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The Impact of Social Indicators of Economic Freedom and Poverty on Greece's GDP Index

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Abstract. Socio-economic indicators are usually complex indicators, i.e. they are derived from the composition of individual indicators using a method of weighting. The index of economic freedom shows us how open and friendly our country is towards 'business'. The poverty index is an indication of the standard of living of our country and it is generally considered that it can effectively reflect the various shortcomings of the population. GDP, respectively, measures, in units of money, all finished products produced annually in an economy and traded through the market. Annual GDP growth over a given period is a measure of growth. This economic growth is currently one of the most dynamic growing branches of economic science. In the research section of this paper, we examine the degree of correlation between the social indicators of Economic Freedom and Poverty with the Gross Domestic Product (GDP) financial indicator, and finally, the conclusions drawn from the processing of the correlational data are recorded for future study.

Keywords. Economic crisis, social indicators, economic indicators, taxation, GDP

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1. Introduction

The economic crisis appeared in our country in 2008 and its outbreak caused a series of economic and social problems that had significant effects on the Greek economy.

The impact of the economic crisis differs not only between countries where low- and middle-income countries are more affected by developed countries but also within countries. The dramatic decline in wages and pensions has led to a decline in the purchasing power of citizens. The debt crisis, the weakening of demand in the context of addressing the competitiveness of

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the Greek economy and the significant structural interventions in the labor market, affected supply and demand in the labor market and its participants (Liargovas et.al, 2020).
The term "social indicators" has become part of the vocabulary of professional social scientists, social commentators, legislators and, governmental administrators in recent years (Land, 1971). This paper explores the changes observed in the economic and social indicators for the period 2008-2018 as well as the interrelations between them, in order to determine whether there are any interactions between these indicators. The available data through the OECD, ELSTAT and WORLD BANK bases have helped to investigate the links between the indicators.
The structure of this paper is as follows:
The **first part**, entitled Theoretical Framework, captures the main conceptual clarifications in the concepts of economic - social indicators. At the same time, the main social indicators are analyzed and how their prices are formed in the period 2008 - 2018. The secondary data are also presented, as collected from data from the OECD, ELSTAT, the World Bank and Eurostat.
The **second part**, entitled Research Framework, follows the presentation and analysis of the data collected from the databases and the correlations between social and economic indicators.
In the third part, entitled **Conclusions** of the work, all the conclusions that emerged from the data processing are illustrated.

2. Theoretical Framework

Social indicators are statistical time series that are used to monitor the social system, helping to identify changes and to guide intervention to the alter the course of social change (Ferriss, 1988).
They also represent a strong support to setting the developmental plans on scientific pillars and they are also effective for economic and social planning. They contribute to identifying and measuring the social problems.
Generally, social indicators perform one or more of three functions:

- Provide information for decision – making
- Monitor and evaluate policies
- Search for a common good and decide how to reach it.

According to the Canadian International Development Agency, an indicator to be considered good and reliable must have the following characteristics:

- Validity, which will prove the correctness of the result.
- Accuracy, ie the indication that the data calculated by the index show agreement between them
- To be simple, practical and accessible, so that it can be easy to collect data and analyze the information it receives
- Be reliable
- Not being able to influence so much the change of a result all the other parameters
- Have a clear direction
- Be able to present a change that will benefit the damage
- The degree of results that will result from a pointer should be useful so that appropriate decisions can be made.
- To be recognizable, which means that all interested members agree that the index used is worth it and was the best that could be used

The following list suggests some of the broad uses of indicators by government (Carley, 1981; Scott and Matthew, 1983):

- as background to discussions of national and international development issues;

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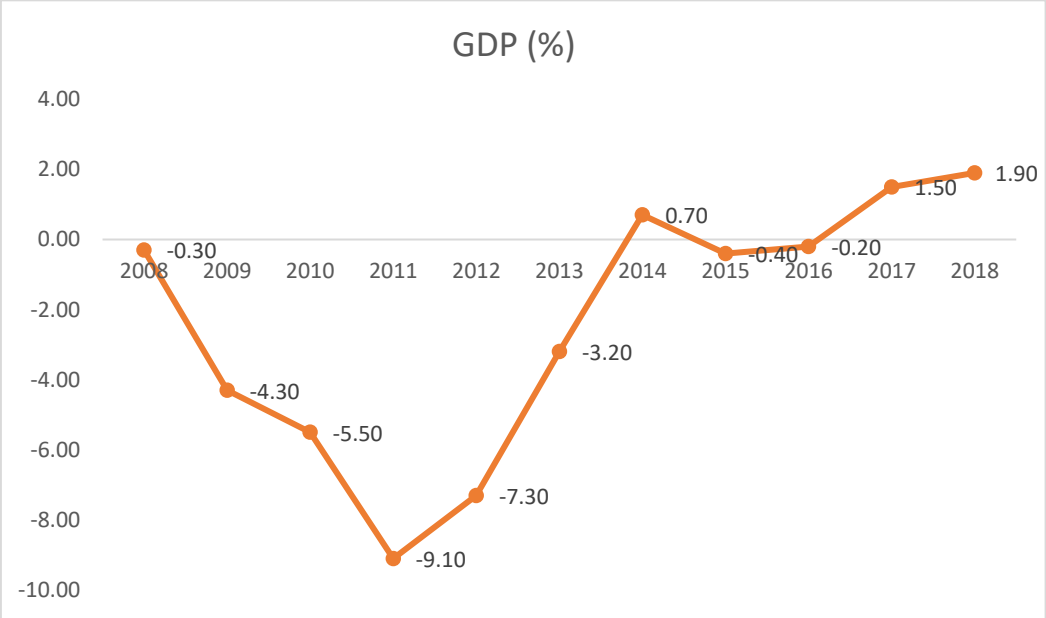
- to make more specific and concrete the more vague objectives in planning and policy making; for example, in putting operational meaning into 'reduction in poverty';
- for monitoring changes in systems, and for assessing effectiveness, efficiency, or impact of development projects;
- to represent social system characteristics in research projects; and
- to classify countries, regions or municipalities according to their similarities and differences over a range of socio-economic and environmental factors.

2.1. Economic Index: GDP

Gross Domestic Product (GDP) is considered one of the key figures in macroeconomic theory, as it is widely used in analysis. The description of the Gross Domestic Product highlights its importance as an indicator in order to capture the picture of a country's economic development. The importance of GDP as an indicator lies in the fact that it reflects the way of life of the country's citizens. That is, the larger the GDP, the higher the product is distributed to the inhabitants of a country and is clearly an indication of their better living conditions.
The GDP for Greece expressed in annual percentage (%) for the period 2008-2018 is as follows:



Graph 1 *Timeless evolution of GDP for the period 2008 - 2018 expressed in percentage (%) (Source: World Bank. Processed by the authors)*

As we have seen since 2008, the GDP index has been gradually shrinking. The recession that has been observed internationally has caused financial problems, as due to the chronic pathogenesis of the Greek economy, the huge fiscal problem of our country has been presented, namely the over-indebtedness of the Greek state and the inability to control public debt that is constantly increasing. The lack of competitiveness and entrepreneurship in our country as well as the lack of state organization created the deficit in the balance of current transactions and the public deficit.

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Table 1 *Imprint of GDP during the period 2007-2017 EU member states (Source: Eurostat (2018)*

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Average 2007-2017
EU-28	3.1	0.5	-4.3	2.1	1.8	-0.4	0.3	1.7	2.3	1.9	2.4	0.8
Euro area (EA-19)	3.1	0.5	-4.5	2.1	1.6	-0.9	-0.2	1.3	2.1	1.8	2.4	0.6
Belgium	3.4	0.8	-2.3	2.7	1.8	0.2	0.2	1.3	1.4	1.4	1.7	0.9
Bulgaria	7.3	6.0	-3.6	1.3	1.9	0.0	0.9	1.3	3.6	3.9	3.6	1.9
Czech Republic	5.6	2.7	-4.8	2.3	1.8	-0.8	-0.5	2.7	5.3	2.5	4.3	1.5
Denmark	0.9	-0.5	-4.9	1.9	1.3	0.2	0.9	1.6	1.6	2.0	2.3	0.6
Germany	3.3	1.1	-5.6	4.1	3.7	0.5	0.5	1.9	1.7	1.9	2.2	1.2
Estonia	7.7	-5.4	-14.7	2.3	7.6	4.3	1.9	2.9	1.7	2.1	4.9	0.6
Ireland	5.3	-4.4	-5.0	1.9	3.7	0.2	1.3	8.8	25.1	5.0	7.2	4.1
Greece	3.3	-0.3	-4.3	-5.5	-9.1	-7.3	-3.2	0.7	-0.3	-0.2	1.4	-2.9
Spain	3.8	1.1	-3.6	0.0	-1.0	-2.9	-1.7	1.4	3.4	3.3	3.1	0.3
France	2.4	0.3	-2.9	1.9	2.2	0.3	0.6	1.0	1.1	1.2	2.2	0.8
Croatia	5.3	2.0	-7.3	-1.5	-0.3	-2.3	-0.5	-0.1	2.4	3.5	2.9	-0.2
Italy	1.5	-1.1	-5.5	1.7	0.6	-2.8	-1.7	0.1	1.0	0.9	1.5	-0.6
Cyprus	4.8	3.9	-1.8	1.3	0.3	-3.1	-5.9	-1.4	2.0	3.4	3.9	0.2
Latvia	10.0	-3.5	-14.4	-3.9	6.4	4.0	2.4	1.9	3.0	2.2	4.5	0.1
Lithuania	11.1	2.6	-14.8	1.6	6.0	3.8	3.5	3.5	2.0	2.3	3.8	1.3
Luxembourg	8.4	1.3	-4.4	4.9	2.5	-0.4	3.7	5.8	2.9	3.1	2.3	1.9
Hungary	0.4	0.9	-6.6	0.7	1.7	-1.6	2.1	4.2	3.4	2.2	4.0	1.0
Malta	4.0	3.3	-2.5	3.5	1.3	2.7	4.6	8.1	9.6	5.2	6.4	4.2
Netherlands	3.8	2.2	-3.7	1.3	1.6	-1.0	-0.1	1.4	2.0	2.2	2.9	0.8
Austria	3.7	1.5	-3.8	1.8	2.9	0.7	0.0	0.8	1.1	1.5	3.0	0.9
Poland	7.0	4.2	2.8	3.6	5.0	1.6	1.4	3.3	3.8	3.0	4.6	3.3
Portugal	2.5	0.2	-3.0	1.9	-1.8	-4.0	-1.1	0.9	1.8	1.6	2.7	-0.1
Romania	6.9	8.3	-5.9	-2.8	2.0	1.2	3.5	3.4	3.9	4.8	6.9	2.5
Slovenia	6.9	3.3	-7.8	1.2	0.6	-2.7	-1.1	3.0	2.3	3.1	5.0	0.6
Slovakia	10.8	5.6	-5.4	5.0	2.8	1.7	1.5	2.8	3.9	3.3	3.4	2.4
Finland	5.2	0.7	-8.3	3.0	2.6	-1.4	-0.8	-0.6	0.1	2.1	2.6	0.0
Sweden	3.4	-0.6	-5.2	6.0	2.7	-0.3	1.2	2.6	4.5	3.2	2.3	1.6
United Kingdom	2.5	-0.3	-4.2	1.7	1.6	1.4	2.0	2.9	2.3	1.8	1.7	1.1
Iceland	9.4	1.7	-6.5	-3.6	2.0	1.3	4.3	2.2	4.3	7.5	3.6	1.6
Norway	3.0	0.6	-1.7	0.7	1.0	2.7	1.0	2.0	2.0	1.1	1.9	1.1
Switzerland	4.1	2.2	-2.2	3.0	1.7	1.0	1.9	2.4	1.2	1.4	1.1	1.4
Montenegro (*)	:	7.2	-5.8	2.7	3.2	-2.7	3.5	1.8	3.4	2.9	:	1.8
Former Yugoslav Republic of Macedonia	6.5	5.5	-0.4	3.4	2.3	-0.5	2.9	3.6	3.9	2.9	0.0	2.4
Albania	6.0	7.5	3.4	3.7	2.5	1.4	1.0	1.8	2.2	3.4	3.8	3.1
Serbia	5.9	5.4	-3.1	0.6	1.4	-1.0	2.6	-1.8	0.8	2.8	1.9	0.9
Turkey (2)	5.0	0.8	-4.7	8.5	11.1	4.8	8.5	5.2	6.1	3.2	:	4.7
Bosnia and Herzegovina (*)	5.9	5.4	-3.0	0.9	1.0	-0.8	2.3	1.1	3.1	3.1	:	1.4
Kosovo (*)(*)	:	:	3.6	3.3	4.4	2.8	3.4	1.2	4.1	4.1	:	3.4
China (including Hong Kong) (*)	14.2	9.7	9.4	10.6	9.5	7.9	7.8	7.3	6.9	6.7	:	8.4
Japan	1.7	-1.1	-5.4	4.2	-0.1	1.5	2.0	0.4	1.4	0.9	1.7	0.5
United States	1.8	-0.3	-2.8	2.5	1.6	2.2	1.7	2.6	2.9	1.5	2.3	1.4

Note: based on chain linked volumes.
(*) Average 2008-2016 instead of 2007-2017.
(*) Average 2007-2016 instead of 2007-2017.
(*) This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.
(*) Average 2009-2016 instead of 2007-2017.

Studying the change in the GDP of our country compared to the prices of GDP in the EU countries, we observe that our country is the only one that has a negative percentage of change in GDP during the period 2015 and 2016.

During the period 2008 - 2011, the macroeconomic indicators of our country deteriorated significantly. Specifically, the rate of change in GDP deteriorated significantly from -0.34% in 2008 to -9.20% in 2011.

There is a gradual improvement from 2012 to 2017 in macroeconomic indicators as GDP returned to a positive sign, from -7.30% in 2008 to 1.40% in 2017.

2.2.The social indicators of Greece

According to the calculation of the well-being of a society through a series of studies, several organizations have shown that there are 30 indicators that can reliably calculate the overall prosperity of a state, some of which are listed below:

- ✓ The global competitiveness index
- ✓ The Global Competitiveness Yearbook
- ✓ The Anti-Corruption Perceptions Index
- ✓ The Freedom Index in the world
- ✓ The Eurobarometer
- ✓ Global governance indicators
- ✓ The economic freedom index

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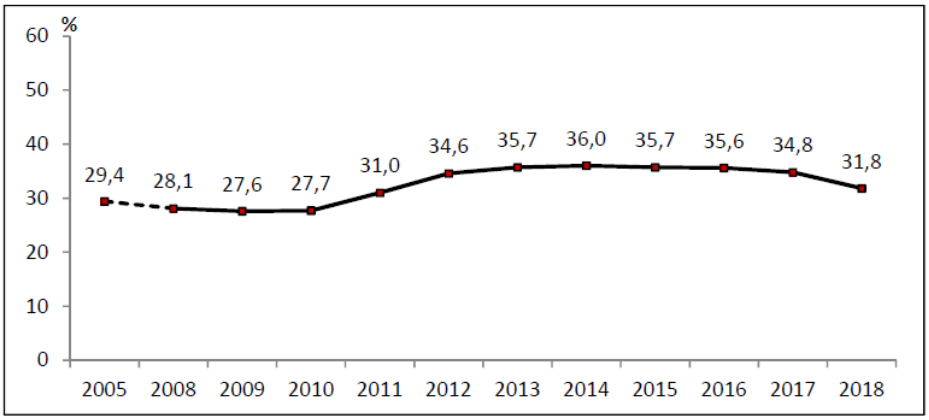
- ✓ The multidimensional poverty index
- ✓ Open budget indicator
- ✓ The youth wellness index
- ✓ The indicator of national welfare accounts
- ✓ The human development index
- ✓ The index of better life
- ✓ The indicators of a sustainable society
- ✓ The happy planet index
- ✓ The social progress index
- ✓ The World Happiness Report
- ✓ The prosperity index

2.3. Social Index: Poverty Index

We define as "poverty" the state of deprivation of basic goods and services and it is distinguished in absolute poverty (inability to meet basic needs of housing, food, clothing, hygiene, etc.) and relative poverty (existence of only income inequality). We can define a person as a poor person whose standard of living is below the minimum living standard. The poverty line is defined as the monthly income below 60% of the minimum wage. When we call a population at risk of poverty or social exclusion we refer to the population whose income is small or equal to the poverty line or who experiences basic deprivation, mainly deprivation of four goods or services from a list of a total of nine goods and services, or lives in housing. having low work intensity.



Graph 2 *Percentage of the population of Greece at risk of poverty or social exclusion in the period 2008-2017 Source: ELSTAT (2019)*

The above chart includes the poverty line, where the average disposable income is that of 2008, since that year material prosperity was much higher. So we see that poverty is increasing at a very high rate and especially from 18.9% in 2009 it rose to 47.8% in 2016 having decreased marginally compared to the previous year. This differentiation shows that in terms of disposable income in 2008, about half of the country's population is still living below the poverty line as a result of the deep recession. The poverty rate or social exclusion index has been on the rise since 2010, and has been declining slightly since 2015.

In addition, from the available data we have observed that the poverty index had significant negative effects, the prices of which for the first time reached unacceptably high levels.

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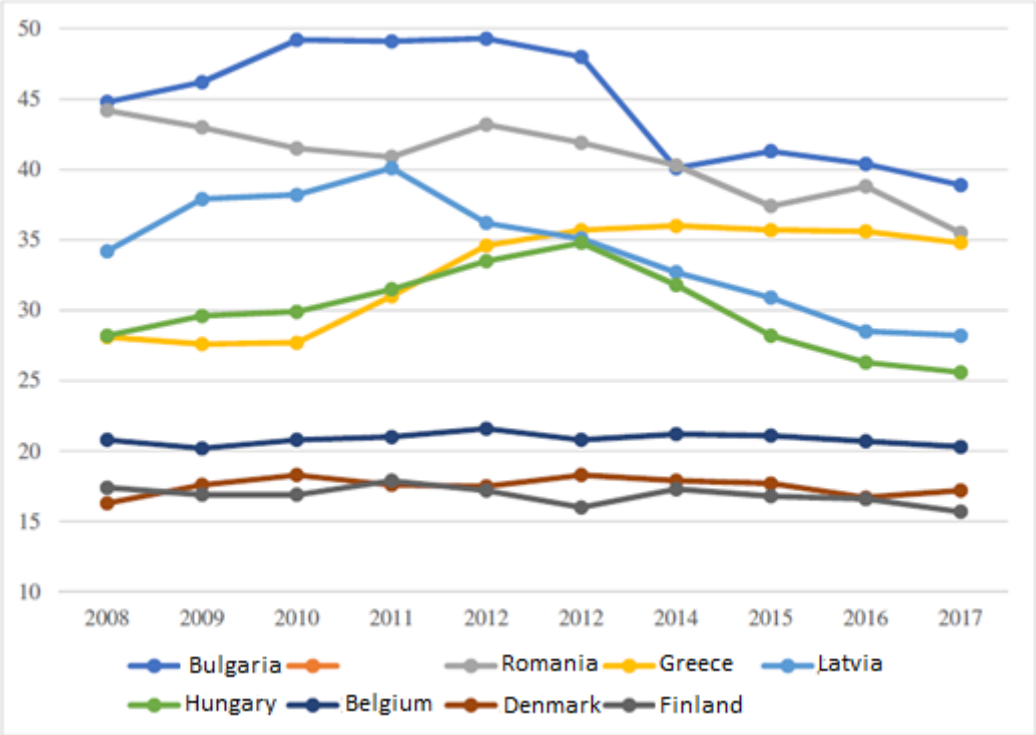

Graph 3 Greece's population at risk of poverty or social exclusion compared to EU countries during the period 2008-2017 Source: ELSTAT (2018).

Comparing our country with European countries, we find that Greece has higher rates over time. For the first time in 2017, it shows a decrease.
According to data from the Household Income and Living Conditions Survey of 2017, the percentage of the population at risk of poverty or social exclusion reached 34.8% (3,701,800 people) of the country's population, declining compared to the previous year. year which was in 35.6% of the population (3,789,300 people). The chart above shows the course of the index over the last decade (from 2010 onwards, for a number of years, with a decrease that occurred for the first time in 2015).

2.3. Social Index: Index of Economic Freedom

The Index of Economic Freedom takes into account the size of the State and the way it is taxed, the financial strength of the state and its costs, the legal background, property rights, judicial justice, fixed currency, trade and entrepreneurship regulations, customs duties and finally labor and capital markets.
Our country is ranked 106th for 2018. The high public debt for our country causes obstacles that, combined with the expanded public sector and the existing labor market, reduce productivity. The magnitude of corruption is great and the state is beginning to tolerate any business initiatives. Official research by major scientific journals has shown that people living in countries with high levels of economic freedom enjoy higher levels of well-being. Countries with higher economic freedom tend to show faster growth.
The Economic Freedom Index calculates the extent to which countries' institutions and policies are supportive of economic freedom. It focuses on four aspects of the economic environment in which governments exercise political control:

- State of justice

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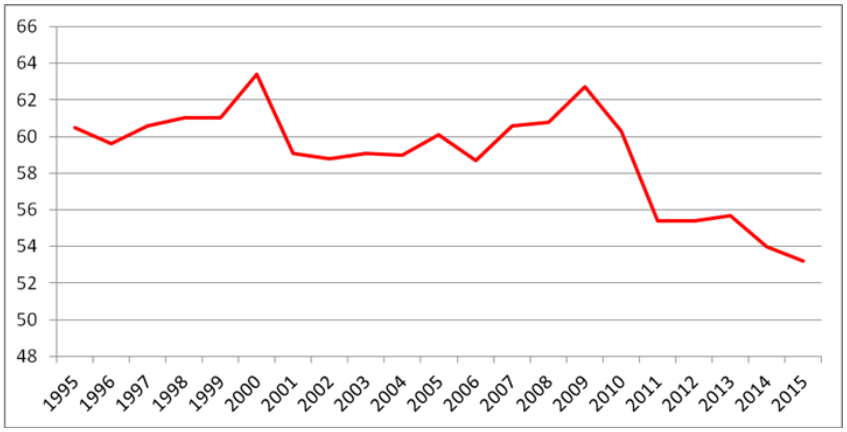
- Property rights
- Freedom from corruption
- Size of the State
- Fiscal freedom
- Government spending
- Regulatory environment
- Business freedom
- Freedom of work
- Currency freedom
- Market transparency
- Freedom of trade
- Freedom of investment
- Financial freedom

The term "economic freedom" of the Heritage Foundation is a rather complex indicator that takes into account four individual categories of variables: the rule of law, the size of government, the effectiveness of the regulatory framework and freedom of economic activity (Karamanis, 2017).
Greece, in this case, as shown in the following diagram, is declining.



***Graph** 4 The course of the economic freedom index of Greece (Karamanis, 2017)*

As can be seen from the graph above, we conclude that our country is showing improvement during 1999-2000 and 2006-2009. The decline appears during the crisis from 2009 to 2016. It should be noted that Greece for the year 2016 has a rating of 53.2, which classifies it in the category of countries with "Mainly non-free economy", as the average The global average is 60.7 (economy "moderately free" economy) and the European average 66.9 (similarly "moderately free" economy).
The degree of freedom of the economy is related, according to Karamanis (2017) quite positively to the treatment of inequality and poverty, thus emphasizing social cohesion, goes hand in hand with the establishment of social and political rights, reducing the percentage of illiterates, combating the phenomenon of corruption and improving quality and life expectancy. Also, according to the Heritage Foundation, countries with a high rate of

economic freedom are twice as likely to be protected from the environment as opposed to countries with limited economic freedom.

2.4. Conclusions on key social indicators

The poverty rate or social exclusion index has been on the rise since 2010, and has been declining slightly since 2015. The population at risk of poverty or social exclusion in 2017 is 34.8%, ie 3,701,800 people.

The average Consumer Price Index of 2019, compared to the corresponding Index of 2018, showed an increase of 0.7% compared to an increase of 0.9% recorded during the corresponding comparison of 2018 with 2017. Greece's ranking in the "Corruption Perceptions Index" »Is 67th in the level of 180 countries while in 2017 it was ranked 59th out of a total of 180 countries. Regarding the index of the Happy Planet, Greece is in a very low position. With a happiness index of just 23.6, it ranks 89th out of 140 countries analyzed.

Greece is in fourth place in the Depression Index, according to Bloomberg, gathering 19.2 points, the first from European countries compared to 20.1 points in 2018. Finally, our country ranks 106th in 2018 in the economic index. freedom. We see an improvement in the country's position in the two years 1999-2000 and the three years 2006-2009, while on the contrary, a significant drop is recorded during the crisis 2009-2016.

3. Research methodology

The Research Framework will examine the degree of correlation between the social indicators of economic freedom and poverty and the economic index of Gross Domestic Product (GDP) of Greece. Data from the OECD, World Bank, EUROSTAT and ELSTAT databases were used as data for this analysis.

The research aims to explore the extent to which the impact of economic freedom and poverty indicators on GDP is affected. In essence, this is a record of data from 2008 to 2018. So we will consider the variable GDP as a dependent variable and we will investigate the extent to which it is affected by the independent variables (degree of freedom and poverty).

The aim of the research part of this paper is:

A) through descriptive statistics

a) describe the behavior of the dependent variable with values of the variables that we set as independent.
b) to record the degree to which the variables being investigated
c) to create a mathematical model of correlation between them variables we consider.

B) through inductive statistics

The aim of inductive statistics is to perform parametric and non-parametric tests, as well as the techniques for relating variables to regression.

In order to complete this research effort, we will use the SPSS Ver 26 statistical program. Through the SPSS program and the following linear regression analyzes, we are led to formulate the models that express the relationship between our variables. The values of these variables will be used to study the correlation of the variables, as shown by the literature review.

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3.1. Correlation between GDP and Index of Economic Freedom

Continuing our study, we present the descriptive statistics for the specific variables, as shown in the following table.

Table 2 *Table of descriptive statistics of GDP and Economic Freedom variables*

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
freedom	11	53,20	62,70	57,6727	3,71109
aep_euro	11	176488	241990	198343,27	25438,150
Valid N (listwise)	11				

In Table 2, analyzing the data, we observe that the average price of GDP is around 198,343.27 billion €, while the lowest price is 176,488 billion €. It is also our finding that the economic freedom index does not fluctuate sharply.

Continuing, we examine the correlation that may exist between the two variables. Having ascertained the normality of the variables, we study the Pearson coefficient through SPSS, where the following table is formed.

Table 3 *Table of correlations between GDP and Economic freedom variables*

Correlations

		freedom	aep_euro
freedom	Pearson Correlation	1	,956**
	Sig. (2-tailed)		,000
	N	11	11
aep_euro	Pearson Correlation	,956**	1
	Sig. (2-tailed)	,000	
	N	11	11

**. Correlation is significant at the 0.01 level (2-tailed).

In the above table we find that there is a high positive correlation (Liargovas et. Al., 2019) between the two variables as the indication of Pearson = 0.956. In practice, this indicates that as the economic freedom index increases, so will the GDP index.
Since the study of our correlation led to the conclusion that our two variables are correlated, then according to Liargovas & al. (2019) we are able to analyze regression to identify that mathematical model to describe, interpret, and predict the values of our variable always

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compared to other variables, that is, how changes in the independent variable affect the dependent.

First we calculate the value of the coefficient of determination R2. Specifically, the following table is formed through SPSS.

Table 4 *Calculation of R*

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,956[a]	,914	,904	7871,173

a. Predictors: (Constant), freedom

We observe in Table 4 that the Pearson correlation coefficient is equal to 95.6%, which demonstrates the satisfactory predictive capacity of the model. Also, based on the determination factor R^2 = 0.914, it appears that 91.4% of the total GDP fluctuation is explained by the economic freedom index. Therefore, our model presents almost the entire dispersion of the dependent variable.

Then proceeding to the calculation of Anova variation, we arrive at the following table.

Table 5 *ANOVA calculation table*

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5913396346	1	5913396346	95,446	,000[b]
	Residual	557598210,1	9	61955356,68		
	Total	6470994556	10			

a. Dependent Variable: aep_euro

b. Predictors: (Constant), freedom

Because R^2 is quite high, the price of F = 95,446 is quite satisfactory and the level of significance Sig = 0 <0.05, which suggests that our model is well adjusted, ie there is a statistically significant correlation / prediction of GDP from economic freedom (Roussos & al, 2011). Therefore, we consider linear regression to be statistically significant.

According to the data in the table below, the regression model is as follows:

Equation 1 *GDP connection equation - Economic Freedom*

GDP = 6552,65*Economic Freedom -179.566,05

Table 6 *Table of coefficients*

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	-179566,053	38754,701		-4,633	,001
	freedom	6552,652	670,715	,956	9,770	,000

a. Dependent Variable: aep_euro

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When the price of the economic freedom index is increased by one unit, then GDP is expected to increase by 6552.65 points.

3.2.Correlation between GDP and Poverty index

Continuing, we examine the correlation that may exist between the two variables. Having ascertained the normality of the variables, we study the Pearson coefficient through SPSS, where the following table is formed.

Table 7 *Table of correlations between GDP variables and poverty index*

Correlations

		aep_euro	poverty
aep_euro	Pearson Correlation	1	-,947**
	Sig. (2-tailed)		,000
	N	11	11
poverty	Pearson Correlation	-,947**	1
	Sig. (2-tailed)	,000	
	N	11	11

**. Correlation is significant at the 0.01 level (2-tailed).

quare	F	Sig.
47241	77,569	,000[b]
'01,67		

In the above table we find that there is a high negative correlation (Liargovas & al, 2019) between our two variables since the indication of Pearson = -0.947. In other words, as the GDP index increases, so does the poverty rate.

Since the study of our correlation led to the conclusion that our two variables are correlated, then according to Liargovas et al (2019) we are able to analyze regression to determine that mathematical model to describe, interpret, and predict the values of our variable in relation to other variables, that is, how changes in the independent variable affect the dependent.

First we calculate the value of the coefficient of determination R^2. Specifically, the following table is formed through SPSS.

Table 8 *Calculation of R*

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,947[a]	,896	,884	8645,791

a. Predictors: (Constant), poverty

We notice in the table that the Pearson correlation coefficient is 94.7%, which demonstrates the satisfactory predictive capacity of the model. Also, based on the determination factor R^2 = 0.896, it appears that 89.6% of the total GDP fluctuation is explained by the economic freedom index. Therefore, our model presents almost the entire dispersion of the dependent variable.

Then proceeding to the calculation of Anova variation, we arrive at the following table.

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Table 9 *ANOVA calculation table*

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5798247241	1	5798247241	77,569	,000[b]
	Residual	672747315,1	9	74749701,67		
	Total	6470994556	10			

a. Dependent Variable: aep_euro

b. Predictors: (Constant), poverty

Observing the table of ANOVA variation analysis in both cases, we see that it depicts an overall test of the importance of the regression model. The test is based on the F function and checks the hypothesis that the coefficients of the independent variables involved in the model are at the same time zero. When the value of sig <0.05 as in both cases is accepted, then we do not accept the original hypothesis, ie our model is statistically significant.
Because R^2 is quite high, the price of F = 77,569 is very satisfactory and the level of significance Sig = 0 <0.05 which suggests that our model has a good adjustment therefore there is a statistically significant correlation / prediction of GDP by economic freedom (Roussos et al., 2011). Therefore, our linear regression is statistically significant.
So according to the following table the regression model has the following form:

Equation 2 *GDP connection equation - Index of Poverty*

GDP = -6920,09*Index of Poverty+423938,42

Table 10 *Table of coefficients*

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	423938,423	25746,821		16,466	,000
	poverty	-6920,097	785,721	-,947	-8,807	,000

a. Dependent Variable: aep_euro

When the poverty rate rises by one point, then GDP is expected to fall by 6920.09 points.

4. Conclusions

Through inductive statistics, it has been shown that the Economic Freedom Index is related to the country's GDP. Therefore, the freer a country is economically, the more wealth it produces. In other words, when investments are made in a country with reduced bureaucratic processes, the more the productivity of the country is favored. Indeed, our country can improve its economy through the improvement of the economic freedom index, since, as research has shown, the two indicators go hand in hand. This shows that the increase in the GDP of our country, which is a measure that concerns production and economic activity in general, leads to the improvement of the standard of living and the level of social welfare of its citizens.
Greece needs economic freedom, not necessarily financial aid. Countries with the greatest economic freedom tend to grow rapidly. People in countries with high levels of economic

freedom enjoy higher levels of well-being, greater political and social rights, and a higher life expectancy. Also, those who enjoy high levels of economic freedom are less likely to suffer from extreme poverty.

In recent years, our country has made great strides in restoring macroeconomic stability and implementing the necessary initial fiscal adjustments. In addition, the public sector spends more than 50% of GDP, so the country still faces a fairly large debt and serious erosion of competitiveness. The bottom line is that if we really want a better welfare index for Greek men and women, the only proven safe recipe is the greatest economic freedom.

Through inductive statistics we concluded that economic hardship significantly affects the quality of life as expressed through the poverty rate, especially in times of economic crisis.

Index processing showed that a higher per capita GDP was accompanied by lower levels of inequality in general and, to a lesser extent, lower poverty rates. We saw that 31.3% of Greeks were at risk of poverty, according to 2018 data. It should be noted that Greece lost 25% of its GDP during the economic crisis, far from any EU country.

The improvement in the quality of life, and especially in the lives of the economically weaker, does not depend primarily or uniquely on the increase in wealth produced, the increase in consumption, the increase in gross domestic product. GDP growth, of course, helps, especially when it creates jobs, when it raises wages, when it boosts the redistributive function of the state budget - results that do not automatically and spontaneously result from any increase in gross domestic product. And if, of course, the improvement in quality of life, especially for the poorest, is partly linked to the possibility of increasing consumption, the major issue is to improve the quality of life, but only or mainly depends on this consumption.

Through the study of socio-economic indicators but also by the behavior of the markets themselves, it seems that things are changing. The Greek economy is gradually beginning to emerge from the crisis. The outlook is quite positive despite the deteriorating international environment. We could see this deterioration as a "peculiar opportunity" for the country to do what is necessary to send an international message of stability and progress, in order to meet the conditions and to take advantage of possible central actions to restart the European economy, in which it had failed to participate in previous years.

The existence of a developmental political model, but also the incomplete and in many cases poorly executed efforts to implement the necessary measures to deal with and ultimately exit the crisis of reforms, give the impression of a vicious circle in which the efforts and deprivations of the Greek are lost. people who have been facing an unprecedented economic crisis for European data for eight years now.

The Greek economic system, which was adopted after Greece's entry into the European Union, proved to be inadequate, as well as incapable as a model of protection from the economic crisis. In particular, the Greek economy before the crisis was characterized by high growth based on consumption, borrowing and reduced competitiveness. The result of this economic policy has been the creation of a high government deficit as well as an equally high public debt. With the outbreak of the global economic crisis, the chronic problems are becoming more apparent, both structurally (bureaucracy, corruption, inefficiency) and the distorted development model mentioned earlier.

Greece today is implementing one of the most difficult economic adjustment programs in modern history. The significant financial support it receives from European partners and the IMF, combined with the necessary fiscal and structural reforms that the country is implementing, may allow it to return to a path of sustainable development. Greece has adopted significant changes in almost all areas of economic activity, including the labor market,

pensions and health systems, and tax administration, which will help it emerge slowly and steadily from the economic crisis.

It is clear that the country needs a new development model that is based on sound investment and not on the recently implemented consumer and lending policy, in order to be sustainable. It is also necessary to mobilize the political forces around a strategy that will ensure the country's long-term prosperity. Finally, Greek society itself must learn from the economic crisis and redefine its course of action through the necessary change in mentality and avoid the mistakes of the past.

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