developments that take place as well as those who are pragmatic and perform more efficiently in comparison to those that react hastily (Branstad, Jackson, & Banerji, 2008). Efficiency in the response of a firm to a change in financial conditions affects significantly its brand name, credibility, integrity of operations, and market performance (Calloway & Keen, 1996).

The majority of the existing literature is focusing on the impacts of the economic crisis on the economic performance of a corporate while to the best of the authors' knowledge the reversed causality has not been the subject of extended study. The present work aims not only to analyse how the remarkable corporate efforts may affect the size of macroeconomic parameters, but it also quantifies the contribution of the sample corporates' domestic product to the national domestic product, individually and as a whole. This is actually the novelty of the present manuscript that is coming to fill the significant scientific gap mentioned above.

More specially, the present work studies the economic performance of significant supermarket store chains in Greece and the ways they affect certain microeconomic variables including employment rate and national income (economic growth).

The rest of the manuscript is organized as follows. Section 2 describes the existing literature. Section 3 involves the material and methods employed in the study. Section 4 analyses the results, while Section 5 discusses the results and Section 6 concludes.

2. LITERATURE REVIEW

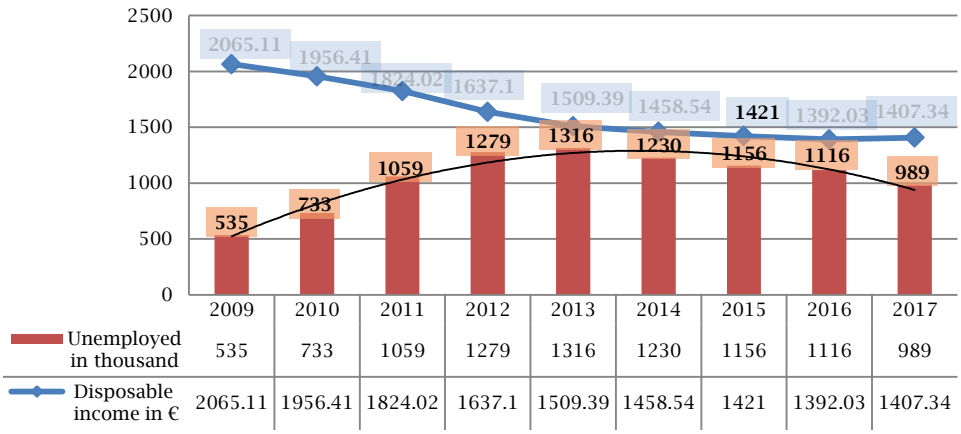
Within a volatile socio-economic environment, the Greek supermarket retail sector dynamics are affected by a number of forces (ICAP, 2009). Thus, the strategic behaviour of each corporate is vital for the market shares, revenues, and position in the market. In addition, within the period of vast recession, innovation, pricing policy, and in general a well-organized strategy is a necessary ingredient for maintaining competitive advantages. Based on a finding of a survey by IELKA, we should stress the remarkable high rates of economic growth for the specific sector despite the limited size of sales while at the same time the consumers' preferences adjust accordingly and online to be one of the major means of buying products (IELKA, 2020).

The existing literature on the economic crisis of Greece focuses mainly on the psychological impacts assessed along with the shrinkage of different economic sectors due to severe decline in national income and high rates of unemployment (Zisoudis, Karelakis, Theodossiou, & Loizou, 2020; Madianos, Alexiou, Patelakis, & Economou, 2014; Economou, Angelopoulos, Peppou, Souliotis, & Stefanis, 2016). Another strand of literature involves the role of the economic crisis on the health care system (Simou & Koutsogeorgou, 2014).

Regarding the corporate economic performance within an economic environment of a declining gross domestic product (GDP), rising unemployment, decreasing public and private consumption, corporate bankruptcies and diminishing deposits with subsequent liquidity problems in the banking sector have also become a subject of previous studies (Karafolas & Ragias, 2021). According to the authors' opinion, the lack of studies is found concerning the impact of firms' investment and innovation on certain macroeconomic parameters. It is a fact that despite the limited investments in new firms due to the discouraging macroeconomic conditions innovation and ICT are two key issues for corporate efforts to achieve successful entrance and survival in an economy suffering from the economic crisis (Archibugi, Filippetti, & Frenz, 2013).

For the case of Greece with major features, a severe decline in the demand for goods and services, a subsequent reduction in production, a significant rise in unemployment was recorded that reached 27.80% in 2013, the corporate activity has been diminished. A major determinant of the employment rate nowadays is the reduction of disposable income. This in turn results in the demand reduction with chain reactions including a reduction in the operating expenses with the most serious one to involve the labour force being considered as unnecessary.

Figure 1. Disposable income (in euros) and unemployed (in thousands)

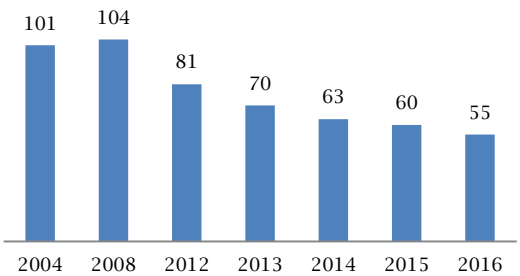


Source: Hellenic Statistical Authority (ELSTAT).

The unemployment rate is also reflected in the socio-economic status of human capital. As a proxy for human development in terms of a country is the Human Development Index (HDI). Based on this index and for the year 2018 Greece was found in the 31st place.

From observation of Figure 1, we can see that 31.86% of the disposable income in 2017 has been lost, and from the 2065.11 euros it had in 2009 it fell to 1407.34 euros. While we see that unemployment from 535 thousand people in 2009 reaches 989 thousand people in 2017, after staying for six years over 1 million people, culminating in 2013 where it climbed to 1,316,000 and a percentage of 27.4%. High unemployment rates are determined by a number of factors, including the closure of private companies. Moreover, since the study is related to a chain of food stores "supermarkets", let us see which companies belong to the past. The supermarket chains, that are closed, are Atlantic, Aldi, Arvanitidis, DIA, Plus, Veropoulos, Marinopoulos, and were some of the most famous in the country. There are many with a smaller "calibre" that have disappeared. Based on data derived by ELSTAT, Figure 2 illustrates the evolution in the number of the supermarket chains for the years 2004–2016 with a frequency of four years.

Figure 2. Supermarket chains



Source: ELSTAT.

Figure 2 illustrates a reduction in the number of supermarket chains by 45.45%. This severe decline involves a great number of direct and indirect units of employees, companies, production units, and other stakeholders in the supermarket sector. Within these socio-economic conditions, this study focuses on one of the largest sectors of the Greek economy, which is the area of organized food retail. Before this analysis, it is worth mentioning a survey of the Consumer Research Institute of Retail Goods (IELKA). Based on the findings of this research, food retail is one of the most dynamic sectors of the economy, in terms of maintaining and increasing employment in Greece in the decade 2010–2020, with a contribution of 9.24% to GDP and 4.5 billion gross value added. Taking all these into consideration the present work tries to get an insight into the five higher in terms of sales companies operating in the field of organized food retail (supermarket) and to make an analysis on their contribution to the Greek economy and society. More specifically, the particular study will unveil the degree of contribution of the aforementioned companies to the employment of the country, the size of their investment activities, the sums of money deposited in the public expenditures of the country generated from taxes and liabilities of the particular companies and last but not least it is analysed the contribution of these companies to the GDP of Greece.

3. MATERIAL AND METHODS

The present study as mentioned above focuses on the assessment of the macroeconomic impact of the supermarket chain stores. This work has been based on a sample of the five retail chain stores that have the greatest share in the market and are located in Greece. Their selection was based on their economic and geographical sizes as well as their market shares. The companies are the following: 1) AB Vassilopoulos, which belongs to the multinational Dutch food retail company Ahold Delhaize Group and of Greek interests, companies of families and founders; 2) Sklavenitis by Spyros Sklavenitis; 3) My Market, owned by Pantelis Panteliadis; 4) Masoutis by Diamantis Masoutis; 5) the company Galaxias (five SA), foundered and managered by Vassilis Heimonidis. Lidl supermarket chain store was not included in our analysis due to non-disclosure of financial data. The time period

selected was set from the beginning of the financial crisis in 2009 until 2017. The data on the financial statements of the companies were derived by the ELSTAT and from previous studies related to the IELKA. The existing literature was our source for theoretic data used in our analysis. Post the data extraction a comparison and calculations were conducted in order to draw general conclusions.

The methodology used is a comparative analysis of the different chains based on the GDP calculation of which is described in subtle in the following paragraph. More specifically, for the GDP measurement, the product and service approach method was selected (Abel, Bernanke, & Croushore, 2017).

According to this scientific approach the GDP is calculated by the following equation:

$$GDP = GP + OI \quad (1)$$

where, GP denotes gross profit; OI denotes other operating income.

$$GP = (revenue\ from\ sales + labour\ costs + \\ + overheads) - cost\ of\ sales \quad (2)$$

$$Revenue\ from\ sales = \\ sales\ units\ (goods\ \&services) \times sales\ price \quad (3)$$

$$Selling\ costs = \\ initial\ stock + purchases\ of\ use - final\ stock \quad (4)$$

Operating revenues involve *income from services* to third parties, *rental income*, *profit from the disposal of fixed assets*, *income from subsidies — grants, revenue surplus.*

As far as holding acquisition, the method of the percentage was chosen, and the data concerning the investments and the unemployment of Greece were taken from ELSTAT. On February 22, 2016, the acquisition of Veropoulos was announced. The payroll was measured by the method *costs of disposal + administrative expenses - 36%.* The employers' contribution was based on the formula:

$$Employers'contribution = wage \times 25\% \quad (5)$$

However, concerning the wage figures employed due to the lack of data, our findings are based on the last value available.

4. RESULTS

Our findings concerning certain financial parameters and their relation to the macroeconomic parameters are provided in the next paragraphs. The first parameter is related to the number of employees and payroll. More specifically, based on the result illustrated in Table 1, evidently, the total number of employees in the private sector is characterized by a decreasing trend (ELSTAT). More specifically and in terms of the total economy, the unemployment rate was increased by 19.01% compared to the proportion in the year 2017. On the other hand, the number of employees for each chain store as illustrated in the first graph has been evolved as follows.

For the case of AB Vassilopoulos, an increase of 71.64% (from 8,049 to 13,815), as shown in Table 1 has been recorded implying a contribution to the total contribution of employees from 0.18% to 0.38%. As far as Sklavenitis is concerned, the raise for the same time period was equal to 38.89% (from 6,591 to 9,154 in the year 2017). This change has increased the participation rate in the workforce staff of the country, from 0.15% in 2009 to 0.25%. What is more, concerning the supermarket chain stores My Market and Galaxias, the lack of data and the limited availability of disclosure leads to vague results. Finally yet importantly, for the case of Masoutis an increase of 45.22% was recorded (5,150 has reached 7,479). As result, the participation rate on the workforce staff of the country has reached from 0.11% to 0.21%. In total for all the chain stores, an increase of 59.19% is a fact since the total number of employees for the five companies turned from 28,699 into 45,687 in 2017. In other words, the contribution has been doubled (reached 1.26% starting from 0.64%) in the year 2009.

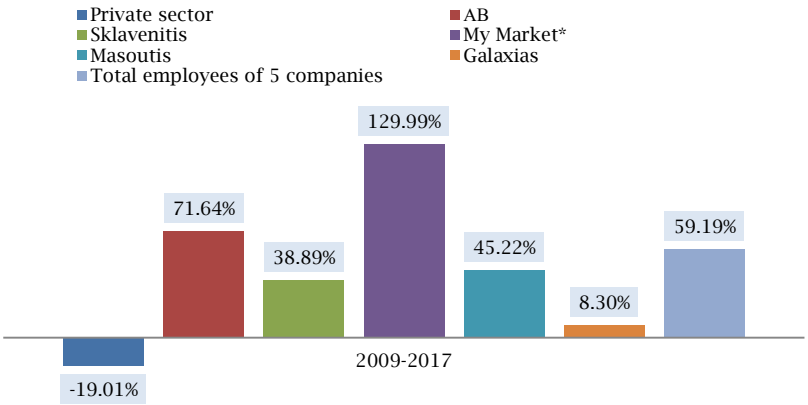
The following Figure 3 illustrates the changes in the number of employees in the sector and in the firms studied for the time period 2009–2017.

Table 1. The number of employees — (%) employed per company — Unemployment of Greece

Year	*Private sector**	*AB*	*%*	*Sklavenitis*	*%*	*My Market***	*%*	*Masoutis*	*%*	*Galaxias****	*%*	*Total employees per year*	*%*	*% Unemploy-ment*
2009	4,493,309	8,049	0.18	6,591	0.15	4,594	0.10	5,150	0.11	4,315	0.10	28,699	0.64	8.9
2010	4,430,818	8,528	0.19	7,069	0.16	4,594	0.10	5,690	0.13	4,315	0.10	30,196	0.68	10.9
2011	4,227,741	8,683	0.21	7,347	0.17	4,594	0.11	6,242	0.15	4,315	0.10	31,181	0.74	14.8
2012	3,888,400	8,898	0.23	7,442	0.19	4,594	0.12	6,420	0.17	4,315	0.11	31,669	0.81	21.5
2013	3,617,771	9,163	0.25	8,203	0.23	4,594	0.13	6,595	0.18	4,315	0.12	32,870	0.91	27.2
2014	3,504,987	11,621	0.33	8,476	0.24	4,594	0.13	6,713	0.19	4,315	0.12	35,719	1.02	27.1
2015	3,535,774	12,562	0.36	8,678	0.25	4,594	0.13	6,891	0.19	4,315	0.12	37,040	1.05	25.8
2016	3,631,801	13,985	0.39	9,281	0.26	10,271	0.28	7,389	0.20	4,423	0.12	45,349	1.25	24.3
2017	3,639,126	13,815	0.38	9,154	0.25	10,566	0.29	7,479	0.21	4,673	0.13	45,687	1.26	23.5

*Notes: * Every January of the year ELSTAT. ** On February 22, 2016, Veropoulos was acquired. *** Due to the lack of data, the last value is considered correct.*
Source: ELSTAT.

Figure 3. Proportion change of employees 2009–2017



*Notes: * On February 22, 2016, Veropoulos was acquired from My Market.*

The next issue to be studied involves the annual payment by each company and in total. The particular parameter is described in Table 2. Explicitly, for the case of AB, the payroll is equal to 165 million. After the year 2009 and with a continuing upward trend until the year 2017, the payroll reached the amount of 274 million. As far as Sklavenitis is concerned, the payroll value with a starting point of 159 million in 2009 has reached the amount of 191 million in the year 2017. In addition, the firm My Market pays the amount of 68 million for salaries in 2009 while in the year 2017 following the acquisition of Veropoulos the amount has reached 174 million. Regarding the chain store of Masoutis, the value of payroll is equal to 96 million in 2009 while the amount becomes equal to 122 million in the year 2017. Last but not least is the Galaxy chain store for which the salary payments have started from the amount of 51 million in 2009 and becomes equal to 67 million in the year 2017.

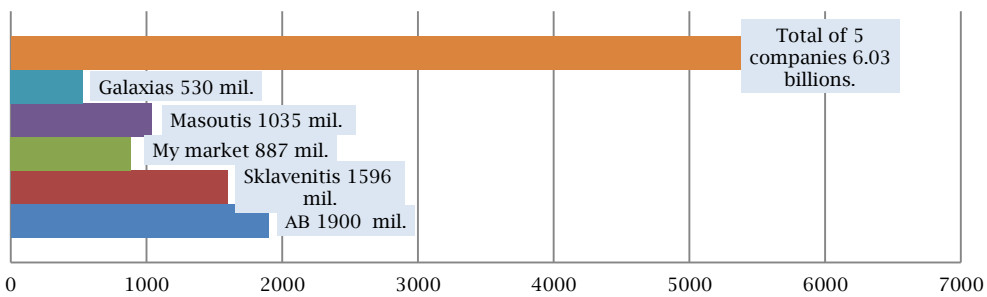
The total payments for each company individually and all of them for the period 2009–2017 are illustrated in Figure 4.

Table 2. The value of payroll (in euros)

Year	*AB*	*Sklavenitis*	*My Market**	*Masoutis*	*Galaxias*	*Total*
2009	165,382,430	159,703,680	68,562,355	96,648,000	51,990,180	542,286,645
2010	173,517,040	165,195,520	72,712,364	102,736,000	54,098,499	568,259,423
2011	181,942,400	175,532,160	75,849,590	114,918,000	56,796,914	605,039,064
2012	193,000,960	178,577,920	80,115,586	118,978,000	58,657,412	629,329,878
2013	228,675,840	171,617,920	77,191,186	119,285,000	56,054,520	652,824,466
2014	238,864,640	180,445,440	80,237,676	120,847,000	60,890,475	681,285,231
2015	258,186,240	181,466,240	83,846,727	117,926,000	62,072,415	703,497,622
2016	276,602,240	191,903,640	174,508,825	122,216,000	64,650,090	829,880,795
2017	274,120,960	191,649,920	174,443,606	122,050,000	65,117,760	827,382,246
Total	1,990,292,750	1,596,092,440	887,467,915	1,035,604,000	530,328,265	6,039,785,370

*Notes: * On February 22, 2016, the acquisition of Veropoulos was announced.*

Figure 4. Total salaries paid per company 2009–2017 (in euros)



Another parameter with significant macroeconomic impact is the value of Investments coupled with the mergers and acquisitions that determines the number of stores. This parameter is provided for each company and all of them as a total in Table 3. Regarding the total investments in the corporate sector annually are characterized by a declining trend. The total amount of investments

for the firm AB ranged at 70.2 average of million. As far as the number of stores for the period of 2009–2017 have reached 306 in total from 90 (Table 4). In the same table one can also observe the percentage of the participation of the company in the total business investments of the country, which from 0.15% 24.8 million in 2009 reached 0.50% in 2017. In the fifth column, Sklavenitis had an average of 24.8 million investments in stores until 2016. Ever since he had not left the city of Athens and his collection was 40 stores. At the end of 2017, however, Sklavenitis expanded and ended up with 112 stores (Table 3). The investments of 110 million in 2017 are related to the acquisition of the Marinopoulos stores that was initiated in the same year and had to do with the newly established subsidiary of the group, Greek Sklavenitis supermarkets. The index reflects its percentage contribution to the companies that invest from 0.03% its participation reached 0.73%. In My Market (the seventh column of Table 3) until 2015 his investments were at 27.6 million and with the acquisition in 2016 of Veropoulos spent the next two years (2016–2017) 90.7 million. The total amount of investments for My Market increased the number of stores from 192 to 270 (Table 4). Its contribution in terms of total investment in Greece from 0.11% reached 0.30% (Table 3). Masoutis with investments of 27.6 million (the ninth column) every year with new stores or acquisitions of smaller chains, increased its stores by 66 stores and now has 272. And the corresponding percentage on investments from 0.15% in 2009 reached 0.17% in 2017 (the tenth column, Table 3) Finally, the Galaxy with average investments of 12.1 million (the eleventh column, Table 3) based on its own capital, since the leverage is limited, increased its stores to 149 (Table 4). In addition, contribution increased from 0.02% to 0.08% and even 0.15% in 2015, (the twelfth column, Table 4) Last but not least the amount of money spent on investments by all five companies was 167 million in 2009 and reached 269 million in 2017. The total contribution of the study chain stores to the national business investments rose from 0.47% to 1.78% (Table 3).

Table 3. Business investments in millions with the participation percentage

Year	*Business investments**	*AB*	*%*	*Sklavenitis*	*%*	*My Market*	*%*	*Masoutis*	*%*	*Galaxias*	*%*	*Total per year*	*Total %*
2009	20,289.60	55.3	0.15	9.7	0.03	39.0	0.11	54.5	0.15	8.6	0.02	167.3	0.47
2010	20,162.60	87.3	0.28	26.8	0.09	37.3	0.12	37.0	0.12	8.6	0.03	197.2	0.63
2011	16,951.40	94.6	0.36	18.2	0.07	30.7	0.12	47.4	0.18	8.6	0.03	199.7	0.75
2012	13,449.20	19.7	0.1	12.2	0.06	27.0	0.14	18.9	0.1	8.6	0.04	86.6	0.45
2013	11,733.20	38.0	0.24	22.1	0.14	13.5	0.09	13.9	0.09	7.0	0.04	94.7	0.6
2014	12,260.70	80.5	0.57	20.4	0.15	10.1	0.07	16.8	0.12	18.2	0.13	146.2	1.04
2015	12,168.60	80.7	0.59	40.3	0.3	35.9	0.26	13.7	0.1	20.5	0.15	191.2	1.41
2016	13,706.20	100.4	0.66	48.7	0.32	45.4	0.3	20.7	0.14	16.7	0.11	232.0	1.53
2017	15,502.40	75.2	0.5	110.4	0.73	45.3	0.3	25.8	0.17	12.5	0.08	269.4	1.78
Total 2009–2017		632 mil.		309 mil.		284 mil.		249 mil.		109 mil.		Total 1.58 bil.	

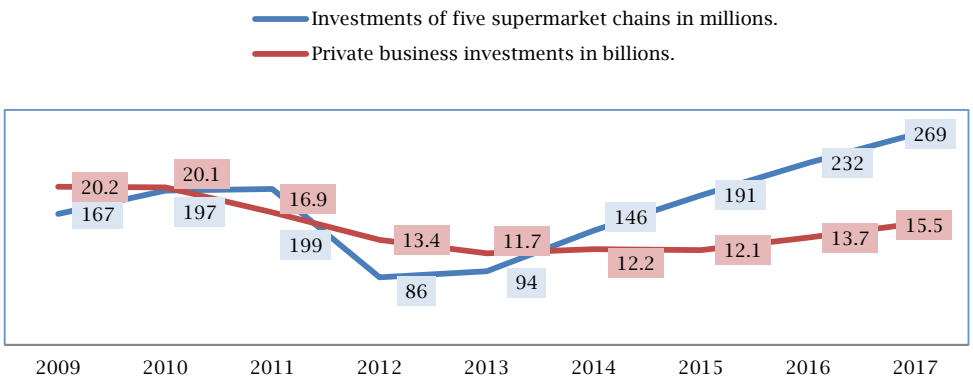
*Source: * ELSTAT in quarterly National Accounts 4th quarter at current prices.*

Table 4. Number of stores

Year	*AB*	*Sklavenitis*	*My Market*	*Masoutis*	*Galaxias*	*Total per year*
2009	216	72	78	206	120	692
2010	223	73	85	210	133	724
2011	251	83	90	236	132	792
2012	268	86	100	243	137	834
2013	281	109	103	247	139	879
2014	264	110	110	255	139	878
2015	264	111	112	260	144	891
2016	291	112	269	265	148	1085
2017	306	112	270	272	149	1109

Below Figure 5 presents, on the one hand, the total investments of the companies AB Vassilopoulos, Sklavenitis, My Market, Masoutis, and Galaxias in millions of euros. On the other hand, the country's total business investments are in billions of euros. It is clear that in 2009 companies nationwide invested 20.2 billion for development, modernization, etc. In the course of time, the amount started to decrease with the appearance of problems due to the financial crisis, and in 2017 they have finally invested 15.5 billion. In contrast, the five supermarket chains of our survey in 2009 have invested 167 million which considered with the beginning of the financial crisis and the next two years the investments reached close to 200 million reaching in the year 2012–2013 that decreased to 86 million and 94 million respectively. However, as evident in Table 4, all the companies increased their points of sale (stores), though the effects of the financial crisis had become visible. The corresponding period was the lowest of all nationwide business investments. Then the trend was upward, reaching 269 million in 2017.

Figure 5. Business investments



As far as the taxes is concerned and in particular for the value-added tax (as seen in Table 5) for AB Vassilopoulos the amount of value of added tax (VAT) paid for the period 2009–2017 was 726 million for Sklavenitis 712 million for Masoutis 444 million for My Market 442 million and finally, for Galaxy the respective amount was equal to 251 million.

In total, the value of VAT collected by the Greek State from all the sample chain stores for the period 2009–2017 was at about 2.57 billion.

Table 5. Value of added tax (in euros)

Year	*AB*	*Sklavenitis*	*My Market*	*Masoutis*	*Galaxias*	*Total per year*
2009	40,927,000	75,198,000	41,201,568	31,566,000	31,604,719	220,497,287
2010	82,837,000	75,198,000	35,072,569	34,656,000	20,065,516	247,829,085
2011	82,837,000	75,198,000	35,943,322	61,200,000	21,831,019	277,009,341
2012	82,837,000	75,198,000	38,322,618	58,818,000	27,445,170	282,620,788
2013	82,837,000	75,198,000	51,207,942	55,668,000	27,779,077	292,690,019
2014	82,837,000	75,198,000	47,374,692	47,034,000	33,376,035	285,819,727
2015	82,837,000	84,054,000	55,802,202	55,704,000	22,755,716	301,152,918
2016	101,895,000	87,863,460	82,585,962	58,602,000	35,592,724	366,539,146
2017	86,919,000	89,581,980	55,323,711	41,598,000	31,469,246	304,891,937
Total	726,763,000	712,687,440	442,834,586	444,846,000	251,919,222	Total 2009–2017 2,579,050,248

The income tax is another contribution of the chain stores to the state providing the opportunity for governments to satisfy the needs for government expenditures. Evidently in the Table 6 higher revenues and therefore higher income tax was paid by AB Vassilopoulos for the period 2009–2017 namely the amount of 183 million (the second column), Sklavenitis paid the amount of 83 million and My Market deposit the amount of 39 million. In the next positions, follow Masoutis with 57 million and Galaxias with 38 million. In total, the income tax, the Greek State collected, had reached the amount of 401,5 million.

Table 6. Value of income tax (in euros)

Year	*AB*	*Sklavenitis*	*My Market*	*Masoutis*	*Galaxias*	*Total per year*
2009	18,208,000	10,564,000	3,827,452	4,959,000	3,609,356	41,167,808
2010	18,067,000	16,489,000	5,654,484	2,434,000	2,242,044	44,886,528
2011	10,947,000	5,365,000	3,971,542	2,397,000	2,043,184	24,723,726
2012	7,038,000	2,248,000	4,075,388	3,649,000	2,694,608	19,704,996
2013	17,719,000	6,108,000	5,468,382	8,798,000	3,078,545	41,171,927
2014	17,258,000	6,370,000	4,558,869	6,667,000	3,670,752	38,524,621
2015	26,999,000	12,465,000	6,364,434	10,564,000	6,225,921	62,618,355
2016	36,535,000	17,169,000	5,503,040	11,677,000	9,064,612	79,948,652
2017	30,501,000	6,251,000	0	6,556,000	5,498,765	48,806,765
Total 2009–2017	183 mil.	83 mil	39 mil.	57 mil.	38 mil.	401,5 mil.

Another contribution of corporates that is closely related to the number of employees in the firm is the insurance contribution. More specifically, the employer contributions are an amount of money that includes insurance contributions from the Greek insurers and auxiliary pension funds and the employer is obliged to pay for his employees. This type of contribution is provided for each firm studied in Table 6, according to which the returns are increasing. In terms of each company, separately and for the entire period 2009–2017, the results are also provided in Table 7. More specifically, for the case of AB Vassilopoulos a total amount of 497 million was contributed, Sklavenitis and My Market — 399 million and 221 million respectively and finally for Masoutis and Galaxias, this amount was equal to 258 million and 133 million respectively.

Table 7. The contributions of the employer (in euros)

Year	*AB*	*Sklavenitis*	*My Market*	*Masoutis*	*Galaxias*	*Total per year*
2009	41,345,500	39,925,920	17,140,589	24,162,000	12,997,545	135,571,554
2010	43,379,250	41,298,880	18,178,091	25,684,000	13,524,624	142,064,845
2011	45,485,500	43,883,040	18,962,398	28,729,500	14,992,228	152,052,666
2012	48,250,000	44,644,480	20,028,897	29,744,500	14,664,353	157,332,230
2013	57,168,750	42,904,480	19,297,797	29,821,250	14,013,630	163,205,907
2014	59,716,000	45,111,360	20,059,419	30,211,750	15,222,618	170,321,147
2015	64,546,500	45,366,560	20,961,682	29,481,500	15,518,103	175,874,345
2016	69,150,500	47,975,750	43,627,206	30,554,000	16,162,522	207,469,978
2017	68,530,000	47,912,250	43,610,902	30,512,500	16,279,440	206,845,092
Total 2009–2017	497 mil.	399 mil.	221 mil.	258 mil.	133 mil.	1.51 bil.

All the parameters mentioned above have a direct or indirect impact on national income. Based on the methodology of Abel et al. (2017) the calculation of GDP and the contribution of each firm individually and in total was conducted. The results are provided in Table 8. Based on our findings a sharp decline in the GDP is evident for the time period 2009–2017 since from 237 billion fell to 180. As far as the participation of each firm in the GDP and in particular for the case of AB an increase in the revenues has been almost doubled within the time period studied (from 365 million reached 522 million) and its participation has become equal to 0.29% compared to 0.15% in the year 2009. The next chain store Sklavenitis has increased the amount of investment from 286 million in the year 2009 to the 342 million in the year 2017. In terms of contribution to GDP an increase by 0.07% (0.12% was in 2009) reached 0.19% in 2017 (the sixth column). My market, the other supermarket chain store contributed to the GDP in 2009 with 173 million and reached 298 million in 2017. As far as My market is concerned, the value of revenues almost doubled while its contribution to the GDP starting from 0.05% in 2009 has reached 0.17% in 2017. The value of revenues for Masoutis has risen from 173 million to 244 million within the time period studied with the participation rate reaching 0.14%. Finally, the Galaxy revenues have become 118 million from 95 million and in sum, 1.52 billion correspond 0.84% of the total GDP for the year 2017.

Table 8. Gross domestic product (in million, euros)

Year	*Greece*	*AB*	*%*	*Sklavenitis*	*%*	*My market*	*%*	*Masoutis*	*%*	*Galaxias*	*%*	*Total per year*	*Total %*
2009	237,530	365	0.15	286	0.12	122	0.05	173	0.07	95	0.04	1,043	0.44
2010	226,030	385	0.17	296	0.13	131	0.06	185	0.08	93	0.04	1,091	0.48
2011	207,030	389	0.19	308	0.15	137	0.07	211	0.1	97	0.05	1,143	0.55
2012	191,200	419	0.22	305	0.16	145	0.08	220	0.12	103	0.05	1,194	0.62
2013	180,390	406	0.23	295	0.16	140	0.08	224	0.12	104	0.06	1,171	0.65
2014	178,656	530	0.30	310	0.17	144	0.08	231	0.13	109	0.06	1,326	0.74
2015	177,258	578	0.33	328	0.19	154	0.09	235	0.13	117	0.07	1,414	0.80
2016	176,488	547	0.31	357	0.20	279	0.16	253	0.14	130	0.07	1,569	0.89
2017	180,714	522	0.29	342	0.19	298	0.17	244	0.14	118	0.07	1,526	0.84

4. DISCUSSION OF THE RESULTS

This section discusses the findings of the study along with their value in terms of a macroeconomy. One of the most significant macroeconomic provisions of a firm among others is the supply of labour. As analysed above the contribution of the particular firms in times of heavy unemployment has become more than valuable. More specifically these five companies had offered jobs to 28,699 people in 2009 in an unstable economic environment, with many companies unable to cope and close, and with the number of workforces decreasing by -19%, they managed not only to still employ the people they had but to secure and support by offering work and income 45,687 families by 2017. The unemployment rate rose from 8.9% in 2009 to 23.5%, despite the huge employment opportunities offered by the five companies. The provision of work was accompanied by the provision of income and as we saw in this section all the companies not only increased their workforce but also increased the salaries of their staff. The additional payments in form of provision within the time period 2009–2017 have reached, for AB Vassilopoulos 108 million, Sklavenitis — 31 million, My Market — 105 million, Masoutis — 25 million, and the Galaxy — 13 million. The amounts provided above correspond to the differences in the salaries paid in 2009 compared to those paid in 2017. In addition, the total money given to the staff of the companies has reached respectively, for AB Vassilopoulos — 1.9 billion, Sklavenitis — 1.56 billion, Masouti — 1.03 billion, My market — 887 million, and Galaxy — 530 million. Thus, a reduction in salaries is not a fact for the sector described above while the opposite has been recorded for different sectors in the economy for the same time period.

An index that is illustrative of corporate welfare is the size of investments. Evidently based on our findings within the era of the economic crisis the corporates studied are expanding with their investments to be highly increasing and exceeding their own goals in the Greek economy and society. The investment rate of each company varies based on financial status and strategy. The business activity in total has reached the amount of 1.58 billion corresponding to 1.78% of the total GDP.

Greece since the year 2010 has been through a number of austerity programs with multiple measures including among others cutting government spending, reduction in the size of the public sector, decreasing tax evasion, reforming the health care and pension systems, and improving competitiveness through structural reforms to the labour and product markets. All these reforms are necessary for the treatment of the financial crisis

and have been imposed by the European Union and international market participants. Within this volatile economic environment, the contribution of the supermarket chain stores in taxes is more than significant providing liquidity to the Greek State in a period that highly profitable firms have gone bankrupt and put the public debt in danger of loss. In addition, the deficits recorded in some firms or well-organized tax evasion tactics have impeded significantly the collection of direct or indirect taxes (i.e., VAT). In short, an increase in the state liquidity generated by VAT was equal to 2.57 billion, while the income tax revenues have reached the amount of 401.5 million. Another significant positive impact attributed to the strengthening of the particular sector is related to the increase in the employers; contribution along with the wages increases the fuels the macroeconomic circle. In figures, this value has reached the amount of 1.5 billion.

All the results mentioned above do add either directly or indirectly to the GDP. The overall contribution of AB Vassilopoulos, Sklavenitis, My Market, Masoutis, and Galaxias in the country has increased by 46.30% despite the fact that in the years of the economic crisis to the GDP has fallen by 24.05%. In other words, the share of the five companies to the GDP has been also doubled within the time period studied.

5. CONCLUSION

Based on our findings it becomes evident that the economic performance of a corporation has multiple valuable impacts on the macroeconomy. Implicitly, the contribution to the employment rate of the economy along with the increase to the GDP being caused directly and indirectly (taxes, and salaries of the employees being spent on different sectors) can become an engine for the restart of an economy. The result involves not only the economy but also the society confirming the existence of interlinkages among economic and social sustainability (Tsobanoglou, 2008). In addition, the economic crisis is a difficult environment for a firm but self-sufficient economic growth may be the solution not only for the firm itself but also for the economy. Therefore, it is more than necessary for policymakers to hassle and amplify corporate efforts of this type in order in the long term for the total economy to be revived and become a safe economic environment for domestic and foreign direct investments (Mazower, 1991).

As far as our study is concerned, the example of the five companies, namely AB Vassilopoulos, Sklavenitis, My Market, Masoutis, and Galaxias, with educated moves, targeted investments (new stores, acquisitions, etc.) discovered-created opportunities not only for their survival but also for their strengthening and future returns. With their intense activity, they created jobs and curbed the rise in unemployment. With the on-going investment activities, they indirectly employed thousands of people because with the financing in the area of supermarkets, not only the account increases at fixed assets but also the added value increases. With the payment of taxes and liabilities to the state, created by the companies themselves, they strengthened the liquidity and consequently reduced the amount of the country's debt. In terms of the country's GDP, the five companies participated greatly and supported the Greek economy.

To synopsize, within the time period 2009–2017 they managed to participate, contribute and create the following:

1) The total investments exceeded 1.58 billion having at the same time increased their stores by 417 reaching 1,109 from 692 that was at the beginning of our research.

2) For the entire of their staff, for salaries and insurance premiums they deposited more than 6.03 billion.

3) Having produced 16,988 new jobs, they came to offer and support 45,687 families with income, participating in the workforce of the country by 1.26%.

4) They paid for taxes and liabilities 4.49 billion in the Greek Treasury Bonds.

5) Their share in the country's GDP increased by 483 million and from 1.04 billion reached 1.52 billion with their percentage being at 0.84%.

A limitation of the existing work is the lack of data for the companies entitled My Market and Galaxias in terms of the number of employees within the time period 2009–2014 and the value of Galaxias' investments within the time period 2009–2011. However, this was not an impediment for our findings being valuable for policymakers in order to mitigate the economic crisis by amplifying the corporate efforts for expansion and growth since they can become the starting point for the regeneration of the economy. As a subject of the future survey could be a panel data analysis of different financial indexes and the impact of macroeconomic parameters on their value and vice versa with the assistance of Granger causality and cointegration. Finally yet importantly, a limitation of the present study is the number of chain stores employed. However, given that their selection was based on their economic performance as well as their expansion during the economic crisis and their significant impact on certain macroeconomic parameters validates the value of the results of this study.

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